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WRITTEN STATEMENTS PRESENTED BY WITNESSES.

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UNIVERSITY OF CALCUTTA.
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3. **Teaching Universities.**—I think it is expedient to enlarge the provisions of the Calcutta University, so as to make it clear that it is a teaching as well as an examining institution as petitioned for by its Senate in December 1890. As a member of the Committee appointed to consider that matter, I heartily approved of the petition, which was founded on the Committee’s Report of date 28th August, 1890. There are subjects of study for the teaching of which none of the affiliated colleges at present make provision, subjects for the study of which provision should be made, though the number of students be small. I include post-graduate subjects of study. The powers of the University are in other respects too limited, as illustrated in the memorial already referred to.

4. **Spheres of Influence.**—While students from whatever country they may come, should be welcomed by the University, only such colleges as can be conveniently visited by the University should be affiliated, unless special circumstances can be justly pleaded for exception—as, for example, in regard to Ceylon and Nagpur.

5. **Constitution—the Senate.**—The Calcutta University Senate is too large. I fear it is only too true that Fellowships have been given in the past merely by way of compliment; and certain it is that only a small number of Fellows regularly attend the ordinary meetings of the Senate. Many come only when a personal and contentious matter has to be decided, and they come simply to record their vote. I think the number should be limited; and that non-attendance for, say, two years, should disqualify; and that in the appointment of Fellows respect should be had to qualifications and official position, such as Principal of an affiliated college, etc.

In the election of Fellows votes should, I think, be given to Professors in affiliated colleges and to all Fellows of, say, five years’ standing. In the Punjab University, the Senate elects a large proportion of the Fellows; in Calcutta they have had as yet no voice in such elections.

As to the tenure of Fellowships, I would have it depend on attendance within one year, if living in Bengal, or two years, if within that time they have been out of Bengal on furlough or deputation.

The Syndicate.—Considering the enormous amount of work the Syndicate has to get through, I do not think it is desirable to increase the number of the Syndics, unless the Syndicate be broken up into Committees entrusted with the disposal of certain classes of items of business of comparatively little importance, the disposal of which is largely guided by precedents and regulations or bye-laws. Another solution of the difficulty I would suggest is the entrusting of much of the business now transacted by the Syndicate to the Faculties of Law, Medicine, and Engineering—treating them as possessing greater independent powers than they at present possess. I think these Faculties should have more power over matters affecting themselves alone, and of no general importance, than they have at present by means of one or two representatives on the Syndicate.

Instead of being voted on, as at present, as one of the five representatives of the Faculty of Arts in the Syndicate, I would have the Director of Public Instruction ex-officio a Fellow of the University, a member of the Syndicate and President of the Faculty of Arts. Thus, irrespective of him, five Fellows would be elected by the Faculty of Arts as its representatives in the Syndicate.

I think that the Syndicate of the Calcutta University, like those of the Allahabad and Punjab Universities, should have a statutory basis.

8. **Graduates.**—There ought undoubtedly to be an authoritative official register of the graduates, and provision made for keeping it up to date. I

*The numbers refer to the paragraphs in the note of points for consideration supplied to the witness.
would also have power conferred on the University to give the M.A. degree or other suitable degree to recognized teachers, professors or examiners who come from other universities, and serve our university in any one of these capacities.

9. Students of the Universities.—Under this head rather than any other, unless it be that headed 3—Affiliated Colleges, I would suggest the desirability of the University, by an especially appointed officer, or one or more members of the Syndicate, visiting the different affiliated colleges. Some thirty or forty years ago the Education Department, in the person of the Director of Public Instruction, was supposed to undertake this duty. But the discharge of it has fallen into abeyance or disuse. In the interests of the colleges, the professors and the students, a such a visitation should take place periodically. Cases have come before the Senate suggesting the desirability of such visitations.

I do not think that a minimum age should be fixed for candidates for the Entrance or Matriculation Examination. It would, I fear, tend to demoralize many of the candidates. Thus Calcutta University had, for years, a minimum age-limit. But from the reason given above, and other reasons, it felt compelled to give it up. Beside, the teachers, parents and guardians ought to be better judges as to whether, in given circumstances, their wards should be allowed to enter college. I doubt not certificates for admission are granted too easily, but I think to order candidates rather than younger. Besides, no age-limit could well be enforced on female candidates.

10. University Teaching—English.—I thoroughly agree with those who say that Indian students begin their University Course without a sufficient knowledge of English to profit by the lectures they attend. There are various ways by which this defect may be more or less remedied.

(1) It would greatly help the students to a more facile and correct command of English if they were made to talk it in the school-room, the playground, and the house. The school authorities have much in their power to secure the use of English in the class-room and the playground.

(2) A powerful exercise towards the same end is translation into the Vernacular and from the Vernacular into English. This should be made a home exercise.

(3) Reading largely of good, simple, interesting English books or periodicals. These exercises I would recommend as the result of my own personal experience. They are exercises which should be attended to independent of the teacher. I am of opinion that the Indian student gets too much teaching, and is not sufficiently induced to read and study independent of the teacher and professor. He devotes all his time to the prescribed texts, and has no time for independent reading.

As to work done under the teacher's direct personal guidance let me remark: (a) Large classes militate against effective successful teaching and careful examination of the written exercises; (b) Higher proficiency should be demanded at all the previous examinations, despite the wailings of failed candidates and disappointed teachers and professors, over the small percentage passed; (c) Examination papers should, as far as possible, be drawn up so as to baffle crammers and encourage independent thinking and personal observation; (d) The pieces or books selected for study should be such as to encourage a taste for reading, or create a love of reading, and not such as will weary, nauseate and produce a dislike to all reading, as associated with hard tasks and weary hours; (e) Passages should be given to explain, taken from books not prescribed in the course, but passages which the candidates from their presumed knowledge of English ought to understand.

degrees in Theology.

Recognition of proficiency in any study, more specially when the recognition is by a high authority, and accompanied with prizes, rewards or degrees, is an encouragement and a healthful incentive to further study by the recipient himself and also to others who may thus be induced to prosecute such studies. This is everywhere admitted: as a mere truism, and is at the basis of all our universities.
There is no valid reason why Theology, the mother of all the sciences, should not be thus encouraged, or why those who have a taste for it should not be brought under the attracting and inspiring influence of Academic degrees and Government recognition.

It must, however, be admitted that there are serious practical difficulties in the way. Round many points with which the study of Theology has to do, are questions dividing its students into hostile camps which have sometimes threatened the peace of nations. These must be acknowledged and treated most warily. Not to speak of the three great camps found in India, the Christian, the Hindu and the Mahomedan, representing Theology from different and opposing points of view, each of these again is sub-divided into sections bitterly opposed to one another, as, for example, the Christian into Protestant and Papal. How can any one University acknowledge and reward studies that are so utterly diverse from, if not hostile to, one another? My answer is twofold.

First, the University can give recognition and besow rewards in connection with the study of the languages and literatures of the different camps as mere languages and literatures. Thus the Calcutta University professes to do in regard to Greek and Hebrew, Sanskrit and Pali, Arabic and Persian. This it would do more effectually if it founded Professorships or Lectureships for the teaching of these languages. The Bengal Government bestows recognition and rewards with appropriate titles, on distinguished students, in Hindu, and Mahomedan literature and philosophy. The Punjab University gives a like liberal recognition to Oriental learning. Its doing so suggests the remark that it would have been better if the Bengal Government had given its favours through the medium of the Calcutta University.

In the second place, the difficulties in the way of the bestowal of degrees in Theology might be removed in whole or in part, by the establishment of Central Denominational or Theological Boards or Divinity Halls, or what is elsewhere called Federating Colleges. I mean colleges entering into a qualified union or federation with the University, and having representatives in its Senate, but differing from the affiliated colleges in possessing greater powers in dealing with contentious studies, than the affiliated colleges or even the University as a whole, would be able to do. These colleges would consist chiefly, if not exclusively, of denominational schools of Theology or Central Boards, empowered by the University, or rather by Government, to confer on their students such degrees or titles as are consonant with the nature of their studies and their distinction or proficiency in these studies. Let me illustrate what I mean.

At present, in the Calcutta Missionary Conference are associated the seven leading Protestant Evangelical Missionary Churches or Societies labouring in Calcutta—the Church of Scotland, the Church of England, the United Free Church of Scotland, the London Missionary Society, the Baptist Missionary Society, the Wesleyan Missionary Society, and the American Methodist Episcopal Church. In connection with this conference we have a Committee or Board for the examination of Missionaries in the vernacular of the country. To those Missionaries who pass the examinations credibly, official certificates are given stating in what class they pass, etc. This Board is purely an examining body, not a teaching institution.

Now it is proposed to establish, also in connection with the same conference, a Central Board to prescribe studies in Theology, etc., arrange examinations, supply certificates, etc., on the success of which would be founded a claim for University recognition and University theological degrees. At first it also might be a purely examining body, leading up to teaching federating colleges. This Central Board, and others like it established in University centres, I would have enter into a qualified union or federation with its local University, for the purpose of having conferred on the Board of College by a Legislative Act of Government the power of conferring theological degrees on such of their candidates or students as these Central Boards or federating colleges considered qualified. Thus a Protestant federating college, or United Board or Senate of a number of such would be entitled to confer the titles of B.D. and D.D. on such men as they thought worthy of these degrees. Of course
before a Christian Board of Senatus had such powers conferred on it, it would require to satisfy Government that it was a body worthy of such powers being conferred on it. To enable such a Board or federating college to fulfil the necessary conditions, it would require to have a close connection with an affiliated college in which its students would receive instruction in part of the Theological course required for the Theological degree and also a close connection with the University, in which I presume there would be a valuable and helpful library, and Lectureships or Professorships for subjects not taught in the affiliated colleges.

One of the advantages of federating with the University would be not only the direct recognition of Theological studies, but that the teachers and students would enjoy the same advantages and privileges enjoyed by the teachers and students of the affiliated colleges from their connection with the University. These advantages and privileges would be greatly enhanced, as I have tried to show, by the University teaching such subjects as it would be difficult to teach from the paucity of students in any one affiliated college.
REPORT.

We, the undersigned members of the Committee appointed by the Senate to examine the Act of Incorporation of the University (Act III of 1857) with a view to suggest to the Senate what amendments, if any, are necessary in that Act in order to meet the present requirements of the University, have the honour to submit the following suggestions for the consideration of the Senate.

We are clearly of opinion that the time has come when it is very desirable to amend the Act of 1857. A comparison of that Act with the Acts passed in 1882 and 1887 for the constitution of the Punjab and Allahabad Universities, discloses the extent to which the Calcutta University Act has become obsolete. Neither of those Acts limits its University as does the Calcutta Act to the single function of examining, and as regards the constitution of the Senate, both these more recent Acts provide for the election of a certain portion of that body. The Calcutta Act nowhere recognizes its executive body the Syndics, and time has revealed other defects indicated in the suggestions made below. For these reasons we strongly recommend that Government be asked to amend the law which at present governs the constitution of the Calcutta University.

1. Preamble. Our first recommendation is that the Preamble of the Act should be amended so as to remove the limitation by which the functions of the University are confined to those of an examining body.

2. We recommend the following changes in the rules relating to the appointment of Fellows, Sections III and VI:

(1) That the Director of Public Instruction, Bengal, should be added to the list of ex-officio Fellows, and that the Lieutenant-Governor of the North-Western Provinces should be removed from that list.

(2) That the number of Fellows, exclusive of the Chancellor, Vice-Chancellor, and ex-officio Fellows, should be fixed from time to time by the Chancellor, but should not be less than a fifth, nor more than two hundred.

(3) That in future one half of all such Fellows should be appointed by the Chancellor; and that of the remaining half, two-thirds should be elected by the Senate, and one-third by graduates of such qualification and standing as the Chancellor may lay down in Bye-Laws to be made in this behalf, the electors in both cases being subject to the approval of the Chancellor.

(4) That if any Fellow leaves India without the intention of returning thereto, or is absent from India for more than four years, he should cease to be a Fellow.
(5) That in addition to the two classes of Fellows already mentioned, the Act should provide for the appointment of Honorary Fellows by the Chancellor, on the recommendation of a majority of not less than two-thirds of the members of the Senate present at a meeting convened for the purpose.

(6) That the number of such Honorary Fellows should be limited to thirty, and that not more than three should be appointed in any year.

(7) That Honorary Fellows should not be members of the Senate.

3. Section VII. We recommend that a clause should be added to this section requiring the consent of a majority of not less than two-thirds of the members present at a meeting of the Senate specially convened for the purpose, before the appointment of any Fellow can be cancelled.

4. Section IX. We recommend that at meetings of the Senate the quorum should be twelve instead of six.

5. Section X. We recommend that the words "University Professors and Lecturers" be added after the words "to remove all."

6. Section XII. We recommend that the power of affiliating and disaffiliating institutions should be vested in the University, subject to the sanction of the Governor General in Council.

7. Section XV. We recommend that after the words "for continuance therein" the following words be added, "for admission to the examinations of the University, and for attendance at any lectures or classes in connection with the University."

10. We think that a section should be added to the Act recognising the position of the Syndicate as entrusted with the executive government of the University.

11. We recommend that a new section be introduced after Section XIV empowering the University, when necessary, to cancel the degrees it has conferred. In such cases the initiative should be taken by the
Syndicate; and the concurrence of a majority of not less than two-thirds of the members of the Senate present at a meeting specially convened for the purpose, and of the Chancellor should be necessary before a degree is cancelled.

12. We recommend that all examiners, officers and servants of the University should be declared to be public servants.

We recommend that the two clauses of Section XVIII of the Allahabad University Act should be introduced into the Act.

13. We recommend that another section be added to the Act to allow the University to grant "ad eundem" degrees.

This section might run as follows:—In the case of any person holding from a University in India or in the United Kingdom of Great Britain and Ireland a degree of a denomination ordinarily conferred by the University of Calcutta, the Chancellor, Vice-Chancellor, and Fellows may, on the recommendation of the Syndicate, confer on such person a like degree in the University of Calcutta.

MAHENDRA LAL SIRCAR.
H. L. HARRISON.
K. S. MACDONALD.
C. J. H. WARDEN.
RAJKUMAR SARVADHIKARI.
A. NEUT, S. J.
A. M. BOSE.
ABDOOL LUTEEF.
H. J. S. COTTON.
LAL MADHUB MOOKERJEE.
DEBENDRANATH ROY.
N. N. GHOSE.
KRISHNA BIHARI SEN.
KALI CHARAN BANERJI.

Calcutta, the 28th August 1890.

I do not think it desirable to give graduates an unqualified power to elect Fellows. I think it right to add that my amendment to this effect was negatived by a majority of seven against six.

PEARY MOHAN MOOKERJEE.

I object to the recommendations in paragraphs 2 (3), 3, 5, 7 and 9; if these are omitted there is nothing left that is worth legislating about.

A. M. NASH.
Dissent from the proposals of the Committee appointed to examine the Act of Incorporation.

I object to Suggestion 1. It proposes to provide for the transformation into a Teaching University of a Body Corporate, which in thirty-three years has been unable to acquire sufficient funds for the proper performance of the functions of an examining body. I do not think the Senate should have the power to devote the funds of the University to the foundation of scholarships (still less to the endowment of Professorships and Lectureships, for which no semblance of necessity has been proved to exist) until the following buildings at least have been provided: (a) a Physical Laboratory, with (b) a Chemical Laboratory, where candidates for degrees could be examined practically, without specially favouring any one institution; (c) a Library and proper offices for the Registrar, clerks, etc., with a hall for meetings of the Senate, in which the speeches of members would stand some chance of being heard. These are urgent present requirements, and to them will probably have to be added, within a few years, additional examination halls. The cost of land and buildings would be about six or eight lakhs: the accumulated funds amount to about one lakh. In the face of this it is proposed to provide for Professorships! Suggestion 2 (3). If graduates are to have the power of nominating Fellows, I am very strongly of opinion that the nominees should be confined by Statute to candidates from among their own number.

The other suggestions are good on the whole, but of smaller importance, and, looking to the possibilities introduced by the two commented upon, I am of opinion that the present Act is preferable to the Act proposed.

J. H. GILLILAND,

30th August 1890.
English is the weak point in candidates for University Degrees. From 1887 to 1896, twice as many failed in English as in Mathematics, and nearly four times as many as in Second Language. At the B. A. Examination, A course, more than twice as many grace marks have had to be given in English as in Philosophy, and more than four times as many as in Mathematics. This state of things in regard to English means that the students are incapable of benefiting to the full by lectures in English. The first and chief aim of Professors here must be to see that students understand every paragraph of their English written text-books, and that the students apply themselves very diligently to thoughtful study of their text-books. The defect exists in the students as they enter the University. This is a question of school-teaching the students working knowledge of English, apart from the special terminology of any subject, is got or is not got in their schools. If they enter College habituated to writing unidiomatic English, their English remains almost incurably marred. A radical error seems to exist in the teaching of English in schools. English should not be taught in schools with the study of English Literature, or with Scientific Grammar and Philology as the ultimate aims. These ultimate aims inevitably determine the character of the study in schools. These have been the ultimate aims in linguistic study in Great Britain until recently, and we here have copied the system, not perceiving the difference in the situation in India. Whether the boy in school is looking forward to a University career and a learned profession, or only to a clerical career in a commercial firm or under Government, or to a career in some practical capacity, it should make no difference in his school study of English. The would-be student and the clerk equally require to begin with a fairly extensive practical and idiomatic knowledge of English. Having got that, the student is then ready for his lectures and his study of English Literature, the clerk is ready to begin his apprenticeship in his office. To speak more plainly, in schools, pupils must be taught with a view to speaking English and understanding it when spoken. The evil influence of copying the British system of studying languages will be understood when we remember that no student in Britain has now to speak Latin or to follow lectures in Latin; no one is expected to speak Greek; until lately scarcely any student of French or German looked forward to speaking the language. Yet we in India where English is to be spoken and heard spoken, largely follow the British system of learning languages. Until we teach pupils with a view to their speaking English, it seems unreasonable to talk about their being required to speak it among themselves during College hours. To effect this change, we must organise the teaching of English on some such system as used to be called Ahn’s method. It was also advocated by the late Professor Blackie, Professor of Greek in Edinburgh. In its earlier stages, the teaching of English words and idiomatic phrases must be associated directly with things and actualities, not with corresponding Bengali words merely, or with kindred grammatical forms. The word “Am,” for example, will be associated by repeated use, with the speaker, and not with the table am, was, been or the other table art, is, etc.; the words our, two, etc., will be associated with say, fingers, not with a table of figures. In the succeeding stages, phrases and sentences will be associated with the actual circumstances of the class room. A series of books on these lines could easily be prepared for the guidance of teachers. In fact, Appendix A of the new Bengal Education Code supplies the concrete matter for lessons such as are necessary. The new scheme for the teaching of English in Government schools in Bengal, while possessed of many advantages, should be considered carefully from that point of view. Will the postponement of the study of English for the first six years of school-life lead to a greater practical knowledge of English; or would it make English still more a subject that youths merely know, instead of an instrument they apply? The evil effect of the present system is seen particularly in mofussil students, who rarely hear English spoken. The age of Entrance students is too low. If practical mastery of the
English language is equititted from *entrants*, the age will necessarily rise; the Entrance Examination will become the gate to ordinary employment, and to the professional Colleges like Seepore College and the Medical College, the incongruity will then cease of those who are to be clerks and subordinate administrative officers spending time over Higher Mathematics, Logic, Higher English and Higher Sanskrit. There should be no artificial fixing of a minimum age for entrance. The standard of the Entrance Examination, and the age of *entrants* is considerably lower than in British Universities. Considering, however, that the Calcutta University Entrance Examination is conducted in a foreign language, it cannot be called easier than that of any British University. There should be no Entrance English Text-book. Students and teachers will labour over the allusions and linguistic peculiarities of any prescribed text-book rather than over the practical acquirement of the English language and the education of the minds of the pupils.

*Theological Degrees.*—The Calcutta Missionary Conference has already resolved to see whether a Central Board could not be instituted to prescribe Theological studies, and arrange for examinations. It was resolved that, before they should think of approaching the University, it should be found whether such Boards would be successful. There is nothing in the practice and constitution of the University here to prevent the institution of a Theological Degree with options to suit different classes of students or those of different tastes. For (1) the University already recognises the following languages which might form part of a Theological curriculum—Sanskrit, Arabic, Greek, Hebrew, Latin; (2) it already prescribes studies in Moral Science and in Natural Theology. Under the latter head many very suitable text-books are prescribed; (3) it already has a Lectureship on *Hindu* Vedanta, although the Syndicate, the chief guardians of our Lamp of Learning strangely consented that this light should shine on one section only of the community. Our Chancellor and Vice Chancellor and the great majority of this Education Commission would be turned out from the University Lecture-room. Hence it could accept endowed lectureships in other similar spheres. The Barrows Lectureship might be made over to the University; (4) it recognises a Sanskrit College and it recognises another Institution, the Science Associations, which teaches only in a single department, hence it could recognise Theological schools. In Scottish Universities, Church History is now regarded as an optional Arts subject, but we have precedent for admitting such a subject in our courses. One of the subjects of Biology, Physics, Chemistry, History, Botany, etc., should also be prescribed. The subjects for the B. D. Degree in Scotland are four, viz: (1) Systematic Theology, including Biblical Theology; (2) Biblical Criticism that is of the authorship, authenticity and historical setting of the Books of the Bible; (3) Church History (a portion); (4) Hebrew and Oriental languages. Three of these are already analogous (at least, in a rudimentary state) within our University. A considerable proportion of the graduates of Scottish Universities are needed as religious teachers. Why should the Universities in India not feel the need of encouraging a learned class of religious teachers, as also the encouragement of Theological study. The subject of Comparative Religion is the necessary subject in this department of study, and may be avoided for the present.
MR. A. C. EDWARDS, PRINCIPAL, PRINCESSITY COLLEGE
AND REGISTRAR OF THE CALCUTTA UNIVERSITY.

I have been asked to give evidence before the Commission on certain special points, viz.:

(1) The condition of the Presidency College now, as compared with its condition 20 years ago.

(2) The present and past conditions of the Dacca and Patna Colleges.

(3) The question of having a whole-time Registrar for the Calcutta University.

I shall be glad to answer, so far as I am able, any questions connected with the first and third of these points.

As regards the second point, as the Dacca and Patna Colleges are now under other Government Officers as Principals, I do not feel competent to express any opinion about them. I believe the Principal of the Patna College is coming to Calcutta in a day or two, and I would suggest that he might be asked to give evidence, if necessary, in connection with that Institution.

Turning to the Presidency College, I find that in 1880-81 there were 344 students on the rolls as against 647 students on the 31st March 1901. To the latter number have to be added about 95 students from the Calcutta Madrasa, who attend all the First Arts lectures delivered in the Presidency College, and about 70 students from the Sanskrit College, who attend lectures in Physics and Chemistry, raising the total number of students undergoing instruction in the Presidency College in March 1901 to 767.

The cost of the college to Government in 1880-81 was Rs63,287 (exclusive of the Law Department) and in 1900-01 it was Rs7,761.

We seem to have one Professor more now than in 1880-81. It will be seen therefore that double the amount of work is being done now at practically the same cost to Government and with practically the same staff as in 1880-81, while it has to be borne in mind that whereas in 1888-89 there were no sections in the third and fourth year classes, in 1900-01 there were two sections in all classes up to the B.A., and that the M.A. Courses are taught in nearly all the subjects now, while many additional Honours classes and Practical classes have been opened. Twenty years ago there were in the Presidency College Physical and Chemical Laboratories only. These have since been very largely extended and much more fully equipped, and during the last two years a Geological, a Biological, and an Astronomical Laboratory with an Observatory have been added.

B.Sc. classes have also been opened in the college since 1901. To illustrate the comparative results of the work done in the college now and 20 years ago I append the following table, the latter part of which covers the three years during which I have been in charge as Principal—

<table>
<thead>
<tr>
<th>University Examination</th>
<th>Number of candidates sent up by the Presidency College</th>
<th>Number of candidates passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.A.</td>
<td>101</td>
<td>49</td>
</tr>
<tr>
<td>B.A.</td>
<td>85</td>
<td>37</td>
</tr>
<tr>
<td>M.A.</td>
<td>21</td>
<td>17</td>
</tr>
<tr>
<td>1881</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.A.</td>
<td>77</td>
<td>31</td>
</tr>
<tr>
<td>B.A.</td>
<td>75</td>
<td>28</td>
</tr>
<tr>
<td>M.A.</td>
<td>30</td>
<td>9</td>
</tr>
</tbody>
</table>
University Examinations sent up by the Presidency College.

<table>
<thead>
<tr>
<th>Year</th>
<th>F.A.</th>
<th>B.A.</th>
<th>M.A.</th>
<th>Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1882.</td>
<td>129</td>
<td>87</td>
<td>28</td>
<td>54</td>
</tr>
<tr>
<td>1899.</td>
<td>100</td>
<td>179</td>
<td>94</td>
<td>64</td>
</tr>
<tr>
<td>1900.</td>
<td>93</td>
<td>175</td>
<td>85</td>
<td>64</td>
</tr>
<tr>
<td>1901.</td>
<td>124</td>
<td>174</td>
<td>72</td>
<td>67</td>
</tr>
</tbody>
</table>

It will be seen from this table that in the Presidency College there appears to have been no deterioration in the results of educational work in recent years. Judging from results of the condition of the college as a Teaching Institution was unsound now, it was still more unsound 20 years ago; if it was satisfactory then, it is still more satisfactory now.

As regards the conduct of our students in college I have nothing to complain of; indeed I may say, speaking generally, that it is as good as I could wish. I may mention that there is now an Athletic Club connected with the college, an annual contribution to which is compulsory for all students, while gymnastics are compulsory for all students of the first year class. To promote the moral welfare of the students there is the Eden Hindu Hostel attached to the college, which is now directly under the control of the Principal, while in accordance with the orders of Government all students of the college and of the two attached schools are now required to live either with their parents or bona fide guardians or in the College Hostel or other licensed hostels or messes.

Turning to special point 3 as far as the immediate present is concerned, the question about a whole-time Registrar seems to me to turn on the qualifications of the individuals forming the University staff.

With a highly competent Assistant Registrar, like the present one, and with the existing staff, the Registrar is just able to carry on the work of the University with the time at his disposal after the discharge of his official duties as a Government C Officer. He is, however, very hard-worked during about six months of the year. In view of the largely increasing numbers of candidates for examination each year it seems probable that the Registrar's work will ere long demand a whole-time officer.

Moreover, in my opinion the time has now come when in order to relieve the congestion caused by the vast and unwieldy masses of candidates that now present themselves for the annual Entrance Examination (this year more than 7,000) as well as on other grounds, there should be two Entrance Examinations held in the year.

The following table shows the number of Entrance candidates who failed in English in the last five years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of candidates failed</th>
<th>Failed in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1897</td>
<td>2,390</td>
<td>2,108</td>
</tr>
<tr>
<td>1898</td>
<td>2,724</td>
<td>1,370</td>
</tr>
<tr>
<td>1899</td>
<td>2,574</td>
<td>2,099</td>
</tr>
<tr>
<td>1900</td>
<td>2,448</td>
<td>1,871</td>
</tr>
<tr>
<td>1901</td>
<td>2,732*</td>
<td>2,200</td>
</tr>
</tbody>
</table>

* In 1901, 4,339 candidates out of 6,125 would have failed if the Pass mark in English had been 40 per cent. instead of 33.
In view of these large numbers of failures in English (about 2,000 yearly) which are likely to be greatly augmented if the minimum pass mark in English is raised from 33 per cent. to 40 per cent. as has been proposed, and as in my opinion is most desirable, I think that Entrance candidates should only be allowed to appear in English at first, on a reduced fee. If they pass, they might go up six months later for the examination in the other subjects. If they fail, they might appear in English again six months later. This would save a great waste of time and labour both on the part of the candidates and of the Examiners. The certificate of having passed this examination in English would be useful to students, who contemplate entering Mercantile Firms, becoming clerks, etc.

The pass mark should be 40 per cent. and the age of the candidate at least 15 on the 1st January next preceding the First Examination in English, and the Examiners, or at least the majority of them, should be Englishmen. A special building for the University Examinations should, if possible, be provided, as it would be undesirable to interfere twice in the year with the work of colleges and schools by holding them twice for the examinations, and a portion of the Entrance fee might be set apart as a Fund to meet building expenses. Otherwise one of the half-yearly Entrance Examinations would have to be held in the vacation.

Were this course adopted a whole-time Registrar would be necessary. It is in my opinion essential that all the question-papers should be printed in England. As an alternative proposal to the above, a Final School Examination in English only might be held under University or Government supervision with English Examiners and a candidate might be required to have passed this before appearing at the Entrance Examination. Original composition in the form of essays or letters might perhaps be a sufficient test to be set under the superintendence of the Inspector of Schools and forwarded to the Examiners in Calcutta.

Referring to point 9 in the List of Subjects for consideration, I would suggest that as regards the Entrance Test Examinations, as now required, it should be ruled that the Head Master or Inspector of Schools should certify in each candidate's Entrance application form that he has obtained 20 or 25 per cent. at least of the marks in each subject in such Test Examination. Also that no candidate should be admitted to the F.A. or B.A. Examination unless he produces a certificate from the Principal of his College in his application form to the effect that he has passed a Test Examination in the first and second or third and fourth year classes, respectively, or in special cases, at the Principal's discretion, in one of them and obtained at least 25 per cent. of the aggregate marks in each of such examinations. The numbers of the Syndicate might, I think, perhaps be increased to 12 or 15 members. In my opinion one-half or two-thirds of the Syndicate should only consist of persons engaged in practical educational work, and one-quarter or one-third should be heads of affiliated Educational Institutions.

I do not know why the teaching of English in colleges is so much less provided for now by the Government than it was formerly, as is indicated by the fact that in 1880 there were about 16 Professors of English in the Bengal Educational Service, whereas now there are about 6. Such a great diminution of Government support can hardly fail to cause a lowering of the standard of English in the country generally. In my opinion it is most desirable that more Professors of English and more Head Masters and Certificated Teachers of English from England should be employed in our colleges and schools. Compulsory vernacular education in the lower classes of schools seems a also to militate against the improvement and spread of a knowledge of English in our Educational Institutions and in the country generally. With only some one-half per cent. I suppose, of the whole population possessing any knowledge of English, it would seem that the study of the vernaculars might be left to the other 99½ per cent.

In my opinion there ought to be a special Professor provided in the Presidency College and other colleges for teaching English Composition and looking over Essays, etc. With the existing large classes the present staff of the Presidency College are too hard-worked to do much in this way.

University Laboratories might be started in Calcutta, Dacca and Patna, where the students of the different colleges might work under their own Professors.
I do not think inter-collegiate lectures can be practicable, as college classes are already as a rule too large, discipline probably could not be maintained and friction between colleges would be likely to ensue. It has been intimated to me that the students of the Calcutta Madrasa, who now attend the Presidency College and have all the advantages of its lectures, etc., without paying any fee to the college, would prefer to have lectures of their own.

Fellows of the University, if elected, should be elected, I think, by the Faculties of the Senate, and not by the general body of graduates. I would suggest that all officers of the Indian Educational Service after five years' service might be made Fellows, if in Calcutta. Non-attendance at meetings of the Senate for two years might disqualify members.

Frequent changes in the University rules and courses of study are, I think, undesirable and are perhaps one of the causes of the deterioration in our B.A. Examination results in recent years.

A want of thoroughness seems to pervade the work of too many Indian students, who appear to be imbibed with the idea that speed in work is equivalent to efficiency, and do not seem to care for the careful and scholarly treatment of a subject. This desire to cover the ground quickly, somehow, too often leads to slovenliness, shallowness and failure.

(I shall be glad to answer, as far as I can, any questions on any of the points under consideration by the Commission.)
The position of Natural Science in the University of Calcutta appears to me to be unsatisfactory in the following ways:

1. Proper provision is not made for a continuous course in science beginning in the school and continued in the University. This is essential if science is to take its proper place in education.

2. It is not recognised that practical work is the backbone of all sound instruction in Natural Science.

3. The percentage of marks required for a "pass" by the University is not sufficiently high to ensure thoroughness of work.

1. Most Universities and other bodies controlling education now recognise that the standard in Science proper for a degree can only be attained as the result of work in a continuous and carefully-arranged course. This necessitates a definite choice and sequence on subjects in the earlier parts of the course, and the Entrance Examination should determine the work done in the schools by the nature and standard of its test in Science. Hence we find the University of London recently introducing into its Matriculation a new subject — General Elementary Science — comprising the essentials of Elementary Physics and Chemistry, the necessary basis of all sound work in Science; and the Universities of Oxford and Cambridge introducing a similar subject into their Junior Local Examinations. Not only does the Calcutta University recognise the claims of Science less adequately than most other Indian Universities, but a policy distinctly retrograde is advocated in the report of the Committee recently appointed to enquire into the examinations held by the University. It is proposed to make Chemistry an optional subject in the First Arts Examination, and to drop altogether the small modicum of Science now prescribed for the Entrance Examination.

In my opinion a suitable course in Elementary General Science should be prescribed for the Entrance Examination and an intermediate course in both Chemistry and Physics for the First Arts Examination. After that those who preferred to drop Science could do so; those who intended to go on with it, would have laid a suitable foundation for future work, and a satisfactory standard could be looked for in both the B.A. and B.Sc. Examinations. As things are, I am afraid that the standard of even the new B.Sc. degree cannot be what it should be. The previous training of the students who read for it is represented by the slender modicum of Elementary Chemistry and Physics at present required for the First Arts Examination. In two years they have to go through a course of Applied Mathematics, a further course of Physics and Chemistry, and have, in addition, to take up two entirely new branches of Science. The range of scientific knowledge demanded from such candidates is inconsistent with a satisfactory standard. Other Universities have realised that, owing to the rapid progress of Science, it is no longer possible to demand from candidates for a degree a knowledge befitting a liberal education of more than two or three branches of Science.

The Calcutta University makes a demand that might have been possibly consistent with a reasonable standard thirty years ago, but certainly not to-day.

2. The Science courses prescribed by other Universities show how unmistakably it has been recognised of late years that the real value of the study of Science is in direct proportion to the degree in which it is studied practically. Practical work is now insisted upon in quite elementary examinations.

The Calcutta University does not recognise the necessity for practical work in the Arts of course unless the student is reading for Honours.
Again in the laboratory the student gets away from words to things and I can imagine nothing more likely to do away with the reproach against the Indian student that he is a slave to the mere word, than the encouragement of this side of his education. It would be a genuine step in the direction of greater efficiency.

My own experience of students in practical work is that under the present system they show little dexterity or ingenuity, and are not really at home in the laboratory even as M.A. candidates. When they are allowed to use books they are slaves to them, and the result is that much time is wasted.

(3) The low percentage of marks required for a "pass" in the preliminary examinations of the University is a serious obstacle to the attainment of a satisfactory standard in the degree examinations. As an examiner in Physics and Chemistry in the First Arts Examination I constantly felt that candidates were passing who did not deserve to do so. But the standard which satisfied the University regulations rendered me quite helpless in the matter. My own experience as an examiner is that my feeling of satisfaction with a paper begins at about 60 per cent of the total marks. The University is satisfied with quarter marks in Science. My experience of the written work of candidates in Science in the B.A. and M.A. examinations of the University is that it exhibits the defects one would expect to find in the work of students whose previous training has been insufficient and unsystematic. Even when it is fairly good, what impresses one is their power of getting up facts from a book rather than have digested a knowledge of their subject.

**Text Books.**

The practice of the Calcutta University in prescribing text-books is at variance with that of most other Universities, and tends to foster some of the most undesirable features of Indian University education. To order the teacher of a particular subject to teach it out of a particular book is undue interference, and a reflection upon his competency. If he is competent he will have his own teaching methods, and to tie him down to a text-book he may not like is to impair his usefulness in a way that is most undesirable. Again, the besetting sin of the Indian student is that he prefers using his memory to using his intelligence, and to give him a text-book and tell him that he will only be examined in what is comprised within its covers, is a direct invitation to him to learn by heart, and a temptation to the teacher to discuss the text-book from his chair, instead of giving carefully prepared lectures upon his subject. The Calcutta University tells its examiners only to set questions out of the prescribed text-books. Judging from the examination papers this injunction seems often to be taken literally, and questions abound whose answers might be copied verbatim from the book, while questions requiring the exercise of the students' intelligence upon the subject-matter are infrequent. Had the University consistently enjoined on its examiners to set questions with the view of ascertaining if the candidates had worked intelligently at their subjects on the lines of a reasonably full syllabus, a much needed stimulus would have been given both to teacher and student. It may be admitted that there is a certain utility in mentioning one or more text-books in order to illustrate the standard of the course laid down in the syllabus, though one would think this sufficiently indicated by the examination papers of previous years. Possibly, too, there is a danger that if no book be prescribed, a bad book, merely manufactured to sell, may command the market on account of its cheapness. But this danger would not be a very real one if teachers were competent and exercised the influence they should. But the mention of several suitable text-books is a very different thing from the definite prescription of one; a practice which treats the teacher as incompetent, and the examiner as a person from whom the poor student is to be protected, and which, so far as I can see, has nothing to recommend it whenever there is a sufficient choice of really suitable books.

**Geography.**

The attitude of the Calcutta University towards another subject which may be treated as Science—Geography—is not in accordance with modern educa-
tional opinion. Most examining bodies in England have accepted the view of
the Geographical Association that the main principles of Physical Geography
must form the basis of geographical teaching, and we find in consequence that
Geography is no longer regarded as a mere memory subject. Like other
sciences it deals with phenomena, which are instances of cause and effect, and
properly taught as the "how" and the "why" of man's relation to his envi-
ronment, it makes an appeal to the intelligence, not as a memory subject,
it never could. That the Calcutta University has not realised this change in
the educational position of Geography is apparent from the papers set in Geo-
graphy at the Entrance Examination. It is true that Physical Geography is
one of the subjects of examination, but it keeps strictly to itself and the other
questions in Geography appeal to memory only. Again, in most countries, the
final school course in Geography gives special attention to the geography of the
home-land, and this is not less necessary in India than elsewhere, where it
would naturally include, as well, a fuller treatment of the rest of the British
Empire than is given to the parts of the world outside it. In view of the greater
fullness of treatment of certain parts of the subject thus necessitated, it would
be well to follow the lead of other examining bodies; and, while making the
Geography of India, Great Britain and the rest of the British Empire the perma-
nent part of the course, to set each year specially the geography of some part of
the world outside the British Empire. The subject would then have to be re-
defined for the Entrance Examination as "The Outlines of Physical Geography.
The Geography of the British Empire, and of some part of the Earth's surface
to be annually prescribed." "The mainland of Europe," "North America,"
"America south of Mexico," "Non-British Africa," "Asia Outside India," will
serve as instances of such portion of the subject as might be thus specially
prescribed.

European and Eurasian Students.

The case of European and Eurasian students requiring University educa-
tion is a special one. The higher European Schools keep their scholars until the
age of 18 or thereabouts, and the result is that the University Entrance Ex-
amination is taken (when it is taken at all) by three students of a class below
the highest. Hence the First Arts Examination practically becomes the leave-
ing examination for students at the head of the school. But schools which
endeavour to keep in touch with the best sort of school education in England
have found the Entrance and First Arts Examinations rather a hindrance than a
help, and have, especially of late years, avoided them as much as possible.
They do not encourage the best kind of teaching, and the curriculum they
impose does not allow sufficient scope for students of different aptitudes. Nor
has the introduction of the Government High School Examination done any-
thing to mend matters. The chief anxiety of its framers seems to have been
to devise an examination that should be somewhat harder than the Entrance
Examination. In other respects it certainly does no more than the Entrance
Examination to encourage sound methods of teaching or to meet the re-
quirements of a leaving examination for schools. The examination in English
tends to encourage the study of notes rather than an interest in literature, and
experience has shown that it is quite possible for candidates to pass the High
School Examination who cannot express themselves in clear and simple English.
In Latin the candidate who has merely learnt by heart the translations of the
prescribed texts is able to pass. In Mathematics no provision is made for a
purely elementary course, as distinct from a further course for students who have
a special aptitude for the subject. There is no encouragement of practical work
in the Science subjects. The course in History is not in accordance with the
widely recognised principle that detailed work on a special period is education-
ally of more value than a bare knowledge of the outlines of English and Indian
History. Other criticisms might be made. Nor has the general conduct of the
examination been such as to inspire confidence in its results, or to make it
conspicuously superior to the examinations of the University. It is recognised,
on the other hand, that the Cambridge Local Examinations, while offering con-
siderable latitude of choice among them of various subjects, do prescribe courses of
study that are admirably adapted for European schools, and that their influ-
ence upon the teaching is, after making due allowance for the limitations of
examinations in this direction, a wholesome one. Several centres for holding the
Cambridge Local Examinations in India have now been recognised, and
these examinations seem likely to be increasingly utilised by the better sort of schools. Hence the students in such schools who will desire to proceed with University education on the termination of their school course will be those who have passed the Cambridge University Senior Local Examination, i.e., students of the age of 18 or 19 who would otherwise have appeared in the Calcutta University First Arts Examination. No competent judge will deny the right of a student holding the Cambridge Senior certificate in corresponding subjects to be considered as at least equal in educational attainments to a student holding the Calcutta First Arts certificate. But such students are now under the disability of being only able to take rank with those who have passed the Entrance Examination. To satisfy the University regulations, they must, therefore, spend two more years in doing work of the same or a lower standard than that in which they have already satisfied the Cambridge authorities. This postpones for two years the beginning of the actual work for the degree, and seems a real and unnecessary hardship. Moreover considering that a minimum age of 15 seems to now contemplate for candidates admitted to the Entrance Examination, which we may fairly take as an admission that its standard is one that a scholar of 15 may reasonably be expected to attain, the hardship is still more apparent; for under these circumstances the Entrance Examination cannot be ranked higher than the Cambridge Junior Local Examination, which is also intended for students of about 15 years of age. If the Cambridge Senior Local Examination were recognised as equivalent to the F.A., and a choice of subjects is possible, which makes the difference in their respective courses merely nominal, the conditions would be much more favourable for students of European extraction anxious to proceed to a degree. There would be no break in the continuity of their school education; they could begin the special work required for degrees in medicine or engineering. The General Medical Council in England recognises that those who have passed the Cambridge Senior Local Examination in certain specified subjects have received a sufficiently good general education to enable them to study with profit the study of medicine, and there can be no good reason why students with similar qualifications should not enjoy similar privileges in this country. One is ready to admit that when it is possible for a student to complete a University course in Arts or Science before entering upon professional study so much the better. But questions of time and expense render this out of the question for the majority of European and Eurasian students. I feel strongly that the attitude of the University should not be a jealous or grudging one, but rather one of frank recognition of students with another hall-mark than its own for what they are and one of willingness to offer them every reasonable facility for availing themselves of the advantages which the University was intended to provide.

The number of students of European extraction who read for a degree is so small that it is not worth the while of most European schools even if they had the means at their disposal, to maintain the extra staff required for strictly University classes. The result is that such students have to join a college, such as the Presidency College, in order to continue their studies. They find themselves in a somewhat solitary position. The classes are so large that they cannot hope for individual attention from their Professors and they are practically without the advantage of association with others having the same ends in view. They are consequently left much to themselves and their situation is little favourable to healthy intellectual development. The best of the day is occupied in attending lectures, in copying out and “getting up” notes, and the chances are against their learning how to work and how to think for themselves. Something would be gained if such students could continue to reside in school while attending University lectures elsewhere. They would be under discipline, and they would be in the way of advice and guidance; for although the school could not undertake regular instruction in their University work, it would be quite possible to arrange that they should have tutorial relations with some member of the staff who would do for them what an Oxford tutor does for his pupils. I think that if it be contemplated to give deserving students of European extraction scholarships to enable them to pursue their University education at one of the existing Arts Colleges, the scholarships should be tenable conditionally on residence in a school where such arrangements could be made.
Secondary Education in Scotland.

The present satisfactory position of the secondary education in Scotland is due in great measure to the work of the Scottish Education Department, and to the changes which the last Universities Commission introduced in our four universities. Under the former conditions there was no Entrance Examination to the Faculty of Arts, and no organised supervision of the secondary schools, other than those under Government, while in all the universities it was found necessary to provide for the teaching of elementary work, in many cases to classes of over one hundred. Now there is a severe Preliminary Examination, which must be taken at the beginning of a student's course, and an immediate result has been the almost complete abolition of the Junior Classes, and a corresponding rise in the average work of the schools. A still more important change has been the institution of the admirable system of leaving certificate examinations, conducted by the Scotch Education Department, which is accompanied by an inspection of all the schools, public or private, which desire to submit their pupils for these examinations. The care that has been taken in the setting of the papers, and in the drafting of the schedules for the different subjects, and the growing value attached to these certificates by professional bodies, have caused these examinations to grow yearly in importance. Their influence in the improvement of school work cannot be overestimated. Alterations in the regulations are being made as the need for such becomes clear, and important changes have been announced in the last few weeks with the object of making these, more than in name, examinations that will be taken on leaving school, and of encouraging scholars to take the certificates in groups of subjects, instead of one by one. An effort is also being made to keep the members of the upper forms longer at school, a change which is much needed at any rate in some parts of the country, where boys leave school for the Universities at far too early an age.

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The Teaching of Geography.

Extract from a paper by Mr. L. B. Reynolds, B.I.B. Gilchrist Travelling Student, 1897. Diplored in Geography, Oxford.

It is obvious that any branch of knowledge which is excluded from recognition by our universities lies thereby at a great disadvantage. Apart from the stamp of inferiority thus at once impressed upon it in public estimation, the lack of the stimulus of the more important examinations and their offered prizes will debar more than a few from entering on the prolonged study necessary for deepening and then extending a real knowledge of the subject, with the necessary result that it will too often be poorly taught, if taught at all, in our schools. For, while all teachers need not be specialists, even the most elementary work will suffer if there be not in the background a body of specialists on the given subject strong enough to influence and assist the teaching of it. This is what has taken place in the case of Geography. While certain geographical facts were taught in the schools on utilitarian grounds, there were so few qualified by special preparation to teach the subject scientifically, and so little idea existed of its educational possibilities, that it was left for any one to teach, and too often to teach anyhow. The children, bored by definitions and lists of names, grew up with a hearty distaste to the subject; while many educationists decided that a branch of study that exercised the memory only must be a poor affair, and quite unworthy of a place on the school curriculum. In Germany, during the first-half of the nineteenth century, a new light was thrown on the matter by the writings of Humboldt and Ritter, which first placed Geography upon a scientific basis. The casual connection between various physical forces and phenomena, and still more between these and the history of humanity, was brought out, and the subject which had formerly
appealed chiefly to the memory, was shown to demand the constant exercise of the reasoning faculty to solve the many complicated problems to which it gave birth. Geographical chairs were established at various Continental Universities, especially in Germany, and by this means much has been done to develop different branches of the subject—as Meteorology, Oceanography, Geomorphology, Biogeography, Cartography, etc. At most of these Universities Geography can be taken by the students as their chief subject in the highest examinations for the Ph.D. and other degrees—a fact which accounts for the number of geographical societies abroad, and the general interest manifested in the subject. In Germany it is taught in all primary and secondary schools both for girls and boys, and special time is devoted to it in technical and commercial colleges. German maps have become famous all the world over, because the publishers can rely on a demand wide enough to allow of their sale at marvellously low price; while the large number of geographers in the country who are expert critics of cartography exacts a high standard of excellence, especially in school atlases and wall maps.
MR. H. STEPHEN, OFFICIATING PRINCIPAL, DUFF COLLEGE.

The Teaching of English.

I have been asked to say something about the teaching of English in the University. My acquaintance with the subject is practically limited to the B.A. and F.A. departments. But as little has been said I believe by previous witnesses on those departments, what I have to say may not be altogether irrelevant.

The teaching of English appears to me to be the most faultiest part of our system, and the fundamental fault appears to me to be, so far as higher classes are concerned, the extremely limited range of reading prescribed. It was not always so small as at present, but has been reduced from time to time, and in the present Session has reached the lowest limit. I believe it has sunk in the history of the University, as most students now form such a narrow range of reading, it is impossible to obtain familiarity with the idiom of a language, and hence the admitted deficiency of so many Bengal students in this respect.

Now the extent of reading and style by the teaching are both determined by the style of examining, and I am not aware that at the University, though mainly an examining body, has ever done much to control the style of its examining; it has prescribed subjects for examining, but it has left the examining itself entirely to the judgment and convenience of examiners. Now many subjects are so defined and limited in range that the examining can take only one form, but "English" is an exceedingly wide and indefinite subject, and when an examiner is directed to examine a set of students in English,—even this it should be on a set by prescribed English texts—the examining may take any one of over so many different forms. There is more need, therefore, of regulation in English than in any other subject.

Now what strikes one with surprise is this,—though English in this country is a foreign language, the examining and study have been allowed to take exactly the same form as at home in England. In England certain texts are prescribed from Chaucer, Shakespeare, Milton, Bacon and the like, and the examiner is told to examine upon these. He is somewhat at a loss what to do; for there is much difference of opinion even at home as to what examining in English should consist of, and there have been much controversies and protest in the Reviews on the prevailing methods. But in dealing with advanced classes, the examiner is aware that the candidates are sufficiently well acquainted with the normal modern language, and that there is no use of testing their knowledge of it. His examining, therefore, turns mainly upon obsolete words, idioms, allusions, collateral information and current criticism. In fact examinations in English seem often to have little or nothing to do with English. They are rather examinations in general information.

Now examiners here, fresh from English schools, have generally fallen into the forms and often reproduce the very questioners and words by question papers set for English students, and often puzzle their brains, one suspects, to devise questions which will be most ingenuously irrelevant and least likely to have been anticipated by teacher and students, and more control has been exercised by University either by direction or model papers.

Now the style of examining determines the style of teaching. The texts prescribed are identical with those prescribed for the advanced classes in England; and often such that, for an Indian student, they have to be translated piecemeal into modern English, and this takes up much of the teacher's time. And then there are allusions,—a subject of life and death importance in examinations, however remote and shadowy they may be—and then there are all the criticisms, good and bad, which may have been passed on the text from Dryden and Addison downwards—and there is collateral and promiscuous information of all kinds. Thus in teaching and in examining on English, English itself is almost lost sight of.

It follows from this that the amount of reading for which there is time is far too small. The University has always been besieged with complaints nevertheless that it is far too great, and has yielded to complaints from time to time until the amount of reading has at last reached the limit of temerity. But what was really wanted was not a reduction of the amount of reading,
but a change in the style of examining, which render a great increase possibly in the amount of reading without increase of labour to the student—from his labour being directed into more profitable channels. Another evil of the system has been the encouragement of cram. This word has been so much abused that I suppose the very sound of it excites suspicion in most minds. It is often used for all exact study, exact teaching, and exact knowledge, and in fact for anything and everything which one does not like. Nevertheless, it is a very real thing and a very real evil. It has two legitimate meanings. In one sense it means committing to memory without any exercise of intelligence and for a temporary purpose information which we have no interest in, and try to forget as soon as the purpose is served. In this sense of the word we have had a great deal of cram in the study of English. In another and still more objectionable sense it means learning by rote phrase and formulae which we do not even understand for the purpose of reproducing them in an examination. In this sense we have had a great deal of it in another subject which I may be allowed to refer to. Now in English much of the collateral and promiscuous information with which we are obliged to supply our students is of little value in itself, and is forgotten, perhaps rightly, as soon as examination is over. It has to be conveyed mostly in the form of notes, which have no connection among themselves—and have to be committed to memory without much exercise of intelligence. In most other subjects—in Elementary Philosophy and in History, Geometry and the like—the thought has more or less connexion and continuity, and the work of remembering is easier and involves more intelligence. Hence I find that students have much greater difficulty in writing relevant and grammatical answers to the kind of questions asked in English examination than in any others. It is not the difficulty of English composition itself as such—that is equally great or greater in other subjects, such as Philosophy especially, which tests a candidate's power of composition most, it is rather the incoherent character of the matter. It involves, I fear, too much of what may legitimately be condemned as cram. Another unfortunate tendency of the method is this: By making the student so dependent upon teachers and upon collections of notes, even in his reading English—the very department in which he should be most independent, if I may so speak, demoralised and rendered helpless and make to give up in despair, in many cases, the very idea of independent reading in English. An English book has come to mean to many a mere collection of conundrums suggestive of nothing but mystification—of class-rooms, notes, examinations, marks, and is regarded with a sort of shuddering aversion or as something quite beyond his reach. When asked why he does not read a simple English book or article, he too often answers with an air of helplessness that he has no one to explain the allusion. When we were boys we had no one to explain allusions, but we went on reading until the allusions began to explain themselves. The boy here, however, is taught to regard allusions and collateral information as the chief thing. Every paragraph, every sentence, is an enigma to him with an esoteric meaning which is the only thing worth having. If you tell him that the author means just what he says and nothing more, he looks at you with an air of hopeless incredulity. He has found it otherwise so often in the examinations. Hence he has come to regard an English book, even the simplest, as quite beyond his depth, and hardly ever thinks of reading outside his classes. Now, I believe, that the University might do something at least to remedy this state of things by making considerable changes in the style of its examinations, thereby rendering more extensive reading possible, and making the reading to be of a more spontaneous kind. The examining should turn less upon external, collateral and often comparatively irrelevant information, and should turn more on the substance of the books, and be such as to determine whether the candidate has really read them and passed them through his own mind, so to speak, and understood what he has read. I think that certain texts of a classical character should continue to be prescribed as at present—a play of Shakespeare, a book of Milton—to be studied and analysed accurately and critically in the classes as at present. But these should be of limited extent, and in addition to them, much more extensive readings should be prescribed of a simple normal style, such as they may themselves understand and imitate, and of these some should be prescribed for private reading, and the reading of them in classes should be discouraged or positively forbidden, and the examining should be such as to test the student's reading and understanding merely, and should require nothing more than can be obtained from the books themselves, and such dictionaries of
words and names, as every student should possess. At present I believe that many do not even know how to use their dictionaries. For such readings, tales, histories and essays should be prescribed, tales of Hume, Kingsley, Stephenson, portions of the histories of Macaulay, Hume, Froude—such poetry as that of Thomson, Campbell, Scott, Rogers, Crabbe, Mrs. Hemans, Whittier, Holmes—distinguished not for lofty genius but for purity and simplicity of style. The geniuses in Poetry are above the heads of undergraduates, and should be reserved mainly for the M.A., though I think that certain short texts should still be prescribed of a classical character in order to give the students some training in exact analysis and criticism, and guarding against the loose and superficial habits of reading. And as an examiner in English has such a wide and indefinite field to range over, he should be guided not only by directions of the Syndicate, but by model question papers issued from time to time. In this way I think that by avoiding irrelevant and unprofitable work, a much wider range of reading might be attained without any considerable increase in actual work and effort; and I think that the work could be much more wholesome, stimulating, and encouraging to the student than the present courses, and that his power of understanding and of writing English and appreciating idiom and style would be greatly improved, and above all his taste for English literature, which at present, I fear, is nonexistent in a large proportion by our graduates.

ELEMENTARY.

PHILOSOPHY.

Dr. Mukherji has suggested that I should make some remarks on another subject, and if I am not trespassing too far on the time and patience of the Commission, I should like to do so. It is the study of what is sometimes called by the Benthamite designation of "Mental and Moral Science," but which I think is better described by the older and more familiar designation of "Elementary Philosophy." I may be allowed to explain the position and meaning of this subject in our University system. The present arrangement of course was introduced, I believe, about 1884, under the superintendence of Sir Alfred Croft. It is on the whole, I think, a highly judicious arrangement—superior, I think, to that in force in any other Indian University. It aims at admitting a reasonable amount of specialization, while guarding against an anarchy of conflicting and incommensurable options. It holds on one course of study for those who prefer practical, concrete, experimental work, and another for those who may prefer literature and abstract thought, and admits of numerous options inside these courses. But to supplement mere memory work, each of the courses was weighted or ballasted if I may so speak, with a thinking subject. I mean a subject which involves a training of the understanding, thinking and reasoning powers, as well as of memory, the faculty which, among people of this country, it is commonly believed, least needs cultivation. In the scientific course the ballast was supplied of pure Mathematics. In the literary course, it was supplied by Elementary Philosophy, including short courses by Sychology, Ethics, and Principles of Science—a subject which involves memory as all studies do, but in which success as but from cram depends mainly on power of abstract thinking, understanding, and reasoning. It has sometimes been proposed indeed to make History an alternative for Philosophy, but this involves a misunderstanding of the plan and purpose of the scheme of studies. History is by itself an almost purely memory study. For this reason, perhaps, the originators of the scheme thought it insufficient even to stand by itself as an optional subject and ballasted it with Political Economy a subject which has no connection, exercises the thinking powers to a greater degree.

But unfortunately in Philosophy as in some other subjects the practice of prescribing a single text-book was retained. At first two books were prescribed, however, covering much the same ground and practically leaving a choice between them.

For several years the passes were better in the literary than in the scientific course. The dark period which has so exercised the minds of the Senate began in 1889, when only a small fraction of the students passed in this subject. The failure was unmistakably connected with a change in the text-book system. The older books had been dropped, and two new books prescribed for pass
without any choice—one in Psychology and one in Ethics, and with this began
the sorrows of the Calcutta student, so far as this subject is concerned.

One of them was a meagre epitome of larger works made up largely of
phrases and formulae, which did not carry their own meaning with them, but
assumed rather than conveyed an understanding of the subjects treated. In
fact it was not meant to be used as text-books as used in Calcutta, i.e., as a
sufficient and exhaustive treatise by the subject, independent of a teacher, but
only as a guide and handbook to a professor's lecture.

The other book was of an opposite character, being a work of great literary
merit and some philosophical originality, but very diffuse in style; really a com­
mentary on the subject rather than an exposition of it, assuming knowledge
rather than conveying it. I do not blame the Board of Studies so much as the
system of fixed text-books. This is a subject in which there are no suitable
introductory books for students and which cannot be properly learnt except
from a teacher who is free to teach.

What then were teachers and students to do? I may give my own experi­
ence. I might either read the books to students or make the students read them
in the class, which would of itself take up most of my time, and accom­
pany my reading with running explanation so far as time would allow, but then
the student would go away carrying nothing with him, none the wiser at
the end of the hour. Or instead of spending so much time in reading what they
could read at home, I might spend part of my time in dictating explanatory
notes on words and phrases of the books, as if reading a classical author in an
English or Greek class-room. I But then the notes by themselves would be
wanting in connection and coherence, and would therefore give little under­
standing of the subject, and the student would be obliged to cram them. Or I
might set aside the books altogether, and proceed to give a connected and con­
tinuous exposition of the subject in my own words, and tell the students
to read the books as well as they could for themselves in the light of my own
lectures. Then the students would follow with the closest attention and write
down as much as they could, and add those who were good English scholars would
make perhaps a pretty full and continuous written course on the subject much
as English or German students make, omitting, perhaps, little of value in the
books except their peculiar phraseology. Still the examiner would feel himself
bound to follow the phraseology of the book very closely in his questions, and
possibly in his valuation also, though as to that I cannot speak, and the student
would be in danger of falling between two stools—between the book and the
teacher and would perhaps think that the safest method after all was simply to
cram as much as he could of the phraseology of his book, whether he understood
it or not.

Thus, however, eager the teacher might be to teach, and the student to
learn both teacher and student were heavily handicapped, and real teaching
and real study were hardly possible and as might be expected the number of
failures was extreme. Of the student's answers, if I may speak as an examiner,
many would contain not only phrases but half pages of the book in curiously
technical language learnt by rote but with many verbal blunders and contra­
dictions, showing that it was too him unintelligible gibberish. Others would be
made up largely of notes, but without connection, and often contradictory or
irrelevant, showing that they also were memory cram. Others again would be
fairly well composed and reasoned essays in language which the student evi­
dently understood and made his own but in such cases almost no influence of
the book would be perceptible, showing that it had been only a useless encum­
brance. The student had either thought out the subject for himself independ­
ently or had learnt it from his teacher.

At last the Syndicate understood the evil and introduced a new system
which came into force in 1889. The course was now defined by means of
syllabuses, and books were no longer imposed as before, but simply suggested,
the teacher being left to choose his book, and use it as he thought fit.

The same plan was carried out in other subjects, and the University made
some progress towards being a teaching University. There seems to be much
uncertainty as to what a teaching University means. By many in London and
by some here a teaching University is taken to mean a University which licenses
teachers. This definition is too like a schoolboy's bowler to be satisfactory.
But whatever else it means, it certainly means a University which allows and
encourages its teachers to teach, which is not possible so long as its studies are limited to learning a particular book by rote.

Nevertheless the result has not been all that was expected. Whether the students have learned more of their subjects or not (and I believe that they have learnt a great deal more from my own experience as a teacher, and from what I have seen of some of their answer-papers) still the number of passes has not greatly increased. This is partly due to the fact, I believe, that the roots of the old evil have remained. I am not an authority on question papers—I never read them; but I am assured that they are still sometimes set in the phraseology of a particular book which is often unintelligible, apart from its context, and that students are compelled to cram from the same books much as of old.

However this may be, a Committee of the Senate have recommended a return to the old practice of the fixed text-book, to be learnt by rote, and evidently think that if the text-book, sufficiently short and simple, will be the means of securing the greatest number of nominal passes. This would, indeed, be the way to secure the greatest number of passes within the least trouble to teachers and least responsibility to colleges. But I leave it to the University Commission to judge whether this method of teaching Philosophy, if it be worthy of the name of teaching at all, be worthy of the Premier University of India. I have been asked to give an opinion also on the subject of Theological degrees. I see no reason why the Christian and any other religious community that may desire it, should not have its studies recognised by the University, provided it can organise them sufficiently—and whether in connexion with present colleges or new ones expressly for this purpose alone. I do not think, however, that any considerable part of any of the present B.A. course can be spared to make room for Theological studies. I do not think that of Church History can be substituted for political, because political history is necessary to an understanding of Church History. In the Greek course, indeed the study of classical Greek might be replaced by New Testament and patriotic Greek. But I do not know that much else in the present courses could be dispensed with. The new degree would have to be on the lines of the present M.A. degree, but might be extended, if thought necessary, to even a study of two-and-a-half years, instead of one-and-a-half years, which is generally sufficient for the present M.A., because the subject of Theology will be new to students, whereas the M.A. is only a continuation of college studies. With regard to the constitution of the Senate, I wish merely to say that I do not think well of the proposed principle of re-appointment. It is out of keeping, I think, with an office of this kind, of which the labour should and must be for love. If those re-appointment were by nomination, it would be suspected by the public of reducing the body too much to the position of a packed jury. If it were by election, it would open the door to canvassing and wire-pulling, and all the hocus-pocus of petty electioneering. The result would be, I fear, that the most desirable men would become indifferent to the office, or avoid it altogether; and it would be left to the noisy and enterprising and those who might have axes of their own to grind. If sufficient care were taken in the original appointments, if they were restricted to men who had not merely passed examination but had proved their capacity by serving the country in professional, official, and social capacities for a certain number of years, and if the conditions, tenure and forfeit were made sufficiently stringent, then the term of office in most cases would be short, and though in all conscience, and if suitable men are to be obtained, it would be much better to let them go on as long as they are willing—i.e. the longer the better—without the humiliation and worry of re-appointments and re-elections, which would certainly make matters no better than before, and might make them worse, and the office should not be restricted to men who have taken University degrees. Learning has nothing necessarily to do with passing examinations, and many of the most learned men have never passed any.
Mr. E. B. Havel, Principal, School of Art.

ART TEACHING.

I.—Indirect Teaching.

I am decidedly of opinion that the University through its system of education might do a great deal to promote art in Bengal. If the mental faculties may be developed through the eyes, and, as Plato says, the appreciation of fair forms leads to the appreciation of fair action, then certainly this is a branch of the education of Indian University students which is very much neglected. Though public school boys in England and the undergraduates of Oxford and Cambridge have little direct art teaching, they are surrounded by aesthetic influences which must have an important effect on their mental and moral development. Many of the old colleges are extremely beautiful buildings, and their surroundings are in harmony with them. Compare Eton College and the playing fields with the Presidency College, Calcutta. In Calcutta and in most other places in India colleges and schools are generally dreary, desolate structures, in which all aesthetic feeling is ignored, if not outraged. I entirely dispute the theory which is generally advanced as an apology for the neglect of art in every department of State in India that good art is an expensive and more or less useless luxury. Good art, as a rule, is less expensive than bad art. A good artist, architect or artist workman knows how to use his resources to the best advantage, but the bad one does most. Art does not necessarily mean decoration—an object or a building can be beautiful without any kind of decoration. It means a sense of fitness, order and beauty in all work. The greatest obstacle to the progress of art education and art industry in India, is the extremely vitiated taste of the majority of the educated and wealthy classes which constitute the principal patrons of art. It is, of course, very frequently the case in Europe that a well-educated and intelligent person is incapable of distinguishing between good and bad art, but the taste of the educated classes of India is, on the whole, far lower than that of the same classes in Europe. I believe this is largely due to the fact that in the whole Indian educational system all artistic influences are left out of account. It is hardly reasonable to complain that Indian students, for the most part, take a narrow and sordid view of the end and aim of their education, when throughout the whole system, everything is omitted which might tend to develop the imaginative and spiritual side of their faculties. When Indian students are placed in an atmosphere which is for them purely artificial, and are given the external form of a good European education without the spirit, the dry skeleton, and not the living body, it is not reasonable to complain if the product of the system is often stunted and undeveloped. I do not believe that this state of things is only a deplorable necessity. A great deal might be done towards developing the artistic sense of the students by making the surroundings of the colleges more attractive and beautiful. A well-kept flower garden may be very beautiful, though it is not necessarily a very expensive luxury. Neatness, care and taste in the upkeep of the college buildings and all their surroundings would tend to give the students the feeling for order, method, and fitness which is the foundation of all art.

There is no reason for the dull and desolate appearance which school and college class rooms now present. A comparatively small expenditure from the college library grants yearly would make the walls both attractive and instructive. There are now very many excellent and suitable illustrations of the finest examples of Indian and Oriental art published both in India and in Europe, which could be neatly framed and hung round the walls of the class rooms at very small expense. A special selection suitable for the purpose could easily be made by the Educational Department. Every drawing teacher now sent out from the Calcutta School of Art has some knowledge of ornamental design, and if encouraged by the college authorities he and his pupils could, with the expenditure of a few rupees in emulation, relieve the monotony of the white-washed walls with hand-painted or stencilled decoration.

By such means not only would the aesthetic faculties of the students be developed, but more brightness and interest would be brought into the routine of school and college work.
It is not a matter of small importance that the artistic taste of the average educated Indian gentleman is generally so undeveloped that he will often prefer the vilest product of European commercial art to good Indian work and will insist on the Indian art workman and artist copying the most debased European patterns instead of following his own traditions, which, as a general rule, are right. If the taste of the educated classes in India were raised, most of the difficulties in art education would disappear.

2. Direct Teaching.

Direct art teaching in the Calcutta University is confined to elementary drawing, which is an optional subject in the Entrance Examination. It is very desirable that students should have Indian examples of free hand instead of the European which are now prescribed. This matter is being attended to, and a suitable set of free hand drawings will be published shortly. The question should be considered whether if the present courses of the kind can easily be re-arranged so as to relieve them of the overloading from which they suffer at present, it might not be possible to make drawing a compulsory subject. Drawing was made compulsory in the High Schools of Japan about 15 years ago. It is dangerous for India to remain 15 years behind Japan in matters of technical education. But of far greater importance to the future of art in India is the training of the engineers who in this country carry out nearly all the most important architectural works. It is my firmest conviction that the prosperity of most of the art handicrafts of the country depends upon the possibility of keeping alive the traditions of Indian architecture which still exist. Fergusson, whose great work on Indian Architecture is the standard authority on the subject, has expressed the same convictions, and they are supported by all the best living authorities on Indian Art. I cannot but regard it as a vital defect in the training of those who have to carry on the profession of both Architect and Engineer that no provision is made in the University curriculum for examining them in architectural design, especially in Indian styles. I cannot see any difficulty either as regards the teaching or examination in the way of introducing the subject in the curriculum for the B.E. degree. There are numerous illustrated works to provide text-books, and in the Government Art Gallery I am now arranging a collection which, when complete, will form a practical and sufficient illustration of all the most important Indian styles. I do not think there would be any difficulty in arranging for a series of lectures on the subject. Indian architecture is worth studying only from an engineering point of view. As a proof of this, I would mention that a few years ago a Prussian Engineer in Government employ was sent out to India especially to study the principles of Indian architectural design. This is only one of the many points in which the unique artistic resources of India of so much interest to other countries, are neglected in India itself. The point I particularly wish to bring forward is that while in Europe no one would dream of employing an engineer to design and build a palace or any important architectural work—in India engineers combine the profession of Engineer and Architect. It is therefore of vital importance to the future of art in India to recognise this fact, and to give engineers the training which will qualify them to carry out the work they are called upon to perform.
3—Teaching Universities.—I think it very desirable, that the Indian Universities should be teaching, and not merely examining bodies.

But I do not see how this change can be effected, unless all mofasal colleges are reduced to High Schools, and affiliation is confined to colleges in the cities which are the head-quarters of the respective Universities. This would be a very radical change; but it is one, that I think highly desirable.

If this were done, inter-collegiate lectures, University lectures, and that corporate college life, that go to form University life, would be possible.

Colleges would then have to be in themselves complete residential units, for Principal, Professors, and students: students could then be told off, as at Oxford and Cambridge to Tutors: and the work and discipline of the colleges could be maintained, alongside of and under the guidance of the University.

The present system in colleges, that makes the college building merely a set of lecture rooms, while the Principal and Professors live some miles away, and the students live in detached hostels, strikes at the very root of collegiate and of University life, and destroys both.

I cannot see how a University can fulfil its duties as a teaching body, when it has a number of colleges affiliated to it, which are in outlying districts. The mere appointment in these of teachers recognized by the University, will be a poor substitute for inter-collegiate, and University lectures.

I am not in favour of the proposal to make a list of recognized teachers, and to compel candidates for degrees to receive instruction in colleges, from teachers appointed or recognized by the University. This should be left to the college authorities in aided, and to Government in Government colleges, the University confining itself to the question of affiliation, which should be granted only on very definite and stringent rules. Oxford and Cambridge do not interfere with the appointment of Fellows, Tutors, and Lecturers, in the several colleges affiliated to them.

I am not of opinion, that the proposed supervision by the University will be effective.

4—Spheres of influence.—Affiliation should not be extended to institutions which might be provided for by other Universities. I should like to see Universities in Calcutta, Allahabad, Lahore, Bombay, Madras, Rangoon and Colombo, and affiliation confined to colleges at these head-quarters; I should like to see each University have its own local sphere of influence. In Burma, I feel sure, we can begin at once with a teaching University, on sound lines, and do for that Province, what might in 1857 have been done for India.

5—Constitution of Senate.—Senates are too large, and fellowships are too easily bestowed. Members of the Senate and Fellows should be men interested in education, and prepared to work for it, and men with good educational qualifications, and experience. It would be well to have a rule, that requires a member of the Senate to retire, who fail to attend a reasonable number of the meetings to which he is summoned.

I am opposed to election of Fellows; it only leads to very objectionable canvassing.

Fellowships should not be made terminable. If a good man is appointed, the longer he is a Fellow, and the more his experience ripens, the more valuable he is to the University.

The Syndicate.—This body should be a smalllll one, and be composed of men with good educational experience, and of those actually engaged in education. The representation of colleges on it I do not think necessary: a good Syndicate represents the interests of education, and has no concern with the wants of individual colleges. A Syndicate should be independent, subject to the
general control of the Senate; but the latter body should be very careful, before it reverses the decisions of the former. A Syndicate should have a statutory basis.

7—Faculties and Boards of Studies.—I see no reason why every Fellow should be assigned to a Faculty: those on a Faculty should be men of experience, and experts. I should like to see Fellows elected by Faculties, and not by the general body of graduates.

8—Graduates.—But if Fellows are to be elected by the general body of graduates, a register such as the one proposed is very necessary, and it should be kept up to date.

I see no objection to the Universities granting honorary degrees, on recognized teachers and scholars from other Universities; but these honorary degrees should not be made cheap.

9—Students of the University.—The small percentage of passes is due very largely to the fact that—

(a) affiliation is granted too easily, and without consulting Educational Officers;

(b) a sufficiently high standard is not required at the time of affiliation, and no effort is made to have even the low standard maintained;

(c) Colleges, and so-called colleges, are full of students whose attainments, especially in English, are too low to allow of their understanding college lectures;

(d) the teaching staff and equipment of many affiliated colleges, are far below what is required;

(e) in the schools, that prepare boys, in the pre-collegiate stage, there is a want of systematic, gradual teaching, and of that strict promotion, class by class, that is absolutely essential, if good, sound work is to be done — work such as will culminate in fitting a boy to enter on collegiate life. There is a great deal too much laxity in this respect, that can and must be remedied by the several Education Departments, and the Universities working together. Schools that are an injury to sound education, and to sound discipline, should not be recognized; and Education Departments should not only have strict rules for registration, and for determining the grade of a school, but should see that they are carried out;

(f) too easy recognition of schools up to the Entrance standard. The Universities should have strict rules, and firmly adhere to them, and consult the Educational Officers fully before accepting applications for recognition.

I am in favour of an age limit for the Entrance Examination. Where the question of the limit of age for the award of scholarships is concerned, the evidence should be of the clearest. I consider 16 quite young enough for a candidate for the Entrance: entering at this age he can pass the B.A. at 20. A limit such as this tends to secure better grounding during a candidate's school life.

10—University teaching, and 11—Examinations.—It is true, that many students begin their University course without sufficient knowledge of English to profit by the lectures they attend. I attribute this to—

(a) Want of good teaching in the schools.

[I am a strong advocate for boys beginning English, in the form of conversation and composition, from the infant standard, and carrying it on systematically up to the Entrance class. I also urge the institution of a preliminary Examination to the Entrance, in English Reading, Dictation, Conversation and Composition, with a high percentage for passing.]

(b) Schools being registered and affiliated as Anglo-Vernacular schools, that have not a staff competent to teach English.
(c) The style of examination in schools, and in the Entrance Examination, which is based on grammar and text-books, rather than on composition and translation from the Vernacular.

(d) The absence of any test in English pronunciation, conversation and composition, for those who wish to teach English.

On the subject of University teaching, and of the University curriculum, the Educational Syndicate, of Burma, of which I am an ex-officio member, have written so fully in the papers submitted by that body to this Commission, that I need say no more.

I am of opinion, that the vernacular languages of India and Burma should receive recognition in the University curriculum; recognition up to the Entrance only is not enough.

I do not see how, under the circumstances, provision can be made for a School of Theology. It would be a dangerous experiment.

12—Registrar and staff.—I am in favour of a whole-time Registrar. The staff should be well paid, and above suspicion.

13—Affiliated Colleges.—I have already stated my views on this question. The University cannot be too strict in this matter. It is an injury to education and to discipline, and it brings discredit on the University, when University education is undertaken by institutions totally unfit to do so. No High School should be allowed to raise its grade to that of a second grade, or of a first grade college, that has not a thoroughly competent staff, that is not fully equipped with all the necessary apparatus and appliances for teaching, that has not a good library, a good hostel, in which the staff resides, and is not generally in a fit state to undertake the duty. In ascertaining this, the Education Department should be fully consulted. There should be ample guarantee of permanency, and of the maintenance of efficiency; this should be enquired into from time to time. No considerations of any kind but the above, should be allowed to weigh, when questions of recognition, or the continuation of recognition by the University, arise.

A University concerns itself with the promotion of learning, and of scholarship, and not with providing Examinations for public or private service. Any representations made to a University, that the rules it frames, prevent boys from obtaining employment, should be rejected.

JOHN VAN SOMEREN POPE, M.A.,
Director of Public Instruction, Burma,
Fellow of the Calcutta University.

Calcutta;
The 15th March 1902.
Memorandum of the evidence given by Mr. M. Prothero, Director of Public Instruction, Assam.

Ideas of "Free trade in education" and "Non-interference with Private enterprise" ridded to death. Almost any body is sat liberty to start a college or school and get it affiliated or recognized. The risk of starting schools with insufficiently paid and unqualified teachers or schools which will injuriously affect existing institutions is regarded as a secondary matter. At all costs, the fetish of private enterprise in education must be allowed to exert its injurious influence to the full on our educational system. The result is a superabundance of second rate colleges and schools. The pupils of these institutions, being insufficiently prepared, fail in their examinations, and a constant pressure is put upon the governing body of the University to lower the standard.

As an instance of this, I may refer to the difference in Sanskrit requirement for the F.A. and B.A. in the Calcutta and Lahore Universities respectively. The University has—

Behar High School, Bhagalpore.
Bamayangh High English School, Sylhet. (1) uniformly neglected the advice of the local educational authorities.

(2) In affiliating new institutions it does not sufficiently look to their influence on existing institutions.

Educational institutions in the same town are generally too much on the look-out to catch each other tripping on the transfer rules to allow of combined lectures or other forms of co-operation.

Remedy—

To cut down the number of existing institutions and to raise their quality.

Means to do this—

1. Raise the minimum age for Entrance Examination to 15.
2. Raise passmarks in English 33 to 40 per cent. for Entrance.
3. Make the examination more colloquial.

Allahabad has a viva voce in English. It is constantly observed that boys understand English when spoken by a native better than by an Englishman. If a viva voce examination presents difficulties, at least English dictation might be managed.

4. Insist on greater strictness in colleges and schools in giving certificates of fitness to go up for the examination. These are given now much too easily. "A reasonable chance of passing" the examination is a most elastic term.

Some departments, e.g., the Post Office, require the Registrar's receipt for the fee as a certificate of having sat for the examination and as a condition of admission. This swells the crowd of candidates, but many of them have no idea of ever passing the examination. I think the practice of requiring these certificates should be stopped, as it only increases the number of the possessors of the degree of "Entrance Failed."

?M. PROTHERO.

17th March 1902.
MR. NILMONI MOOKERJEE, LATTE PRINCIPAL, SANSKRIT COLLEGE, CALCUTTA.

**Paragraph 2.—Historrical Retrospect.**

1. Puri, Durbanga, Navadwip, Bikramppur, Kalalipara in Jessore, Bhatpara and Mulajore in 24-Perganas are ancient places of learning where Sanskrit is taught gratis and the students generally get free boarding, learning one subject at a time. There are other such places, but they are not so noted.

**Paragraph 3.—Teaching University.**

2. A teaching University is possible, if it should be conducted as far as possible on the lines of indigenous Sanskrit Education as imparted in our tols: (1) lectures on special subjects should be open only to those who go up for the M. A. and other higher examinations; (2) lectures should be free; (3) house and other accommodation should be afforded to the mofussil candidates on cheap terms; (4) some centres should be established for the work of the University Professors and Lecturers, such as Calcutta, Dacca and Bankipore; (5) at present it does not seem to be necessary to form a list of recognized teachers; (6) candidates should be required to attend the lectures to be delivered by University Professors at different centres and it would be not necessary for them to receive instruction from teachers appointed or recognized by the University.

**Paragraph 4.—Sphere of Influence.**

3. Each University should have local jurisdiction, except the Calcutta University which being the premier University should have the privilege of affiliating institutions located within the limits of other Universities, specially institutions located within the jurisdiction of the Allahabad and the Punjab Universities would consider it as an honour to be affiliated by the Calcutta University.

**Paragraph 5.—Constitution: the Senate.**

4. The number of Fellows should be limited to 120, exclusive of ex-officio Fellows and Honorary Fellows. It would be desirable to appoint a number of Honorary Fellows from amongst those who have worked for the University but who are unable to attend its meetings owing to physical incapacity. Fellowships should in future be conferred not as a compliment but on account of distinguished academic or literary qualifications. Fellowships should only be terminable by non-attendance or by the desire of individual members themselves.

There should be a register of graduates higher than the B. A., who should have the power to nominate four qualified persons, out of which one should be appointed a Fellow. To select one out of every such four nominations will, I think, serve as a check on canvassing.

**Paragraph 6.—The Syndicate.**

5. The present number 11 seems to be suitable. Government is adequately represented, but the colleges specially the mofussil colleges are not, and cannot be so represented. I do not think it necessary to place the Syndicate on a Statutory basis.

**Paragraph 7.—Faculties and Boards of Studies.**

6. The rule that every Fellow must be assigned to a Faculty ought to stand or else the position of a Fellow who has no place in a Faculty would be lowered.
No outsider, whether a teacher or a graduate, should have any place in a Faculty. A Board of Studies should consist of members who are specially qualified in a particular subject, for the consideration of which it is constituted. The Faculties are generally equal to the duties assigned to them, but the Boards are not being indiscriminately constituted.

**Paragraph 8.—Graduates.**

7. I have already stated that it is desirable that a register of graduates higher than the B.A. should be formed. Provision should be made for keeping it up-to-date. I think it would be expedient to charge a small fee for such a privilege. The election of Fellows should be by the registered graduates, but not by the Faculties which must be too limited to form an electorate of sufficient strength.

It may lead to confusion and cause disaffection to admit recognized teachers who come from other Universities to the M.A. or other higher degrees of a particular University.

**Paragraph 9.—Students of the University.**

8. There should be test examinations as recommended by the B.A. Committee. In order to see that the colleges do their duty in all respects some high officer of Government or what is better the Registrar should be occasionally deputed. In Calcutta such institution as the University Institute is calculated to foster a genuine University life amongst the graduates. Government ought to promote such societies in other great towns both by advice and pecuniary help. Hostels serve the above purpose to some extent. There should be no age limit fixed for the Entrance Examination.

**Paragraph 10.—University Teaching.**

9. Multiplicity of subjects taught at one and the same time is foreign to the genius of Indian, specially Hindu students. It is the cause of superficiality and it encourages cram. The immemorial custom of the indigenous Sanskrit Pathsalas is to teach one subject at a time and until a student is well grounded in one particular subject, he will not be allowed to take up another. It is not possible, however, in these days of hard struggle for life to follow that practice strictly. A middle course is desirable.

It is necessary to reduce the number and curtail the extent of the different subjects of study prescribed for the University examinations. I begin with the Entrance Examination:

(1) The scope of the Entrance Course in English should be enlarged, and more time found for its study. Speaking in English should be encouraged in the class-room and outside of it as far as possible. That was the practice during pre-University days.

(2) Mathematics should be restricted to Arithmetic, Algebra up to simple equations, and Euclid Book I.

(3) Geography. Only the outlines of the four quarters of the globe with some special knowledge of India are wanted.

(4) History of India only and nothing else included in it.

(5) A second language. The course as simple and small as hitherto with a Sanskrit grammar added to it.

No physical geography and no science primer.

There should be a bifurcation at the F.A. Examination, as is the case with the B.A.

There should be two groups:

(a) (1) English, (2) a second language, (3) History, (4) Logic.

(b) (1) English, (2) Mathematics, (3) (Physics), (4) Chemistry.

B.A. Course as at present.
The study of the vernaculars should be relegated to the schools and there will be ample scope for it under the new scheme of vernacular education. The University should only take cognizance of the vernaculars so far as to allow one of them to be a subject of study by such Entrance and F.A. candidates as intend entering some profession. This privilege may also be given to female candidates as a concession by way of courtesy. None of the vernaculars of India has reached that degree of development and refinement, which would entitle it to be placed on a footing of equality with a classic. A vernacular course, however difficult, might be mastered in a month. The present system of translation, retranslation and essay writing in the vernaculars should be done away with, with regard to those who take up a classic for the second language, inasmuch as they have no time for reading and exercising themselves in the vernaculars. This system has been in existence for many years and I have had some experience as examiner in the working of it. But it has done no good to the student; rather the reverse is the case, as it has had the effect of diverting the attention of students from English and other serious subjects. It would be a retrograde step to abolish or emasculate the study of Sanskrit or other Indian classics for the sake of the vernaculars.

An Indian University without an Indian classic is an absurdity. The culture to be derived from classical studies cannot be compared with what little is obtainable from a vernacular. The educative effect produced by the former far outweighs any difficulty a student experiences to acquire a knowledge of the classics.

I would now speak a word about the study of Sanskrit under the Calcutta University.

Students spend eight years at the least in the study of Sanskrit before they appear at the B. A. Examination; four years in school and four years in college. The system under which they are taught is as bad as that under which they are examined. There is no subject of study in which the crammer and the key-maker are so much in requisition as Sanskrit. Sanskrit is a very elaborate and inflexional language. It cannot be learnt without a grammar; our students do not learn grammar, but get by heart whatever explanations they get from the key-maker. It is very bad that after eight years' study they get a mere superficial knowledge and forget anything they have crammed themselves with as soon as the examination is over. The majority of them pass through the leniency of the examiners. Sanskrit is such a difficult language that one single mistake in the declension of a noun or the conjugation of a verb will vitiate a whole sentence, may, a whole passage. So if the candidates were examined strictly, there would be a higher percentage of failure in Sanskrit than even in English.

I think, therefore, that Sanskrit should be taught as it ought to be. It should be taught with the help of, and along with a good grammar.

Sanskrit grammars written in the vernaculars cannot be prescribed, not only because there are no such good grammars, but specially because no vernacular is co-extensive with the limits of the Calcutta University.

Sanskrit grammar written in English cannot be suitable text-books for our University candidates; for it is difficult to express in English rules of Sanskrit grammar with that degree of precision, completeness, impressiveness and clearness, as is necessary.

The existing grammars written in Sanskrit are, with the exception of Panini, confined to particular localities, and they are all very technical, minute and big-sized. Panini's great grammar is known and read throughout India, and it is the only grammar known to European scholars. But it surpasses all in point of abstruseness, technicality, minuteness and comprehensiveness.

Hence it is desirable that the University should get a Sanskrit grammar prepared by one or two specialists under the supervision of a Committee of experts. The language should be simple Sanskrit, as untechnical as possible, and the book should comprise only general principles of grammar with such
special cases as are in common use. But the explanations should be given in, English.

Such a compilation would supply a want felt by all in teaching Sanskrit and giving the student a real insight into the structure and idiom of the language.

The candidates will begin to learn Sanskrit in right earnest when the system of examination is changed. With regard to this I would make the following suggestions:

1. Two papers should be set in Sanskrit instead of one, as at present.
2. The first paper should have reference to the text only.
3. The second paper should contain questions on grammar and composition, and translation from English into Sanskrit,
4. Equal marks should be assigned to both the papers, i.e., 60 marks to each.

Paragraph 12.—Registrar and Staff.

10. A whole-time Registrar should be appointed, so that he may devote his undivided attention to the increasing work of the University. It is not convenient to wait for the leisure hours of a Registrar, however able and highly placed he may be. A whole-time Registrar would be specially qualified for visiting the colleges and seeing that the rules laid down by the University are strictly obeyed. As an accredited agent of the University he is sure to do things better and his decisions and reports are likely to carry more weight than may be the case with any officer of Government. The staff of the Registrar of the Calcutta University at present seems to be an efficient one, so far as I have been able to judge.

The arrangements made by the Calcutta University for conducting the examinations and publishing the results are unexceptionable.

In conclusion, I would only refer to an opinion which is shared by many experienced and learned gentlemen who take an interest in educational matters.

In the interests of the students as well as of the University, it is thought desirable to pass candidates on the aggregate marks obtained by them, and do away with the minimum. The present system is considered as a two-edged sword which cuts both ways. This important subject is not mentioned in the printed note, but I beg to advert to it by virtue of the permission given in the first paragraph and on account of its great importance.
MR. J. S. ZEMIN, PRINCIPAL, DOVETON COLLEGE.

With reference to the question of the education of the domiciled European community, in so far as that education ought to be regulated so as to lead up to the acquirement of University Degrees, I would begin by saying that all European schools, with a very small minority of exceptions, find it necessary, for various reasons, chiefly financial ones, to regulate their course of studies according to the provisions of the Government European Code system. Now, this system has had a fair trial given to it for something like twenty years, with the result that it has not only not attained the very laudable object with which its well-meaning framers devised it, but it has even given rise to a very widespread feeling of discontent and dissatisfaction with it. To remedy this state of affairs, this Code of Regulations has, from time to time, been subjected to revision; but in spite of the revisions which it has undergone, it is still found to be very defective. The community, through its representative association, has, on various occasions, made representations to Government, concerning the weaknesses and defects of the Code. At the present time, a Conference is being held, under the auspices of Government, to investigate the subject; but it is feared that, as the community has not been allowed a representative at that Conference, many defects in the Code will remain untouched. As this system of education was originally devised with the object of giving the Anglo-Indian community a sound and liberal general education, so that its members might be the better fitted for the various services of the country, and since its object in this matter has proved a failure, seeing that the certificates of qualification granted under the system are not recognised anywhere, either by Government or by private employers of labour, as a sufficient guarantee of a sound and liberal education, the community are now urging that an English public school education with an attached system of recognised English Public School examinations, such as, for example the Cambridge Local examinations, may be substituted in place of the Government Education Code system and its examinations. The Cambridge Local Examinations are now to some extent recognised by the University of Calcutta; and lads who have passed the Cambridge Senior Local examination, are permitted to appear at the F.A. examination of this University. In the Madras University, I understand lads who can produce a certificate showing that they have passed the Cambridge Senior Local examination are permitted to appear at the examination for the Degree of Bachelor of Arts. I am strongly of opinion, after a careful comparison of the E.A. regulations with the educational demands of the Cambridge Senior Local examination, that our University ought to conform with the privilege given by the Madras University. Already La Martinière College, Calcutta, and St. Paul’s School, Darjeeling, are working under the Cambridge Local examinations system, and not under the regulations of the Government Code for European schools, and I am arranging that the Doveton College shall do the same. I learn, too, from the sense of a very large public meeting of the domiciled European community, held in the Dalhousie Institute on the 17th instant, that the community at large is in favour of the abolition of the Code system and its examinations, and the substitution in their place of English Public School education and the Cambridge Local examinations. If the University of Calcutta could see its way to confer the favour of recognising the Cambridge Senior Local examination as the equivalent of the F.A. examination, and the Junior Local as the equivalent of the Entrance examination, it will offer a distinct boon to the whole domiciled community, and will create a new impetus to the acquirement of University degrees, which hitherto have been but meagrely taken advantage of. This lack of attention to the degrees of our University by the Anglo-Indian community is due to two causes: (1) the range of subjects as laid down in the European Education Code and their limitations do not exactly fit in with the range and limitations of the University curriculum. This has the effect of handicapping Anglo-Indian boys more or less, throughout their training, so that when they reach a certain age,—say 16 years,—when that
say, they ought to be ready for Mafat hatriculation they are not as a rule fit for it; and the study much hinders such as are made expressly under the condition that such schools should in all respects conform to the regulations laid down in the Code; and this condition absolutely excludes the majority of European schools from encouraging their pupils to proceed to the University examinations, as nearly all of them would under the Coomoh system. The Cambridge system would, on the other hand, directly lead to the University by easy and imperceptible stages: and if the University would considerer the Senior Local as the equivalent of the F.A. examination, the question of the Anglo-Indian community and University education would be settled. There is another matter in connection with the question of the University education of Anglo-Indian students to which I would like to draw the attention of this Commission. I refer to a standing rule of the University, undiducted which no candidate may take the M.A. degree in English, unless English be his mother-tongue. I fail to see what reason the framers of this rule had for introducing so invidious a limitation—a limitation that has passed with unaided severity on Anglo-Indians, and had the effect of keeping back a number of students from proceeding to M.A.; is it seriously contended that English is too easy a subject for the Anglo-Indian? Over and above paying a doubtful compliment to the sterling literature of England, so vast and so embracing—the objection exists only in fiction. Even granting that English is easy y to the Anglo-Indian, still it is not easier to him than Mathematics to the mathematician, or Latin to the linguist, or History to the historian; but while these latter are allowed to prepare themselves in what is their forte, it is the Anglo-Indian alone who may not prepare for the examination with equal liberty to take up his pet subject. The strange part of the matter is that these same students are permitted to take hours in English at the B.A. examination; it therefore seems all the more inconsistent and absurd to cut short their study in the language by an arbitrary ruling, in order to force them to another subject, not half so inviting, and in which they have a better chance of excelling. It has been ascertained that other universities in India have no such absurd limitation. I therefore think the University should recognise these considerations, and remove the qualification frivolously imposed, for no argument can support it.

With regard to the obtaining of a university education for the highest examinations of the University a teaching university would be advantageous. This would be a cautious beginning, and present the smallest number of practical difficulties. Its extension to other examinations may be considered hereafter in view of any success that may achieve. With the many hostels now in the city it would not be a difficult matter to secure for students who are candidates for the higher examination to reside in Calcutta and pursue their studies under professors and lecturers appointed by the University. The colleges that now maintain for examination classes would find themselves liberated from an abnormal output of students and financial expense, both of which may with better reason be applied to the strengthening of the F.A. and B.A. classes.

I am of opinion that it is both possible and expedient to form a list of recognised teachers. Eligibility for enrolment in this list would be determined by high qualifications both academic and professional. Of course the compilation of the first list would be a matter of some little delicacy, as the interests of existing professors and lecturers would have to be safeguarded; but the difficulty would no in my opinion be insurmountable. If such a register were opened it would follow that candidididitates for degrees would receive instruction from teachers appointed and recognised by the University.

I do not deem necessary the influence of each University should be circumscribed or that each should have a distinct sphere of influence. Unless it can be clearly shown that the existing arrangement has been productive of inconvenience or harm I would not recommend any change in this respect.
Regarding the number of Fellows: comprising the Senate, it appears to me that the whole material whether it be large or small for the experience everywhere is that eventually the actual work of any committee concentrates into the hands of a few. Leisure, ability, and inclination must combine before a working member is produced. It is not to be expected that every member of the Senate will possess the three qualifications, and the absence of any of them is sufficient to counteract the presence of others. In all future selection of Fellows care should be taken to discover whether necessary qualifications exist. A Fellowship ought in no case to be conferred as a matter of personal compliment; but there seems to be no reason why eminent members of the learned profession who are not engaged in academic teaching should not be admissible as Fellows. With regard to the existing Senate, I think that a judicious weeding out may with advantage be initiated, whereby habitual non-attendance at meetings and well-established indifference to University work should be considered sufficient reason for withdrawal of Fellowships where these have already been conferred. I would add that Fellowships conferred for life and not for a term of years except in cases where attendance at meetings and lapse of interest in the working of the University well-established. In the interest of all first grade colleges and for their benefit I deem it expedient that the number of Fellows should be made convenient for them to attend a certain number of meetings of the Senate annually. The election of Fellows by graduates of the University should be discontinued, as the system does not safeguard the interests of minorities, and the canvassing which attends such elections does not ensure the return of the best candidates. By the interests of minorities I mean the present system of election by graduates an Anglo-Indian candidate or a Muhammadan candidate stands no chance of being elected. The reasons I would also deplore the election of Fellows by the Senate, which leaves all elections to Fellowships in the hands of the Government as at present.

I am not for any change in the constitution of the Senate. I far prefer the Syndicate elected by the Senate to one constituted by a committee. I think though that the term of tenure of office may with advantage be extended to two or three years.

On the whole the Faculties and the Boards of studies, as at present constituted, are equal to the duties assigned to them; but there is no reason why they should not benefit by the assistance of teachers and guides who have distinguished themselves in the special subject of any Faculty.

In the F.A. and B.A. examinations, in addition to the minimum percentage of attendance at college lectures, college authorities should be asked to certify that there is in their opinion a reasonable cause of each candidate passing his examination. The University should hold annual examinations being held in the First and Third Year classes and one examination in the Second and Fourth Year classes, to decide the promotion or re-promotion as the case may be.

With regard to the fixing of a minimum age limit for the Entrance examination I have no hesitation in saying that it is most desirable that such an age limit should be fixed but I am more than a doubtful whether under existing circumstances any useful purpose would be served by a limit, inasmuch as there are no means of obtaining irrefutable evidence of the age of Indian students. The only persons whom such a limitation would affect would be Anglo-Indian students, who would be looked upon it as a hardship.

In the matter of the standard of qualification in English to secure a pass at the Entrance examination, I have no hesititation in saying that some radical change is imperatively called for. There is is no doubt that few who pass the Entrance examination have a sufficient knowledge of English to understand the text-books in that subject appointed for the F.A. examination or to follow
the lectures delivered on an inclusive various subjects comprising the F.A. course. In order that a uniform standard may be observed in all schools, it is expedient to retain a text-book; but I think that in the examination itself an undue advantage is given to the prescribed selection by these being assigned to answers on the text-book, 1200 out of 200. I would equalise the values of the two papers, make it compulsory to pass in each paper, and make 40 per cent. the minimum pass marks in each of the papers, instead of 33 per cent. on both papers together as at present. If this be thought too severe, as probably it will, then perhaps it would be possible to devise a preliminary Entrance a few days in advance of the main examination; and all those who would fail to pass in simple dictation and a few lines of original composition should be ruthlessly rejected. But whatever be the way in which it is carried out, there can be no doubt whatever that the examination in English as at present conducted is a farce, a pure and simple.

The subjects of History and Geography have attained almost unmanageable proportions in the course for the Entrance examination; for it comprises no less than six books. Not infrequently, too, the language in which the Histories have been written has been one the whole higher than the standard of the English text-book, with the result that the Histories have been for the most part unintelligible to Entrance students. The result is that these have recourse to handbooks and guides, and the knowledge of History with which they appear at the Entrance examination may fairly be represented as the temporary memorising of disconnected facts. When it is remembered that in his subsequent University career a student may take the highest degree of the University, without ever again touching upon English and Indian History, it seems disastrous that he should go thorough life furnished only with such fragments of English and Indian History as he memorised for the Entrance examination. I would advise that in the English course of the F.A. and B.A. examinations, histories of literary merit should yearly be prescribed. An adequate knowledge of these histories of these countries would tend to create a loyal and contented septic. Meanwhile the scope of the subject in the Entrance examination should be contracted and such text-books should be appointed as the average student may understand for himself.

The present rules of affiliation afford sufficient guarantee that colleges are up to the mark at the time of affiliation, but there seems to be no means whereby they may be kept up to the mark after affiliation. With this view a regular system of visitation and inspection of colleges should be undertaken by the University.
F Pāra 1. Historical Retrospect:

Before the introduction of English Education in Bengal, the Pandits, Maulavis and Munsils had the entire high education of the country in their hands. The Pandits taught the Brahmanas, Vaidyas, Varna Brahmanas and Jogis. They imparted knowledge of Sanskrit Grammar, Literature, Law, Philosophy, Medicine and Astronomy. Some Kayastha families learnt Sanskrit but they confined their attention to literature done. The majority of the Kayasthas, however, with a few Brahman families received their education in Persian from Munsils who were either Kayasthas or Mahomedans. The Maulavis imparted education in Arabic to Mahomedans only. Very few Hindus learnt Arabic. Wherever there was a large Brahmana or Vaidya population there were tols taught by Pandits, each Pandit confining his attention to one subject only. The Pandits received no fees from their pupils whom they gave free lodging and boarding at their own houses. They depended for their livelihood on honorarium received from wealthy and well-to-do people who invited them at their houses a shraddha at the consecration of tanks and temples, and at religious ceremonies and festive occasions, and from rent-free lands which used to be freely bestowed by the Mahomedan and Hindu governments; but such grant of land has been stopped at present. The number of tols at any locality varied according to the strength of the higher classes in it.

The condition of Sanskrit education in Bengal about the year 1835 is given though not fully, in Adam's report on Vernacular education in Bengal, in which the names of leading Pandits are given, district by district, with much interesting information about the timber tols or colleges. There were tols almost in every large village.

Every pandit who had received a title had the power of conferring a title and unless one had a title one had no right to entertain students. Titles were conferred after an examination. This was known.
as the Salākā parikṣā, examination at the point of the needle. A MS. used to be brought before: an assembly of Pandits and a needle passed through the MS. The first page not pierced through by the needle used to be given to the student and he had to explain it and questions used to be asked by the assembled Pandits on the subject-matter of that page. If the student acquitted himself well, he obtained a title from his teacher and the title was recognized by the assembly. But no one had a right to a title unless and until he finished the usual and traditional course of studies prescribed in the subject he had taken up.

Latterly, however, the Examination at the point of the needle was discontinued and a student who did well in disputations and who finished his course of studies had a title conferred on him.

The student received his tuition free and his board and lodging free; but at the conference of a title he had some expenses to undergo. He had to invite a number of Pandits at his teacher’s place on the occasion, feed them at his own expense and pay them a small honorarium from his own pocket.

But a change came over the spirit of Education from the year 1858. The establishment of the Calcutta University introduced High Education in English, and the facilities for getting appointments under the State and for entering learned professions afforded to students who received English education soon made English education popular in the country. The tos were deserted and English Colleges and Schools flourished. In the immediate neighbourhood of English Colleges, tos were completely stamped out; but they still flourished in the outlying districts.

The University was, in the beginning, very unwilling to recognise Sanskrit as a part of general culture, but after a decade or so, however, it recognised Sanskrit as a second language for the generality of students, for it was thought that the Education of a Hindu gentleman could never be said to be complete without some knowledge of Sanskrit Literature and of ancient Indian life.

The institution of the Sanskrit Title Examination in 1881, and the first and second Sanskrit Examinations later on revealed the great demand for Sanskrit Education, that there still existed in the country. In the three examinations in the present year, there have appeared nearly 4000
Students from the various parts of the territory under the government of Bengal, and it is expected that the number will go on increasing. It would not be out of place to state here that the bulk of these candidates come from families who formed the old gentry of the land with gentlemanly instincts fully developed and who are inspired for generations by a thirst of knowledge for its own sake. They have not yet learnt to value knowledge for the pecuniary return that it brings to them. For, if they did so, they would not have flocked to tods to receive an education which opens no career for them in life.

Other Provinces also have instituted similar examinations. In the Punjab, the University has undertaken it, but not with much success. In 1898 the proposal of an Oriental Faculty was vetoed by the Senate of the Madras University. In the North-western Provinces, the examinations under the auspices of the local Government are gradually gaining in popularity.

The ancient places of learning are known as 'Samajas'. A Samaja is not confined to a single town or city; because the Pandits were averse to costly city life. They lived in villages, on their own rent-free lands and taught their pupils at their own houses. The number of pupils varied according to the learning and reputation of the Pandit. Communication was difficult in those days, hence villages, which could be easily communicated with, formed into a Samaja. The Samajas in the neighbourhood of Calcutta have disappeared. Bhatparah is the only place in that neighbourhood where there are some Pandits, very learned in their respective subjects. But at a distance from Calcutta the Samajas still hold on, though English education has greatly encroached upon the sphere of their influence and usefulness. Of the Samajas, Navaadvipa is still the largest and the most respected. It includes within its sphere of influence the tods of Burdwan, Nadia and a part of Hooghly. The Moorshidabad samaja includes the district of Moorshidabad and the neighbouring sub-divisions of other districts. Bikrampur samaja includes Dacca and parts of Faridpur and Maimenshing. Bakla samaja includes nearly the whole of Barisal. Kotalipad samaja includes the southern parts of Faridpore, Durbhanga samaja includes the districts of Muzafur-
pore, Durbhanga and parts of Motihari. Khanakul-
krishnagar samaja includes parts of Hooghly, Howrah
and Midnapore. Khanbeida samaja, famous for its
astronomers, includes the greater part of Midnapore.
Bishnupore samaja includes Bankura and Birbhum-
Bhagalpur, Patna, Cuttack, Puri and Balesore have
also their samajas. Comilla is a Samaja which in-
cludes Tipperah and part of Noakhali. But all these
samajas recognized Navadwipa as the greatest
samaja and students after completing their tradi-
tional course of studies often came to Navadwipa to
receive the last finish in their education there. Such
was the large concourse of students who flocked
there that the Pandits were not in a position to feed
them and they had to live at their own cost and a
money grant was made by the Muhammadan Govern-
ment to help the students.

There were some families, however, who would
never send their students to Navadwipa and to one
of these the present witness has the honour to belong
and his ancestors had the entire Nyāya education of
24 Parganas, Hugli, Howrah, Khulna and Jessore in
their hands. The Samaja to which they belonged has
completely disappeared.

Since the establishment of the University, however,
several opulent Hindu noblemen have endowed
various colleges for Sanskrit learning. Of these the
Tagore College at Moolajore is doing excellent
work; the Raj tol at Burdwan and the Arnakali tol
at Moorshidabad support a large number of Pandits
and pupils. The Viswanath tol at Chinsurah support-
ed by a large legacy left by the late Babu Bhudev
Mukerjee is a flourishing institution.

Para 3. Teaching University.

How the University can undertake the teaching of
thousands of students distributed over a vast area is
a problem which does not admit of an easy solution.
In a city like Calcutta the University might found
chairs for Science:—Chemistry, Physics, Botany,
Geology and so on, with extensive laboratories and
impart practical instruction under its own super-
vision. It may also found chairs for such subjects
the teaching of which will not be undertaken by other
colleges, for instance a chair for Pali, Greek or
Latin. But these chairs will benefit Calcutta only.
The colleges at a distance from Calcutta will derive
no benefit by the foundation of these chairs. Will
the university have funds enough to found chairs at
every great centre of education? If may, however,
appoint peripatetic professors who in a term will lecture at five different centres.

In an area so vast as come under the influence of the Calcutta University, the drawing up of a list of recognised teachers is beset with great difficulties. In certain subjects the list may with some care be prepared from the successful lists of Doctors or Masters in that subject. But in oriental languages there will always be in the country a very large number of men better qualified than the masters and doctors of the university in oriental languages. To exclude such men would be cruel, to include them will make the list too unwieldy. In scientific subjects alone such a list would be of great value.

Para 4. Spheres of influence.

For administrative purposes it is better to fix local limits within which the Universities may be authorised to affiliate institutions. It is inconvenient and expensive to open centres at distant places for a small number of candidates.

If the Universities are to be constituted on the same principle and if they are to teach the same subjects in the same way there is no necessity for going beyond local limits, but if one University is to distinguish itself in Science, another in Philosophy and the third in Linguistic studies, overlapping influence becomes not only desirable but necessary.


The number of fellows in the Senate should be limited. Considering the vast number of subjects taught in the various colleges affiliated to the University and the fleeting character of its European members, the number should be a little more than hundred; hundred and fifty will not be considered as too large. A much higher standard of qualification should be prescribed for appointments as fellows, and fellows should be made to vacate their seats for continued non-attendance.

The present method of election is defective. It gives every M. A. a voice at the elections, the consequence is, that junior votes swamp the senior votes. An electorate may be formed from amongst recognised teachers and graduates of some standing.

The tenure of fellowship should on no account be made terminable. Making a fellowship terminable means to turn out a learned man from the Senate when he is just becoming useful. It may be said that a useful man may be re-elected, but there is an even chance of his not being re-elected. A

The number of the members of the syndicate as fixed at present seems to be adequate. The government and the colleges at present are not adequately represented. The Director should be ex-officio Member of the Syndicate though the Director has always been elected, yet he should not depend for his seat in the syndicate on the good sense of the fellows. Two at least of the Syndics in Art should be representatives of the colleges. It is not desirable to place the Syndicate on a statutory basis.

Para 7. Faculties and Boards of Studies.

The present constitution of the Faculty is faulty. Members of the Senate only can be members of the Faculty. The Art Faculty is composed of 149 fellows. A matter is decided in the Faculty. The same matter comes on for discussion at the Senate. All the members of the Faculty attend with a few lawyers and medical men in addition. The same debate takes place twice over. This is sheer waste of time. If the electorate as proposed in Para. 6 be constituted into a Faculty, this difficulty may be obviated. The electorate will have a voice in the University and thus a healthy public opinion will be created.

The constitution of the Boards is faulty. No special qualification is required for a seat on a Board and as a matter of course expert votes are often swamped by non-expert votes. This difficulty may be obviated by fixing a qualification for a seat in each Board.


A register of Graduates is necessary, if the electorate as proposed in Para 6 is to be formed. There is no harm in conferring the M. A. or other suitable degree on recognised teachers who come from other Universities. I will propose to extend this concession even to Oriental scholars who would be recognised teachers.

Para 9. Students of the University.

No age limit should be prescribed for candidates for Entrance Examination.


The value of University teaching has greatly deteriorated for want of written exercises. The professors lecture, the students take the notes down, learn them by rote, and attempt to pass. Not a single exercise is given in a term: In some Colleges there are annual examinations held, in others, they
are not held. So at the examination hall the students are at a fix. Some of them do not know how to express their ideas in decent language and their spelling is awfully bad. All this is owing to the want of habit of writing.

The value of University teaching has much deteriorated owing to the fact that superior men find much better prospects in other departments of Government and other walks of life, and the teaching staff is composed of poorly paid and therefore generally second class men. The consequence is they cannot make the subject interesting to the students. They cannot lead the students to self-help by showing the way and by explaining the principle and thus trying to develop their minds. What they try to do is to give to the students ready-made notes too be taken by role. These are the two crying defects of the University teaching.

**English**—At schools students get exercises which are corrected and returned by the masters. At schools students do keep up the habit of writing. If that habit be kept up at College, it would be all right. But as a rule, it is not kept up and students at Colleges deteriorate and they generally forget what English they learnt at school.

There are two remedies for this: one is easy but not feasible; and the other feasible but hard to apply. One is that the medium of instruction should be the Vernacular of the province—A natural remedy and an easy remedy; but not feasible under the peculiar circumstances of the country at present and under the low condition of scientific education. Scientific instruction will for a long time to come have to be imparted in English.

The other remedy in raising the standard of efficiency in English teaching at schools and making exercises compulsory in Colleges. Higher percentage of marks should be demanded for passes in the Entrance. But in that case the complexity and multiplicity of subjects for that examination will have to be greatly simplified.

**Sanskrit**—The education of a Hindu gentleman cannot be said to be complete without some knowledge of Sanskrit literature, so all Hindus should study Sanskrit literature, if the University aims at training up gentlemen and not merely scholars and professional men. That Sanskrit need not be very critical. The students must learn the grammar of some language very carefully; viz, either of English
or of their own vernacular. It would be easy to teach Sanskrit grammar by simply pointing out the differences of the Sanskrit grammar from these. Sanskrit grammar scare away students; but professors insist upon Sanskrit grammar being critically taught. But for men who are not to be Sanskrit scholars but are to receive a liberal education, such insistence is pernicious. In my own experience I have seen Sanskrit grammar made interesting to students by the method of pointing out differences and these students can read and understand Sanskrit very well. University does not aim at creating a body of Sanskrit writers. But unfortunately the low pay attached generally to Sanskrit professorships does not generally attract first rate men and the method of teaching is dull, uninteresting and traditional.

Sanskrit is necessary for the critical study of the Vernacular and for this purpose first class Sanskrit men in India are required. The comparative philology of Indian languages is engaging the attention of Indian scholars and some of their researches in this department of knowledge are of great value. They are preparing indices of old books, grouping words according to their origin and examining their grammatical structure. H. H. the Lieutenant-Governor of Bengal said in his annual address for 1900 at the Asiatic Society, Bengal, that oriental research was the property of Europeans at the beginning of this century but at the end of the century it is the property of native scholars.

There should be three distinct classes of Sanskrit men in India. (1) Indigenous Pandits who would study Sanskrit without English for the purposes of religion, philosophy, Hindu law, rituals and so on. (2) The Hindu students of the University who are to study Hindu Poetry, Hindu History and the ancient Hindu life in India along with English. (3) A body of experts who would study Sanskrit and English at the same breath, be engaged in Higher class of teaching, conduct researches in archaeology, antiquities and ancient literature of India and be, generally speaking, interpreters of European thoughts to the Pandits and ancient Indian thought to Europeans. For the first, there are ample materials in the country and the Government examinations have in several Provinces afford an organization for testing the value of the education imparted by Pandits. For the second, the University is to make arrangements. The present method of teaching Sanskrit is,
however, susceptible of much improvement. For the third too, the University is responsible. But there is only one College in all India where this can be successfully done, namely, the Calcutta Government Sanskrit College where students learn Sanskrit from their early infancy along with English and pass the University examinations along with a number of Sanskrit examinations in various subjects. These are required to study Sanskrit critically with grammar, philology etc.

The vernaculars need not be taught at Colleges; and ample provisions are being made for their teaching at schools but the college student should be encouraged to study Vernacular literature at home. There is an optional paper on original composition in the Vernacular in the F.A. and B.A. now; but this should be made compulsory and the candidates should be examined in the history of their Literature in another paper. If these two papers be made compulsory, they will learn to express their thoughts in one language properly and if they succeed in doing so they will not so greatly blunder in expressing their thoughts in English. A taste for the study of the vernaculars has grown up of late years. And the History of almost all the great vernacular Literatures have been written. Hindi, Bengali, Marathi and Tamil have the history of their Literature written by men who devoted themselves to the work.

History, Political Economy and Geography:— There are few colleges in which these are properly taught. The few instances in which history is taught, it is taught in a method which is at once dull, uninteresting and traditional. Voluminous notes are given. The students are not explained the Principles and encouraged to work out the details themselves. In Political Economy Indian practical problems are rarely touched upon. Geography is not taught in Colleges at all.

If a school of Theology is to be established, who are to be the professors and whom is it intended to teach? Professors of any pursuasion will be looked upon with suspicion by the people of all other pursuasions. The object of the University will be defeated. So it is much better to leave the investigation of the great problems of comparative religion to those deep-read scholars both in Europe and India who are above theologian’s bias.

The scope of the University has become so large and its popularity and influence are so great and its
benefits are so varied that it is high time that a permanent body of examiners be appointed whose whole time should be devoted to examining. Now-a-days a vast concourse of students assemble at one season. They are examined. Heaps of papers are collected. They are distributed to examiners good, bad and indifferent, young, old, middle-aged, and in 30 or 40 days the vast heap is examined. Let the University safe guard itself any way it likes, standard of examination must vary in different persons. There is a list indeed of examiners but what is wanted is that veteran old teachers should be made examiners and the examiners should continue their work all the year round. Let examinations be held every quarter or even every two months. There will be a small number of papers to examine but always some papers to examine and the Standard of examination will remain the same.
MEMORANDUM of Mr. J. Chaudhuri's evidence before the Universities Commission.

I had just joined Oxford when Mr. Gladstone came there to deliver the first Romanes lecture. Speaking of universities he compared them to seed-beds and by contrast I said to myself what a hot-house I had come out of. The more I got used to the life and surroundings at the English universities, the more I became convinced that the highly artificial system of examination and training that obtains in our universities here is not at all conducive to the healthy development of the body or mind. We are forced to such an extent while we are at the universities here that the strain caused on us by the mixed and miscellaneous character of our examinations, causes a great many of us to fall off. Even those that get through them generally languish and wither both physically and mentally after they come out of the university hot-house. Of course, I am not disregarding the fact that the want of adequate or suitable post-graduate opportunities is at least as much responsible for this result as the faulty system of our university training and the oppressive character of our examinations.

If the object of university education be the formation of character and the development of mind, then I submit that our present universities cannot in the proper sense be said to pay any heed to either. I have come here not merely to criticise. I have attempted to formulate, within the short time at my disposal, the outlines of a scheme under which I believe the Calcutta University can be converted into a teaching university, if not at once, certainly, in the course of a few years.

My scheme chiefly relates to two questions. (1) How to convert this university into a residential university. (2) How to convert it into a teaching university.

As regards the first question I quite believe that it is possible to convert it, in a manner, into a residential university.
The method that I would recommend is practically the same as obtains in Oxford and Cambridge with regard to lodging-houses with necessary modifications to adapt the system to the requirements of this country. The university should have a sort of Lodging House Board or Delegacy as there is at Oxford.

All the students lodging-houses should be licensed from this department of the university, and must satisfy the conditions that may be imposed by the university on this behalf. No student, with the exception of those who may live with members of their family or with their guardian or a recognised tutor, should be allowed to live in other than the licensed lodging-houses. Every college at Oxford or Cambridge has to provide and look after the arrangements for the accommodation, board and lodging of the undergraduates, mostly in the college premises. I therefore see no reason why each of the colleges here should not undertake similar work and arrange for the keeping of some licensed lodging-houses under the supervision and control of the university. Each of the licensed lodging-houses so kept by the colleges may be placed under the supervision of a tutor or a recognised graduate who may live with the students. As regards Government colleges or colleges aided and controlled by Government, the hostels attached to them should also be placed under similar supervision and control.

It would cause no hardship to the private colleges to keep some licensed lodging-houses attached to their establishment. As it is, the students live and mess together and run such lodging-houses on their own account. If the colleges arrange for them directly or through their tutors they would not certainly be losers. I expect that if the colleges have to make arrangements in this way they will be able to manage matters more economically or at any rate better. This will in the first place save the students a great deal of worry and necessarily more time will be available to them for study. In the next place if these lodging-houses are kept under sanitary conditions the university will gain the object which they are now attempting to attain by prescribing a text-book on sanitary science in the F. A. Examination. Then it will enable the colleges to
exercise supervision and control in the matter of studies and morals of the under-graduates placed under their care.

The colleges here may by such means be made to undertake to a certain extent the duties of a college tutor at Oxford or Cambridge.

I also consider it quite practicable to convert our university into a teaching university.

It will of course require some expenditure of money on the part of the Government. But it will not be in any sense excessive considering the advantages that may be gained by it.

Before however we can convert our university into a teaching university we must first settle what we propose to teach our boys. If we persevere in our determination that every young man who wants to pass through the portals of our university must know something of everything and nothing much to his own liking, it will never be possible to convert our university into a teaching body.

There can be no sense in retaining two successive examinations of the mixed and miscellaneous character as the Entrance and the First Examination in Arts; I know of no English university which insists on two compulsory examinations of the above type. Raise the standard and the age limit of the Entrance Examination if you will, but the F. A. Examination should be dismantled from its present basis. If a man wants to study medicine, history, literature and I can name many more subjects, why should you insist on his passing a simultaneous examination in modern geometry, conic sections, algebra up to the binomial theorem, trigonometry up to the solution of triangles and a host of other subjects thrown in his way only to retard his progress in the subject of his choice. If you insist on an elementary knowledge of mathematics, physical science and chemistry in every under-graduate before you admit him to the university, you may recast your entrance standard somewhat on the lines of the London matriculation. But when you are satisfied about his general qualifications or his capacity for acquiring mixed qualifications, let him choose a particular department of study and acquire, if possible, some proficiency in
Those who wish to study history, law, physical or the natural sciences, medicine or mathematics or mental or moral philosophy, are never hampered at any of the English universities with an examination of such a miscellaneous character as the First Examination in Arts. After their Matriculation, Responsions or the Little Go, as the case may be, students at the English universities may confine themselves to a particular subject or subjects of an allied group, in which they propose to take their degree. Let the First Examination in Arts be in its true sense a first or preliminary examination and let its object be to ascertain the progress or proficiency that an undergraduate is acquiring in the subject of his choice.

If the F. A. Examination is simplified in this manner it will be possible to adopt a system of university teaching and inter-collegiate instruction.

The F. A. classes are the biggest classes at our colleges. I remember that I had at one time under me about 340 students in the 1st year class at the Metropolitan Institution and about 300 in the second year class, each divided into two sections. Imagine that each of these 600 students or more had to be taught each of the seven different subjects in which they had to offer themselves for examination. Supposing if some system of bifurcation of studies were adopted on an undergraduate entering a college after passing the university matriculation, some would at once take up the science course, some the art course and this will give each greater opportunities in acquiring proficiency in the subjects of his choice and will also cause the college class-rooms or lecture-halls to be less congested than they are at present. The teachers will necessarily be able to pay more personal attention to individual students. The colleges may have to keep a smaller staff or with the same staff would manage matters better.

The bifurcation system if adopted immediately after the Entrance Examination will also lessen the strain and fatigue on the students to a considerable extent. They will no longer be required to attend congested class-rooms daily for five hours at a stretch and to devote all their spare hours at home in getting up notes, keys, epitomes and text-books, with the sole
object of answering the likely questions at the dreaded examinations.

As a preliminary step towards making our university a teaching university I shall not only do away with the miscellaneous character of the First Arts Examination but also with text-books as well. The university should prescribe only the subjects and never any text-books. The college tutor will tell the undergraduate what to read and how to work up his subject. This will to a great extent put a restraint on the noxious trade in keys and cram-books that are eating into the vitals of our undergraduates. Now that an undergraduate has got to score a certain percentage of marks in more than half a dozen subjects, the average student only cares to get a smattering in each out of his cram-books or lecture-notes of the same character. Those who possess a comprehensive memory do better than others. I have known instances where students with a poor memory but with clear understanding and a natural aptitude for literary or scientific subjects have had to lag behind or fall off in the memory race on which our university at present insists.

To avoid the evils of the present system it will not do simply to rationalize the examinations. It will be necessary further to alter the method of our examinations. The papers set are too long. Option should be given to the students in respect of the questions and a limitation put as to the maximum number to be attempted. The present system of marking must also be altered. The qualitative system of marking in respect of each question and determining the class thereby is preferable to our system of marking by numerals and ascertaining the class or pass, as the case may be, on the total number of marks scored on the basis of the number of questions answered. The Edinburgh system is even better. Edinburgh is a teaching University, even more so than, perhaps, any other university in the United Kingdom. There undergraduates have to attend the university lectures. The professor in the course of his lectures sets papers and examines the answers. The records of results at these class examinations are kept at the university as also
those of the intermediate degree examinations—in which so far as I am aware there are no classes or divisions—and then the result of the final degree examination is taken into consideration along with the results of the class examinations, the preliminary degree examinations and the honours or the class is determined on the net result.

Before I leave the question of examinations I would say that I would retain English composition as a compulsory subject in both the art and the science courses but would allow the students to offer themselves for examination on this subject all by itself. I would also allow students to offer some of the other subjects separately and not always simultaneously as is the practice now.

Provided the examinations and method of holding them can be rationalised and the residential system introduced, it will be practicable to reconstitute our university into a teaching body. It would be possible then to arrange for tutorial supervision and guidance in colleges in respect of students’ private studies and also to arrange for intercollegiate as also university lectures. Of the existing staff in the colleges I would retain so much as may be necessary for tutorial supervision and college lectures. Then I would have university chairs filled by some eminent men in each department of study.

The whole of the college staff need not be recognised teachers. But I would insist on every college having among its staff some recognised teachers as lecturers on subjects to which they propose to pay special attention or in respect of which they hold class-rooms. For instance, if a college professes to teach chemistry or physics the Board of studies of the University should insist as much on their having a recognised teacher as on their having a laboratory. If on the other hand some one or other college proposes to pay special attention to mathematics, sanskrit, classical literature, philosophy, history, law or science, I should insist on their having qualified and recognised teachers of such subjects and also on their having a suitable library and in some cases laboratory as well.
Under a more rational system of studies no college would have to maintain a staff for teaching all the subjects under the sun. Particular colleges which would prefer particular subject or subjects should offer special facilities to students in such branches of study. They would in their own interest be anxious to engage the best men available to teach such subjects and would not therefore be reluctant to engage well qualified and recognised teachers. But the university will have to make suitable arrangements for the training of teachers.

Even a subject like mathematics cannot, however, be taught at any college to the greatest advantage to its students by retaining on its staff only one very efficient teacher of the subject. A mathematical man attached to the staff of any particular college may be very good in pure mathematics but may not be equally efficient to teach mixed mathematics. A history lecturer at one college may be very good in modern history and another man in another college may have made ancient history his speciality. The same may be said with regard to philosophy, physical and natural sciences, chemistry, Sanskrit or other classical literature, &c. Here it is where the intercollegiate system of teaching comes in. The existing colleges need not under this system be jealous of each other or treat each other as rivals but on the contrary will find it to their advantage to carry on their work on the principle of mutual help. If a certain college allows the students of other colleges to attend its lectures or classes in any particular subject or subjects, the other colleges are bound to reciprocate. Of course the university will have to arrange about the intercollegiate lectures as they do at Oxford or Cambridge.

But I would not limit the educative agency of the university to merely private tutorial supervision in the colleges or to an intercollegiate system of lectures. Besides the recognised and well qualified staff of teachers or lecturers attached to a college staff I would have a staff of very efficient university professors. I shall create some university chairs and fill them with the best men available, no matter from where I get them. These chairs will be meant for
maintaining the high water mark in the intellectual life of the university. The lectures of such professors will be the common property of all the colleges in the university. The tutorial staff in each college will have to regulate who among the students are to attend such lectures at a particular period of their career.

As regards intercollegiate or university system of lectures it might be objected that the mofussil colleges offer an obstacle to the adoption of such a system of teaching. But, I submit, that they need not. They might be drawn into the system by a system of extension lectures. The university professors may at specified periods visit the different college centres and deliver a course of lectures. Or if colleges such as the Patna, Dacca, Krishnagur, Hooghly, Rajshahy and others, possess some very efficient men they may be made occasionally to come and deliver a course of lectures at Calcutta. Professors or lecturers from any of the Calcutta colleges may be invited or persuaded by the university to visit the different college centres and to deliver a course of lectures in the same way. If regard be had to the fact that the system I propose discards cram altogether and proposes to introduce in its place education under a system of guidance by efficient and eminent men, an itinerary system of lectures must form an integral part of it and will be highly educative in its result. A visit by Prof. J. C. Bose to Dacca or any mofussil town and a few lectures by him on his researches would rouse enthusiasm amongst the students and produce an attraction for the study of science or an attachment to the subject amongst those who are already studying it and this is bound to produce very far-reaching consequences.

For instance, when a man like Gladstone or Huxley came to deliver a lecture at Oxford or when Max Müller visited Cambridge with a similar object the undergraduates for a term would not talk of anything else. They would discuss, criticise or even dissect their lectures. They may be right or wrong, that matters little, but such lectures by eminent men at university or college centres impart an intellectual stimulus to the students, teach boys to think for themselves, help them to develope
their ideas and benefit them in various other ways.

The chief educative influence at Oxford comprises in the conditions of university life there. The undergraduates are not supposed to read English literature but they form themselves into societies and read papers on the life and work of English authors both great and small. In the same way they discuss and keep themselves abreast of current intellectual, moral and social movements. This is to a great extent due to their having eminent men amongst them as professors; although these professors do not ordinarily teach, yet they create an atmosphere in which youthful minds thrive. Even in Edinburgh where the university life is very different from what it is at Oxford or Cambridge, the atmosphere that surrounds a professor and his lecture-room furnishes a much stronger stimulus to learning than anything similar that I know of in this country.

The private colleges are doing on the whole very useful work. They are not as a rule profitable concerns. The proprietors or the college staff get only their living wages by the very hard work they have got to do in their connection. As, at present, it is beyond the means of such colleges to make provision for well-equipped laboratories or libraries or to found highly paid chairs, I would convert the Presidency College into a department of the University. It will be necessary to alter the existing arrangements radically for such a purpose. The hostel with a tutorial body may be kept as a model college. But the laboratories, libraries, the lecture-rooms will have to be reconstituted to answer the requirements of the whole university. By university we at present understand only an examining office. But when a well-equipped laboratory, a library, a museum, a course of lectures from eminent men will be the common property of all the university undergraduates there will be greater facilities for teaching and opportunities for learning amongst them.

Besides museums, libraries and laboratories the university should also found post-graduate paid fellowships and travelling scholarships tenable for a number of years. Those who may be en-
titled to them may work under university professors here or go abroad. If they shew any special aptitude for original work or research they may be given opportunities for continuing the same.

It cannot be expected that every student who passes through the university will be a scholar. For the average student the university ought not to insist on more than general culture in the particular department of his study. But at the same time the university should offer opportunities to those who possess both the capacity and desire of becoming specialists of obtaining a thorough grounding for the same in the course of their university career.

Under the system I propose, the students, after attending two or three lectures a day, will have time to work in the libraries or the laboratories under the directions of the college tutors, university professors or their assistants. It would not take any college tutor more than an hour a week to judge of the work that his pupil has done during the previous week or to guide him as regards the work to be done by him in the course of the next. I have known many young men in Oxford who under two hours tutorial guidance in the week and with the Bodleian library at their command do remarkably well in their examinations.

But the converting of our universities into teaching bodies is but half the problem. The other half consists in giving us suitable post-graduate opportunities to improve ourselves. If we are not given positions of responsibility in after life, university education can but carry us a little way. No position in life for which we are intellectually fitted ought to be denied us. As regards university professorships, we may have to fill the chairs with experts or eminent men from Europe to start with yet it must be understood that such chairs should never be beyond the dreams of our graduates. If post-graduate fellowships become an institution and such fellows, as also some capable college lecturers, are taken as assistants to the university professors and in such capacities they show sufficient ability or research there ought to be no bar to their being promoted to the university chair on the same salary and conditions as any other professor.
So far with regard to the higher limit out touching the lower limit, we constantly complain of the large percentage of failures at our universities. With regard to this I need only say that I am quite certain that, if you are willing to try the experiment, you may take any 100 out of the students who have been plucked in the First Arts Examination here to any university in the United Kingdom of Great Britain, keep them there under tutorial supervision and you will find that in three years' time 75 per cent. of them, if not all, will return home with at least a pass-degree. They do not succeed here because our system is faulty and our examinations are severe.

As regards the constitution of our university my suggestions are: Limit the number and qualification of fellows. A third of this limited number is to be nominated by Government, a third to be elected by the colleges and a third by the Masters of Arts of a certain standing. These fellowships must not be life-fellowships but must be terminable after a term of office. The retiring fellows may be renominated or re-elected. This will leave opportunity for keeping out those who may not take sufficient interest as also for the introduction of fresh blood into the Senate. If an intercollegiate system of lectures and a teaching university is to be founded it is essential that all the colleges must be adequately represented in the Senate. The Government and the M. A.'s, representing the graduates, must also be equally represented so that the colleges may not have all their own way. But the organisation of the Senate, the Faculties or the Syndicate will depend greatly on changes that may be made in the mode of our university teaching and education. Simply making the university a department of the State will not result in any practical good.

POST SCRIPT.

I would invite the attention of the Law Colleges to the present system of teaching law and the holding of law classes at our colleges. Law classes are held for an hour before the college ordinarily meets and the attendance at such classes is very unsatisfactory. The present system which requires simply the presence
at a certain percentage of lectures to entitle a graduate to go up for the B. L. Examination should be discontinued. Colleges at present teaching law may be required to provide for workable law libraries, residential arrangements and tutorial supervision as proposed in my note. The question of law colleges is one of great importance. First because the laxity of the present system encourages by far the largest proportion of our graduates to take to law as a profession. But what is worse is, that the law classes being the only paying classes in private colleges, none of them can enforce whole-time attendance of the students even during the one hour lectures held daily. If any college, at present, insisted on such attendance, none would go to that college but would prefer to join another where the rule as to attendance is more elastic. This laxity is likely to have a very unwholesome effect on the morals of young men who intend to take to law as a profession. The remedy for this lies in asking the law colleges to introduce reforms on the lines I have suggested.

I would further suggest that in the B. L. Examination more attention ought to be given to Roman Law, legal history and the general principles of law than to the various legislative enactments of the Government of India or the Local Government. After graduation, rules similar to those made by the High Court for the enrolment of vakils may be prescribed for all legal practitioners with this difference that those who intend to practice in the mofussil may be articled to vakils or pleaders there. The various sub-divisions at present existing amongst legal practitioners may also with advantage be reduced. This, I expect, will generally improve the quality of lawyers as also reduce their number and will necessarily lead a larger number of our young men to take to other economically productive pursuits. But to divert our national energy in the latter direction the government must make adequate provision for the imparting of a thoroughly scientific education to our youths. A university professor of technology with a few qualified assistants and a suitable laboratory in our midst for the training of our graduates in some useful industries will confer on them, and through them on the whole country, immense benefit.
MEMORANDUM OF MR. J. CHAUDHURI'S EVIDENCE BEFORE THE UNIVERSITIES COMMISSION.

20th March 1902.

3, HASTINGS STREET,
CALCUTTA.
The University of Calcutta is a teaching university, in so far as it compels all candidates to pass through a regular course of instruction in an affiliated college, for which it prescribes a syllabus, text-books, and many regulations. The true method of improving the teaching and of stimulating University life is to improve the teachers' equipment and the \textit{esprit de corps} of the colleges. The large number of students is an insuperable obstacle in the way of centralised B.A., teaching by strictly University professors and lecturers. The only sphere for such would be (1) special subjects in the B.A. course, which the University feels bound to prescribe, yet in which there are too few students for the college to take up; (2) M.A. teaching—I consider this might with advantage be taken up by the University. It would hardly be fair, however, to set up professorships for advanced students from the surplus fees of Entrance, F.A. and B.A. candidates. Government grants or private endowments must come in. It has long seemed to me that the Presidency College might be utilised for this purpose. At present, it is a rival to other colleges, on rather unequal terms. For it has an equipment from Government and endowed scholarships which no other College can supply for itself. This draws away many of the best students from other colleges after the B.A. stage, which is most discouraging for the teachers, and prevents fair emulation. I should like to see it made a University College for Science degrees and M.A. teaching. The University should give and take more with the colleges. On the one hand the largest, most stable, and most successful colleges should have direct representation on the governing body, and experienced teachers should have the predominating voice in its legislation. On the other hand, the University should have direct oversight of the colleges, and satisfy itself as to the building, site, accommodation, equipment, sanitation, etc., and as to the staff—qualifications, remuneration, work, etc. A list of qualified teachers would be hard to draw up. It might be done in the case of Indian University men; but it is difficult to see what uniform principle could be applied to European teachers. Spheres of influence would tend, I believe, to equalise the different Universities in standing, and draw the colleges of each province into a natural union which would be a strength to them.

The Senate and Syndicate.

I would suggest the fixing of the Senate at say 100 or 150, allocated among the different faculties. The majority, at least in arts, should be practical teachers of at least five years' standing. The remainder should be one-half nominated by Government without condition, and one-half elected by graduates faculty by faculty, from their own number. It is vitally important that experts should deal with educational questions; it is important also to qualify professional narrowness of view, and perhaps self-interest by outside Government nomination; and it is important to bring the \textit{alumni} of the University, who may and ought to do much for it, into its organisation. Non-attendance should disqualify, and appointments should be made for a term of, say, five years. I should put the appointment of the teaching members directly in the hands of the colleges. The Syndicate has such important functions that it should have a statutory basis. I would suggest that the Director of Public Instruction should be a statutory \textit{ex-officio} member, and the other members elected by the Senate in sections corresponding to the composition of the Senate.

Graduates.

A register of graduates might serve useful purposes beyond that of an electoral roll, \textit{e.g.}, it might be used to appeal to the graduates of the University to aid financially in University schemes.
Students of the University.

Certificates for examinations are granted easily by college authorities, because except at entrance, the University asks for no certificate of proficiency. It requires courage on the part of a college to keep back any considerable number of students, when other colleges send up all and sundry. A certificate of having passed the college tests should be required; and the worth of these tests should be looked into by the light of the success of the college in University Examinations. The number of students in Calcutta is so large that it is impossible for the University to do much in the way of bringing them together. A college esprit de corps ought rather to be encouraged; and following on that, healthy inter-collegiate emulation might be fostered. A minimum age of 16 should be fixed for Matriculation.

Teaching.

English is undoubtedly the most important subject, not only for its usefulness in after-life, but as the medium of instruction, the language of books other than text-books which the students may read, and the instrument by which they express themselves. Many boys enter college unfit to follow and profit by the teaching in English. Their time is wasted, discipline is relaxed, and moral and mental deterioration follow. I need not dwell upon this point, on which teachers are unanimous. But I would point out that a University student must be able to do more than follow English lectures intelligently. I am persuaded from my experience that many do so, and yet fail disastrously at examinations, because they dare not trust themselves to answer in their own words, and therefore store their memories with what they think “a form of sound words” beforehand. To do their thinking justice, they should have a far better mastery of English, the instrument of expression. Until the standard of English is very considerably raised, memory will be made to do the work of understanding, and ultimately both will suffer: one from overwork, the other from atrophy. What is imperatively needed is a much higher standard in English at the Entrance Examination. I would suggest (1) a raising of the percentage necessary for a pass; (2) explicit instructions to paper-setters to test the intelligence of candidates, (3) more importance to be attached to translation both ways, and to original composition: paraphrasing, at least at entrance, seems to me of doubtful value; (4) either the abolition of the text-book, or the prescribing of 400 pages instead of about 100—our boys can cram 100 pages: key analysis, model questions and answers and all. But I plead for shorter papers in the interests of intelligence and originality as against memory. Then after Matriculation what seems to be required is (1) assiduous practice in composition, however dull the work may be to the college staff; (2) a great increase in the amount of simple English prose prescribed.

In view of the importance of English, and of the many failures in that subject, I think a preliminary examination in that subject alone should take place, say, six months before the General Entrance Examination. It would reduce the amount of examining, and the expenses of candidates. Until the Entrance Examination is raised to a higher standard all round, I think it unwise to encourage much bifurcation or option in study before the F.A. Examination is passed. For our Indian students culture depends almost wholly on their University curriculum, and I would have that broad, even at the risk of giving them a smattering of knowledge in many subjects. Besides, until they have been introduced to the elements of many studies, how are they to find out their special aptitudes? I think a much larger quantity of simple prose and poetry, but especially prose, should be prescribed for both F.A. and B.A. courses. Critical and philological questions, and books which particularly raise such questions, should be reserved for the Honour's course. I should like to see an elementary history of English Literature, with specimen extracts in the pass course. I am in favour of maintaining separate Honour courses for the B.A. degree. First rate students can cover so much more ground than average men that they should have special facilities given to them, and credit for work done. I should be glad to see Honours given for a high aggregate in the pass course. In my opinion, text-books are an advantage. They save time in the class, and are much easier to read than written notes. They need not conform closely to
the syllabus; nor need a teacher confine himself to them. In teaching Philosophy I should always use a text-book, even if the University did not prescribe one. It is for the paper-setter and examiners to set themselves against mere memorising of the text-book. Under any system, memorising, deliberate or not, must go on to some extent. But the marks assigned to mere "book work" can be reduced. Moderators seem to me to be useless if the right men are appointed to set papers. But I think it well that two men should set each paper.

**Examinations.**

Unless the courses for examination are narrowly specialised, I should favour a pass being granted for a fair aggregate result, provided that the average marks have been gained in English. I think the Board of Examiners should have in their power to give "grace" or rather compensation marks, if the examiners in any subject report that the papers in that subject are (1) too long; (2) too severe; (3) or contain questions outside the syllabus or contrary to instructions.

**Theological Degrees.**

This question has been agitated by certain Protestant missionaries. There are so many complications in the way of introducing Theological courses in the University curriculum that I should favour the alternative scheme of reviving the charter of the Serampore College under a representative board. Under that charter the power to grant degrees was given. If this experiment succeeded the whole question might be re-opened. I think it is a matter of regret that Theology does not find a place in the University.

**Colleges.**

I have no information to volunteer as to the colleges. But I should like to reiterate my conviction that they should have a greater place and responsibility than they now have in the University organization. I think the co-operation of two or more colleges should be made permissive.

**General Remarks.**

I should like to add a few more general remarks expressing my matured convictions: (1) An all-important thing in University teaching and examining is the material supplied by the school, and the High School system must be put on a proper footing before they can be good feeders of the University. The key to many University problems lies in the schools. (2) What is needed is teachers in schools properly trained and adequately paid. (3) A school-leaving certificate of lower rank than the Entrance pass, and a comprehensive examination for minor posts in Government service, with prospects of promotion, for which examination the leaving certificate would be a condition, would lighten the burden of the University by drawing away many who have no keen intellectual interest, and are not true students.
MR. G. C. BOSE, PRINCIPAL OF THE BANGABASI
COLLEGE, CALCUTTA.

PART I.

I. One point that I wish clearly to make at the outset is this:—The system of teaching accommodates itself to the system of examination; and as the latter gets vitiated, the former gets vitiated in the same proportion.

The system of examination has got vitiated, and that for the following reasons, namely, (1) papers are not always as carefully set as they ought to be, (2) answers are not always as properly examined as they ought to be.

Proofs of Statements (1) and (2).

(a) It is not the teacher so much as the examiner that is responsible for the spread of the practice of cramming.

(b) The system of rigidly apportioning marks to each question handicaps the examiner considerably (at least at the Degree Examinations), the result being he has often to pass candidates whom he does not consider fully fit to pass and to pluck others whom he would pass if he could. Quality suffers in comparison with quantity.

(c) Too many examiners are appointed to examine the answers to each paper. The standard of examination necessarily varies excessively. A certain amount of variation in the standard is unavoidable, but this variation may be reduced to a more reasonable limit by reducing the number of examiners.

(d) The paper-setters should always be men of approved ability and experience in Indian education. The scale of remuneration for paper-setting is absurdly low. The work should either be highly paid or not paid for at all, but made wholly honorary.

(e) More care should be taken in appointing paper examiners.

(f) With regard to the setting of papers, I am of opinion that in the case of each subject teachers of that subject are the fittest persons to set papers on it and also to examine the answer papers. A man even of approved ability and experience should not be appointed to set papers, if he has left off teaching for any length of time. Too much care and circumspection cannot be bestowed on the point.

(g) The work of examination should be of a dignified nature, and the examiners should be regarded as experts doing responsible work. But as it stands, they often receive scant courtesy from the authorities, and this tends to lower their position in their own eyes, and their work necessarily suffers to the detriment of the system of examination.

(h) Examiners and paper-setters should form a permanent body into which new elements should be sparingly introduced.

(i) Threats of punishment to examiners for infraction of examination rules should not be paraded. Printed rules in the Calendar providing punishment for examiners form a humiliating and demoralizing spectacle.

(j) Examination should be on the subjects, and not merely on the text-books selected to teach those subjects.

II. Immediately connected with the system of examination is the question of selection and use of text-books. On this point I divide my remarks into three heads:—

(1) Text-books are too frequently changed in some subjects. Appended are documents (A), (B), (C), bearing out this remark.
(2) There are too many text-books in the subject of History and Geography in the Entrance Examination—no less than six.

(3) Text-books selected are not always suitable and adapted to the capacities of those for whom they are intended. For instance, Introductory Primer, a text in the Entrance Examination, is wholly unsuited to the capacities of the students of the Entrance class. The English of Buckley's History of England and Ransome's History of England, which were text-books for the Entrance for a series of years, was too difficult for those for whom the books were prescribed. In the F.A. Examination Hutton's Life of Scott and Blackie's Self-Culture are often selected as text-books in English. The first book deals with criticisms on Scott's novels and other works, and the boys are required to read the criticisms without reading the books on which the criticisms are based. The second book is too philosophical for their grasp. Jago's Elements of Chemistry is not the kind of text-books that should be placed in the hands of F.A. students.

Newth's Elements of Chemistry for the B.A. Examination should be changed for a better book.

There should be more fixity in the Literature Course both for the F.A. and B.A. Examinations, as otherwise in alternate years the plucked students of previous years are placed at a great disadvantage.

Prose English literature for the Entrance and F.A. Examinations should be wholly selected from standard modern authors.

III. I am not a Fellow of the University and not therefore conversant with the inner working of the University, but I am thoroughly conversant with their orders, which I have to carry out. Their orders sometimes appear to me conflicting and hence subversive of discipline. For instance, the rules of percentage of attendance at lectures and of changing the centre of examination are relaxed in one year and rigidly enforced in another, perhaps to be relaxed in the next. We cannot therefore give any reasonable assurance to our students on these points, and they run away with a bad impression of our dignity as Principals of Colleges. Our representations sometimes receive scanty consideration from the University authorities, and this is also subversive of discipline.

Remarks have been made before this Commission regarding the lack of discipline. Private colleges have faults, I admit, and grave ones too, but in the matter of discipline, as far as it lies in our hands, I can challenge comparison with any college, Government or aided. It will also, I think, be found that from the nature of the case there is more sympathy, more friendliness, more co-operation, between the professors and students of private colleges in Calcutta than can readily be found in other institutions. There cannot be a surer and sounder basis and test of discipline than this.

IV. Question 10.—Students begin their University course without a knowledge of English sufficient to enable them to profit by the lectures they attend. This defect can be supplied by selecting proper text-books for the Entrance Examination. This will necessarily improve the system of teaching and remedy the defect.

The new scheme of education in schools on a vernacular basis, in which all subjects will be taught through the medium of a vernacular in all classes excepting the first four, is, I am afraid, likely to stand in the way of the pupils' acquiring an adequate knowledge of English.

Inferior though the knowledge of English language is in our boys, it is not so bad as it is often painted. Remembering that our boys have to learn all the subjects of their study through the medium of English, which is a foreign language, it should be a matter, not for regret, but for congratulation, that an average Bengali boy knows so much of the English language as he does.

Boys under 16 should not be allowed to go in for the Entrance Examination. The result of the present system is, in many cases, a physical, intellectual,
and moral break-down. Many books are placed in their hands, when they are in the University, which ought not to be placed in the hands of boys of 13 or 14.

The study of Natural Sciences has not received that amount of attention that they seem to deserve. For instance, I believe my college is the only Arts College in Calcutta which teaches Botany. If I am correctly informed, it has only very lately been introduced into the Presidency College. But the papers that are usually set in the examination encourage cram and discount practical knowledge. Improve the papers set, and the study of the subject will at once improve.

I have seen in England that provision exists in the Jermyn Street Museum of Geology to facilitate the study of Geology and Mineralogy by students of these subjects; and also in the Royal Botanical Gardens at Kew to facilitate the study of Botany by students of the subject. Such provisions, I think, can easily be made in the Calcutta Museum and the Sibpore Royal Botanical Gardens.

There is no Arts College in Calcutta where there is provision for teaching Zoology, not even in the Presidency College. This should receive attention from the authorities.

V. Question 3.—With regard to the conversion of Indian Universities into teaching Universities, I think something might very well be done in this direction in the advanced Science Courses. To assist the teaching of Physics, Chemistry, Biology, Geology, and Mineralogy, the University might found museums and laboratories with competent professors to teach these subjects efficiently. Particular colleges may be willing to teach any one or all of these subjects, and may possess staffs thoroughly efficient for the work, but they may not have the necessary funds.

PART II.

Paragraph 5.—The maximum number should be 100. I would rather wish the number to be put at so low a figure as 50.

Fellowships should be permanent, but made terminable for long-continued non-attendance.

Educational qualifications should be the chief passport for appointment to Fellowships, but administrative ability, knowledge of foreign educational systems, and position in society and Government service should also have due weight in the appointment of Fellows.

Paragraph 6.—The number, as at present fixed, is adequate; but the colleges are not adequately represented. There should be more teachers in the body.

Paragraph 7.—The Faculties may stand as they are, but the Boards of Studies require revision.

Paragraph 8.—There seems to be some misconception in the matter of colleges granting certificates “too easily” to candidates who present themselves for the F.A. or Degree Examinations. Colleges have not to certify whether a candidate has a reasonable chance of passing the examination; they have merely to certify that he has attended a full course of lectures and has been present at a certain number of them.

Paragraph 13.—The affiliation rules, as they now stand, do afford a guarantee that colleges are up to the mark when admitted. If after admission they fall below this mark, they will show bad results at the University examinations, and will, as an inevitable consequence, go to the wall. The natural instinct of self-preservation which is the most effective of all instincts will afford the guarantee sought to be enforced by rules.

If I am permitted to touch upon a matter which is not quite relevant, I may say a few words on the influence of English education in one respect. It has created Bengali prose literature, which was practically non-existent in the pre-University period. It should always be remembered as a crowning achievement of the Calcutta University, which is yet in its infantile stage.
A

ENTRANCE EXAMINATION.

History Course.

ENGLAND.                                             INDIA.
1889. Ditto.                                          Do.
1890. Gardiner.                                      Do.
1891. Do.                                            Do.
1892. Do.                                            Do.
1893. Do.                                            Do.
1894. Buckley.                                      R. C. Dutt.
1895. Do.                                            Do.
1896. Do.                                            Do.
1897. Do.                                            Do.
1898. Do.                                            Do.
1899. Do.                                            Do.
1900. Ransome.                                      Do.
1901. Do.                                            Do.
1902. Do.                                            Do.
1903. Townsend Warner.                                Do.
1904. Ditto.                                          Do.

B

F. A. EXAMINATION.

Chemistry first introduced as an alternative subject with Philosophy in 1873. There was no Physics.

Physics first introduced in 1894 as a compulsory subject. There was no Chemistry.

Chemistry again introduced, but as an optional subject, in 1893.

1896. Do.                                             1892. Do.
1897. Roscoe and Lunt.                                Compulsory

C

B. A. EXAMINATION.

Chemistry Course.

1886.

THE FULL COURSE.

Miller .......... (The Elements.)
Armstrong ...... (Organic.)

The Elements of Chemistry.

Fownes .......... Inorganic Chemistry.

1887.

As in 1886.

1888.

The Full Course.

Frankland and Japp ...... Inorganic Chemistry.
Armstrong .............. Organic.

The Elements of Chemistry.

As above.
### 1889

**The Full Course.**

Frankland and Japp  *(Inorganic.)*  
Remsen  *(Organic.)*

**The Elements of Chemistry.**

As above.

### 1890

**The Full Course.**

As above.

**The Elements of Chemistry.**

Watts  Inorganic Chemistry (1883).

As in 1890.

### 1891

As in 1892.

### 1892

Frankland and Japp  *(Inorganic.)*  
Remsen  *(Organic.)*  
Miller  *The Chemical Physics.*

As in 1892.

### 1893

As in 1894.

### 1894

**Inorganic Chemistry.**

Kolbe  Inorganic Chemistry translated by Humpidge.

As in 1894.

### 1895

As in 1896.

### 1896

Kolbe  Inorganic Chemistry (as above).

As in 1896.

### 1897

As in 1898.

### 1898

Kolbe  Inorganic Chemistry.

As in 1899.

### 1899

Newth  Inorganic Chemistry.

As in 1900.

### 1900

As in 1901.

### 1901

As in 1902.
I doubt whether any greater advantage would be gained by making the University a teaching body than by perfecting it as an examining body. Would professors and lecturers appointed by the University be necessarily better than many of those now employed by the colleges? If, however, such a change is seriously contemplated, might it not be well to consider whether, in spite of the immense vested interests involved, the University could not be removed out of Calcutta altogether, to some smaller town, which might become essentially a University town, where it would be easier to adopt the requisite machinery necessary to make the University a teaching body, and where the moral surroundings of the students would be altogether of a healthier tone. If University professors and lecturers are to be appointed in Calcutta, the different colleges are so widely separated, one from another, that the number of students from the various colleges of Calcutta able to attend the lectures given by the University, would be very limited. This difficulty might, perhaps, be got over by appointing the University professors to lecture in different centres convenient for different groups of colleges.

If the suggested recognition would have the effect of improving the position of teachers by giving them a certain status, then a greater number of really qualified men might be encouraged to adopt teaching as a profession than at present is the case. As things are now, it is a noticeable fact that many of those who have taken their degrees in high honours, and seem well fitted for the work of teaching, either do not take up teaching at all; or if they do take it up only as a convenience to themselves while preparing for some examination that will give them an entry into other professions. If, however, the intention of the proposed recognition is to compel private colleges to have upon their staff only those teachers who have been recognised by the University, such a requirement might involve hardship, and in some cases, interfere with the freedom of each Principal to choose his own staff. And if it be urged that such compulsion is necessary in order to secure the efficiency of the teachers employed, it would surely be possible to secure efficient teaching without introducing any rule which would interfere with the liberty of action of any individual Principal. Let the University improve the character of the examinations and require the colleges to attain a certain percentage of successes in proportion to the number of students sent up for the F. A. and B. A. examinations on pain of losing their affiliation on failure in three consecutive years to attain the minimum percentage required, unless satisfactory explanation of the failure can be given. Such a rule would in a few years' time be sure to raise the efficiency of the teaching in the various colleges. And such a rule together with a certificate that the candidates going in for any examination had passed a college text of a satisfactory standard would tend to remedy the present evil of granting certificates too easily, referred to in paragraph 9 of the memorandum of points for consideration.

I think the University might well require of affiliated colleges that they should do something for the proper housing under healthy moral conditions of their students; and a Board might be appointed to see that such regulations as are made, are strictly enforced.

It would be well, I think, that a minimum age-limit should be fixed for candidates for the Entrance Examination. The limit might be 16.

The statement is certainly well founded that in many cases students win their University course without sufficient knowledge of English.
the lectures they attend. It has happened within my recent experience that a
student has come up to read for his F.A. Examination after passing the
Entrance Examination, quite unable to express himself on paper in intelligible
English or even to readily understand a more or less simple question in English.
The only conclusion that can be drawn is that he must have found it possible by
learning his English work by heart to secure the minimum pass marks in the
Entrance Examination. But had marks been taken off his other papers for
bad English he could not have passed the examination. I would venture to
suggest the following changes in the English course for the Entrance Examina-
tion, and in the papers set:—

(1) Let the text-book set be shorter and simpler. As it is, the book is
so long that the teacher has little time to do more than just get
through the book set. He, therefore, has not much opportunity of
teaching English independently.

(2) More opportunity should be given to the candidate of showing a
knowledge of colloquial English, and power to write in clear and
simple English. Less marks should be given for knowledge of
unusual or obsolete words.

(3) It should be recognised that the knowledge of English to be expected
from the Entrance Examination candidate is not knowledge of
classical English, so much as ability to understand English when
spoken to him, and power to express his ideas on paper in intel-
ligible English.

If possible, it would certainly be an advantage if the students' knowledge
of English were tested by oral examination and dictation.

More marks might be assigned for an essay in English on some simple
subject, with an alternative piece of simple translation from the original vernacu-
lar into English.

(4) Marks ought to be deducted in all the papers if the English is quite
ungrammatical or hardly intelligible.


If the study of Latin is to be a means of education, then steps should
be taken to compel the student to learn some Latin grammar and syntax; and
to make it impossible for him to pass the examination by simply committing to
memory an English translation of the text-book as is the case at present.

I venture to think that the study of Latin would be put on a more satisfac-
tory basis, if the following changes were made in the conduct of the
examination:—

(1) Fewer marks should be given and fewer passages set for translation
only.

(2) More short passages should be set to be commented on with histori-
cal or syntactical or explanatory notes.

(3) More marks should be given for knowledge of introductory matter
necessary for the intelligent understanding of the text-book.

(4) More time should be given to answer the questions now set in un-
prepared translation into English and prose composition.

Physics, Chemistry and Astronomy.

It is undoubtedly the case that the instruction in these subjects is in many
cases merely the imparting of book-knowledge, and that there is not enough
practical work.

School of Theology.

I am not at all clear as to what those who advocate a school of theology
in connection with the Calcutta University have in view, or as to what would
be gained by having such a school.

If to encourage the comparative study of religions is the object of such a
school, then I think it could be quite as well attained by making provision for
it in the B.A. or M.A. Courses; but it is a matter for serious consideration
whether a subject so avowedly in its infancy as the comparative study of religions is, could be taught to the under-graduates of the University with any real benefit to them.

Composed as the University is of men of all creeds and some possibly of no creed, it had much better in my opinion leave the subject of Theology proper alone.

Theology is not a subject that can be altogether effectively taught in the somewhat dry mental atmosphere of the University class-room. To teach Theology apart from practical religion would be but to repeat in another form the mistake so constantly charged to the Calcutta University in connection with its Science course that the instruction given is too often the mere imparting of book-knowledge to the exclusion of practical work.
MR. N. N. GHOSH, PRINCIPAL, METROPOLITAN INSTITUTION.

1.—THE CONDITION OF PRIVATE COLLEGES IN BENGAL.

The earliest private college affiliated to the University was that started by the late Pundit Ishwara Chandra Vidyasagara and called the Metropolitan Institution. It was conducted by him not on commercial principles. He did not appropriate to himself any portion of the income derived from the college, but spent the whole income on the college itself and sometimes contributed to its maintenance from his own private resources. The object was to make higher education accessible to young men of moderate means and to employ a purely indigenous agency. His institution was the first attempt at self-government in higher education. The existence of the institution depends on the fees of students, but Pundit Vidyasagara used to admit many students who paid no tuition fee, or only half the amount. The present managing body of the institution, the College Council, has continued the practice, but it can only admit a limited number of free students. Private colleges in Calcutta are supported by no endowments that I am aware of. Their dependence on the fees of students tends, in some cases, I fear, to a relaxation of discipline, but, paradoxical as it may seem, it tends also to ensure at least a tolerably efficient teaching. An incompetent professor soon shows his incompetence. The students do not tolerate him, and he has to be sent away. In colleges differently circumstanced, incompetent professors might be, and my information is they often are, thrust on unwilling students. Private colleges have scarcely any attractions to offer except good teaching and good results in the examinations. Therefore special attention is paid to teaching, and professors have to work harder than they need do where their tenure is secure and independent of the opinion of students. For fear of making my deposition lengthy, I cannot go into details to illustrate the general propositions I have been laying down. It would be a great mistake to suppose that the teaching in native colleges is generally inefficient. The reverse is the truth. It has to be remembered that private colleges have to work under a serious disadvantage. They do not as a rule get students from the well-to-do classes or the best and most ambitious students. Several scholarships are, under the conditions of their foundation, tenable only by students of the Presidency College. Colleges under European management have a greater prestige than those officered by natives. It is held more respectable to belong to a Government college than to a private college. A certificate from a professor of the Presidency College will more easily secure an appointment than one from a professor of a native college, European professors also are presumed to have a higher efficiency. As they are nearly all of them examiners, they are supposed to be best qualified for preparing students for examinations. With the students that private colleges generally get, it would be difficult for them to show better results than they do. They generally show at least as good results as the aided colleges and Government colleges in the mofussil. I could mention instances in which the highest places in particular examinations have been taken by students from native colleges. A brilliant student does not suffer from being in a private college, but no college can make a dull student brilliant. As regards discipline, it is by no means impossible to enforce it in a private college. I can say that it is enforced in the Metropolitan Institution. I need only add that something of the success of Government and aided colleges may be claimed by private colleges, for books written by professors in private colleges, and their "lecture notes" as they are called, are often used by all classes of students and contribute to the success of boys that read in grander institutions. Students in this country do not depend merely on the lectures of their own professors.

2.—STUDY OF ENGLISH.

English is not as well taught or learned as it should be. The prescribed text-books alone are taught, and they are taught and read in a mechanical fashion simply to answer the purposes of examination. The great thing which professors are generally anxious to give and which students are invariably anxious to receive is "Notes." Several professors incapable of lecturing are content only to give notes. It is notes that pay best in an examination. Hence
it is that a student may pass a good examination in English and yet be unable to speak or write the language with accuracy and grace. I speak from experience when I say that a European member of the Education Department, now retired, who was a distinguished graduate of an English University and a first-rate classical scholar, taught English books only by the method of paraphrase, that is, by substituting synonyms for the words of the text. He never looked the students in the face, never permitted them to ask questions, never made them speak or write, never spoke to them, hardly ever read out a passage in the proper style; but he kept his head hanging over the text-book and went on paraphrasing it. That was all his lecture. And that method has been followed by several who take him as a model. It is true that at the present day boys generally come from school imperfectly prepared. But a vicious system of examinations answers for a great deal. The selection of text-books is seldom happy, and the general curriculum is badly framed. The number of subjects for the Entrance as well as the F.A. Examination should be reduced. The course in English for both the examinations should be larger, more interesting, and better in point of style. A return to the system that prevailed in the seventies would be desirable. For the B.A. Examination also the course in English admits of improvement. Text-books in History and Philosophy should be selected with a due regard to style. The text-books of History now in use have generally no style. The book of selections now used as the course in English for the Entrance Examination is worthless and wholly unfit. The system of examinations has to be improved, and the Education Department has to be strengthened at least up to its old standard. It has to be remembered that a fine race of English scholars was brought up under the system which preceded the establishment of the University, and that among graduates those of an earlier date were men of better acquirements than those of to-day. I cannot admit that Englishmen are invariably better teachers of English than natives, or that native graduates of English Universities are invariably better scholars than those brought up in India. It would be possible to name Bengalis, whose education was wholly Indian, who might not even be able to put any letters after their names, who were nevertheless scholars that were equalled by few Europeans that came out in the Education Department. The complaint is often made that so few graduates turn out to be good writers. But how many of their teachers, English or Scotch, have made their mark as speakers or writers?

3.—Law Education in Bengal.

Students after passing the B.A. Examination are required to attend a course of lectures in Law for two years before they are allowed to appear at the B.L. Examination. The attendance at lectures is generally a mere form. Students seldom care to follow the lectures, seldom possess the books which are lectured upon. They join the college which is nearest to their houses, which most accommodates them in the matter of the payment of fees, and which enforces as much or as little discipline as they are prepared to submit to. The largest number of law students in Calcutta are also students of the M.A. classes in the Presidency College. As a matter of course, they attend the lectures delivered in a building close by, the Albert Hall. But they constitute law classes belonging to a college whose local habitation is elsewhere. The situation of the place for the delivery of lectures appears to be a potent attraction. It is after attendance at lectures is finished that boys begin to study their subject. Such a show is not worth preserving. At the same time it is desirable to have lectures that should be listened to. I would suggest that the B.A. Course should be a three-years' course from the Matriculation, that the B.L. Course should be a two-years' course after the B.A.; that there should be an examination in Law at the end of each year of lectures, and that after passing the B.L. Examination, one should be entitled to be enrolled as a Vakil of the High Court without any further test or apprenticeship. I have some objection to the curriculum, also. The present course includes a number of Acts some of which might be omitted. And it does not include a subject like Roman Law or Constitutional Law. A large number of books is prescribed, of some of which only fragments have to be read. This may be a good way of encouraging authors, but it means an unnecessary drain on the purse of students. The subjects are too many to be crowded into an examination of four days, and boys find it possible to neglect some subjects altogether if their object is only to pass. To distribute the subjects over two
examinations in two years would tend to ensure their being read. There is no reason why enrolment in the High Court should be delayed after the passing of the B.L. Examination. All English analogy is against the delay. To have a Central College of Law in place of law classes in different colleges would by itself be no remedy for the present evils. In this country no study is serious unless it has to be conducted in view of an examination, and the sole reason of the indifference of boys to lectures is that only one examination is held at the end of two years, and that some subjects may be neglected with impunity. Subjects like Equity, the Law of Real Property and the Principles of the Law of Evidence, are little cared for. More administrative changes will, therefore, be no improvement. And certainly Law is the very last subject in which the efficiency of natives to act as teachers will be doubted.

4.—Position of History in the University Curriculum.

History occupies an insignificant place in the curriculum. It is compulsory only for the Entrance and optional for the F.A. and B.A. Examinations. It is thus possible for a young man to be a graduate without knowing more of history than is required for the Entrance Examination, that is with only a very elementary knowledge of the histories of England and India. For the F.A. one requires to read only two shilling primers on the histories of Greece and Rome. The course in history for the B.A. is somewhat elaborate, but it consists only of the histories of Ancient Greece and Rome, and of England and India. It includes no history of the Roman Empire or of Medieval and Modern Europe. The pass course includes no treatise on the English Constitution. History is entitled, in my opinion, to a larger recognition. I would have the histories of Greece and Rome for the Entrance, some modern history for the F.A. and the histories of England and India and a somewhat full course of the history of Modern Europe for the B.A. Competent teachers of History, however, have been rare, and they are likely to be still rarer in the future. I distinctly remember the manner in which we were taught Elphinstone's History of India in the third year class of the Presidency College. The professor opened his copy of the book and asked the students to open theirs. He then made the boys read out one after another consecutive portions of the textbook. That was all his lecture. It might be useful as an exercise in elocution but it had obviously no value as instruction in History. The professor was a European, a graduate of an English University. He taught us Logic and Mental Philosophy in the second year class, History and a play of Shakespeare in the third year class. He rose to be Director of Public Instruction in one of the Provinces of India, and has now retired.

5.—General Remarks.

Within the limits to which I must confine myself I cannot say more than I have done on the four special points on which my opinion has been asked. I may be permitted to observe generally that the most essential reforms are the appointment of competent teachers, European and native, an improvement in the method of examinations, a shortening of the Entrance and F.A. Courses, and a limitation of the scope of the University. It is not fair to presume that a graduate of an English University is fit to teach any subject, and equally competent to lecture and to be an Inspector of Schools. For every subject specialists have to be obtained, men who not only know their subject, but are able to lecture. Classical scholars are not invariably competent to lecture on Philosophy, History or even English Literature. Whatever may be the Degrees instituted, and whether the University is a teaching or an examining body, there will be no improvement in education until and unless there is an improvement in the quality of the teaching and the style of the examinations. Mere official control will be no panacea. Fortunately, some hints at reform may be obtained from experience. The system that was in vogue before the University was established was in many respects sounder than the present. For the Senior Scholarship Examination the course in every subject was high enough for those days, but results were determined by the aggregate of marks. The present system by its insistence on a number of subjects encourages superficiality and cram.
MR. C. R. WILSON, PRINCIPAL, PATNA COLLEGE.

PRELIMINARY OBSERVATION.

Before making any observations at all upon the defects and disadvantages of the present University of Calcutta I should say that—

1. In my opinion the best remedy for all our evils would be to transfer the University with all its institutions from Calcutta to some University town in the mofussil.

2. Although I am about to point out what seem to me to be defects I must at the same time declare that the University of Calcutta has many merits and has done much good work.

3. Teaching Universities.

I think that the University of Calcutta should be given the power to become a teaching body, but I do not think it could actually exercise the power at present to any great extent. At present we have quite enough to do to get a University which will examine properly and colleges which will teach properly. Our first efforts should be directed towards improving what exists. We need concentration, not extension.

The pay of teachers is at present very poor. There is difficulty in inducing men of ability to become teachers at all. As far as I know the University has not sufficient funds to adequately endow professorships. If you impose further conditions upon teachers without offering them more pay, you make the profession of teaching still less attractive and increase the difficulty of getting good men to teach. In these circumstances the proposals about recognised teachers and University Professors seem to me to be premature.

Again if you have lists of recognised teachers, the tendency will be to force colleges to take only recognised teachers and professors. This is a serious infringement of the independence of the colleges and an attack upon their life. What college in Oxford would allow an external authority to dictate to it in its choice of fellows and tutors? The Principal of the College ought to be absolute in the appointment of the staff. It is a serious defect in the organisation of a Government College that he is not allowed to be so.

We want to raise the whole status of the college its principal and the teaching staff. The question is whether in attempting to form a body of University Professors and recognised teachers you will not still further lower that status.

If the University conducted its examinations properly, it would detect and bring to light the difference between good teaching and bad teaching, and the inefficient colleges would die a natural death. Because the University of Calcutta has not succeeded well in its primary and comparatively simple functions as an examining body it is proposed to help it out by giving it a number of new and much more complex functions. Because it has failed to pass as an examining body, you are going to promote it to the higher class of a teaching University. Because it has been found faithless in few things it is to be entrusted with many things. But what reason have we to think that it will succeed better in the more difficult task? Why not try to first make it efficient as an examining body? In the University, as at present constituted, the teacher is nowhere. Let us first get a University of teachers before we talk about a teaching University.

In short I agree with Mr. Pope, the Director of Public Instruction of Burma, and I am not in favour of the proposal to make a list of recognised teachers and to compel candidates for a degree to receive instruction in colleges from teachers appointed or recognised by the University. This should be left to the College authorities, the University confining itself to the question of affiliation which should be granted only on very definite and stringent rules. I am not of opinion that the proposed supervision by the University will be effective.
When I recorded the above observations I was dealing with the question of a teaching University as the heading implies. When I was examined before the Commission I was at this point asked my views about the inspection of colleges. It was suggested that in order to see that the affiliated colleges were working properly some inspection would be necessary. I do not altogether oppose the inspection of colleges. I think the University when affiliating a college should impose definite and stringent conditions and should stipulate for the right of inspecting the colleges periodically to see that the conditions are observed. Colleges already affiliated would be allowed a fixed time to comply with the new conditions. I think that the inspection should be limited to seeing that the conditions of affiliation are observed. I do not think there should be any interference with the teaching or other internal economy of the college. If the college is under proper management it will be much better able to attend to these matters than the University, which is at present mainly composed of non-teachers and which, in my opinion, will never make a good inspecting agency. If the college is not under proper management, if, as has been suggested, it changes its staff as soon as it is affiliated and substitutes inferior teachers, then I say that such a college is not fit to be affiliated and has forfeited all claims to consideration. Affiliation is a gift, an act of grace. It can be and ought to be withdrawn from the undeserving. In fact it is the only real remedy which the University has in dealing with an unworthy college. A college which cannot be trusted to fulfil the pledges which it gave when it was affiliated cannot be trusted at all. For these reasons it is submitted that the University should proceed very cautiously in attempts to interfere with the teaching and internal economy of the colleges and should rely mainly on stringent conditions for affiliation.

I would add that over-legislation and over-regulation are faults only too common in India. If you discover slackness in the management of a students' library your Executive Committee will immediately pass forty new rules. Two months hence you will find that not one of those rules is observed. So if in the University we find slackness and abuses, instead of trying to make effective the machinery and rules we already possess, we proceed to set up new machinery and pass new rules. For my part I do not believe that the new rules will be any better than the old rules as long as the men are the same. If you had the right men the old rules would do well enough. We want new men, not new rules. Give us a university of teachers and we will see about a teaching university. On behalf of the colleges I object to being placed to any greater extent under the control of a body of amateur educationists.

(4) Spheres of Influence.

I am not aware of any difficulties or disadvantages in this connection, hence I do not understand the importance of the question.

(5) Constitution—The Senate.

I reckon that there are about 190 members of the Senate. Of these about 80 have no qualifications that I can see entitling them to be fellows. I should certainly say that fellowships had been given them by way of compliment. Of the remainder some 60 are teachers and some 60 are men of eminent learning. Of these about half are in Calcutta and are likely to attend the meetings of the Senate. I am certainly of opinion that the Senate needs a more definite constitution, and that the qualifications of persons to be appointed should be clearly prescribed. If fellowships are vacated by non-attendance, then fellows whose official duties station them out of Calcutta should be allowed to come to Calcutta so many times a year to attend meetings, and be paid their travelling expenses. The tenure of fellowships might be limited to seven or even five years with the possibility of re-appointment. In this connection may I be allowed to say that I do not understand upon what principle the ex-officio fellows are appointed or again upon what principle the Vice-Chancellor is almost always a Judge of the High Court and not an educationalist. It is suggested that this is an honour to the University. It is obviously a dishonour; the mere suggestion that it is an honour implies a mean opinion of teachers and teaching. Would the army consider it an honour if a judge of the
High Court were made Commander-in-Chief? I would suggest with all deference that the Vice-Chancellor should, as a rule, be selected from the heads of colleges as he is in English Universities. No head of a college has ever been made Vice-Chancellor of the Calcutta University. It thus appears that the highest posts in the world of education and teaching are not open to teachers and educationists. If a young man of good abilities remains a teacher, he may become the head of a college, but he will probably not be even a Fellow of the University. If he becomes a pleader, he may become a Judge of the High Court and Vice-Chancellor. In these circumstances is it surprising that young men of good abilities prefer to become pleaders, and that the profession of teaching is of little consideration.

(6) The Syndicate.

The colleges and teachers are not adequately represented on the Syndicate, most of the members are not teachers. The Principal of the Presidency College is not a member of the Syndicate but the Registrar or servant of the Syndicate. Thus again the teacher is subordinate to the non-teacher, and Government sanctions this degradation. In Oxford the Hebdomedal Council consists of the Chancellor, the Vice-Chancellor, the Proctors, six heads of colleges, six Professors of the University, six members of Convocation of not less than five years' standing. If we followed this scheme in Calcutta, the Syndicate might consist of the Chancellor, the Vice-Chancellor, the Director of Public Instruction, the Senior Inspector of Schools, six heads of colleges, six Professors in colleges affiliated to the University, six representatives of the Faculties, three for Arts and one for each of the others. I am of opinion that some such scheme should be adopted in order that educationists of every kind should be well represented on the Syndicate.

(7) Faculties and Boards of Studies.

I think that the Faculties like the Senate should be reduced to much smaller numbers. Only experienced teachers and persons of distinction in any particular Faculty or branch of Study should be appointed members of the corresponding Faculty or Board of Studies.

(8) Graduates.

I am altogether opposed to the election of fellows in any form. It is absurd in theory and in practice gives rise to abuses. If fellows must be elected I should prefer to leave the election to the Syndicate rather than the Senate; certainly not to the graduates. I think that the University should be empowered (a) to admit graduates of other Universities, who are teaching in affiliated institutions, to the corresponding degree in the Calcutta University; (b) to confer the degree of M.A. honoris causa on persons of distinction appointed to hold high office in the University or the affiliated institutions.

(9) Students of the University.

No doubt large numbers of students are sent up to the Entrance, F.A. and B.A. Examinations who should never be sent up at all. The obvious remedy is for the recognised schools and affiliated colleges to introduce test examinations and to refuse to send up students who fail at these. The University too should have strict rules as to affiliation and recognition and should disaffiliate and withdraw recognition from institutions showing bad results. In the Patna Collegiate School there have always been test examinations. I have extended the system to the Patna College.

With all this, it is still quite conceivable that even if there were a test examination it might be made so lenient as to be quite ineffective. If a student is not sent up he goes to the head master or principal, as the case may be, and threatens to leave. There is nothing in the transfer rules to prevent this. In order to strengthen the hands of head masters and principals there ought to be some provision to prevent such transfers. It might be laid down that the head master or principal, as the case may be, should forward to the registrar a list of
students detained. Should the head master or principal, as the case may be, object, the transfer of such students cannot be allowed without the orders of the Syndicate.

I do not see how the University can "see that the colleges do their duty" in regard to the physical and moral welfare of the students and yet not "take the discipline of students away from the colleges."

In Calcutta we have the Calcutta University Institute which was founded by Babu Protap Chandra Mazumdar and supported by Lord Lansdowne and Sir Charles Elliott and of which I was for many years Secretary. In my day the Institute was well supported by the students. The difficulty was to get teachers to take sufficient interest. I still think that the Calcutta University Institute if properly supported might do a great deal for sound education. The Institute co-operated with the Government in making the Marcus Square Recreation Ground, which is especially intended for the use of students. I should like to see this ground very much enlarged and extended.

I should fix the minimum age for matriculating at 16 or 17. The University course is for grown men, not children. Guardians who send up boys of 13 or 14 to the University are unmindful of their best interests. In this connection I deprecate the use of the term "boys," which is sometimes found even in official documents, to describe the students of Colleges.

(10) University Teaching.

I do not see how the University can be made a teaching body at present. Supposing University professors were appointed, what would the University expect of them? Would the University professor be required to lecture frequently? In that case he would have little time for original study and thought, and his lectures would not be much superior to those of the professors in the college, or would the Calcutta University professor be like an Oxford professor? The duties of every Oxford professor are thus defined in the statutes—Statuta et decreta Universitatis Oxoniensis, 1900, page 34. It is his duty to give instruction to students, assist the pursuit of knowledge and contribute to the advancement of it, and aid generally the work of the University. As for instruction the professor has to give every year a certain number of public lectures, the maximum number being forty-two. He is also to give students attending his lectures advice and informal instruction and occasionally to examine them. But I think it is generally supposed that the most important part of his duty is to contribute to the advancement of knowledge, and I believe that there have been and still are professors at Oxford who give practically no instruction at all. It is in fact obvious that if a professor is engaged in original research he cannot have much time for instruction, and further that if his lectures are to be real contributions to the knowledge of the subject, he cannot be expected to deliver very many lectures in a year. The third part of the duty of a professor as defined in the statutes of the University of Oxford is to aid generally in the work of the University. In Calcutta, I suppose, the University professor would try to guide the teaching and examining of his subject along correct lines. The salary of an Oxford professor varies, but some I should suppose receive as much as £600 a year or Rs. 750 a month. If it is thought desirable to make a beginning of a teaching University would Government lead the way by establishing imperial professorships of the Oxford type?

The Teaching of English.

As regards the teaching of English it cannot be denied that the knowledge of those who matriculate is inadequate. In order to ensure a better knowledge of English reform might proceed on the following lines in the Entrance Examination:

(a) The text-book might be shortened and the importance of a knowledge thereof diminished.
(b) Greater importance should be given to composition and to translation from the vernacular to English and vice versa.
(c) Dictation and oral examination should, if possible, be introduced.
(d) In short more opportunity should be given to the candidate of showing a colloquial knowledge of English.
The means of reform which suggest themselves are—

(a) to raise the percentage of pass marks to (say) 60 per cent.

(b) to increase the number of papers in English from two to four.

(c) to increase the number of examinations in English for matriculation from one a year to four or five a year so as to reduce the number of candidates to be dealt with at a time.

(d) to diminish the number of centres, if possible, to examine only in Calcutta so that oral examination may be possible.

I must here add that I agree with the Principal of the Presidency College in the view that compulsory vernacular education will prevent the improvement and spread of the knowledge of English.

**Teaching of History.**

As to the teaching of history I submit a note by Babu Jadunath Sarkar who has had experience in teaching history in the Patna College and elsewhere, and who is doing good original work in Indian history. With his observations I, on the whole, concur.

Mr. Arden Wood, who gave evidence, as to the teaching of geography, complained that it was not studied scientifically in the Calcutta University and that it was given a position of inferiority. I have the same complaint to make with regard to history. It is studied as a mere memory subject not as a connected series of causes and effects obeying scientific laws. One local writer on Indian history actually begins his book with the statement that “India has not had a continuous history.” It is, I think, quite time that the University of Calcutta recognised that the history of India is continuous and progressive, that like all history it comprises a series of events proceeding from causes according to scientific laws, and that the study of history consists in the study of these laws. The study of history further includes the criticism of historical evidence according to the criteria of credibility. Lastly, I do not think the University has sufficiently recognised the moral effect and significance of the study of history. It is through history properly taught that we should aim at training good citizens and good men. I agree with Babu Jadunath Sarkar in thinking that hitherto the University has almost altogether ignored these aspects of history especially Indian history. Both in its examinations and in its text-books history is treated as a mere catalogue of events to be learnt by heart. In the text-book adopted for the present Entrance course I am glad to see that some attempt has been made to remedy this mistake, but I think there is still great room for improvement in the Entrance text-book on these lines.

In this connection I must respectfully beg leave to bring to the notice of the Commission the objectionable character of the text-books recently prescribed for the lower classes of high schools in the Presidency Division. Two books have been prescribed. One of them is full of the grossest blunders in History and in English. Yet of this book thirty-five thousand copies have been printed and sold, at least I suppose this is what is meant by the words “thirty-five thousandth” printed on the cover. It is also approved by the Central Text-book Committee. It further appears from the notice at the back of the book that the same author has also on sale—

1. A catechism of Physical Geography, 4 annas.
2. Outlines of the History of Greece, 4 annas.
3. Possible questions in Indian History, 6 annas.
4. Catechism to the Science Primer, 4 annas.

I ask the Commission how it supposes that we can teach our boys English or History when such a manual is prescribed by the Department. How are we to discourage cribs and keys, when the authors of cribs and keys are promoted to posts of authority in the department?

My main objection to the second book was that it was full of misstatements calculated to bring discredit upon the English rulers of India. But I see that in the last edition most of the objectionable passages have been withdrawn. It
is still full of other mistakes, but they are not of such grave importance. However the fact that thousands of copies of this work full of abuse of the English rulers have been published and circulated under the auspices of the department suggests matter for serious consideration.

It is, I think, a matter for consideration whether all text-books on Indian history should not first be referred to the Government of India (Foreign Department) before granting copyright.

History teaching is divided into three stages.

(a) The primary stage for young children. In this stage the child should be told picturesque biographies, lively descriptions of remarkable events, the object being to create centres of interest.

(b) The intermediate stage in which the student should read brief and lively histories calculated to excite curiosity and stimulate appetite for increased knowledge. Here if we follow as far as possible the German system, we should have I think—

(i) an outline history of Greece;
(ii) an outline history of Rome;
(iii) a general sketch of the history of the world;
(iv) a brief history of England;
(v) a brief history of India.

In the Calcutta University we have, it would seem, divided this stage into two. In the Entrance Examination we have brief histories of England and India, in the F.A. Examination we have the histories of Greece and Rome.

As to the Entrance Babu Jadunath Sarkar wishes that longer and more interesting histories may be prescribed and that Physical Geography and the Indian Citizen omitted. Perhaps it would be better to adopt the suggestion of the Committee recently appointed by the University to consider the causes of failure in the B.A. Examination. Select a history text-book which is written in a good English style and use it as the English text-book as well as the history text-book.

In the F.A. Examination, as Babu Jadunath Sarkar says, no remedy can be hoped for so long as we have such a multiplicity of subjects. The course must be bifurcated or divided in some way, so that a candidate need only take up four subjects to pass. If this were done, the history course for the F.A. Examination could include the five branches of the intermediate stage as detailed above. Short histories of Greece and Rome and general sketch of the history of the world would be new subjects, but the histories of England and India would need little more than revision. The teacher should however be expected to make some comparison of the different histories and to indicate to some extent their connection.

(c) In the final stage of historical study the teachers’ object is to encourage reflection upon historical phenomena leading them to study (i) the criteria of credibility and historical certainty, (ii) the causes of events and the history of institutions. The means to this is the study of some period of history as narrated by some first class historian, e.g., Napier, Orme, Macaulay.

(b) The study of some period of history with reference to the original authorities, e.g., the reign of Akbar, or the reign of Asoka.

Here again in the Calcutta University we should divide this stage into two or three.

In the pass B.A. Examination we might introduce the study of first class works dealing with special periods or special aspects of Indian history; thus there is a great deal of literature now about the Buddhist period which might be studied with advantage.

In the B.A. honour history course and in the M.A. course we might encourage the study of original authorities.

In the B.A. course I agree with Babu Jadunath Sarkar in the suggestion that an honour candidate should be allowed to pass separately in the three subjects which he offers. I should go further. I should like the pass candidates
to be allowed to do this as at Oxford. The honour candidates I would allow to
pass in one subject only as at Oxford, or in one honour subject with pass
English, if the honour subject was not English. This would allow us to raise
the standard of the B.A. Examination both for a pass and for honours.

I do not think it would be desirable for the University of Calcutta to
attempt to provide for a school of theology. The theory of theology cannot
be divorced from practice. Even in Oxford there are many leaders of religious
thought who hold that the study of theology as a subject for examination is
injurious to the spiritual life of the student.

(11) Examinations.

Here many of our difficulties arise from the large numbers of candidates.
This is the cause of delays, errors and irregularities, which bring discredit upon
the University.

It is also I think highly discreditable to the University that it has no
proper buildings of its own in which to conduct examinations and that it offers
no remuneration to the superintending officers who are forced by departmental
pressure to discharge these duties for the University. The Commission perhaps
may not be aware of the strong feeling which exists upon this subject. Every
year for about two weeks the superintending officers have to attend from about
9 in the morning till 6 in the evening with hardly any intermission or rest and
watch over the holding of the examinations. For all this they do not even
receive so much as the thanks of the University. At the same time the whole
work of the college is stopped. For the whole of this month there can be no work
in the Patna College. The candidates dirty and spoil the buildings in which
they are examined as I showed to the three members of the Commission who visited
the Patna College. In order to remedy these abuses, I think it should be seriously
considered whether examinations could not be held more frequently and limited
to Calcutta or to a very few centres where the University should provide special
buildings of its own for examinations. These special buildings would also be
available for the lectures of University professors, if any are appointed, just as
the new schools are at Oxford.

(12) Registrar and Staff.

Upon this I have nothing to say.

(13) Affiliated Colleges.

As regards the working of a Government College I should wish with all
respect to represent the inconveniences that result from the constant changes of
the staff which are said to be necessitated by the departmental system. When
a Principal has carefully arranged the work of the session, it is very discourag­
ing to find that one of his principal teachers is taken away and another man of
different qualifications sent instead. How can you teach history when you have
no teacher. This has been my position during the past year. At the beginning
of the session my one professor who could teach history was taken away and a
graduate in philosophy came instead. I therefore called up a master from the
collegiate school to teach history. After about two months he was sent away to
Chittagong. I was consequently left with no one. After two months more
another change of professors was made. And then after another two months or
so I received back my original professor.

These constant changes are disheartening to the professor no less than the
principal. The professor teaches a particular subject to a particular class for
some two months. Then he is sent off to teach a different subject to a new set
of students and so on. How under these circumstances can he take any interest
in the subject he is teaching or in his pupils? Before he has time to know his
pupils, before he has time to develop his subject, he is summoned away to do
something else. While the teachers move, the students stand still. The evils
which arise from the constant shifting of the staff are very real, and I earnestly
hope that some remedy will be found.
With regard to the students in the college, I think that the Government should assign a certain number of Government scholarships to particular Government colleges. These scholarships should be awarded as at Oxford and Cambridge for high proficiency in some one subject. The scholars should be required to read for honours, and honour courses of study should be altogether separated from the pass courses.

(14) UNIVERSITY CEREMONIES.

Another point on which I wish to insist is the importance of improving the ceremonial of the University. Ceremonies have an important educational effect everywhere and especially in the East. At present the ceremonies of the University are of a most meagre kind. There is only one degree day in which all the candidates are huddled together, the B. A.'s having been kept waiting about nine months for their diplomas. I object to giving degrees in this hanger-mugger fashion. There might be two degree days in the rains for giving degrees in Arts and Engineering. The Vice-Chancellor should hold these convocations. If absent, he should nominate the head of some College Pro-Vice-Chancellor pro hac vice, e.g., the Principal of the Medical College, or of the Civil Engineering College, or of the Presidency College, if he were not as at present in the false position of Registrar. He might also select some one to deliver the address to the candidates as Public Orator. At the time of convocation all the Fellows wait for the Chancellor at the door of the Senate House and when he comes form what they are pleased to call a procession to the dais at the upper end of the hall. I should call it a disorderly moving mass. Why cannot convocations be managed like durbar? Only the members of the Syndicate should wait to receive the Chancellor, or Vice-Chancellor. The others should be already seated in their places. There should be a guard-of-honour at the Senate House. Then let us have a real procession. At durbars we have chobdars, in Oxford we have bedels with maces. I think the University should have at least eight chobdars for the convocations, two to precede the Syndicate and six the Chancellor or Vice-Chancellor in the Chancellor's absence. The Chancellor should have his train held up by a doctor of laws or by pages. Perhaps this is now done. I have not seen the new robe presented to the University by the Chancellor. Candidates for the M.A. degree should kneel before the Vice-Chancellor when receiving their diplomas. The Vice-Chancellor should order all who are engaged in supervising University examinations to wear full academical dress, including their hoods. Graduates appearing at higher examinations should wear academical costume, i.e., their gowns. At present graduates are directed to wear white chapkans. I should have thought black better. This question might be referred to the head of the School of Art. All the colours of the present hoods are very crude and ugly. Academical costume, i.e., cap and gown, should be worn at all meetings of the Senate. At these meetings one chobdar at least should attend the Vice-Chancellor. The Vice-Chancellor might also empower certain persons, the head of the local college, or the District Judge, to hold local convocations in certain centres for those candidates who cannot come to Calcutta. Government should order all professors and lecturers in Government colleges to wear their caps and gowns when lecturing, also all graduates attending lectures for higher degrees. In short the University should consult the σχέων πρόοπων much more than it does, and not try to shuffle through its duties with a minimum expenditure of time and trouble. It is of no use to tell the average man that learning is a noble thing to be held in the highest honour when he sees no outward signs of its honour and dignity. He will think meanly of what is done meanly. But if the functions of the University are performed with due solemnity, their importance and dignity will soon be recognised.

C. R. WILSON,
Principal, Patna College.
A University exists for—

1. The diffusion of knowledge, and
2. The training of Research Students, who may add to the world's stock of knowledge.

The same method and instrument cannot serve both these purposes.

SECTION I.

The present system stated and examined.

1. The Entrance Examination.—The students have to read two books on History with four other works. Hence History is only 2 of an entire subject, and carries only 1/3 of the total number of marks (60 out of 600).

The usual method of teaching consists in the master making an "abstract" of the text-book by extracting the so-called "important" sentences and phrases of a chapter and then weaving them into a paragraph or two. This abstract the students commit to memory, and this they are taught to reproduce verbatim in their class exercises and at the University Examination. The rules that are drawn up by the Head Examiner in History for the guidance of the Assistant Examiners include a collection of "points" for each answer. These "points" form a dry catalogue of the names of persons, battles, statutes, etc. The Assistant Examiners have to pay attention to these "points" only, and have to assign marks in proportion as the answer corresponds to the above-mentioned skeleton-analysis. Originality, whether of thought or of composition, is entirely out of place in such an examination. The memory is the only faculty that is exercised.

The text-books, too, are such as merely state facts dogmatically and briefly, without giving the process of reasoning or going into that detail without which no narrative history can be made interesting. The Philosophy of History and Historic Criticism are things not even dreamt of by authors, examiners, and teachers in the Entrance Examination. For several years before 1887, most students used to commit to memory a "Sketch" by K. C. Manna to the exclusion of their text-books. But the unexpected character of the questions set that year caused greater attention to be paid to the text-books, which, however, are now committed to memory in the abstracted form described above.

2. F.A.—In the F.A. Examination History is very much neglected; it is one out of six subjects and carries less than 1/10 of the total marks, (60 out of 630). The students have to read two Shilling Primers† of about 125 small pages each. Not more than two lectures a week are delivered in History, and the students merely prepare an "Analysis," either dictated by their teacher or printed by some note-writer, which entirely serves the purpose of passing the examination.

In the Entrance History class, a teacher occasionally tries to enliven his students by reading out of "Half-Hours of English History" and other popular works; but they excite little interest, as most students know that such things do not "pay" in the examinations as now conducted. Similarly, attempts to read Plutarch's Lives or scenes from Shakespeare's Roman Plays in the F.A. History class have been made only to be abandoned, as very few students take any interest in things lying outside their text-books.

3. B.A.—Here History and Political Economy taken together form one subject out of three. Though English and History are of the same importance as regards marks, yet History is very much neglected in all colleges.† The entire History course cannot be gone through in the class. The text-books are

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* General Geography, Physical Geography, Science Primer, and Lee-Warner's Indian Citizen.
† Creighton's "Home Primer, 18 mo., 121 pages" and Fyfe's "Greece Primer, 18 mo., 123 pages.
‡ Compare the number of lectures delivered weekly on the two subjects in the Presidency College:—

<table>
<thead>
<tr>
<th>Subject</th>
<th>English Pass course</th>
<th>English Honours course</th>
<th>History</th>
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<tbody>
<tr>
<td>Lectures a week</td>
<td>6</td>
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read by the students, as there are no printed "cribs" and the teachers cannot epitomise all the prescribed books. A little "outside information" is given in the form of notes on constitutional points derived from Stubbs, Hallam, Maine and others. But no attempt is made to teach the Philosophy of History and Historic Criticism. The present text-books are quite unsuited to the purpose of such instruction. Moreover, the students cannot be made to take interest in lectures on the Philosophy of History, unless questions based on it are set in the University Examination. So long as B.A. History papers continue to be what they are, the study of History will be a mere loading of the memory.

4. M.A.—The above remarks apply in great part to the M.A. History also. Here, too, the questions are not such as to make originality "paying." A student of average intelligence who pins his faith to "cribs" may be sure of a second class, while an original worker with a badly primed memory runs the risk of failure. The chief defect of the present M.A. Course is its multifarious nature. (See calendar.) Hence, the students do not get the chance of constructing the history of a definite period with the help of original materials; they only master the finished product of well-known historians. No training is now given in Original Research or even in Historic Criticism. The candidate has to spend so much time in mastering the thoughts of others that he has no opportunity to think for himself!

Teachers.—History is the least cared for subject in our colleges. No professor is set apart for it, but the junior professor of English or Philosophy is invariably made to teach History in those few hours in which he cannot be employed in the more profitable or more important work of lecturing on English or Philosophy,—his main subject. The total number of lectures delivered on History in all the classes put together does not amount to the total weekly work of a professor, viz., 18 lectures. Hence, specialisation of teaching is never attempted in History. Next to the character of the University Examination Questions, this is the most important cause of the present bad teaching of History.

SECTION II.

THE REMEDY SUGGESTED.

(A) Diffusion of knowledge.

In the B.A. Honour and M.A. Examinations, research ought to be introduced. But in the three lower examinations, as research cannot be expected, the present system of diffusion of knowledge should be maintained in principle, but with important changes in its practical working.

1. Entrance.—The text-book should not contain a dry catalogue of events, but should distinctly emphasise the continuity of the History of a country and teach a rudimentary philosophy of history; i.e., it should teach how a country's present is the outcome of its past, and what moral the story of a nation teaches us. Examination questions should be framed accordingly. If Physical Geography and the Indian Citizen were omitted, longer and more interesting histories might be prescribed for the Entrance Examination.

2. F.A.—No remedy can be hoped for so long as the multiplicity of subjects is not done away with, or the entire course is not bifurcated. When that is done, History should carry one-fourth of the total number of marks, instead of 1/3 as now. The reform as regards the text-books and Examination questions proposed for the Entrance, should be followed here too.

3. B.A. (Pass).—Here the course may be safely enlarged by increasing the number of books on the same country, and not the number of countries of which the histories are to be studied. For instance, we may prescribe a smaller History of England than the present course (Gardiner's), while setting 4 or 5 books on India, viz., one General History of India and 3 or 4 works (History, Biography, History of Literature or Civilisation) dealing with special periods or

* The B.A. Honour History Papers of 1891 from an exception to my remarks; they are not so bad as the papers of other years.

† First year—2 hours a week; 2nd year—2 hours; 3rd year—3 hours; 4th year—3 hours; total—10 hours, or, when there is an Honour class in History, 14 hours, a week.
aspects of India's national life. Examiners should be carefully instructed not to ask for minute details or mere narratives of events,—which encourage cram,—but to set general questions and especially questions on the philosophy of history.

(B) Advancement of Research.

Research students are a small minority in all countries. But here they do not exist at all, because—

(i) Here research opens no career.
(ii) Our degrees are conferred for mastering certain prescribed works; and hence research does not pay even in examinations.
(iii) We have no body of teachers wholly engaged in training and guiding research students.

The following remedies are proposed:

(a) Research students must be concentrated in one college or town.
(b) A few professors, recognised by the University, should be appointed to teach such students, to the exclusion of any other kind of lecturing.
(c) The professors' report on a student's work done under their eyes previous to the examination should be one of the factors determining the result of his University Examination. The student's work in the class-room would thus correspond to the "practical" examination which we hold in Science. Mere "book-work," the mere mastering of previously discovered knowledge, should be discouraged; and no rigid standard of paper-examination, no minutely defined intellectual test, should be insisted on. The more developed the system of examination, the more elaborate will the special preparation for that particular examination be, and the less room will there be left for freshness of thought or originality in the student. This is the bane of modern Universities, even in England. [See Pythe's Article on Universities in T. H. Ward's Reign of Victoria, Volume II.] The research student must, therefore, be examined according to a standard differing from that of the three lower examinations.
(d) The recognised professors should have a share in examining the candidates. In the present state of Indian Libraries and Museums, historical research in India necessarily means research in Indian History. But, for several years—possibly decades,—to come, the most desirable form of research will be the extraction and refining of the raw materials of Indian History. In this work, an examiner appointed from the outside can hardly do justice to a student's special research. It is only the professor under whose eyes the work has been done, who knows whether it is good or not and can estimate the intellectual effort which it has entailed on the student.
(e) In B.A. (Honours), a candidate may be allowed to offer to be examined in only one subject in one year; but he would receive his degree after passing in the other two subjects. Clever students will pass in two (Pass) subjects in one year, while those who are dull will pass in one subject only in one year. Thus, the B.A. Course will be finished in two to three years. This will tend to soundness and depth of knowledge.
(f) A tolerably permanent Board of Examiners, i.e., a Board of (say) six members, of whom not more than three may be changed in any three years,—should be established, in order to secure uniformity of standard and remove that element of uncertainty as to the character and number of the questions and the conditions of valuing answers, which now greatly depresses our students.

* In the Kurki Engineering College, a student's marks in all the weekly examinations of his two years of study are carried forward and added to the marks obtained by him in the final examination; the total thus formed determines the student's position in the list of passed students. I propose something akin to it in M.A. History.

† Compare the Premchand Roychand Studentship Questions in History for 1895 with those for 1897, as an illustration of the important part played by "personal equation" even in our highest examinations.
In the B.A. Honour and M.A. Examinations, twice the number of questions required to be answered should be set, in order to offer a choice to the candidate. The papers should not be too long. In the P. R. S. History Examination of 1897, ten different questions had to be answered in three hours! I suggest five questions for a three-hour paper and nine questions for a five-hour paper.

The Madras plan of setting several papers on the same subject may be followed, in order to discourage shallowness.

In the M.A. Examination, two out of the six papers now set may be allowed to be answered with the help of a library, but within the usual time-limit.

No minimum of marks* should be insisted on in any paper, but the aggregate should be raised to 40 per cent. in B.A. Examination and 45 per cent. in the M.A. Examination. This would secure greater depth and discourage shallow versatility.

Curriculum:

4. B.A.—Honour History, as now, with the following modifications:

(i) Indian History and Classical History should be mutually exclusive.

(ii) A definite period of History with reference to original sources should be studied, in addition to the present course.

(iii) A General Universal History may be added to the present course.

Freeman’s General Sketch will do for Europe.

5. M.A.—Substitute the following in the place of the present multifarious course:

(i) First paper—English Constitution (as now).

(ii) Second paper—A period of European History from standard authors (as now).

(iii) Third paper—General Indian History, including History of Literature and Civilisation (a much wider course than the present).

(iv) Fourth paper—A period of Indian History with reference to original sources.

(v) Fifth paper—The Candidate’s special research.

[ Papers IV and V may be answered in a library and should be examined by the “recognised” professors.]

(vi) Sixth paper—Political Science.

[ The candidate should undergo a simple “practical” examination in Epigraphy, in addition to answering the above six papers.]

SECTION III.

Difficulties in the path of Success.

1. Want of competent teachers solely engaged in the teaching of History.

2. Want of a competent and permanent Board of Examiners.

3. Difficulty of arranging co-operation between the “recognised” professors and the “outside” examiners.

4. Want of students willing to carry on researches which yield results only after years of work.

5. Absence of any degree and scholarship (except the P. R. Studentship) for rewarding post-graduate research; for no research worth the name can be expected within two years of the F.A.

JADU NATH SIRKAR,
Professor, Patna College.

* The superiority of the scholars of the Hindu College to our students was due to their not having been compelled to secure a minimum of marks in every subject. It is difficult to exaggerate the depressing effect of the “minimum” rule upon the best students of the present time.

G. I. C. F. O.—No. 1555 II. D—2-4-1902.—39.—P. K. B.
Mr. H. R. James, Professor, Patna College.

I conceive the test of English at the Entrance Examination to be absolutely fundamental, so much so, that until this has been set right, it is little better than lost labour to consider any other of the questions raised about the University. The reason is quite simple. The whole course of education is based on the supposition that the teaching is to take place in English. It requires no argument to prove that, unless those who listen to lectures in English and study English books have some considerable facility in reading and understanding English enough,—that is, to follow English lectures intelligently,—they cannot possibly learn anything. I can say positively that a great number—I am not prepared to say what proportion—of the students, who read for the F. A. after passing the Entrance Examination, are not able to understand the books, they are required to read, or to follow their lectures properly. They can only just take down what is dictated slowly; very few, if any, can really take notes. This is stated positively as the result of experience. But any one who studies the conditions prescribed for the Entrance Examination, the papers actually set, and the standard of passing, may see for himself that no security is afforded that one who passes the examination shall have that minimum familiarity with English as a living language, that will ensure his understanding his lectures and text-books. It will be seen that it is quite possible to pass by means of repetition and the working up of a text-book of selections. Two papers are set, one described in “Rules for Examination” (Calendar 1901, page 151) as the text-books and questions on Grammar; the other as (i) Translation from a vernacular, (ii) questions on English composition. To the first paper 120 marks are assigned, 80 to the second. The number of marks required to pass is 66. Of these 16 may be obtained on poems learnt by heart. In the paper of 1900, only 7½ marks appear to be assigned to Grammar (that is to parsing), the remainder to literary questions on the text-book of the familiar type. In the second paper 26 marks are given to translation from the vernacular, 7 to an original letter of 100 words and the rest to Grammar, problems in idiom, and that perversely ingenious exercise—the correction of samples of bad English. One knows that many Indian students with an extraordinarily weak knowledge of English do as a matter of fact pass this test. One gradually learns that the Indian student has an extraordinary faculty for learning words by heart without understanding their meaning. If one goes back to the papers set and reads them in the light of these two facts, it is not difficult to see why the Entrance Examination fails in that which should be its main function, that is, in being a test of fitness for the Calcutta University Courses. There is, moreover, a significant omission in the special rules for the Entrance Examination (Calendar 1901, pages 150-152). In the case of the F. A. and B. A., all examiners are charged (Calendar 1901, pages 152-153) to take the correctness of English into account in all cases where the answers are written in English. There is no such requirement in the case of the Entrance Examination.

Now although it may be difficult to solve the problem of a matriculation examination in India quite satisfactorily, it is quite easy to correct some of the defects of the above scheme. For instance, less marks may be given to the text-book questions, the marks for repetition may be done away with, more weight may be assigned to translation and composition, I should suggest dividing the 200 marks equally between four papers, 50 marks to each: (1) Translation from a vernacular into English, (2) original composition (supplemented by an oral examination, if possible), (3) Grammar, (4) Text-book. Then the pass marks should be raised. I should myself advocate very short and easy papers (much shorter and easier than this year’s) and a relatively high standard, 50 or 60 per cent. But I would acquiesce in the 40 per cent. proposed, if the general opinion is that more than this is at present unworkable. I should be strongly in favour of the Preliminary Examination in English suggested by Mr. Edwards.

Another possible expedient is to do away with prescribed books in the examination. This experiment was tried in 1874 with apparently satisfactory
results. It was then suddenly discontinued (in 1878) and text-books were again prescribed. No reason for the second change appears in the minutes.

Another wholly different alternative has been suggested to do away with the University Entrance altogether and leave it to the colleges to fix their own standard. This would at least have the effect of securing that teachers should reap as they sowed. Very possibly the standard would adjust itself better this way than any other.

But the details are disputable: what is beyond dispute is that before there can be hope of any general improvement in the ultimate results of the University system, the English standard of the average undergraduate must be raised from the beginning and raised considerably.

I am inclined to think that for the purpose of education in the larger sense, the question of the college is far more important than the question of the University. I hold that the college and its education as a whole should be the primary not the secondary object. The reason is, I conceive, that the actual education, which is the important thing, takes place in the college. The University only tests one side of the education. I want, therefore, to see the college an organic whole with a life of its own. This is no easy matter under the given conditions, but I am convinced that it is quite possible to do more than is being done. One may point to the Shibpur Engineering College and the Mahomedan College, Aligarh, as encouraging examples of what is possible.

What is wanted may be expressed most simply as ‘esprit de corps,’ the feeling that the institution itself is something to love and take a pride in, a larger and more valuable whole in which all the members share and to which disinterested service may be given. Indian students ought to learn to take a pride in their colleges, this sort of patriotism should be fostered in them.

The object then is by every available means, by the customs we institute, by the habits we form, by the whole external organization to enable the student to realize as widely as possible that he is a member of a college, which has a common life in which he shares. Among the means which appear as possible, which have not been fully tried as yet, and which in my opinion must be tried, if we want the colleges to fulfill the end for which they exist, the following may be suggested:

The staff who (if they fulfill their function at all) must give the tone to the place should be more of a unity and by their whole attitude towards the college, towards each other, towards their students, should endeavour to impress upon their students the idea of this unity. They can only do so by being closely associated together in the common work of the college. They should manifestly be members of this common wealth, not detached units. Permanence of the staff is here a consideration also of great importance.

I should like Principals of colleges to have more independence and a fuller initiation. The Principal represents this idea of the unity of the college. He should be somewhat of a personage. I should like him to have ample resources for developing and improving a college, something more than a small contingent allowance and more in the nature of a permanent income or endowment: funds which he could administer at his discretion, though, of course, he would render exact account, how they were administered: funds which he might lay out from year to year on immediate improvements and from which he might even save by a wise economy for more permanent improvements. In this way the college would be always growing and developing.

But while giving this large measure of authority and independence to the Principal, I should wish some more definite status in the college to be given to the rest of the staff—the Professors as they are now called. For this end a College Council seems to me a vital necessity. This need not infringe on the due authority of the Principal. The whole responsibility rests and should rest with the Principal, therefore, the final word and the fully authoritative word should always be his. But that the Principal and Professors should meet
together from time to time for the purposes of consultation, not necessarily very frequently, perhaps not more than two or three times a year, could only, I think, be wholly beneficial for the purposes in view. They would thus realize and impress on others, the unity and community spoken of and would have useful opportunities of comparing notes and arranging for common action; in matters also to which a written order of the Principal cannot reach. We want co-operation, and not merely co-operation, but zealous co-operation. I think, every college should have a College Council and regular Professors' meetings.

I should wish it to be impressed upon students by every means in our power that they are men and not boys: that they cease to be school-boys when they enter a college, and that they take upon them more of the responsibilities of manhood. Now here I discern circumstances arriving no doubt, natural enough from the manner in which the Indian college has in a way arisen out of the school, tending to the obscuring and confusing of the fundamental distinction between the school and the college, the college student and the school-boy, but no less pernicious in tendency, because it has all come about in away we can understand. The colleges were sometimes at first little more than the upper classes of schools. Colleges and schools are still associated in pairs and sometime share the same building. For all that, it seems to me of the utmost importance to throw ourselves across this tendency, and insist on making the line of cleavage between school and college as deep as possible. The habit which still lingers of speaking of college students as boys is a sign of the popular point of view as well as an abuse of the accepted meaning of words in English. One matter in which this tendency works harmfully in my opinion, is the case of hostels, which sometimes are instituted for colleges and schools in common. I believe I am justified in saying that this practice is an utter disciplinary heresy. School-boys and college students should be most carefully kept apart for all moral and disciplinary purposes. It would take too long to develop the reasons for this separation. It may be briefly said that the whole point of view is different in the discipline of the two classes.

The same distinction applies to clubs and societies and institutes. School-boys and college students should be kept separate. This being granted, the discipline of a college should be such as to bring out as far as possible the sense of responsibility of the student. He should be left to his own sense of right as far as possible. The discipline of the college need not be, and must not be, on that account slack. In most cases—perhaps in all—at present it requires somewhat to be tightened up. College students should be persuaded to show invariable respect for the place of education and for their teachers. Rules should be drawn up at every college to stop the practice of spitting in the college building or precincts, to prevent bustling and scrambling for places in the class-room, and to check chatter and striding outside as well as inside the class-room. The college student must learn to behave in a becoming way to keep his self-respect as well as respect for the place. Even dress and neatness are matters not wholly to be overlooked. Above all, he has to learn that, while a college is ruled in his interest by the proper authorities, it is not for him to try to rule it, or to instruct his teachers.

With the reservation made as to the distinction of college students and school-boys, it seems to me that nothing will conduce more to the improvement of colleges than the extension of the hostel system. So much more can be done with students if they are together under discipline. The great difficulty, as things are, is to get at students out of college hours. Clubs and games are managed under great disadvantages while this is so.

Another point of cardinal importance, however, is that all the students in one hostel should belong to the same college. Otherwise the most important hold over them is lost, the appeal to the college itself. This, again, is confusion and utterly disreputative of that unity which I have been insisting upon. At present this is not sufficiently recognized. We need to impress on the student the idea of his college as his, and of duties and privileges involved in the relation. This is lost if he only belongs partly to his college. In some of the largest hostels recently founded this principle has not been observed. Students may belong to different colleges, even perhaps to schools.
These, whether social, literary, or athletic, are important factors in the college life and help in the best possible way to the realization of membership for commonwealth which is what we wish our students to reach. But here, again, the principle of unit comes in, and here, again, the prevailing tendency is to disregard it. A Union Society is an admirable institution, but only when you have thoroughly developed first the separate life of the colleges to be united. When you have made your student realize his membership of his own college and have made its separate life as full and deep as possible, then it will be admirable to broaden him by association with students of other colleges. But not before you have done this. Otherwise you will never be able to reach this idea and the college and its units which I conceive to be the most potent educational instrument to our hand.

It is only by variety and interest of incidents and activities that our college life can be realized. These are the elements out of which the life is built and to which the idea, where it is a motive and a stimulating force, is reducible by analysis. We must therefore make it a direct object to create such incidents and interests. In addition to those already noticed, there are college prizes, and colleges functions, by which life in Indian colleges might be coloured and diversified more than is at present the case. At all events, the institution of college prizes of books would, I think, be worth doing and serve a useful purpose.

Lastly, I desire to guard against the misapprehension that the ends which I have indicated as desirable can be wholly brought about by the elaboration of rules. Rules go but a little way indeed, and it is very possible to have too many rules; most of the things spoken of above cannot be made the subject of rules at all. It is not expedient to make all that may be desirable in the way of service from the college staff or conduct from the student the subject of rule. You cannot, for instance, command the amount of interest outside his routine duties which a college teacher shall take in his college or his pupils. The utmost you can do is to give him opportunities and foster, if possible, a high sense of responsibility. Rules are in some cases necessary, but the aim should be to keep them few and simple.
Mr. Abdul Karim, Assistant Inspector of Schools.

Preliminary Remarks.—I am a graduate of the Calcutta University and an Assistant Inspector of Schools of more than twelve years' standing. I have been directly connected with the University, as one of its Fellows, for about seven years. As an Inspecting Officer, I have had occasion to visit some of the colleges, most of the High English schools, and many of the Middle and Primary schools in thirty districts in Bengal, Behar, and Orissa. I propose to speak mainly about the state of the High English schools of which I have seen a good deal. My views on some points connected with these institutions are likely to differ from the views of those whose observations are confined to particular institutions and particular localities. I am afraid I shall have to say some unpleasant things. The importance of the subject, however, is my excuse. My object is not to cry down our educational institutions, which have been doing good to the people of this country, but to point out defects which, in my opinion, very much mar their usefulness and should be remedied.

Increase in the number of High English schools.—The number of High English schools has considerably increased of late. Where a few years ago there was not even a single school of this class, there have sprung up many in the course of a few years. In some places the number is much larger than necessary to meet real requirements. I did not know when I was coming to Calcutta that I would be called upon to give evidence before the University Commission, otherwise I would have brought with me detailed statistics of the schools and scholars in my division. I, however, remember the figures regarding the localities where I had lately been out on tour. Seven years ago when I left the Dacca Division on transfer, there was not even a single High English school in Palang, a thana in the Madaripur sub-division of the district of Faridpur. On return to the division after seven years, it was not a little surprise to me to find that in a single thana so many as eight High English schools had been established in course of these few years. All over Bengal the number of High English schools is on the increase. These schools owe their origin to four causes. When the standard of proficiency in general attainments required for admission into the Medical and Survey schools and for the candidates for the Mukhtarship examination was raised, the status of a large number of Middle schools was raised and they were converted into High schools. A few institutions of this class were established to meet a real demand for high education. I wish the number of such schools were large. Some of the High English schools owe their origin to a commercial spirit and some to private and party feelings. The number of schools that fall under this category, I regret to say, is by no means small. Some of them are mere money-making concerns and others are kept up simply to satisfy individual vanity or party spirit. Some people of moderate means and education, when they fail in other walks of life, think of trading in schools and scholars. Again, when a Mr. Ghosh establishes a school, a Mr. Bose of the same town or village, or of the neighbouring village, thinks it necessary for keeping up his prestige to establish a rival school of the kind. Sometimes party factions are formed and what one party does the other party try to undo. Thus there have sprung up a number of schools, the unhealthy rivalry among which far from furthering the cause of sound education has greatly retarded it. A considerable portion of the time of the Inspector of Schools is now taken up in deciding unpleasant cases connected with these rival schools. The unseemly struggle among these schools for securing students by means, fair or foul, has made the students masters of the situation. There has been in consequence a perceptible deterioration both in efficiency and discipline of our schools, as I shall show later on.

The University, I regret to have to say, is to blame, to some extent, for calling into existence schools of the kind mentioned above. If the University refused to grant them the privilege of sending up candidates to its examinations, they would have died before long a natural death. In this matter the University used to be guided entirely by the reports made by officers of the Educational Department. But of late the attitude of the University seems to
be to ignore local advice. Applications for recognition of schools and colleges are referred to the departmental officers as before, but their recommendations do not seem to be adequately attended to by the University authorities. I am aware of cases in which in spite of strong adverse opinions expressed by the departmental officers the University authorities thought it fit to recognise schools. As an instance I may refer to the case of a school in my division. While I was acting as Inspector of Schools, Dacca Division, the Registrar of the Calcutta University forwarded to me an application made by the managers of a newly established High English school at Chitrakote, a village in the district of Dacca. On enquiry I found there was a recognised school very close to it, and there was absolutely no room for two schools in such a small place. The Deputy Inspector of Schools, the Assistant Inspector of Schools, and the Inspector of Schools, my predecessor in office, had visited the place one after another and tried their best to amalgamate the two institutions. When they failed in their attempt, they refused to recommend the new school for recognition by the University. Subsequently the promoters of the school applied direct to the University and their application was referred to me. I submitted a strong report pointing out that there was no room whatever for two schools. Had the University refused to recognise the school as advised, there would have been a natural dissolution of one and the survival of the fittest. The promoters of the school began to agitate and induced the editors of some newspapers to take up their cause. They seem to have succeeded in enlisting the sympathy and support of some of the members of the Syndicate as well. There is a small stream, called in the local dialect a *khali*, between the two schools. It has little or no water during the greater part of the year and can be easily crossed even during the rains. This small stream was represented to be a rushing torrent in which many a boy was said to have met with a watery grave. Though the officers who had visited the place and had seen everything with their own eyes found nothing of the kind, the members of the Syndicate from a distance of many hundred miles believed what was represented to them. The school was accordingly granted the privilege of sending up candidates to the University examination. It has, if I have rightly been informed, already told seriously upon the numerical strength and discipline of the neighbouring school that was doing useful work for some time. Instances such as this are not very rare. It is very desirable, Sir, that before recognising a school every care should be taken to ascertain whether it supplies a real demand, whether the cause of sound education will be furthered by it, and how the existing educational institutions in the neighbourhood are likely to be affected by it. The University may have their own officers to make the necessary enquiries. But if the officers of the Education Department be consulted, it is most desirable that their reports should be taken into due consideration.

**Deterioration in disciplines.**—I have said that in some schools boys are masters of the situation. These schools have to struggle for their very existence and depend entirely upon the income derived from fees and fines. They cannot, therefore, afford to lose boys, whose deficiencies and delinquencies have to be overlooked. Boys betake themselves from one school to another if punished for misbehaviour or not promoted for unsatisfactory progress in their studies. The Transfer school rules are meant to check this regrettable state of things. But I have reason to believe that in many cases they fail to produce the desired effect. Although we have repeatedly been pointing out to the school authorities that nothing tells so seriously upon the efficiency of a school as does indiscriminate promotion, we have not succeeded in checking it. In many of the schools an overwhelming majority of boys are totally unfit for the classes in which they are. Boys are promoted from one class to another and candidates are selected for the University examination irrespective of their progress and preparation. The annual and test examinations are in some cases a mere farce and not a real test of merit of the boys. In some schools all the boys in the first class are allowed to go up to the University examination. On inspection of the books in which the marks of the test and annual examinations are recorded, we find that in some schools boys who fail in all the subjects and secure less than even 20 per cent, marks in important subjects like English and Mathematics are allowed to appear at the University examination and are promoted to higher classes. It is no wonder, therefore, if a large number of
candidates for the Entrance examination fail. The head masters are required to certify that the candidates have some reasonable chance of success. Even where there is not the slightest chance of success they have to give the required certificate. Undue pressure is brought to bear upon them by the managers of schools and they have to give way. The following example will show how the teachers are sometimes helpless in the matter. There is a High English school at Kartikpur in the Paltang thana of Faridpur. There have been started in this thana, as I told you before, eight High Schools in the course of a few years. The services of a rather strict head master have lately been secured for the Kartikpur school. He refused to send up to the last Entrance examination some of the boys of the first class, who, he thought, were not fit to go up to it. The guardians of the boys, however, so influenced the managers of the school that they obliged the head master to send up all the boys without a single exception, though he had no doubt that some of them had no chance of success. He must have acted against his conscience when required to give the necessary certificate. The same head master found himself in greater troubles when he refused to promote some of the boys who failed to secure sufficient marks at the annual examination. The boys formed, perhaps with the connivance of their guardians, a combination against the head master, created a row and so upset the order of the school that it had to be closed for some time. Anonymous petitions containing various allegations against the head master were sent to the proprietor of the school; he was threatened with bodily injury; the secretary was insulted and some of the boys who had been promoted were prevailed upon to leave the school. At this time the neighboring schools must have found a good opportunity to add to their numerical strength. When the authorities of the school applied for departmental interference, I paid a visit to the place, punished some of the boys, threatened to rusticate others and succeeded in restoring order. At the intercession of the school authorities, however, some of the boys who were fined had afterwards to be forgiven. This, I am afraid, was not an isolated case. Such being the state of things, maintenance of proper discipline in our schools is out of the question. As sending up of unfit and unprepared candidates tends to reduce the standard of the examination, it is very desirable, Sir, that greater strictness should be insisted upon in the selection of candidates for the University examination and in the promotion of boys from one class to another, especially in the higher forms. The Inspector of Schools has taken into his hands the selection of candidates from the Government schools. When the head masters of zilla schools, who are Government officers in receipt of decent salaries, likely to be more alive to their responsibility than the low-paid teachers in schools under private management, are not entrusted with the selection of candidates, is it safe to entrust the head masters of private schools in this matter? I would have the selection of candidates from all schools made by the Inspector of Schools who may be required to certify as to their fitness to go up to the examination. I would have also, if possible, the promotion of boys in the first four classes of the High English schools in the hands of responsible officers of the Education Department.

Numerical strength of the classes.—In some schools the classes are too large to be properly taught and controlled by a teacher. Individual attention, which is so essentially necessary, is out of the question. The boys have to be left much to themselves. In aided schools, as a rule, we insist upon the division of a class into sections when the number of boys exceeds fifty. But in some private schools there are classes composed of a larger number of boys. In my opinion fifty is too large a number to be well taught and looked after by a single teacher. When he begins to hear the lesson from the boy at the top, he can scarcely reach the boy at the bottom during the time at his disposal. Forty, I think, is a fair number for a class. Where this number is exceeded, the efficiency of teaching is affected. I think it desirable to make a rule that no class or section of a class should contain more than forty boys.

Teaching staff.—The teaching staff in many schools is far from sufficient. The pay is too low to attract well-qualified men or to induce them to stick long to the posts when they accept them. They have to work without interruption for full five hours and have sometimes to teach at a time more classes than one. The result is that the teachers do not care either to work with their heart or to stick to the posts for a sufficient length of time. School-mastering has come to
be looked upon by some of our graduates and undergraduates as a stepping-
stone to better posts or as a halting-place for preparation for the Bar. Such
men accept almost any salary offered, but from the moment they join their
posts they are always on the look-out for opportunities to leave them off. They
cannot have their heart in the work, and as soon as they find anything better
they throw up their appointments in the school. There is thus frequent change
in the teaching staff, and this cannot but tell seriously upon both the discipline
and efficiency of the schools.

Many of the teachers are not properly qualified for their posts, and they do
not seem to recognise the gravity and responsibility of their choice. Some of
them go direct from the college to occupy the chairs of teachers. Such men, I
need scarcely say, are ignorant of the art of teaching and incapable of main-
taining proper discipline. After their stay in the school for some time, which
may be regarded as the period of apprenticeship in the art of teaching, when
they learn something and just begin to be useful, they betake themselves
to other professions. It is a wonder that this state of things did not so
long attract the attention of the authorities. Some special qualifications
over and above general attainments are required for almost every appointment,
even for a petty clerkship. But for the very responsible post of a teacher no
other qualification is insisted upon than that of being a mere graduate or an
undergraduate. It is most desirable that teachers should be well paid, so that they may
stick to their posts. The Education Department is not now so attractive as it
once used to be. The best scholars do not seem to like to enter the Educational
Service for the meagre prospects held out to them. They are attracted to other
departments.

House accommodation.—Many of the schools under private management
are badly housed. Few of them have a decent habitation of their own. Many
of the school houses are not at all suited to the purpose for which they are
used. They do not seem to have been built on sanitary principles, there being
little provision for sufficient light and air. The ceiling being low and the roof
made of corrugated iron, the heat is almost unbearable during a part of the
year. The class rooms are not sufficiently large and boys are so overcrowded
as to affect their health. I do not think, on the whole, I have overdrawn the
picture, although a good school house may be met with. But they are few and
far between.

Management of schools.—The managing committees of schools are
generally composed of men who have no experience of school management
and little knowledge of the requirements of educational institutions. Every
body is at liberty to start a school. As a rule, the managers of private schools
do not seem to realise the gravity of their undertaking. They seem to be al-
ways led by false notions of economy, and they do not like to lay out the
amount required for its maintenance in a proper condition. They seem to be
always anxious to run their schools on cheap lines, unwilling to have them well
officered and well-equipped. I have pointed out some of the defects and draw-
backs of the schools in Bengal. I wish more Inspecting Officers having ex-
perience of a large number of schools were invited to give evidence. They
would have, I believe, corroborated the truth of what I have said.

Private colleges.—My knowledge of private colleges is limited. From
what I have seen of some of them I may say that my remarks regarding many
of the points connected with the management, staff and accommodation of schools
are not altogether inapplicable to the colleges. I do not think their staff is as
strong and their laboratories are as well-equipped as desirable. As for libraries,
they are very poor apologies for what they ought to be. The University
should insist upon annual examinations being held in the First and Third year
classes, and those who fail to secure sufficient marks should not be promoted to
the Second and Fourth year classes. Candidates for the F. A. and B. A. examina-
tions should prove their fitness to go up to those examinations by passing a
test examination as the candidates for the Entrance examination have to do.
The heads of the colleges should be required to certify that the candidates sent
up for the F. A. and B. A. examinations have a reasonable chance of success.
It is very desirable, Sir, that there should be definite and stringent rules for the recognition of schools and affiliation of Colleges. When an application is made, it should be well ascertained whether there is a real demand for the institution for which affiliation or recognition is sought, and whether its promoters by their education and means are in a position to conduct it on lines, on which it ought to be conducted. Everybody should not be permitted to undertake such an important and responsible task. No school should be recognised and no College affiliated unless and until its sources of income are such as to ensure its stability, and its staff is both sufficient and qualified to teach the subjects and standards prescribed and unless it is well-housed, well-furnished well-equipped. Besides, there should be a sufficient guarantee of its being always conducted on an efficient footing. To permit such institutions to undertake University Education as are not in every respect fitted to do so, would reflect discredit upon the University. The recognised and affiliated institutions should be periodically inspected by the University and those that are found to have deteriorated in efficiency should be disaffiliated. Weeding out of inefficient Colleges and schools is likely to produce a salutary effect. It is desirable that every University should have a distinct sphere of influence. It should not recognise or affiliate institutions which it cannot properly control.

The Senate.—As a member of the Senate and of two of the Boards of Studies, I may be expected to say something about them. The present constitution of these bodies is not, in my opinion, what it should be. There seems to be no fixed principle on which Fellows, specially Native Fellows, are appointed by Government. Some of them seem to have been appointed merely by way of compliment. They do not possess academic attainments which should be a requisite qualification for a Fellow. I think it is necessary that Fellows should be graduates of some University, Indian or European. Being themselves products of such an institution they would know its requirements and would be more useful than those who have no knowledge of any University. The best way for the University, to recognise Oriental Scholarship, is to confer honorary degrees and not to bestow complimentary Fellowships.

The manner in which Fellows are elected by our graduates is far from satisfactory. The canvassing and wire-pulling that take place on the occasion of such election are open to serious objection. Those who can canvass well seem to have the best chance of success. Some of the best men fail to enter the University through the door of election. I know distinguished graduates of long standing and high position who repeatedly stood for election, but were not successful, perhaps because they did not take such objectionable steps as are sometimes taken by candidates for this honour. I believe many of the Fellows elected by the graduates come from a particular profession which seems to afford special facilities for canvassing. Votes are sometimes given in favour of men whom the voters have never seen or known. Under the existing system of election neither a Muhammadan nor an Anglo-Indian seems to have any chance of success. Up to this time no one of these persuasions, as far as I am aware, has been elected a Fellow. As Fellows are appointed by Government and elected by the graduates in the unsatisfactory manner described above, it is no wonder that some of them do not care to take any interest in the affairs of the University. I regularly attended the meetings of the Senate for five years, but I failed to find present, in any of them some of the Fellows whom I know merely by name. There are others who are seen in the University Hall only once a year on the occasion of the Convocation. Again, there are some who come to the meetings simply to record their votes when matters in which they take personal interest have to be decided.

Such being the state of the Senate it requires to be remodelled and reconstituted. The number of Fellows, in my opinion, should not be either less than 100 or more than 150. Two courses suggest themselves to me by which the reconstitution of the Senate may be effected. One is not to fill up vacancies caused by death or retirement of Fellows till the number comes down to the required figure. The other course is for the Fellows to tender their resignation to the Chancellor of the University. I would prefer the latter course to mend matters at once. Delicacy is likely to be felt in making it known that some of the existing Fellows have ceased to be what they are. It is desirable, therefore, that we should in a body tender our resignation to His Excellency the Chan-
cellor, so that he may have unfettered discretion in appointing Fellows and in
reconstituting the Senate. I have no objection to a limited number of Fellows
being elected by the Fellows themselves and other graduates of the University,
provided effectual steps are taken to guard against the unpleasant canvassing
and wire-pulling that have characterised the election of the Fellows in the
past. It does not seem desirable that the election should be by voting papers.
The personal attendance of the voters at the Senate Hall should be insisted
upon. Graduates of ten or fifteen years' standing may be given the privilege
of voting. The present qualification of twenty years' standing seems to be
rather high. I am in favour of life Fellowship. If it is to be terminable,
every Fellow should hold office for at least 10 years. If a Fellow were to
vacate his seat earlier, he would be going out just at the time when he is likely
to be most useful to the University. It takes sometimes for a Fellow to acquire
a sufficient knowledge of the affairs of the University. For the first few years
he, for want of knowledge and experience, is not able to take an intelligent
part in its proceedings. The longer he is a Fellow, the more useful he is.
A fellow should, however, forfeit his Fellowship if he fails to attend, without
reasonable excuse, the meetings of the Senate for a certain period, say, for two
consecutive years.

The Faculties.—The different Faculties should be composed of such
Fellows as would be in a position by their attainments and experience to take
an intelligent part in their deliberations. If Fellowships be not indiscri­
minately bestowed, all the Fellows will be qualified men. In that case I would
assign each Fellow to one or more faculties on which we may be qualified
to sit.

The Syndicate.—As I had never been on the Syndicate, I am not in a posi­
tion to speak much about it from personal knowledge. I may, however, say
that the manner in which the Syndics are elected is very far from satisfactory.
As in the case of election of Fellows there is, in the election of the Syndics also,
a good deal of canvassing, unbecoming such educated and enlightened men as
the Fellows of the University. This should be put a stop to. The existing
number of Syndics seems to be adequate. The present practice of five
members being elected to the Syndicate by the Faculty of Arts, two by the
Faculty of Law, two by the Faculty of Medicine, and one by the Faculty of
Engineering, seems to be working well and may be continued. Instead of
being elected every year I would have Syndics in office for two or three years.
But I would not have the same men re-elected several times so that all those
Fellows who are able and willing to serve on the Syndicate may have an oppor­
tunity of doing so. I would like to see men engaged in practical work of edu­
cational experts were to be outvoted in important matters by amateur educationists.

The Boards of Studies.—As a member of the Boards of Studies in Arabic
and Persian and in History and Geography, I am in a position to speak only of
these Boards. The indiscriminate manner in which these Boards seem to have
been constituted cannot but reflect discredit upon the learned Fellows of the
University. Whenever a vacancy occurs, specially in the latter Board, there is
so much canvassing for it as to produce a sickening effect. Some of the
members of these Boards, I regret to have to say, are not quite competent to
judge of the merits of books, presented to them. If I remember aright, some
time ago a gentleman who did not know even the alphabet of the Arabic and
Persian languages was elected a member of the Arabic and Persian Board
simply because he happened at the time to be the Principal of an Oriental
College. The European members of the History Board have gradually been re­
placed by native members of whom there is now an overwhelming majority.
Interested persons seem to have managed to take the seats vacated by Mr. Rowe,
Mr. Prothero, and Mr. Mann. Although distinguished Fellow like Mr. Justice
Amir Ali and Mr. S. C. Hill were proposed for these seats they were not elected.
There are not many members on the History Board who have, as far as I know,
reputation for a special knowledge of the subjects on which they are required
to give their opinions. It is an open secret that some of the members, either for
want of time on account of professional engagements or for want of interest in
the subjects, do not carefully go through the books referred to them. I have
reason to believe that on some occasions some of the members gave their
opinions after turning over a few pages and some perhaps without taking even this trouble. The result has been that text books on History have sometimes been selected as a matter of patronage and interest and not of merit and fairness, and there has been more frequent change of these books than desirable. It seems to have become rather unpleasant for impartial men to serve on this Board. If my information is correct, one of the members resigned his seat in disgust after the last meeting in which the historical text for the Entrance Examination was selected. For these reasons public confidence in the Board of Study in History seems to have been shaken. Moreover, predominated as the Board is by members of a particular persuasion, there seems to be a conviction among my co-religionists that a book written by one of them has not much chance of being treated with fairness. This is a very regrettable state of things, and the sooner it is put a stop to the better.

At present the only qualification for being elected a member of a Board of Study is to be a Fellow of the University. Every Board, in my opinion, should consist of specialists in the particular subject or subjects for the consideration of which it is constituted. It is not desirable to put on these Boards those who write such text-books as are considered by the Boards or those who are connected with their printing or sale. Men of established reputation and studious habits who would carefully read the books referred to them should be elected members of the Boards of Studies. At present the Syndicate has a nominal voice in the selection of text-books. The recommendations of the different Boards are almost invariably approved by it. It seems desirable that Boards of Studies, like the recently formed text-book Committees, should be advisory bodies and the final decision in the matter of selection of text-books should rest with the Syndicate.

The Age-limit.—I am in favour of fixing a limit of age for candidates for the Entrance Examination. As two of my children had been pushed up rather prematurely to higher classes I made a special study of this subject. After consulting those who are in a position to give information on the subject I have come to the conclusion that it is not at all desirable to allow a boy to appear at the Entrance Examination before he is fifteen, if not sixteen. Although my boys were doing well in their class and stood high at the examinations I found they had to depend more on their memory than on intelligence or understanding. Unless there is a sufficient development of intelligence it is not possible to grasp thoroughly, subjects like Geometry and Science. Only the other day I had a talk with the head master of a very largely attended school at Dacca. He mentioned to me three instances of boys having passed the Entrance Examination from his school at the early age of thirteen or fourteen. These boys acquitted themselves very creditably at the University Examinations and gained scholarships. But the ultimate result has been disastrous in all cases. One of the boys died shortly after he left the University, one is in a lunatic asylum and the other, though a member of the B.A. is in a miserable state of health. Last year while out on tour at Sassaram, I happened to put up in the same Bungalow with Mr. Roy, Assistant Opium Agent. He told me that one of his sons passed the Entrance Examination at the age of fourteen. Both he and his father-in-law, Mr. Justice Ghosh, were not in favour of rushing up the boy to higher classes, but their mother, if I remember right to have been told so, liked to see them get through the Examinations at an early age. Nature, however, would not allow herself to be violated. The mental strain so told upon the health of the boy that when he went up to the second year class and was preparing himself for the F.A. Examination, Dr. Sarbadhikary saw no alternative but to advise that the text books should be burnt. Knowing all these I have not the least hesitation in saying that the interests of our young men require that an age limit should be insisted upon. There may be some exceptional cases to the contrary, but as a rule I have no doubt that health of boys is seriously affected when they have to prepare themselves for the University examinations at an early age. I am so thoroughly convinced of this that I have withdrawn my sons from the fourth class of the Calcutta Madrasah although one of them did so well at the class examination as to secure a scholarship. I mean to detain them for a year, so that they may not pass the Entrance Examination before the age of fifteen.
The Boarding system.—It is most desirable that students attending our Colleges and schools should, as far as possible, leave in hostels attached to these institutions. Nothing exercises a healthier influence upon their life and character than this. Now-a-days the advantages of boarding schools do not seem to be properly appreciated in this country. In ancient times, however, this was the prevailing system of education in India. The Hindu tols, the Buddhist viharas, and the Muhammadan Khangahs were all boarding schools. In those oriental seminaries the pupils resided with their preceptors, undivided attention was paid to studies and moral and religious lessons were taught more by personal examples of the teachers than by precepts. The result of such a system of education is well known to every student of Indian history. While it was in vogue, India produced almost all those great scholars who have left behind them imperishable monuments in the domains of Literature and Philosophy. The death of original thinkers and writers in India at the present time is not improbably due in part to the present system of education. The distinguished Arabic scholars of the time are not turned out by the public Madrasahs. Those who sit at the feet of reputed Arabic scholars at Lucknow, Rampur, Aligarh and Cawnpoor, perhaps learn much more than those who attend our Madrasahs. The well known Sanskrit scholars are not perhaps trained in the Sanskrit College, but in the tols of Nadia where, as in days of old, pupils reside with their teachers. I had occasion to visit some of these tols and also some of the Burmese Kyongs at Cox’s Bazar in the district of Chittagong. The whole atmosphere of these institutions appeared to me totally different from that of our ordinary schools. Both the pupils and the teachers are happy, cheerful, contented and devoted to their respective duties. An intelligent boy is sure to catch the contagion from his surroundings. The sons immoral, dissolute and disloyal men generally become what their parents are. It is very desirable therefore that children should live in a place where they may not imbibe any of those vicious habits and immoral and irreligious tendencies that vitiate the character of some of our young men. If in England where parents are more educated and enlightened it is thought necessary to keep the children away from home influence, how much more necessary is it that children in this country should be kept apart from those surroundings which are not calculated to contribute to the formation of a good character or to proper development of intellect.

The success of a boarding-house chiefly depends upon its proper management. An ill-managed boarding-house is a hot-bed of evils. My experience of some of the boarding houses, attached to some of our educational institutions, is far from pleasant. Their superintendents do not seem to realise the significance of Bacon’s dictum that “cleanliness is next to godliness.” The rooms are not kept clean, the furniture are not well arranged, the beds, books and other things are not kept in order, and hardly any care is taken to ensure regularity in meals, study and sleep. I believe, Sir, some special training is necessary for men to be placed in charge of boarding-houses, which should be opened in connection with all important schools and Colleges. No student should be allowed to live in any questionable quarter, or without a proper guardian to look after him. The growing want of touch between the Professors and the pupils is very much to be regretted. Not only the pupils but also the teachers should be required to live in the hostels attached to the schools and Colleges. The present relation of the teachers with the pupils is very far from satisfactory. They meet them only during the school hours but do not care to know how the pupils pass their time out of school. Thus the teachers do not exercise the least influence on the character of the students. It is most desirable that the teachers and the taught should come into contact as often as possible and thoroughly know one another, because the living example of a good teacher does much more to improve the moral tone of the students than anything else. Some excellent rules on the subject have lately been framed by the Education Department. But I do not think these are sufficient to produce the desired effect.

The Method of Teaching.—I have already taken up so much of your valuable time and so much has already been said by the teachers examined as to the very unsatisfactory manner in which English and other subjects are taught
in our schools and colleges that I do not think it desirable to say much on this subject. As an inspecting officer my experience has been the same as that of the teachers who have expressed their opinions and I unhesitatingly endorse almost every word that has been said on this point. The method of teaching English, Euclid, Geography and other subjects is so defective that it calls for immediate remedy. Some of the chief causes of this defect are (1) want of good teachers; (2) large classes making individual attention impossible; (3) absence of a logic of learning for its own sake; (4) multiplicity of subjects; and (5) examination questions encouraging cram. I shall speak a few words on each of these points.
MR. FARQUHAR, PROFESSOR, LONDON MISSION COLLEGE.

Defects in the Arts Education—The Study of English.

I have asked to be summoned as a witness before this Commission, because I wish to give expression to what I have learned from eleven years' experience as a professor and an examiner; all my work, both as teacher and as examiner, has been in English. I lecture in the four college classes of the L. M. S. Institution, and in the Entrance class as well. I believe that the Arts' Education of Bengal is at present in such an unsatisfactory condition that it is useless to talk of any kind of advance in the University until the ordinary general education is materially bettered. The present position of affairs is not only seriously unsatisfactory to the undergraduates themselves and to the country generally, but gives grave discouragement to every true teacher. The duty of an examiner is depressing in the extreme, not only on account of the excessive percentage of candidates who fail, but much more on account of the character of the work of those who pass. In a large proportion of cases the books are not really understood, and the candidate passes because he has amassed a sufficient quantity of various information to secure him the required number of marks. There are a number of causes that conspire to produce this state of affairs, but two stand out as far more powerful than all the others. The first of these two serious enemies is to be found in the present character of the people of this country. So long as the young men themselves and their fathers and guardians continue to hold a purely utilitarian conception of education, so long will it be impossible to make the education of Bengal what it ought to be. Clearly this cause cannot be removed by any legislation from without the University, nor yet by any reform from within. But while we shall have to wait long for the slow transformation which will remedy this evil the second serious trouble can be met by internal changes. This second evil you have already heard of from many witnesses; it is the wretchedly inadequate knowledge of English which our undergraduates have. Since English is the medium of instruction, weakness in this subject handicaps every subject. Lecturers, on the one hand, have to lecture slowly and dictate largely; and students, on the other, find it impossible to cover much ground in their private reading. This is the reason why, during the last ten years, the University has been compelled to steadily diminish the amount of matter prescribed for its examinations. Clearly we have here a cause which has a very wide field of operation. As you have heard from several witnesses, the cause of this weakness in English lies in the woefully inadequate knowledge of English which our undergraduates have. Since English is the medium of instruction, weakness in this subject handicaps every subject. Lecturers, on the one hand, have to lecture slowly and dictate largely; and students, on the other, find it impossible to cover much ground in their private reading. This is the reason why, during the last ten years, the University has been compelled to steadily diminish the amount of matter prescribed for its examinations. Clearly we have here a cause which has a very wide field of operation. As you have heard from several witnesses, the cause of this weakness in English lies in the way English is taught in the schools and that which determines most largely the mode of teaching in the High Schools is the character of the Entrance Examination. It is well, however, to realise that even if we had an ideal Entrance Examination, English would not be taught to perfect satisfaction in the schools. For besides the utilitarian aim of students, parents and guardians (which always and everywhere acts as an alien force, disturbing the balance and steady direction of our educational compass), there is the grave fact that the bulk of the teachers in the High Schools are necessarily men of very incomplete education and training, and yet they have to undertake the exceedingly difficult task of teaching a living language which is not their mother tongue. But we may quite well allow these considerations their full weight and yet hold that, in the main, the character of the Entrance Examination determines the mode of teaching in the High Schools. And if we believe that we shall ask ourselves whether some grave change is not required in the English papers of that examination. Now my experience in teaching English in the Entrance class has taught me one thing with infallible certainty, and that is this, that the getting-up of the details of the textbook of English extracts absorbs nearly the whole of the attention, time and energy the lad is able to give to English. He has not only to get up an explanation of every one of the hundreds of difficult sentences he finds in these extracts; he has to realise and remember the contents of each separate piece; every reference and allusion, every geographical and historical statement, has to be securely stored in his mind; and all the grammatical, syntactical and philological peculiarities must be explored and then memorised. Such is the
Entrance boy’s chief duty as matters stand at present. Now contrast with this that which we should wish to see our students doing in the first stage of their English education. To get a thorough mastery of (1) the vocabulary; (2) the grammar; (3) the idioms of simple modern prose and of everyday conversation,—this is surely what we should demand, and, indeed, all we should demand from young students. Now the text-book makes it possible for the teacher to concentrate attention on these central simplicities, and compels both teacher and pupils to give their time and strength to scores of peculiarities and to hundreds of historical, literary, geographical and other points, exceedingly valuable in themselves, but absolutely fatal to the young student’s study of the language as such. In the second place the text-book opens the flood gates to cramming. For as the text paper will assuredly be founded on the text, the student, determined to pass at all costs, gets up everything that can possibly be asked in the paper. He commits to memory, not only his lecture notes, but the published key, from the first page to the last, and will even learn by heart the prose extracts themselves, so as to be able to reproduce any portion on demand. Nor does the evil limit itself to the cramming of this particular piece of work: preparation for the Entrance Examination being the first stage in a student’s career practically fixes for life his modes of study and determines what sort of student he is to be. Thus if we wish to better the teaching of English in High Schools, we must abolish the English text-book for the Entrance Examination. All the English work in the Entrance must be unseen and must be such as to test the candidate’s proficiency in simple modern prose and nothing else. The standard will also have to be considerably raised; for, while the present figure may be fair enough as a test for an ordinary subject in a matriculation examination, it is manifestly too low when the purpose is to test the candidate’s capacity to read and write the language, which is to be the medium of his instruction. The raising of the standard will necessarily lead to a longer school curriculum. Against this the utilitarians, both within and without the Senate, will raise a loud cry. But the difficulty must be faced, unless we are to give up in despair the task of getting our undergraduates to understand the books they have to read. The organization of a new examination for those who do not mean to enter the University might also relieve the difficulty, as the new examination might be made easier than the Entrance. To shorten or to lengthen the amount of matter prescribed in the text-book will not solve the problem; for the old temptations will all remain. Nothing but the abolition of the text-book and the substitution of unseen work will produce the reform so much needed in the teaching of English in the High Schools.
STATEMENT

OF

Khan Bahadur Mr. A. F. M. Abdur Rahman,
BARRISTER-AT-LAW.

I have been a member of the Senate of the Calcutta University for the last 15 years. I am also a member of the Board of Studies in Arabic, Persian and Urdu. I have been member of the Syndicate several times. I have made the education of Mahomedans a subject of special study, and during my connection with the Senate have taken an active interest in the cause of education among Mahomedans of Bengal. At the kind invitation of the Commission I desire to make a few remarks regarding certain matters under enquiry with which the Mahomedan community are directly interested. That the system of education promoted by the University of Calcutta, tried for more than 40 years, is defective, does not admit of any doubt, and in view of the increasing number of Mahomedan students in the University, any reform that may be recommended by the Commission should, in my opinion, have reference to the special needs of the Mahomedan community of Bengal.

I advocate the proposal of turning the Calcutta University into a teaching University, and if it be possible or expedient to form a list of recognised teachers I would venture to suggest that a proportionate number of Mahomedans should be placed on the list. It is noteworthy that among officers engaged in actual educational work, whether in Government or private educational Institutions, there is an exceedingly inadequate number of Mahomedans.

If the proposal of turning our University into a Teaching University be carried out, there will, in my opinion, be sufficient work for it to attend to, and any attempt to widen the sphere of its work may result in a diffusion of its energy. I therefore recommend that the sphere of its influence should be limited rather than widened.

With regard to the constitution of the Senate, I am of opinion that the number of Fellows is large and should be limited. But I regret that even with this long list, the representation of the Mahomedan community on the Senate is far from being satisfactory. During the 30 years between 1870-1900, of the 416 gentlemen to whom Fellowships have been given, only 33 were Mahomedans. While these figures give the lamentable percentage of nearly 8% of Mahomedan Fellows to the total number, the average of Mahomedan appointments to the Senate dwindles to the insignificant figure of one per annum. This is hardly as it ought to be. Mahomedans are gradually recognising the importance of an English education for their youths, and the steady increase in the number of Mahomedan students in schools and colleges is a significant sign of the times.
Questions concerning Mahomedan education and matters affecting the interests of Mahomedan students in schools and colleges are daily cropping up, and in view of these circumstances, it is, in my humble opinion, essentially necessary that a fair and proportionate number of Mahomedan members should form an integral part of the University.

It is unfortunately only too true that a considerable number of Fellows take little, if any, interest in the working of the University or even care to attend its meetings. I would therefore suggest that any member, who does not attend one half the number of meetings to which he has been invited during the year, or is absent from Calcutta for a period of one year, without sufficient cause, shall be considered to have vacated his seat on the Senate. The principle of the foregoing suggestion is embodied in a rule which obtains in the Boards of Studies. If this principle of elimination be rigidly adhered to, a certain number of Fellows must needs go out gradually, but the rest should be allowed to hold the Fellowship for life. In the case, however, of new appointments, I support the suggestion that Fellowships should be bestowed upon men engaged in the work of education or of proved merit and ability, and that they should be made terminable after a period of five years to be reconferred as a reward of good service rendered in the cause of education.

I am entirely opposed to graduates being allowed to nominate any Fellows as under the existing rule, for besides other grounds, no Mahomedan has any chance of being elected by them.

The constitution of the Syndicate of the Calcutta University is, in my opinion, susceptible of improvement. The present number 10 may profitably be increased to 12, in order to admit of a fair representation of Government interests and the interests of the different classes of the community. Under the existing system colleges are sufficiently represented. Having regard to my foregoing observations as to the increasing number of Mahomedan students in colleges and schools and the varied interests of the Mahomedan community in the administration of the affairs of the University, I cannot help regarding it as lamentable that there should be no provision whatever for the representation of such interests on the board of this Executive Committee. For years past, it has been keenly felt by Mahomedans who have the welfare of their community at heart and who have devoted their time in the promotion of the cause of education among Mahomedans, that there should not have been introduced by statute or rule a provision for the appointment of Mahomedans on the Syndicate. Ever since the time when the principle of elective representation was first recognized in this country, whether in the Local Self-Government Scheme, the constitution of Bengal Municipalities, the Corporation of Calcutta or in the Councils for making laws and regulations under the Indian Councils Act of 1892, adequate provisions have been made for the representation of minorities or
of different classes of the community; and Government have accordingly appointed a fair number of Mahomedans in District or Local Boards, Bengal Municipalities, the Corporation of Calcutta or the Bengal Legislative Council. Under the peculiar circumstances in which the Mahomedan community are placed, they are deeply grateful to Government for the concessions already granted to them, and I, on behalf of the Mahomedan community, respectfully urge upon the Commission that the principle of a fair and adequate representation of Mahomedan interests should, by Statute, be extended to the Syndicate also. Government might provide by enactment for the appointment of a fixed number of Mahomedans and authorise the Vice-Chancellor, President of the Faculty of Arts or the Director of Public Instruction to nominate such qualified Mahomedans as he deems fit and proper to represent Mahomedan interests on the Syndicate.

I am not in favour of the abrogation of the rule that every Fellow must be assigned to a Faculty, as under the existing rules the Faculties would be sufficiently strengthened by the allotment of teachers, and graduates with honours, to different Faculties in the subjects of their special study.

The knowledge of English with which boys come equipped to Colleges is lamentably inadequate. I would like to see them more thoroughly grounded in that subject, and therefore propose raising the minimum age for matriculation to 15 years.

The question of making the Entrance Examination a test of preliminary education for admission to the Calcutta Medical College, was raised a few years ago by the Mahomedan Literary Society of Calcutta. Formerly, the possession of an Entrance certificate entitled a student to take his admission to the Medical College, with the result that a number of Mahomedans obtained admission, successfully passed out and lived to distinguish themselves in their subsequent career. But at a later date the First Arts certificate was introduced as a preliminary test for admission to the Medical College, with the result that of the number of students who passed out from that College, the number of Mahomedans was exceedingly small.

Dr. J. M. Coates, the late Principal of the Calcutta Medical College, favourably received the proposal of the Society to go back to the old system of Entrance certificates, but owing to his retirement, the question was dropped. I therefore fully support the suggestion that the standard of the Entrance should be improved, and adopted once more as the preliminary test for admission in the Medical College. This would materially benefit those of the Mahomedan students who are desirous of taking to the Medical line. Of the 153 Medical men employed in the Bengal Subordinate Medical Department as Civil Assistant Surgeons only 7 are Mahomedans, and of this number one was recently imported by
Colonel Hendley, Inspector-General of Civil Hospitals, from the Punjab, as no qualified Mahomedan was available in Bengal.

For sometime past there had been a tendency in the Board of Studies to lower the standard of Arabic and Persian in the University. This was exceedingly unfortunate in the interests of Arabic and Persian literature. These languages require considerable time and application from those who desire to become proficient in them; and it is a pity to see them neglected in favour of a system of education which aims solely at cramming the student with multifarious text books for the single purpose of passing a given Examination. I therefore respectfully submit to the Commission that the curriculum may be so modified as to ensure a higher standard of study and a better teaching of Arabic and Persian in the Calcutta University.

16 TOLTOLLAH, CALCUTTA,

The 24th March, 1902.
Memorandum of evidence and suggestions of Colonel Thomas Holbein Hendley, C.I.E., I.M.S., Inspector General of Civil Hospitals, Fellow of the Calcutta University and a Member of the Faculties of Arts “and Medicine.”

I wish to offer evidence as a member of both Faculties and begin with medicine because I was a representative of that Faculty on the Syndicate for a year.

For some time past the Faculty has been notoriously weak, a fact to which I and others have repeatedly drawn attention. This weakness is due to several causes, of which the principal are:

1. The small number of Medical Fellows and perhaps confinement of appointments to Calcutta men.
2. Frequent transfers, retirements, and absences on leave—particularly of European Fellows.
3. Unavoidable delay in filling up vacancies. In the calendar of 1901 twenty names of members of the Faculty appear, of whom ten were Europeans and ten were natives.

There are now only sixteen Fellows:—

1. Surgeon General Harvey has died.
2. Colonel Joubert has been transferred to another and distant province.
3. Lieutenant-Colonel Russell has retired.
4. Maulavi Zahirudin Ahmed has died.

Further one Fellow is on leave in Europe. One is very ill, one will leave the province in a few months, and others are growing old.

As appointments have usually been made about January 1st it has not unfrequently happened that some months have elapsed before vacancies were filled up. The Principal of the Medical College may be promoted or go on long leave and no one is appointed to take his place as a Fellow. For example Lieutenant-Colonel Harris acted as Principal for Lieutenant-Colonel Bomford for 18 months, but during that period he was not a Fellow.

From 1895 when Dr. Harvey left his Bengal appointment of Inspector General of Civil Hospitals none of his successors held a Fellowship until my appointment in January 1899. As the Principal of the Medical College is the Chief Professional Officer in the Medical College, and the Inspector General now controls medical education in Bengal and both are, therefore, in a position to do much work for the University and for students much loss and inconvenience may result from their not being members of the Faculty. I suggest, therefore, that they should be ex-officio members of the Faculty and Fellows; I also advise that there should always be Fellows in Calcutta to represent the principal subjects of examination which may conveniently be grouped as follows:

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In addition distinguished experts in the different subjects and men, who from their own past academic as well as professional career have shown special fitness and interest in professional education, should be Fellows.

The principal lecturers in the Medical College, which should be held to be a Teaching College in the University, should be University Professors. As the Faculty of Medicine is the smallest of all the Faculties I think its number should be permanently increased to at least 30 Fellows—if it is not considered advisable to increase the number of Fellows, the same end might be obtained by immediately filling up all vacancies, as they occur, whether permanent or temporary, and removing those disqualified by age of whom five might be non-resident, but have power to express their opinions on important questions in writing and to vote upon them.

I think it would be of great use to the University to have some Fellows in the large towns in the provinces not only to represent its interests there, but to assist in controlling local University examinations. It would be advantageous to the Medical Department, for example, if some of the Superintendents of Vernacular Medical Schools, as at Dacca, Patna and Cuttack, were Fellows.

In order to ensure efficiency I think that Indian Fellows should vacate on retirement if officials, or on attaining the age of 60 years, unless re-appointed for five years. Europeans in practice always leave about this age, if not earlier, in consequence of which there is a succession of new men with new ideas.

 Syndicate.—My experience as a member of the Syndicate for a year leads me to the belief that an increase in the number of members of that body would not be an improvement. The business was always carefully and expeditiously done and little time was wasted in unnecessary talk, and as one of the bye-laws makes provision for filling up temporary vacancies, the full number of members in Calcutta was kept up. I think that it is not desirable, however, to always hold meetings of the Syndicate and of the Faculties on holidays or on Saturdays, because University business should be looked upon as a duty. The election of Presidents of Faculties and of members of the Syndicate now takes place sufficiently early in the year to allow more members than formerly to vote, but the annual meeting of the Senate is still held under the bye-laws in the third week in April, in consequence of which most of the ex-officio Fellows, and many others, who are proceeding on long leave, cannot attend. To remedy this the meeting should, I think, be held early in March. It should also be possible to arrange for most important questions to be taken up in the cold season. This is usually the case.

 Examiners and Examinations.—It is the duty of the Syndicate to appoint examiners. In practice the President of the Medical Faculty nominates medical examiners. In my opinion, the second member of the Syndicate should have an equal voice. I regret to state that, notwithstanding the note on every application that “canvassing is not allowed,” I have been canvassed but not in the Medical Faculty.

A considerable number, if not the majority of the examiners, should be appointed from outside the Medical College, and, in order to secure greater interchange of ideas, as well as to ensure uniformity of tests, the written questions should be more frequently set by examiners from other Universities. I believe that Lahore and Bombay help each other in this way. It is very important that outside criticism should be provided in order to prevent too great influence of local and even of provincial ideas. In promotion examinations for Hospital Assistants this is done with advantage in Bengal, and arrangements have been made to equalize the tests and standards in the case of students at the four vernacular medical schools of the Province. I submit tables to show how the standard of preliminary education has improved in recent years. The figures show what becomes of a large number of failed Entrance and F. A. candidates.

The text-book committees in the different Universities might also usefully exchange ideas, and in every way efforts should be made in India to ensure uniformity in the examinations, tests, percentages of marks, and therefore in the value of all University degrees and certificates, especially in the Medical Faculty. To some extent the expenditure and, perhaps, discipline of students
in the different Universities should be equalized, so that we should thus have in practice one portal of admission into professions and a fairly equal standard for Honour degrees. I have not referred at length to the medical curriculum or to the medical qualifications because they are more or less fixed by the standards of the Medical Council in England, and any falling off of them would lead to Indian qualifications not being admissible for entry on the Colonial and Indian section of the Register.

Moreover, a strong Medical Faculty would adequately deal with details, and the Principal of the College, if a Fellow, or if not through another Fellow, can always move the University to make necessary changes in the medical course or examinations to bring them up to European level. No regular student is admitted into Calcutta Medical College unless he has passed the P.A. Examination or its equivalent, and under Rule X, Section V of the College Rules (copy submitted), all students, intending to finish their studies in Europe, are directed to the regulations of the British General Medical Council, in which it is laid down that Latin is a compulsory subject in the Arts preliminary. It will be seen from Section I of the rules that the responsibility of keeping the medical education of the College up to the proper standards, and the initiation of changes rest with the Principal and the Council. Both the University and Government, if moved through the authorised channels, have the power, and generally the will, to carry out necessary changes. It will be seen in the rules that great care has been taken to warn students of their exact position as regards the General Medical Council, and that the educational course is so arranged as to enable them to satisfy all its requirements. From the beginning of the academic year 1901-02, the minimum of marks qualifying in certain College test examinations was raised, with the concurrence of the Principal and of the Director of Public Instruction, who is consulted on all matters of the kind by the Inspector-General of Civil Hospitals before submitting proposals to Government. In framing the rules in 1901 to take the place of the last obsolete rules which had been drawn up so far back as 1856, it was one of our objects to introduce useful regulations of other Indian Medical Colleges.

Faculties of Arts.—I have several reasons for tendering remarks on the subjects which are connected with the Arts' Faculty—

1. Because I have felt that the only way in which we can effect real progress in the health of the people and in sanitary measures is to educate all classes in right views on the subject, and particularly to train up all our teachers so thoroughly to understand what is required of them as to ensure, that, by example as well as precept, they shall properly influence the young in all the educational institutions in the country in the above respects.

2. Because I am anxious that the University should encourage some form of post-graduate training so that its graduates may continue their University education and obtain its full effect, which is, as I conceive, to make them men of culture who have not merely taken degrees as a means of earning a livelihood but have been taught how to think and to carry on their studies to the best advantage throughout life.

3. Because I have long been greatly interested in the economic and art progress of India and have, therefore, had a strong desire to obtain the assistance of the Universities, which above all things should look to practical results, in carrying out my views. On the first point the University has passed resolutions to the effect, that Hygiene and Sanitation are to be considered in framing questions in examinations for all degrees, and has made these matters one of the optional subjects for the First Arts qualification. The Director of Public Instruction, with the approval of Government, has announced that those persons who possess a sanitary certificate, all other things being equal, shall be preferred for appointment as teachers. Medical and Engineering students in like manner are to be preferred if they possess the sanitary qualification. It has been objected that, as regards medical students, what is
wanted is a better practical knowledge of English and that time is therefore wasted in acquiring knowledge, which, in their case, is superfluous at an early stage in their education, but surely this will be best ensured by the course of reading and tuition in familiar language which the subject demands. Moreover in every stage of education *mens sana in corpore sano* is a good motto for all students. I therefore trust that the University will never allow this subject to fall into a minor position. Some years ago I made enquiries into the health conditions of students in a large college, and I discovered that the more advanced the position of the youth in the institution, as a rule, the less physically fit he became, so that the young men in the M.A. Class were less strong than those who were studying for the B.A. degree and the latter were weaker than the boys who were working for the F.A. It is true that many of the elder students were also overwhelmed with the necessity of providing for a wife, and perhaps a child or two, but this does not altogether account for the condition which I, and my staff, came to recognize as the student’s disease. The well-known evil I have alluded to was in the mind of a native member of my own service who had two clay figures prepared at Krishnagar—one representing a thin, spectacled, care-worn India student carrying a wife on his back, another a European lad hastening merrily to school with nothing but a light load of books. It is for reasons such as these that I welcome the establishment of athletic clubs, but they are of no value unless all students are compelled to use them. In no country so much as India would it pay better than to give marks for distinction in athletics. In our medical schools some attention is being paid to this important matter. It would be in the best interests of most individuals and of the University if a certificate of physical fitness were required before a student would be allowed to study or offer himself for examination for any high degree. In all occupations a sound B.A. is better than a damaged M.A. We are in much danger of forcing too much learning into weak and perhaps broken vessels, which from physical unfitness greatly injure the case of higher education.

2. As regards general culture the great want is of residential colleges but unfortunately many difficulties arise in India and especially in Calcutta in providing them. The hostel system should, however, be much extended and some of the teachers should be urged to live with the students or in the same enclosures. *The Indian custom of studying in colleges as at Nadi is entirely in favour of such a system.* A distinguished Indian head of a college, who himself possessed a large library which he loved, and in which he died, told me that he only knew one other Calcutta graduate of his year, who had a library which was not exclusively devoted to his particular profession, in short that very few men of his time read for mere love of learning after leaving the University. I would suggest, therefore, that post-graduate courses should be given and that graduates, should be encouraged to form lending libraries of first class literature in connection with the colleges in the larger towns. My experience as the Honorary Secretary for many years of a large museum confirms my friend’s views.

I could never induce the students of the neighbouring college to spend much time in examining the many beautiful models and specimens, which I had gathered together in connection with those branches of knowledge, which are capable of illustration in that way, unless they bore directly on some paying examination subject. What our Universities should do, and no doubt hope they are doing, is to endeavour to inculcate a love of knowledge for its own sake.

The experience of the Asiatic Society is somewhat similar. I should like it to take a higher place, in this respect, amongst natives of India, who ought to join it in larger numbers. It is not always the man of University training who distinguishes himself the most in the Society, though I admit that there are brilliant instances to the contrary.
In my opinion one of the greatest services to education that the University could perform is to encourage the science of teaching by establishing degrees in pedagogy and, if, for the higher appointments in the colleges, only those who had secured such marks of qualification were preferred, a distinct advance would be made, since learning alone does not make a good instructor but manner and skill in interesting others and in imparting knowledge to them. Normal schools do much, but the seal of University approbation would do more. As a pedagogue should be sound in body as well as in mind, he should possess a certificate of health and of fitness to impart instruction in elementary hygiene and sanitation.

3. The decennial Art Conference of January 1894, of which I was President, discussed the question of economic and art education in connection with the Universities.

In my opinion the Universities can do more than at present to aid in promoting technical education and with it the economic and art progress of the country.

The desirability of making drawing a compulsory subject for those who appear at the University and even Middle Class examinations was fully discussed at the Lahore Art Conference.

The Bengal member said that "drawing was the basis of all technical knowledge." The Principal of the Bombay School of Art thought that drawing might very well be substituted for one of the compulsory subjects.

I read extracts from an address at the National Art Congress at Birmingham in 1891, which emphasized the necessity of making drawing a compulsory subject in English, as it was in French, Belgian, Swiss, Swedish, German, and Austrian education, as well as in some of the United States and Australian Colonies. The Conference commended the subject to the consideration of the Educational Departments, and it was understood that the chief difficulty with them was the large number of subjects with which the student was already burdened.

In a Despatch on the proceedings of the Art Conference and Schools of Art the Secretary of State for India refers to the value of drawing in the following words:—"Even apart from industrial pursuits, a system of State education should develop the powers of observation by training the eye and hand. Drawing is, therefore, a valuable element in the general education of all classes."

It seems to me that these words apply as strongly to Universities, which should lead in all educational matters, as to State departments. I hope, therefore, that the question of making drawing a compulsory subject may now be taken up again.

For a medical student I consider it to be most important. He should be able to make at least rough sketches, which would impress many things far more vividly on his mind than a mere note could do, but he cannot easily acquire the necessary facility in doing it unless he has been taught a little of the subject early in his educational career. Moreover a youth must be able to draw a little himself in order to understand the sketches of his teachers, whose work is often far more effectively done when it can be illustrated by a rough diagram or drawing than when it is carried out in the ordinary way.

Sir Alfred Crofts, in a letter on the question of continuing the maintenance of Government Schools of Art, shows that as long as drawing is an optional subject few students will take it up, and expresses the hope that ability to draw will become a common accomplishment of the rising generation. If, however, it is impossible as yet to make drawing a compulsory subject for all students it seems desirable that all who aim at teaching others should be able to illustrate their subjects by drawing simple figures on a black board. No school master in England can get his certificate unless he is able to do so much.

The Art Conference also suggested that periodical visitations should be made to Schools of Arts in order to ensure some uniformity of action and to prevent the work of any particular institution from becoming too narrow or too provincial. It was suggested that the Universities might aid the experts and local educational authorities by appointing members to represent them on such committees.

The 8th March 1902.

T. H. HENDLEY, Colonel, I.M.S.
In submitting the following note, I would state that instead of merely setting down my views, criticisms, and suggestions on the various points raised in the Commission’s queries, I have thought it proper to enter very briefly into the main principles that should now guide us in remodelling our Indian Universities, having regard to their past history, as well as present opportunities, resources and environments; for this purpose, a wide comparative view of existing types of Universities in the world, their teaching, methods and organization, will be found very helpful. I would urge that it is now high time for us to survey the situation from a broad universal standpoint, instead of concentrating our attention wholly on occasional expedients or the narrow practicalities of the hour. If, then, analogies with western Universities must be admitted as relevant, let us not confine ourselves to London, Oxford or Edinburgh under the guidance of insular bias or personal predilection; let us extend our view to the whole civilized world and set our academic clock going by the world’s chronometer. If we have at last been roused from our lethargic stupor, and awakened to the necessity of moving forward, let us follow by all means the universal trend of academic movements, and cut out a path for ourselves to the universal modern goal.

Historical Retrospect:—Indigenous Education, pre-British and post-British:—Respect for learning, says Dr. Leitner, has always been the redeeming feature of the East. The Hindu Shastras elevated learning into a religious duty. Learning opens the gate of the Moslem’s Paradise. A powerful religious sanction thus lent its support to the institution of learning, as to every other social function in communities of a primitive type.

Educational Institutions:—Besides the Hindu Pathasalas or village schools teaching the three R’s, commercial and agricultural accounts and mensuration, there were the Mohammedan Mahajani or common schools attended by Hindu and Moslem alike, which taught Persian and imparted the education and manners of a gentleman after the oriental pattern. There were also the Hindu and Mohammedan Colleges of learning (the tols and muktabs). There were centres of Brahminic and of Moslem learning like Benares, Nuddea, Patna and Lucknow, which congregated various schools of letters, philosophy and theology, and created an academic tradition. There were Mathas and Asramas, as of the Dasanami sects, which, with their splendid libraries and organization, formed powerful agencies for the preservation and diffusion of abstruse and recondite branches of learning. There were also Buddhist Samgharamas and Viharas, monastic institutions, which were Universities, i.e., which organized encyclopaedic culture on the scale of El Azhar in Egypt, and imparted instruction to thousands and tens of thousands of advanced students from all India, and even from Tartary, Central Asia, China, Japan and Korea.

Extent of literacy:—In 1822, when an alarming decline of learning had taken place, Sir Thomas Munro found in the Madras Presidency one school to every 500 males, and the Board of Revenue calculated that one out of every three boys of school-going age (from five to ten years) was receiving instruction. I would largely reduce this official estimate, but at the lowest computation, the proportion cannot have been less than 20 per cent. The special investigations of Bentinck in the Calcutta Presidency and of Elphinstone in the Bombay Presidency led them to conclude that, in 1820-1840, i.e., in one of the darkest periods of Indian educational history, one boy out of every ten of school-going age was receiving some kind of education. An earlier Census, that of 1813, gave an average of 1 out of 19 males as able to read, which makes it probable that at least 30 per cent. of the boys were at school (as against 24 per cent. from British India at the end of the nineteenth century). Dr. Leitner also notes for the Punjab—"the lowest computation gives us 330,000 pupils (against little more than 190,000 at present) in schools of various denominations, who were acquainted with reading, writing and some method of computation" (Report on Indigenous Education in the Punjab). This is the plain unvarnished fact, and it will in no way surprise those who are familiar with the history of Education, and are therefore aware that the Manchester system is of Madras origin, and
that, so late as the end of the eighteenth century, India gave England the first hint of elementary schools for the masses.

Statistics of Collegiate Education—Turning now to the Colleges of learning, we find that, under circumstances of an unprecedented decline which affected the higher education even more than the lower, the tols were to the Pathasalas in the proportion of about 1 to 3 in the number of schools, and 1 to 10 in the number of scholars, (Professor F. W. Thomas’s History and Prospects of British Education in India). Combining this with the fact that at least 20 per cent. of the boys were under instruction, we may safely conclude that, in the more advanced districts at any rate, not less than one in four hundred of the male Hindu population was receiving an advanced instruction in some branch of learning. At least half of this number, i.e., one out of eight hundred, may be set down as undergoing a training, which corresponds to the University stage of education in our days. This approaches nearly the record of Scotland where, before the recent decline in the number of students, the Universities could claim one out of every five hundred of the male population. At present, in British India, if we include the students attending tols and muktabs, the proportion is one out of twelve hundred of the male population. One out of five thousand reads in a public collegiate institution, and one out of fifteen hundred in tols and muktabs. In other words, for every hundred Hindus who devoted themselves to the higher learning in Pre-British India, 16 have betaken themselves to the rew learning—and the residue has diminished by 36 per cent. The total number of Hindus engaged in advanced studies has been reduced by a third.

Curriculum of the tols and muktabs. In more primitive times, the Chatuspathis taught particular Sakhas of the Vedas and the six Vedangas (Vedic lexicon, chanting, prosody, grammar, rituals and astronomy). This was supplemented by professional instruction in one or other of the Upavedas, the Institutes of Law, Medicine, arms, Music, etc. Later on, the theoretic instruction was confined to Trayi (Vedic Sakhas with rituals), the philosophical disciplines, Law and Polity (cf. the quadrivium of mediaeval Europe). This was supplemented by special or professional training in one or more of the thirty-two so-called sciences, and the sixty four Kalas (arts industrial as well as aesthetic). Yagnavalkay’s enumeration of the fourteen intellectual disciplines (Vidyā-sthanani) also belongs to this stage. But in the mediaeval tols, the Curriculum was narrowed down, and there grew up special schools for literature, grammar, law, Nyaya, Vedanta, medicine, mythology, Tantric rituals, etc., Lexicology, Grammar and the elements of Belles Lettres and Rhetoric were common to all the schools, and would be studied for a period varying from five to seven years or more. The specialization would then begin. Advanced literature (including grammar, lexicology, rhetoric, poetry and the drama) would take about five years, Logic, Metaphysics and Theology from ten to fifteen years, Law (the Smritis, Sangrahas and the commentaries with elements of Mimansa) ten years, Mythology (the Puranas) and Tantric Rituals, four years. The course of study often lasted, as Dr. Thomas notes, for twenty years, from the tenth to the thirtieth year. The period has been considerably reduced in the existing tols under modern conditions of life.

The curriculum of study in the Arabic muktab would include Etymology, Syntax, Rhetoric and Logic in the first three or four years, and subsequent courses of (1) Literature (for three or four years), (2) Jurisprudence or Tradition (for five years or more), and (3) Logic, Natural Philosophy, Geometry, Algebra and Astronomy for five years or more.

Let us not superciliously dismiss these studies as ‘learned lumber.’ The Astronomy and Mathematics were not less advanced than those of Tycho Brahe, Cardan and Fermat; the anatomy was equal to that of Vesalius, the Hindu logic and methodology more advanced than that of Ramus, and equal on the whole to Bacon’s; the physico-chemical theories as to combustion, heat, chemical affinity, clearer, more rational, and more original than those of Van Helmont or Stahl; and the Grammar, whether of Sanskrit, or Prakrit or of the Semitic tongues, the most scientific and comprehensive in the world before Bopp, Rask and Grimm.
Character of the intellectual discipline:—"The general characteristics," says Dr. Thomas, "of the instruction were impartiality and thoroughness. To the Pandit, nothing is so distasteful and incomplete enunciation of the heads, or imperfect treatment of the matter thus scientifically divided. Commentaries on commentaries are committed to memory. The minutest questions evoke discussion lasting for days. This kind of training produced its characteristic results—an unworldliness and devotion to knowledge, a want of practical sagacity, an intellectual isolation and class feeling." One marked feature of this mediæval scholastic training, is wanting in the Universities of to-day. Its grand object was a training in the dialectical method of handling scientific or philosophic questions. Every student was compelled to come out a practised dialectician, and underwent a severe intellectual discipline which gave sharpness, subtlety, and strength to the understanding, and served as a propædeutic such as the philosophical faculty of the German universities alone can claim to impart in any degree in our days. While we have, without doubt, gained in useful information and practicality, in insight into human nature and mastery of life and experience, in observation and healthy objectivity of mind, our modern educational methods are far inferior to the scholastic methodology and dialectic as intellectual disciplines and exercises for sharpening and strengthening the mental powers. Our Indian Colleges, with their superficial smatter and mechanical cram, suffer most by the comparison. I have invariably found a Pandit educated in the tols a more powerful and dexterous logician, a more systematic and vigorous reasoner (though the thinking may be cast in obsolete moulds) than the average graduate of our Universities. An equally unquestionable and even more lamentable loss is that of the old spirit of unworldly devotion to learning which was so memorable a feature of the Orient and of mediæval schools of learning.

British Educational Policy in relation to Oriental Learning:—Munro's minute on indigenous education, and Elphinstone's on the encouragement of oriental learning advocating the continuance of the Dakshina grants of the Peshwas are too well-known to need any but a passing mention. Macaulay's zeal for useful, practical and scientific knowledge brought on Lord William Bentinck's Resolution of March 1835, which decided in favour of English education to the entire neglect alike of oriental and vernacular education. Lord Auckland's minute of 1839, which closed the famous controversy between the Orientalists and the Anglicists laid down that although English was to be retained as the medium of higher instruction in European literature, philosophy and science, the existing oriental institutions were to be kept up in full efficiency. The Calcutta Arabic Madrasah founded in 1784 by Warren Hastings, and the Hindu Sanskrit College of 1824, were accordingly continued. The Educational Despatch of the Directors, dated the 19th July 1854, also took a comprehensive and impartial view. "It marked out the sphere of usefulness of all classes of institutions, oriental, English and vernacular, then working in the country, and it cared for the educational interests of the entire community." But the indigenous tols and muktahs were left entirely out of the scheme of the new Universities. As I have said elsewhere, our Indian Universities in their inception and methods, have been altogether alien, and unfortunately cared little for "placing themselves en rapport with the indigenous ways and tendencies of thought, or the inherited cultures and humanities of the Indian peoples. It was the business of the Universities to engraft modern scientific thought and criticism and modern sociological aims and ideals on the old stock, but they chose to begin as if the Indian national record was a tabula rasa. They import the manufactured products of western life and civilization, and in the meanwhile, the prolific faculty of the race is either growing to weeds or dying of inanition and atrophy, except in the few and limited directions in which it is creating worthy vernacular literatures. An Indian University on its literary, aesthetic, scientific or philosophical side, if it is not to be a sham and a pretence, must produce indigenous schools of science, art and philosophy, at once modern in their ideals, methods and standards, and Hindu or Mohammedan in their caste and character—schools that may take a valued place by the side of characteristic national schools in Germany, England, France, Italy, the United States and other western countries, and marching abreast with them press forward to the vision of the Absolute, a goal to which all roads, scientific and philosophic, artistic and social, are leading the race. No Indian University can
become a national institution, if it ignore the literary scientific, aesthetic or philosophic heritage of the Indian peoples, whether Hindu or Mohammedan. Again, the transition from the medieval to the modern standpoint was, on the whole, gradual and continuous in Europe; at any rate, it was a process of growth from within. In India, there is a violent gap, a breach of continuity, in the national life and consciousness, which has made genuine thinking impossible. We think in counters and symbols, in meaningless abstractions and secondhand formulae, and are cut off from those original experiences of life and nature which are the only springs of scientific or philosophic thought. Historic continuity in the national life and consciousness cannot be broken with impunity. At the same time the latter must outgrow its old wrappings and swaddling clothes. Leaving the Asramas of the Rishis, and the Viharas and tols of the scholiasts, the Genius of the nation must come out into the cosmopolitan arena of modern life and interests. This problem of adapting the highest Hindu (or Mohammedan) thought and spirituality to modern ideals of life and the universe required for its solution successive generations of earnest students and thinkers familiar with the history of culture in the east as well as the west, and able to survey from the philosophic height of Universal History the march of the human mind in any particular race or age.

But abstract doctrinairism prevailed in the British educational policy. Sir Henry Maine, Sir Alfred Lyall, and other students of Indian Sociology have commented on the same blunder of rashly destroying ancient institutions and overturning the indigenous principles of socio-legal and administrative policy, which has worked infinite harm in the field of civil government and legal codification. Indeed, Sir Henry Maine convinced the British rulers of the mischief of socio-legal experimenting and of the exploitation of India in the interests of abstract doctrinairism, and brought about a healthy reaction in the sphere of civil polity and law. But there has been no Sir Henry Maine in the British educational administration, to preserve and foster the inherited cultures and humanities of the people, and the indigenous instinct and aptitude for learning, and divert them to channels of modern thought and science. The Punjab University, it is true, created a Faculty of oriental learning late in the day, but it was a case of Athanasius contra mundum, and for sheer bungling, it was foredoomed to failure. But, even yet, the necessity remains:—our University must strike out a line of communication with the organizations of oriental learning.

Latterly, Government has lent its fostering care to these organizations in various ways:—(1) by instituting a number of Arabic Madrasahs with the Mohsin fund, (2) by instituting a central examination for the Madrasahs and prescribing definite and well regulated standards, and (3) by instituting a system of examinations in connection with the Sanskrit College, by recognizing associations of Pandits in different parts of the country, and by co-operating with them in the organization and control of Sanskrit studies in Bengal. Some judicious distribution of stipends to teachers and pupils, and a proper administration of the Mohsin fund have enabled the Government at little cost to itself to exercise a healthy central influence on a large proportion of the respectable tols, Madrasahs and associations of Pandits and Moulvis in the country. So many as 2,770 students appeared in 1900 at the first and second Sanskrit Examinations, and 147 at the Sanskrit title examinations (the latter mostly in Belles Lettres and grammar). So many as 200 presented themselves in the same year for the central examination of Madrasahs. But it is only the outlying fringe of indigenous learning that has been yet touched. Under the head of private institutions for advanced teaching, there were 1,300 tols and about as many muktabs in Bengal in 1900, with about 12,000 and 16,000 students, respectively, i.e., amounting to more than three times the alumni of the Calcutta University.

The question is—what is to be the relation of the Universities to these places of ancient learning, which still give a high training in the old scholastic methods and disciplines to advanced students all over the country, and harbour about four times as many alumni as all our modern Indian Universities taken en masse with their huge machinery and appliances?

Practical suggestions for widening the basis of the Calcutta University:—
In my view, the following tentative steps should be taken to put the University en rapport with the centres and organizations of oriental learning:—
(1) The University should approach the Government with an offer to conduct the Central Examination of Madrasahs, and the Sanskrit first, second, and title examinations. The Examiners may be selected as heretofore from among the Pandits and Moulvis of the Sanskrit College and the Calcutta Madrasah, as well as from the Associations of mofussil Pandits and Moulvis, of a recognized status, and the stipends and rewards distributed or awarded by Government on the results of the Examinations.

(2) Courses may be prescribed for the examinations, and the standards will enable the University to exercise a powerful elevating influence on Sanskrit and Arabic studies in the country. Historical criticism, and a free and independent treatment of the subject matter, may be encouraged and once the Pandits and Moulvis are thoroughly imbued with the modern European stand point, and the methods of European scholarship and criticism are joined to oriental thoroughness and specialism, the highest results may be expected in the cause of oriental Research, and for the Renaissance of Indian learning, such as the purely European or the purely Asiatic culture has necessarily failed to achieve.

(3) The Vedanta lecture ship may be supplemented from time to time by lecture ships on Hindu and Arabic logic, metaphysics, astronomy and materia medica, the Chairs to be filled by Indian graduates, who have mastered the corresponding Western sciences, and gradually the nucleus of a faculty of oriental learning may be formed round such central institutions as the Sanskrit College and the Calcutta Madrasah, which will then become University Colleges for such studies, in the proper sense of the term, though still remaining under Government. English classes for Pandits and Moulvis for instruction in European philosophy and science might also be opened on Dr. Ballantyne's plan. The M. A. examinations in Sanskrit, Arabic and Persian, Post graduate research classes in Indian Epigraphy, Archaeology, and Philology, and the examinations of Pandits and Moulvis in different branches of oriental learning such as Vedic literature and Hadieesh, philosophy, law, astronomy, and grammar, may be so organized by the oriental Faculty of the University as to act and react on each other, and produce that fusion and intimate blending of Eastern and Western cultures and humanities, from which alone national Indian Universities may be expected to develop themselves, and take their distinctive place among the Universities of the world.

Teaching Universities:- The precise position of our Indian Universities as well as the direction which our reforms must take, will be better understood after a brief survey of the reigning types and ideals of University culture. Broadly speaking, there are two dominant types of teaching Universities in the world (1) the type prevailing in Germany, France and Japan, (2) the insular British type with varieties like the Oxford, the Edinburgh, the London, and the Victoria Universities. University education on the German pattern is a more specialized and advanced affair than that on the English model. The Gymnasien, the Lycees and the Gakkos, though termed High Schools, cover the first two years or more of the English University courses. The baccalaureate of the French Lycee, or the graduate of the Japanese Gakko, is therefore qualified to enter on the specialized studies of the University. In this system, then, secondary education is prolonged so as to comprehend the entire course of general and liberal education The University is a highly centralised body generally under State control, spending as in Germany 42 per cent. of its income on museums, hospitals and laboratories, i.e., on equipments and appliances of original work and research, and maintaining a large professoriate (about 1 University Professor to 11 or 12 students in Germany as well as Japan). "The German University may to a great extent be looked upon as Professional Schools giving an education which directly fits a man to earn his bread as a clergyman, a lawyer, a judge, a physician, a school master, a chemist, an engineer, or an agriculturist." The University of Paris confers the degrees of licentiate and doctor after five or six years of special and advanced work. The Japanese system of University Colleges contemplates three or four years of advanced studies with post-graduate work, crowned in the end, by a five years' course of severe work and original research in University Hall. The American Universities are a cross between the German and the British breeds with a more or less pronounced trend towards the assimilation of the German ideal.
The Insular British type.—This system comprises three divisions—(1) Universities like those of Edinburgh and Dublin in which the University Professors constitute the entire teaching staff (omitting recognized extra academic teachers in certain studies); (2) Universities like those of Oxford and Cambridge, with affiliated colleges in the same town, the actual teaching being conducted by both college tutors and University professors; (3) Institutions like the Victoria University, with affiliated University Colleges in different towns, and teaching by means of college professors who have a University status. The London University as now constituted stands midway between the second and the third group.

The common feature of the British Universities is that the matriculation or Entrance Examination (where there is any) is too low, and that a great part of what is comprised in secondary education on the continent forms the mental pabulum of British freshmen and sophisters. In other words, the ordinary pass degrees of these Universities correspond to the finishing stage of the Gymnasium, the Lycee or the Gakko. They ensure the requisite minimum of liberal education. The Honour Schools are immensely superior, but except in one or two specialized schools like the Oxford Classical Moderations or Finals or the Cambridge Mathematica Tripos, they cover only a small portion of the advanced studies comprised in the University grade on the German-Japanese model. The bachelors of the non-literary or professional schools, Engineering divinity, and medicine, have no conception of the post-graduate work and technical training incumbent on their fellows of the continental Universities. So long as secondary education in English public and voluntary schools remains in its present backward, disorganized, chaotic condition, the Universities cannot be brought sufficiently up to date. Still, more or less successful attempts have been made to raise the standard of matriculation. This, as is well known, has led to a considerable decline in the attendance at the Scotch Universities. Science studies have been organized, and Professional Schools more or less highly specialized by means of laboratories and Research Classes. The new King’s College Laboratories in Cambridge for original work in the departments of physiology, anatomy, bacteriology, botany, geology, architecture and mechanics, the Engineering Laboratory opened by Lord Kelvin in 1894, the Berkeley Research fellowships at Victoria University, and, above all, the new Faculties of the London University, the schools of Engineering and Economics, are notable signs of the onrush of the modern University ideal in centres of insular prejudice and conservatism.

In one respect, the British Universities of the second group, which have developed a collegiate system confined to a single town—especially Oxford and Cambridge—are superior to every other institution in the world—they exercise a unique disciplinary influence on their alumni, such as is entirely wanting in the non-collegiate university systems of the German type.

Precise Position of the Indian Universities.—We, in India, have built on the English model, and began with imitating what was then a specially backward specimen of the English type—the Examining University of London. Our educationists, alumni for the most part of British or Irish Universities, if not of English public schools, have, with a few notable exceptions, been machine-made men, wanting in freshness and originality of ideas, in glow and expanse of soul, as well as in human sympathy and historic imagination. And so it has happened that, while Japan has developed a splendid system of Gakkos and University Colleges of her own in the last thirty years, British India has neither utilized the indigenous devotion to learning, having left it to waste places and the desert air, nor fostered those advanced studies and original investigations in the mathematico-physical or the historico-social sciences, or in the scientific Arts and Industries, for the sake of which the Rajah Ram Mohan Roy was prepared to leave his favourite Vedantic studies out of the curriculum of the public schools. Even that phenomenal enthusiasm for games and sports, for the mimic warfare of the play-ground, or the chase of the flying ball, which is so hopeful an augury of our academic progress, has not been inspired by our European Professors fresh from the regattas or the inter-University matches, but by large-hearted and sympathetic rulers, from Sir George Campbell down to Sir Henry Harrison and Sir Charles Elliott.

But I must not appear to be ungrateful. We have done better than could be expected of us, either from the example set before us, or from our resources
in men and money. Though mere examining bodies at the outset, we have developed a collegiate system, and may be therefore said to teach through the affiliated colleges. Our Indian Universities correspond very nearly to the type of the Victoria University which also requires attendance on prescribed courses of academic study in colleges of the University, such colleges being situated in different towns, wherever adequate and efficient teaching may be provided through College Professors. One fundamental difference is that our Indian Colleges and College Professors have no constitutional status in the governing body of the University, and are so far extraneous and adventitious agencies, whereas the constitution of the Victoria University contemplates its being a federation of colleges, and the governing and teaching bodies of the colleges are represented in the governing body of the University. London also teaches through affiliated Colleges and recognized Professors, but the Colleges must be situated within prescribed limits, and the Professors are admitted to a share in the University management.

The fact that our Indian Universities teach through affiliated Colleges would not of itself militate against their being teaching bodies. Even at Oxford, "by far the largest share of University teaching (except in the case of the non-collegiate students) continues to be carried on by College tutors. Since the introduction of inter-collegiate lectures, i.e., of lectures open to all comers from other Colleges without payment of fees, the function of University Professors has to a certain extent been superseded. Oxford class-men as a body are mainly indebted to College tutors for guidance of their studies in classical literature, history, philosophy, political economy and theology, if not in mathematics and law.

The question is, therefore, not whether our Universities should be teaching Universities—they are already such in a recognized sense—but whether we shall have university Professors in addition to the existing College staff, and, if so, what they should teach, and how their teaching is to be accessible to the main body of our students, scattered as these are in different towns and provinces.

Direction of necessary Reforms.—From the above survey of recent academic movements and their universal trend and goal, it clearly results that the only hope of salvation for our Indian Universities lies in raising the standard of Pre-University Education, of matriculation, and of the liberal discipline implied in the Pass courses, and in developing, within the University, as our British prototypes have been fast doing for years, Honour schools and optional courses for specialization, Museums and laboratories for advanced science, and Research classes and technological institutes for post-graduate work and professional training. All this must be done in view of Indian conditions and requirements, and in adaptation to Indian resources and environments.

University versus College Professors—Centralisation versus decentralisation.—Now the question of University versus College Professors is simply one of centralization versus decentralization. In every social institution, it is now an accepted principle that whatever cannot be achieved by local or individual effort from its magnitude, costliness or wide inter-dependence, must be left to central and corporate activity, and that everything merely local offers the best scope for the principle of decentralization. The principle explains the difference of type and organization between a British University and one on the German pattern. Centralization is the watchword of German and Japanese University management, as gigantic and universal schemes of encyclopaedic research are their main object. The movement of decentralization which has split up the Napoleonic University of France into the University of Paris and fifteen other Universities, each with an academic district of its own, is significantly connected with the fact that the new Universities are to be more partial and less encyclopaedic, more adapted to local needs and resources, than the old rigidly formulistic organization, which represented the Bonapartist imperial idea. England is, however, the home par excellence of decentralization in every field of civil polity and institution. This is the characteristic mark of the collegiate system, which Oxford owes to the founder of Merton, but which is also the expression of the English genius; and even more, of the modern University Colleges, which are fast springing up in the centres of commerce or industry. These institutions represent local needs, and
cultivate the applied sciences and the technological studies allied to the local industries, besides continuing the liberal education of the voluntary schools. In the same way, the predominance of College over University teaching in Oxford is based on the fact that the Pass and Honour schools of classics, philosophy and history are more of the nature of disciplines than of encyclopaedic research, and do not involve any costly appliances or apparatus. "Natural science, in all its branches demands a costly equipment of laboratories and collections with an organized staff of teachers, which can only be provided in some central institution like the University museum. The consequence is that students of Natural Science in Oxford gain almost all their instruction at the museum, and are so far removed from College influences. The same applies in some degree to the infant schools of Oriental studies and English." In other words, liberal culture and discipline are within the scope of a collegiate institution,—advanced studies in the Physical and natural Sciences, and postgraduate research whether in letters, philosophy or science are more properly the work of a central University organization. The Professional and technological studies are also of a highly centralized character, and must be cultivated by means of special institutions such as University Colleges.

Detailed application of the principle to the organization of studies in our Indian Universities:—

This luminous and fruitful principle defining the scope of centralization as well as decentralization in their application to University studies will be found to be of the greatest help in determining the question of University as against college teaching in our Indian University organization. The College and the University have each its proper scope of usefulness. The wisest and most natural arrangement would be for our colleges to confine themselves for the most part to the elements of liberal culture, which are a *sine qua non* of University degrees, and, as such, should form the standard of our ordinary Bachelor of Arts Examination. Classical as well as modern literature, the scholarly study of two or three languages, the elements of the historical and sociological sciences, some knowledge of the principles of life and consciousness, a certain philosophic discipline giving free play of mind and elasticity of intelligence, as well as the root of calmness, catholicity and equitableness, those habits of accurate observation and precise thinking which the mathematico-physical and experimental sciences are calculated to develop, and a cultivated taste which habitually seeks to clothe the useful in a garb of simplicity and beauty, are all at the present day a *sine qua non* of liberal culture; and if our secondary education in the high schools cannot accomplish all this they must have a place in the earlier stages of our University studies; and our colleges, whether in the metropolis or in the mofussil, may with wiser and better management, be converted into fit agencies for creating and conserving traditions of such liberal and humane modern culture. To secure this end, besides a suitable grouping and sequence of subjects, a competent body of College Professors will be necessary. The University must satisfy itself as to the competence of the Professorial staff before granting the privilege of affiliation to any college, and care must be taken either through periodical visits or through annual reports to see that the original standard is subsequently kept up. But for the ordinary Pass degree, I would deprecate the formation of a list of recognized teachers. This should be reserved for the Honour Schools.

For, with the commencement of specialization in the Honour schools, special equipments and resources would be vitally needed, and no college should be allowed to compete for them, which does not possess sufficient equipments and collections to impart a sound training as distinct from successful coaching. Different colleges may and should go in for different Honour schools according to individual opportunities and facilities, the University insisting on a high standard of equipment in respect of library, apparatus and other collections, and drawing up a list of recognized teachers in different branches of knowledge, the attendance at whose lectures should count towards the keeping of a term for the Honour Examinations. As in the case of extra-academic teachers of the University or Edinburgh, every Professor who desires University recognition must submit a statement of his qualifications and experience together with a Syllabus of his
course of lectures, and contributions of his, if any, to the branch of learning he professes. In this way, modern and classical languages and literatures, modern and ancient History, sociology and political economy, Logic, Ethics and Metaphysics, and the mathematical sciences, may well flourish at select centres in different parts of the country. One college may thus found a school of philosophy, a second, a school of History, a third, one of political economy or sociological science, and, in course of time, the traditions of successive generations centered in a particular institution may lead to the formation of University colleges in mofussil towns, or of particular faculties or Academies serving local needs, exploiting local resources, directing the theoretic studies, and perhaps also, in the end, with due scientific equipment, the technological or industrial development of their particular districts. These mofussil colleges of the future will then correspond to the fifteen new Universities of the French districts, and the University colleges in the north of England. But, for a long time to come at any rate, it would be a fatal mistake to allow decentralization for the Honour schools of the experimental or the natural sciences, or for the B.Sc. and M.Sc. Examinations. For the Calcutta University, I have no hesitation in saying that the physical and chemical laboratories, and the nucleus of a phisiological and geological collection, in the Presidency College, together with the proposed physiological laboratory in the Medical College, should form the single centre for the advanced and specialized studies of the Honour schools in such subjects. The Science Association may, under certain conditions, be recognized, in one or two branches, but for a long time to come, every effort after a multiplication of centres should be sternly and systematically discouraged.

So far, then, as Honour schools are concerned, I do not think that University Professors are needed. It goes without saying that the selection of the professoriate even in our Government Colleges admits of considerable improvement. The Classics Final of Oxford are entirely unsuited to the requirements of literary studies in India. A certain classical training is of course indispensable, but wider modern culture and deeper English scholarship must also be held equally necessary. For our Honour schools, and our M.A. Examination in English, a scholarly knowledge of English (as opposed to a practical or working knowledge) is a sine qua non, but the phenomenal ignorance of Early and Middle English, or for that matter, of Tudor English, among our Professors, has led to our being content with a mere smatter of Anglo-Saxon, no Pre-Chaucerian Early English literature, and a homoeopathic dilution of the Elizabethan Drama other than Shakspeare's for our highest English Examinations; and when the late Revd. Mr. Fletcher-Williams, who was, I doubt not, a very respectable English scholar, and a very capable lecturer on the University extension platform, delivered his addresses on the contemporaries of Shakspeare, it was a sight to see our college Dons sitting at his feet to eagerly imbibe knowledge which should have been the common possession of their pupils in the Honour school of English literature, if they had only been workmen worthy of their hire. We should have more men from the Oxford school of English literature to fill our English chairs. For the science classes, the Bachelors and Doctors of the faculty of science should be preferred, especially men who have done some post-graduate and research work at the King's college laboratories in Cambridge and the like institutions. At the present rate of progress, Oxford and Cambridge may, in ten or fifteen years more, rank beside the great continental Institutes and Academies, but in the meanwhile our Indian Universities would be vastly benefited, if the field of choice were widened enough to include some Doctors from the great German Universities. Dr. Hoenle has singly done more for the cause of Indian philology and epigraphy than all the other members of our Bengal Educational service put together. Such men would infuse new life, fresh ideas and enthusiasm, and would, beside, be in close touch with the most advanced educational methods and movements of the day.

But with a better selection of the staff of our Government Colleges, the need of University Professors for Honour schools, even in the Experimental and Natural Sciences, would not be felt. But it is far otherwise with Post-graduate research and advanced work in any branch or sphere of knowledge, literary, philosophic or scientific. To such small groups of advanced workers,
specialists who have made their mark in the field of original research must point the way. With this end in view, the Calcutta University should take statutory power, if necessary, and proceed to found Chairs, for a few select subjects in the first instance. For husbanding our necessary small resources, it is best that direct competition with the proposed Tata University of Science should at first be avoided as far as possible, I would suggest the tentative formation, under the auspices of the University, of post-graduate classes for (1) Psycho-physics, Psycho-physiology, and Experimental Psychology; (2) the Philology of the Indian languages, classical as well as vernacular; (3) Indian ethnology, anthropology and ethnography; (4) Historical Research classes with Mss., Sanskrit, Arabic, Persian, etc., and with official records; (5) Comparative Philosophy and (6) Comparative Religion and Comparative Mythology. As regards the two last subjects, and their importance for an Indian University, I would draw the attention of the members of the Commission to the prospectus herewith appended, of a proposed Journal of Comparative Philosophy and Comparative Religion, which I projected as a record of research work in connection with the Victoria College, a scheme I have not been yet able to carry through for unavoidable reasons.

I must say that, though the University need not organize research in subjects proposed to be taken up by the Tata University of Science, such subjects must be extensively cultivated in the museums and laboratories attached (or to be attached) to the Presidency College, the Medical College and the Sibpore Engineering College. Without post-graduate research in Mathematical and Experimental Physics, in Chemical Theory as well as in Technological and Agricultural Chemistry, and in Physiology and Pathology, it would be impossible to raise the facultative studies in these University Colleges to a standard befitting a University.

So far as the Calcutta University is concerned, a nucleus of post-graduate research is in course of formation. The Premchand-Roychand and Griffiths scholarships, the Government of India stipends, and the Elliott prize are small beginnings, no doubt,—but if only these scholars could work in libraries, laboratories and museums under the guidance of distinguished specialists and Professors, great results could even now be achieved. If the encouragement of research is to be genuine and sustained, it is high time that steps should be taken to organize research classes, either through University chairs, or in the University Colleges, as above proposed.

**Professional and Technological studies.**—We have seen that the universal tendency is to cultivate these professional and technological studies in University Colleges furnished with special laboratories, collections and other equipments. By a University College, I mean a single central institution for a facultative study, either incorporated in or affiliated to the University. Fortunately enough, this is also the type we have developed in India. For the Calcutta University, the Government Medical College and the Sibpore Engineering College have the status of University Colleges so understood. Centralization is already secured, and our main business is to widen and deepen the existing foundations. As regards the school of law studies, a distinctly retrograde step was taken when the Government abolished the Law Department of the Presidency College in 1883. It should have been developed into a law college. I am aware of the complaints made in regard to the Madras Law College, but these do not touch the present question. Our existing law classes are downright failures; they are a sham and a pretence. The attendance is a mere make-believe sort of a thing; the two years' course is only nominal; and the standard is unworthy of an academic body.

As I shall have no further occasion to speak of these professional and technological studies, I may as well here note certain suggestions for their improvement. All advanced work in subjects like physiology, Anatomy and Natural Science, whether connected with the theory and practice of Medicine, or not, must be done at the Medical College Laboratory. A bomá-fide Professor of Physiology is the first requisite, and a Physiological and Pathological laboratory, a bacteriological department, a Natural History museum, a wing for the study of tropical diseases, and another for that of indigenous drugs, (including the
materia medica of the Hindu and Yunani systems) are vitally needed. A physiological laboratory is, I believe, in contemplation; and the last Medical Congress threw such a searching side-light on the organized incompetence of our Medical Faculty to utilize the special opportunities of scientific research that they possess in the matter of tropical diseases, snake venom, indigenous drugs, and microbes, that any further delay in this matter may scandalize the learned world. It is also necessary that the Medical College should be dissociated from the military medical service, and transferred from the control of the Inspector General of Hospitals to that of the Director of Public Instruction. It goes without saying that only men of high scientific standing should be appointed to fill the professorial chairs.

It is a matter of rejoicing that the Serfpore Engineering College is being gradually converted into a technological institute (with a College of Agriculture attached). It is therefore desirable in the interests of the mining industry of the Province that the school of mining and metallurgy, be early taken in hand, as also the proposed department of electrical engineering. A Professor of Agricultural Chemistry should be added to the department of Agriculture; he should also carry on research for the utilization of waste products.

As for the Law School, I have already suggested the formation of a Central College, but this should go pari passu with certain extensive changes in the existing curriculum of study, which, in its gross sub-servience to bread and butter considerations, lacks the characteristic note of a liberal University education. Roman Law cannot be banished from the facultative study of law in any University in the world, however remote from the centre of civilization, and all difficulties connected with the Latin language must somehow be overcome. The Theory of the State and Comparative Politics, together with the Philosophy of Law whether studied in Kant, Puffendorf, or Herbert Spencer, must be grouped with the Theory of Legislation and cognate studies under the Faculty of Law. An ounce of insight into fundamental principles and methods is worth a ton of technical matter. An elementary knowledge of Medical Jurisprudence is also a grave desideratum. I would also point out that a Professorship of Comparative Jurisprudence and Comparative Law (with special reference to Hindu and Mohammedan law and the law of Christendom) is a crying necessity; and no Faculty of Law in an Indian University can without reproach ignore the claims of this science. To make room for these studies, large portions of the Stamp Act, the Succession Act, the Law of Probate, etc., I mean the working sections which must be learned through practice, and which it is senseless to cram for an examination, must be cut out. The course should also be raised to one of three years.

Faculties.—I have already stated that central institutions like University Colleges are necessary for professional and technological studies, as well as for advanced work in the experimental and natural sciences; and I would at once say that each University College should be connected with a separate Faculty mainly formed out of the governing body, the professorate and the graduates with Honours. We have a Faculty of Engineering, and a Faculty of Medicine, fairly answering to this description. A Faculty of Law could be formed round the nucleus of a Central Law College, and it would not then be necessary to adorn the register of this Faculty with the name of every practising lawyer on the Senate. A separate Faculty of science in connection with the B. Sc., the M. Sc., and the M.A. and Premchand-Roychand Examinations in science should also be created round the nucleus of the Science Department of the Presidency College (which may very well be constituted the University College of Science).

Being on the question of separate Faculties, I may as well remark that the sub-division of our unwieldy Faculty of Arts is only a matter of time. I would propose a two-fold division—into a Faculty of letters, and a Faculty of philosophy and again sub-divide the latter on the German model, into the philosophico-historical and the mathematico-natural sciences. Besides the three Faculties, then, of letters, the philosophico-historical and the mathematico-natural sciences, there would be the Faculties of professional and technological studies, namely of Law, Medicine, and Engineering (including Agriculture, Technology, and, if necessary, Architecture).
University Teaching:—Essentials of a sound system:—

A sound organization of University studies is impossible without a proper system of preparatory training in the secondary stage, and the latter is unattainable without a recognition of modern studies by the side of the old classical or literary education. But before the principle of bifurcation is introduced, there must be, in the primary stage of secondary schools, a common course of elementary studies, comprising the Kinder-garten, object lessons, every-day science, training of the senses, the three R’s, one classical language and its grammar English in this country, the vernacular, history (in anecdotes), Geography (with sand and clay modelling) fairy-tales, story-telling, a literary text-book for healthy emotional and imaginative training, drawing for the hand and eye, manual training and Slojd work, music, action-songs, drill and physical exercise. Bifurcation next comes into play. The Upper forms must have a classical (or literary) and a modern side. The classical side, corresponding to the Gymnasium will add two more classical languages, History and Geography, elements of Physics, Chemistry and physical geography, elementary Mathematics (Arithmetic, Algebra, Geometry and Trigonometry), and a Primer of Logic. The modern side will cultivate one more vernacular language, History and Geography, physics, chemistry, Applied Science and the History of Inventions, Mathematics, a Hand-book of Law, Citizen-ship and Useful Information (e.g., as to economic products), and the elements of political economy. The modern side (corresponding to the Real School), it must be carefully noted, is no form of special or technical training. It is a course of sound liberal and general education in accordance with advanced modern ideas. Ordinarily boys would leave the secondary school at sixteen or seventeen.

The classical side is directly a preparation for University studies, but the “real” or modern studies will ordinarily lead on to special schools, commercial, industrial, agricultural or sub-professional (if I may so term the Medical, Engineering and Law Schools of the secondary grade). At the same time, as has been done in Prussia and Wurtemberg, where the Realschule and the Realgymnasium have been affiliated to the Technological Institutes and Professional Faculties of the University grade, we must take care to provide a possible filiation for those who desire it to the higher University courses in the Faculties of Professional and Technological studies.

Coming to the University organization itself, it will be seen that the University grade of education must comprise the following indispensable elements:—

(1) A scheme of general and liberal culture serving to impart a mental discipline characterized by the philosophic virtues of wisdom, moderation, freedom, equitableness, and calmness, and the scientific marks of accurate and alert observation, healthy realism, individuality and a fertile inventiveness of mind.

(2) Special studies in Science, or letters, mainly in the interests of the advance of knowledge, research and speculation. Such specialization is to be the note of the Honour Schools, of Doctorates, and of post graduate and research classes.

(3) Practical or Technological Schools—to train up men for the various needs of State and community, including the industrial and commercial interests. Besides the old Schools of Law, Medicine, Divinity and Engineering, new schools of technology, mechanism, Agriculture and Pedagogy have forced themselves even on the most conservative Universities. These practical studies of the University grade must be preceded by the elements of general and liberal culture, either in the Real Schools, the Real Gymnasium or other secondary schools, or in the earlier stages of the University courses.

Relation of (2) to (3).—The special post-graduate studies in science and letters are being brought more in intimate touch with the technical work under the third head. The Pasteur Institute combines research with practical applications as in checking rinder-pest among cattle, or pebrine among silk-worms. The researches in Synthetic Chemistry in Germany and France have a prevailing reference to the needs of national commerce and the manufacturing industries.
University Teaching:—Scheme of studies and examinations in our Indian Universities:

Of these three groups of University studies I will dismiss the third, as this has been already touched upon, I will also pass over the subject of post-graduate research, as I have already made my suggestions on this head. I therefore proceed to take up the organization of studies for the Pass and Honour Schools.

We have already seen that in the Indian University system as in its British prototype, a pass degree is intended to complete a course of general and liberal education. A modern humane culture implies the following acquirement and training—two classical languages and the vernacular, Art and Art-criticism, a course of Universal History, with special knowledge of modern History, the elements of Social Science and Economics, Logic and Methodology, Psychology as a Natural Science, Ethics, philosophical discipline (comprising Epistemology and Metaphysics,) Elementary Physics, Chemistry and Physiology and Elementary Mathematics (Arithmetic, Algebra, Geometry, Trigonometry, Elementary Kinetics, and Descriptive Astronomy).

All this will be the common training of the Pass and the Honour schools, but the latter will also pursue special studies in particular groups of subjects. Assuming sixteen to be the minimum age of matriculation, the course should extend over four years. I may note that a baccalaureate of a French Lycee graduates at 18 years of age, and that the great English public schools teach boys up to their nineteenth year. An English graduate is ordinarily twenty-two or twenty-three, and considering that we orientals mature earlier, we may fairly expect our young men to come out as bachelors at 20 or 21.

Two general or University Examinations, as at present, should suffice—the Intermediate, Previous or F.A. Examination, and the Final (or Degree) Examination. The subjects should be arranged in due sequence and groups for the two Examinations, forming the F.A. and B.A. curriculum. Both the F.A. and B.A. Examinations should be split up into two parts, one to be held at the end of each academic year. The Professional or Technology students other than those of the law school should go through the shorter intermediate course of two years; and for them, as well as for the certificate-holders from the modern side of our secondary schools who may want to join the University classes of the professional or technological Colleges, a separate F.A. or intermediate Examination should be devised in such a way as will enable the medical and engineering courses to be reduced by a year. They will study the general subjects in the Colleges for general instruction, and the special or technical subjects of their intermediate or F.A. Examination in the Professional or technological Colleges.

Grouping or sequence of subjects:—The general F.A. curriculum:—The first two years of the University should comprise the following studies:—English and Sanskrit (or Arabic, Latin, Greek or Persian) classics studied as literary classics, with composition; master-pieces of vernacular literature with aesthetic criticism, Universal History (Ancient History as in Taylor, and general outlines of European History as in Freeman), Elements of Logic (Jevons), the Elements of Psychology (as in Professor James' smaller book), Physics and Chemistry (as in Ganot and Jago), Mathematics (Algebra, Euclid Book VI and select propositions from Book XI, Plane Trigonometry, Geometrical Conics, Elementary Mechanics and Descriptive Astronomy), and either the Elements of political Economy (as in Mrs. Fawcett) and the Elements of Physiology (select chapters from Huxley's Elementary Lessons), or a modern European language (German or French) or a second Asiatic classical language (Sanskrit, Arabic or Hebrew). What is called in Madras and Bombay the compartment system of Examinations should be allowed in Calcutta (as is done in Edinburgh) for both the F.A. and B.A. Examinations. In other words, a student who has attended the regular course should be allowed to take up a particular group of subjects at any Examination, and on his showing satisfactory progress (not merely coming up to the minimum) be exempted from future examination in that group.

Special F.A. Examination for the Professional students:—

Modern English Prose, and English Composition, and master-pieces of vernacular prose and poetry with aesthetic criticism, History of Greece (Primer) and
of Rome (Primer) and General Outlines of European History, Elements of Logic, Psychology and Political Economy, and a group of special or technical subjects subsidiary to the particular professional or technical subject selected by the candidate.

B. A. and B. Sc. Curriculum:—The principal of bifurcation is already recognized at this stage in our Indian Universities (Bachelor of Arts and Bachelor of Science). The further sub-division of the B. A. curriculum into the A. course and the B. course in the Calcutta University, is illogical and unsymmetrical. The B. course should be abolished, as soon as the B. Sc. courses are well-taught and organized in the Presidency College.

The B. A. curriculum will then stand thus:—English Classics (Prose, Poetry, and the Drama) including Shakspere, Milton, Burke, and specimens of modern Prose and Poetry, with one modern novel, History of English literature (as in Stopford Brooke), History of English language (select chapters from Smith),—English classics to be studied from the standpoint of literary aesthetic and historical criticism; Art-criticism (selections from Goethe, Sainte-Beuve, Coleridge, Carlyle, Matthew Arnold and Ruskin); Sanskrit, Arabic, Latin or Greek classics, Grammar and Composition with chapters from Macdonell's History of Sanskrit literature, &c., master-pieces of Vernacular literature with vernacular composition, the History of England and of India, Logic, Deductive and Inductive, Ethics, Elements of Epistemology and Metaphysics, Physiology, Psychology with Psycho-physiology, and Psycho-physiology, Political Economy (as in Fawcett), and either Sociology (as in Spencer's Study) and the History of Rome (Shuckburgh) and Greece (Oman), Hallam's Middle Ages (select chapters), and the History of Europe since the Renaissance, or a second modern European language (German or French), or a second Asiatic classical language (Sanskrit, Arabic or Hebrew).

The B. Sc. courses have been very judiciously selected and grouped, and I have nothing to add except that the Mental and Moral Sciences, or at any rate Mental Pathology and Experimental Psychology (together with Psycho-physiology) should be recognized as one of the optional subjects for the B. Sc. standard. I would also make it compulsory on all B. Sc. students to go through a course of the Philosophy of science (as in Herbert Spencer's First Principles, the Essays and Addresses of Huxley, Helmholtz, Kelvin and Clifford, and in the case of students of the biological sciences, Darwin's Origin of Species and the works of Haeckel, Weissmann and Romanes). The Logic of Science (as in Jevon's Principles of Science) is also indispensable, but this has been already included though very imperfectly studied.

Honour Schools:—I would allow Honour schools for the F. A. as well as the B. A. Examinations, i.e., at every stage of the University course (as in Dublin, and Oxford after Responsions). Honours might be taken in one or more groups of subjects. Specialization and advanced study is to be the note of Honour schools. Thus at the Historical Honour schools for Finals (B. A. degree), I would prescribe in addition to the Pass course a special knowledge of a particular period of European and of Indian History, with records like the Siyuki, the Raitarangini for Indian History, or memoirs like those of Comines and Joinville, or Walpole and Bedford for European History. I would also prescribe a few select chapters from Mommsen, Merivale, Grote and Gibbon to familiarize the students with the study of historical classics. For the Honour English schools, I would set unseen passages from a certain number of specified authors, (as Homer and Demosthenes, Virgil and Cicero are specified for the Classical Honour Moderations in Oxford), and thus baffle cram and smatter by methods which have been found so successful at Oxford, and in the English Army Examinations. I would also demand a special knowledge of the literary history of a particular epoch.

Particular subjects:—English:—Our English teaching in the high schools has been a failure. The University Entrance Examination is to a great extent responsible, for the fiasco. For some years the University demanded an undue amount of grammatical niceties and linguistic minutiae from the would be matri-
culates. Fortunately, this philological craze passed off, and a practical working knowledge of English with facility in composition is now insisted upon. But the mischief is, that the questions from the text-book with the credit assigned for memorising verses, put a premium on cramming, and the veriest ignoramus who cannot compose a sentence of decent English manages to scrape through with a whole skin. I am not for the abolition of a text-book of English literature, for English must be taught here as a classical language is taught, with minute exegesis, philological notes textual and verbal criticism, and all the apparatus of scholarly study of languages. If this is lost, the discipline of learning a classical language is gone, and that is too valuable to be needlessly sacrificed.

The real roots of the evil are these: Many persons, who may be clever in other respects, have no literary or linguistic aptitude. In their case, teachers must be content with a practical working knowledge of a language. The arts course of a University Education is not intended for these. Unfortunately, as the F. A. and B. A. Examinations are the only pass-port to the professions and services in India, and as no alternative practical courses have been designed to meet the wants of business or commerce, people who are constitutionally unfit for high literary or linguistic studies, being born with a defective organ of language, are pressed like dumb driven cattle into the University fold, or the University shambles, as others would put it. The obvious remedy is bifurcation into a literary and a modern course. Again and again I say, bifurcate. A practical knowledge of English would suffice for the modern side, and this would also be adequate for the purposes of the special F. A. Examination for the Professional and technological studies, as also for those studies themselves. A University education of a technical or professional kind would not be ultimately denied to them, and the matriculation and F. A. Examinations on the literary or classical side might encourage a literary cultivation of English as a classical language, with more success and more specialization than heretofore.

Again, the way in which English is taught in the lower classes is faulty in the extreme. English should be taught in the same way as French, German and other continental languages are now taught. The methods of Otto, Olendorf and Sauer are real improvements on the old classical device of grammar-grinding and written exercises. We learn a language, in short, more by speaking it and hearing it spoken than by artificial exercises in Syntax or Idiom. Conversation, questions and replies to questions as in the Robinson lessons of the German elementary schools, constant and familiar use of certain simple forms of clauses and phrases, the sentence taken as the unit of speech, rather than the word, the cooperation of the tongue and the ear in reciting page after page, these are the surest, most rapid and most powerful means of learning a foreign language. They are the conscious imitation of the unconscious processes by which we learn to speak our vernacular in infancy.

Vernacular languages of India:—The recognition of the Vernacular in the University grade of education in Europe has passed through many phases, since Dante wrote his De Vulgari Eloquio, and Boccaccio delivered public lectures at Florence on the Comedia Divina, and since the Academia della Crusca immortalised itself by its labours on behalf of the Tuscan tongue. But now, that even Oxford has its school of English literature, thanks to a valiant little band of pioneers, and an Indian Vernacular under the doughty championship of the late Mr. Ranade, has won recognition for itself at the M. A. Examination of the Bombay University, there is no ground for the apprehension that our Vernaculars should receive scant encouragement from the Calcutta University, we have an optional paper on Bengali composition at the F. A. and B A. Examinations. This is a sop to Cerberus, but I am very much mistaken if the Cerberus of the Sahitya Parishad is not too wide awake to be so satisfied. As a matter of fact, an intellectual appreciation of the English classics from the literary and artistic point of view will be impossible, until our young men develop aesthetic sensibilities and perceptions, and unless their minds learn to hold the mirror up to nature, and catch the glow and fervour of the light that never was on sea or land; and the master-pieces of vernacular literature are exactly fitted to work in them this transformation. The best commentary on Milton's Paradise Lost to a Bengali youth is Hemchandra's Vritra-Sanhara, and Madhusudana's Meghnadbadha.
They are revelations of the soul,—flashes of the inner vision, and chasten, purify and exalt the youthful mind with vast conceptions and indefinable and mysterious longings.

Besides, in the Honour school of letters, both for English and Sanskrit, two special studies of the highest significance would be furnished by the Indian vernaculars:—(1) a paper on comparative literature which may well be prescribed as optional, (2) the philology of the India vernacular should be added to that of the English or the Sanskrit language. English Philology would be more intelligently appreciated if read pari passu with certain chapters from Beames, Herme or Grierson.

Finally, in the post-graduate research classes for Indian Philology as well as in the Historical Mss. classes, a knowledge of at least two Indian languages would be a sine qua non.

Mental and Moral Science.

Philosophy in the ascendant.—The decadence of philosophical studies in English Universities (with the partial exception of Oxford which has been the home of a revival since the days of Green, and of Edinburgh, where the ingeniwm perpetuum Scotorum has always kept up a sort of Alsatian sanctuary for a fugitive and bankrupt philosophy) nowhere comes out more strongly than in Dr. Sully's hesitating plea for philosophical studies addressed to his countrymen.

But for the real position of philosophy in the home of advanced culture, hear Dr. Paulesen of Berlin:—"In the world at large, philosophy is on the upward trend. The time of depression that followed in the second third of this century upon the speculative craze of the first third is gone. The sciences have long begun to be reconciled with philosophy. Philosophic thinking grows everywhere out of the sciences themselves, out of physics and mathematics, out of physiology and biology, out of history and philology, out of law and political science. General culture also which seemed anxious to content itself with a merely physical view of things, begins now to feel that philosophy is indispensable. In the University, philosophical instruction is again in the ascendancy."

Position of Philosophy in India.—We in India conform more to the German than to the English model in this matter of Philosophy. Our Indian people are born metaphysicians. If you don't supply them with the genuine article, they will be content with a false and mischievous philosophy. Nothing could be a greater mistake than to suppose that mere fact, mere science, history or literature would satisfy the Indian's soul. Help him by all means to cultivate the modern scientific attitude, and the historic sense, but cultivate at the same time the philosophy of science and the philosophy of History, or else the Hindu at any rate will turn from them with a sense as of hollowness and mockery. Besides, the philosophic discipline is fast coming to be a substitute of the old-world classical training even in the academies of the west, and for those who are brought up in modern scientific studies without the Aristotelian or Platonic classics, the modern philosophical view of the world is all the more necessary as an element of University training. Lastly, in the higher stages, the modern philosophical sciences and systems must be sought to be affiliated to the indigenous Hindu or Arabic schools of thought. This is so, partly because the chief discipline of philosophy lies not in any individual system or body of dogmas but in the appreciation of the immanent movement of thought and reflection, so far as it appears in the successive rise and disappearance of systems, so that the study of philosophy is synonymous with comparative History of philosophy. But the chief consideration is, as has been already stated, the formation of Indian schools of thought, of science, art or philosophy, which, while in full rapport with modern scientific criticism and philosophical norms will stand in line with the mainstream products of the Hindu or Mohammedan consciousness in the past, and carry forward the subsidiary national development to the universal modern goal.

In accordance with these ground-ideas and principles, I proceed to make the following observations, regarding the study of Philosophy in the Calcutta University.
Fortunately in the A. course, we have a sufficient recognition of the principle that in the absence of Sanskrit or Greek Philosophical classics in the classical language section, a course of the modern philosophical sciences should be compulsory on the so-called Arts students. Some years ago, a judicious change from text-book to syllabus was also made, with the idea that the students would learn the subject independently from the various authorities instead of cramming the text-book. But partly from defects in the syllabus, which is at once shallow, incomplete, redundant and vague, and bears every mark of having been drawn up in haste (and repented of at leisure), and partly also from the nature of the earlier Examination papers on the syllabus system, which proceeded on the curious supposition that the questions should be confined to the merest elements the common ground of all the text books on the subject,—the change from text-book to syllabus has in effect encouraged greater cram and superficiality, greater reliance on mere notes and epitomes, than ever before. The remedy indicated is, not to revert to the text book, but to improve the syllabus and to demand in the Examination papers such a knowledge of the subject within the limits of the syllabus as will ensure the student’s personal, independent and thorough study of the different schools or systems. To this must be added a fundamental reform of the method of teaching in vogue in our colleges. No book should be read and paraphrased in the class; lectures must be delivered on the syllabus or the subject. The students must be referred to the various authorities which they must independently study in the college library or reading room, and the College Professors will offer them tutorial help, guide their studies, and correct their exercises.

I now proceed to make certain suggestions regarding the curriculum in philosophical subjects for the different Examinations.

For the F. A. Standard, both logic and psychology should be compulsory. Logic is the grammar of thinking, and like grammar and Euclid, it should have a necessary place in every scheme of liberal education. It is an even more valuable discipline than Euclidean Geometry for precision and clearness of thought. I should also add the elements of psychology as a Natural Science. Its phenomena are the most accessible, and most universal,—we can in nowise escape from them. The jurist, the lawyer, the statesman, the journalist, the schoolmaster, the clergyman, would all be the better men in the practice of their profession for some knowledge of the human mind and its development, its phenomena and its laws. Elementary psychology is therefore an elementary liberal study. As the professional students (excepting those of law) do not go up for the B. A. Standard, some amount of psychology should be insisted upon at the intermediate (or F. A.) stage. Besides, this would be a preparation for more advanced studies in the B. A. Classes.

**B. A. curriculum.**—For the B. A. Examination, A. Course, I have nothing to add except that Psychology should here be studied in connection with Physiology—at least Psycho-Physiology should be added. The old rational Psychology, properly speaking, falls under Philosophy, which comes in at the M. A. stage. Again, Inductive Logic should be studied, not in dead formulae, but in the actual processes, experiments and hypotheses of the sciences, physical as well as mental. The teaching and the Examination, instead of being confined to mere forms and schemes, should specially encourage concrete illustrations and scientific application.

For the honour classes, I should add Experimental Psychology. Since the days of Fechner, Weber and Wundt, Experimental Psychology has had an immense development in Germany, and at the present day, their disciples as well as those of Munsterberg are carrying on researches at Harvard, Tokio, and even Cambridge. The apparatus would not be costly. £100 would suffice for a good beginning.

The M. A. standard is satisfactory, but the Examination papers encourage superficiality and smatter, and there is no hope of improvement until their standard is brought up to date, instead of lagging half a century behind the march of philosophical thought and science in the civilised world. I would only add Hypnotism, Mental Pathology and Child Psychology together with advanced work in Experimental Psychology, to the Psychology group. I would also
demand a special study of the philosophical systems of a particular epoch or school. Spinoza's Ethics and Hegel's Logic should be compulsory along with Kant's Critiques, and Aristotle's Organon.

A paper on Comparative philosophy (European and Indian) is a grave desideratum.

For the B. Sc. and M. Sc. courses and the M. A. standard in Science, I have suggested the philosophy of science (as in the writings of Huxley, Helmholtz and Darwin); for the M. A. History standard, the philosophy of History as in Comte's Vico, or in Flint's Hand-book; for the M. A. English Course, the philosophy of Art (as in Michelet), and for the B. L. standard, the philosophy of Law (as in Kant or Puffendorf).

Mathematics.—I would deprecate the tendency to separate Pure Mathematics from Mixed Mathematics, at least in the earlier part of the University Course. There is no use of learning the Differential and the Integral Calculus in the pass course, if you do not go in for their applications to mathematical physics, or in the determination of mechanical problems. Without such fruitful application the processes of Transcendental Analysis and its symbols would be meaningless and would also be speedily forgotten, and the time spent on these studies would be better devoted to working problems in Statics, Dynamics, Hydrostatics and Astronomy. The latter should be compulsory on all graduates who take up Science and Mathematics. For the M. A. Examination, the Mixed Mathematics Course is shorter than the Pure Mathematics one; it should be extended by the inclusion of Differential Equations and of the mathematical theory of Heat, Electricity and Magnetism. So long as this is not done, I do not see any reason for splitting up the Mathematics Course. Bifurcation in the higher examinations, without corresponding specialization of studies, is a capital blunder.

History.—The perfunctory teaching of History is a sad blot on our University scutcheon. The F. A. History Course is a standing reproach, and, under the new arrangement, Roman and Greek History will be a sealed page to a large proportion of our graduates. Again, with the exception of a very small percentage, our graduates know nothing of English and Indian History beyond the dry epitomes they gorged down for matriculation. This is very good, seeing that a historical taste and a historical sense and criticism are characteristic wants of the Indian mind.

Besides, Indian History, as it is ordinarily written, has little or no educational value. What we primarily want is the history of Hindu and of Mohammedan civilisation. The history of Greece and of Rome are an epitome of all political, all civil, all artistic history, and are in themselves a school of liberal education. Besides, if History means the story of civilisation, Greek and Roman History mean this in a special sense. There are only three ways of studying History profitably (1) in comprehensive Histories, surveying the march of civilisation, or of particular movements of thought or art; (2) in masterpieces of historic composition like those of Gibbon, Grote or Mommsen, which have an epic grandeur, and are gorgeous with the fate of Empires and nationalities; or (3) in memoirs, diaries and records, which clothe historic figures (and scenes) with flesh and blood, and give to historic studies something of the passion, the breathless interest, and the local colour of Romance. In accordance with this view of the matter, I have already suggested a scheme of historic studies under the F. A. and the B. A. curriculum (both Pass and Honour). As for the M. A. course, Politics, Sociology and Jurisprudence must have a genuine recognition, the Philosophy of History (as in Comte's Social Dynamics or Vico, or in Flint) should be added.

Geography.—To raise Geography to the rank of a Facultative study, we must follow in the footsteps of the Germans and the Swedes. From the days off Humboldt's Kosmos to those of the records of Naturalists' voyages in Darwin and Wallace, Geography has sent out feelers to establish lines of communication with almost all the natural Sciences. Hence methods of geographical research and exploration, implying as they do a practical knowledge of geology, natural History, meteorology, Chemistry, astronomy, Political History, economic products, commerce, and cartography, must be confined to post-graduate classes.
An Indian School of geographical research may achieve memorable results in Central Asia and Thibet, if not also in Central Africa.

Spheres of Influence.—I do not think that in the present nascent stage of University Institutions in India, any local limit should be placed on the right to affiliate Colleges. I am aware that highly organized institutions like the London University and the French Academies have statutory limits, but we in India must yet uphold the policy of the open door in the matter of higher education. Indeed I am far more widely diffusing the influence of our Indian Universities by creating and encouraging a Movement of University Extension. Here we need not begin with a working-men’s Institute, as in London and New York, or look mainly to the industrial and commercial classes as in the north of England, for our sphere of work. We may address ourselves to the floating population of half-educated people in the great cities, and filtrate down from the middle classes whose members have already received some sort of secondary education to the industrial and commercial circles, and ultimately even to working-men. Already, in Calcutta, we have the Science Association which has been doing some useful work in this direction. As this institution is already affiliated to the University, it is in all essentials a movement of University Extension. Lectures and practical classes have been organized, and it would be only necessary to add a well-planned system of Examination in the courses delivered at the Institution. The Victoria College for ladies, under the auspices of the New Dispensation Samaj, promises in future to carry home the movement of University Extension, on a small scale, to the large class of ladies who have already received some education. But this is more of the nature of a German Continuation school (Fortbildungsschule) for girls than of University Extension classes, though, as is well known, even in London, such classes are more numerously and diligently attended by ladies than by young men. The use of the vernacular does in no way militate against the principles of a University Extension movement. The Calcutta University could do more work in this direction by organizing courses of evening lectures and classes, and ultimately examinations, in cooperation with the University Institute, the Chaitanya Library, and above all, the two academies of Bengali languages and literature, now flourishing in the metropolis. It is only thus that the University by placing itself en rapport with the old indigenous learning as well as with the modern Renaissance and the enlightenment and upheaval of the masses, can take root in the country as an abiding and beneficent national Institution.

Constitution.—Senate, Syndicate, Faculties and Boards of studies.

I have no practical knowledge of the inner working of these bodies, but as an outsider more vitally interested in their work than many an ‘insider’, I can only say that judging by results the constitution and even more the composition of these bodies require some drastic reforms. I find that, in 1901, the Senate consisted of 181 Fellows, of whom 54 had no University or other Educational degrees, including 5 ex-officio members, and 23 persons of more or less recognized learning. Of the 137 men with educational degrees (including Pandits and Moulvis), about 40 were Professors (other than those of Law) connected with the working of the Colleges. The Faculty of Arts consisted of 149 members, of whom 36 (including some persons of more or less recognized learning) had no educational degrees, and only 40 were connected with the affiliated Colleges. On the Syndicate, there has been little effective representation of the College Professoriate.

As the same time, I do not believe that a stronger contingent of our College Professors in the Senate or the Syndicate would have effected any considerable advance on the present situation. I am sorry to say it, but our educational ideas are too low and reactionary. We are in the back-waters, and the ocean currents and tides of the great academic world of the west have rarely been felt in these sluggish lagoons. A minister of education familiar with the ideals and types, the methods and movements, of modern European Universities, and working with a Council of Instruction, as in Germany and France, would, for some time to come, be the beau-ideal of University management in India. A man of ideas can do more in a single year than ten routinists and formalists can undo in a quarter of a century. Dr. Fedler, if I may be pardoned for saying
it in his presence, has done more, in a few brief years, to place primary and secondary education in Bengal on a sound modern basis than all his predecessors put together.

Such is the composition of the Senate, the Syndicate, and the Faculty of Arts; and the result has been a strong and continuous pressure to lower academic standards and courses. The English Standards for the Entrance, the F. A. and the B. A. Examinations have been shamefully reduced. History and Sanskrit in the F. A. Examination have fared no better. Indeed the F. A. Examination has been a favourite field for the hobby-hunter; there is everybody's hobby and nobody's hobby, a modicum of everything, and no value placed on any. The bifurcation into the A. Course and the B. Course was made the occasion, not for specializing important studies, but for lowering the B. A. Standard. Since the bifurcation, the courses in Philosophy, English, Sanskrit and History have been more or less curtailed. A hundred precautions are taken that the Examinations may not prove stumbling blocks and cut the tender shins of the gilded youth of our colleges. System of grace marks, in effect, if not in intention, guarantees a certain percentage of success. Steady and consistent in depreciating and corrupting the University currency, our Senators are inconsistent in everything else. Herakleitus, if he lived in our days, might have the proceedings of the academy of Calcutta in his mind when he delivered his oracular enigma—All things flow. Newton's third law, that to every action there is an equal and contrary reaction—has received a peculiar significance in our academic history. Settled policy, plan or scheme, there is none. Sir Charles Elliott marked the swing of the University pendulum. The pendulum is swinging still. With an inexorable necessity, with the rigid impartiality of Fate, and the blind aimlessness of Fortune, the University wheel drags down to-morrow whatever is established in high place to-day. Physics in the Entrance, Astronomy in the B. A., and Chemistry in the F. A. Examination have had a diversified and chequered history. From text-book to Syllabus, and from Syllabus to text-book we move forward and backward, following the sun in his annual course.

But so long as low educational ideals prevail in the Senate and the Faculty of Arts, and certain colleges and college Professors combine with a half-educated public to frustrate every attempt to move forward with the age, as the attempt to bifurcate secondary studies into a literary and a modern side was frustrated, there is little hope of any real good being done by constitutional tinkering and paper legislation.

My suggestions as to constitutional Reform are these:—A Senatus Academicus consisting of the Principal of the University (if it is to be a teaching University), the University Professors, and the recognized teachers, and divided into the Faculties of letters, the Mathematico-physical Sciences, the philoso- hico-historical Sciences, Law, Medicine and Engineering (including Technology and Agriculture);—a House of Convocation composed of all graduates on the University Register; and a governing body, or University Council corresponding to the present Syndicate and consisting of the Director of Public Instruction as ex-officio member certain bono fide educational experts nominated by the Government, elected representatives of the different Faculties of the Senatus Academicus and of the House of Convocation (constituting not less than a half and a fourth part of the Council respectively). The Syndicate or University Council should in my opinion contain not more than twenty members. No separate Board of studies should be needed under this scheme. The University Council, if so constituted, should have a statutory status, but this is not at all desirable under existing conditions.

Affiliated Colleges.—The condition of private colleges in Bengal.—The rules regarding affiliation should be worked with greater vigour and strictness. Besides making sure of the competence of the Professorial staff the stability of these Institution, the adequacy of building and other accommodation, and the absence of unhealthy rivalry or competition, the University should satisfy itself as to the following other points: (1) the sanitary and moral surroundings of a college; (2) the provision of a Gymnasium or a field for sports; (3) the provision of boarding-houses for the students, or of regular control and supervision over the students' lodgings; (4) the equipment of a Reading Room, and the formation of a Students'
Association; (5) a sufficiently equipped library; (6) a sufficiently equipped laboratory for the practical training of the students for the Examinations in science; and (7) a respectable scale of salary for the Professorial staff as a guarantee of competence and careful work and a remedy against too frequent changes in the staff.

Government Colleges for the most part conform to these requirements except perhaps the last. Non-Government colleges belong to one or other of the following classes; (1) those maintained by a Native State, as the Maharajah of Jeypore's College, the Cooch Behar Victoria College, &c.; (2) those respectably endowed like the Nagpore Morris College and the Berhampore College; (3) Missionary Colleges which depend on mission funds, and partly on Government grants-in-aid, but are not sensibly affected by a falling-off in the income from fees; (4) Colleges maintained by the liberality of Zamindars or other rich people and mainly depending on their benevolent grants, e.g., the Burdwan College, the Bhagalpore Tejnarain College, the Mozufferpore College, &c.; (5) Colleges partly supported by public spirited persons but depending in large part also on fees, e.g., the Barisal Colleges; and (6) Colleges on what may be termed a commercial basis, of which some are purely proprietary and without a constitution, and others have a sort of nebulous constitution.

Of these, I have considerable personal experience of the first and the second group, and I have found them in no respect inferior to Government Colleges of the same standing. The Berhampore College and the Nagpore Morris College in my time, were, I think, better equipped in some respects than the Rajshaye or the Krishnagar College. The Professors were on the whole better paid, and larger grants were made for the library and the laboratory. The entire absence of rivalry or competition is very favourable to the cause of discipline. The promotions in the school classes are as strict as in Government institutions, and uninfluenced by favouritism. The college certificates to candidates for the University Examinations are given more judiciously and discriminatively than elsewhere. Regularity of attendance is strictly enforced, and the students work much harder, and are exposed to far less distractions and temptations than in the metropolis. Our classes being smaller, we are enabled to pay greater attention to individual students. The percentage of success at the University Examinations is comparatively high. The boarding-houses are in most cases commodious and well-equipped, and are liberally subsidised. The only drawbacks are:

1. The students depend too much on their teachers. Independent study is almost unknown. This is a vice of our college teaching all over the country, but it is more pronounced in mofussil colleges than in the metropolis.

2. The local public opinion is far more backward than in the metropolis.

3. The University should insist on a proper annual expenditure on the laboratory and the library.

I have little personal experience of private proprietary Colleges, but I believe that, in several cases, neither the relations of the professorial Staff to the proprietor, nor those of the student to their Professors, are on a satisfactory basis. I believe the libraries and laboratories are not in all cases properly equipped. I do not think that the chances are very favourable to discipline in college on a commercial basis. Though cheap colleges are a prime necessity in India, I would have them founded and properly endowed by public or private benevolence. In my opinion, no private proprietary college on a commercial basis (depending solely on the income from fees) should in future be granted the privileges of affiliation. As for the colleges of this class already affiliated, I would make it compulsory on the proprietor (1) to set apart a certain proportion of income annually for the creation of a college fund; (2) to provide annually a certain minimum grant for the library and the laboratory and (3) to make over the management of the college to a body of duly constituted trustees.

BRAJENDRANATH SEAL,
Principal, Victoria College, Cooch Behar.
Teaching University.

Dr. Ross, Principal of the Calcutta Madrassa, said:—The Calcutta University might be turned into a teaching University, by the same means as have recently been adopted in London; or by as closer an imitation of those means as possible. That is, by the affiliation of the principal schools and colleges, and by the recognition of a selected number of the teachers of these institutions as Professors of the University. Of the merits of this scheme so far as teaching is concerned it is too early to judge; but it immediately brought about one excellent result in the shape of a managing body which left little to be desired. From among the recognised Professors the Commissioners further selected the members of the various Faculties, and the Faculties in their turn constituted, by election from their own midst, Boards of Studies. Certainly in London it would have been impossible to find more fitting persons to control the curricula of study than the members of these Boards. Would it not be possible for the Syndicate of the Calcutta University to adopt the methods employed by the Commissions of the New University of London?

It was the practice in London to invite certain persons with special qualifications such as Professors from Oxford and Cambridge, to serve as these Boards of Studies. Of course all resolutions passed by the Boards of Studies were laid before the Faculty to which the Board belonged, and at times before a Joint-Faculty meeting, and having passed the Faculty were sent to the Senate for sanction.

The Senate.

The most obvious defect in our Indian Universities is the overcrowding of the Senates and the inefficiency of many of their members. The simplest remedy—though doubtless a drastic one, that would lead to much heart-burning—would be that Fellowships should cease to carry with them membership of the Senate. If this were adopted, the honour and compliment of a Fellowship could be conferred with less apprehension than it at present involves. Election to the Senate would be independent of Fellowship: the numbers should be restricted, and the Faculties, as reconstituted, should be well represented.

I think it is to be regretted that teachers should be excluded from setting examination papers. Perhaps, in India, one has to take into consideration an occasional absence of probity: still it is held by many that the best examiner of a pupil is his teacher. It is indeed the common practice in German Universities in the case of a degree for the student to be examined by his Professor.

Study of English.

I am not in favour of raising the percentage of pass marks in the English Entrance Examination. At that stage English is still very foreign to the native: and he needs encouragement rather than discouragement.

English is however the most important study in the University, and it is in the teaching of English that most defects have been noticed.

We at present make the student study English as if he were an English boy, and long before he has mastered the ordinary colloquial language he is set down to study the classics. In the first instance he needs English above all for practical purposes; reading the classics helps him, but little to understand the lectures he attends. He does not need the abstruse niceties of meaning of words in a particular passage, but an accurate knowledge of the ordinary meaning of all words in common use. It would be well if all books with notes were excluded from the Entrance and F.A. Examinations.

I would suggest that for the Entrance Examination, in the place of a book of selections—mostly very dull reading—he should be given an interesting historical novel—preferably of the kind written for boys: written in plain everyday English. It is fairly certain that however devoid of style such a novel might be, it would at least be free from archaemasms and mis-used phrases. Such are to be met with so frequently in the text-books compiled by natives of India. I maintain that a novel by G. A. Hentz or W. H. Kingston or any
other well-known writer of books for boys, would not merely be instructive but would encourage the students to read other books of a like nature.

Hostel.

I would strongly advocate the Hostel or Seminary system. It is important almost essential, that pupils should be separated from their parents during their school and college days: and as far as possible students should be encouraged to live where they study, and thus he brought in contact with their teachers and with each other outside the class room. Such a system would present nothing novel to the Indian mind. It is strictly in accordance with the traditions of both Moslems and Hindus. Residence was, in fact, an essential part of the education of both. In the codes of Manu we find that the student is to live with his tutor or guru till his education is completed. All the famous Mohammedan Universities from Cordova to Samarkand were filled with resident students, and the endowment of a University always included the board and maintenance of the seekers after knowledge.

There are a few Hostels in Calcutta, and provided proper supervision could be guaranteed, they might, with advantage, be greatly multiplied. It is however most important that the inmates of a hostel should all be students of one and the same school or college.

It is to be hoped that those in authority will soon take in hand the question of providing play-grounds for all students of affiliated colleges. There is no more grateful task for the Englishman in India, than that of encouraging games and sports among the natives: and most of them need physical development even more than mental.

Alternative course for Mohammedans.

Finally I wish to propose an alternative B course for the F.A. Examination; and an alternative C course for the B.A. to the end that, while demanding an intellectual test on a level with the hitherto recognised courses, we may encourage a taste for learning and true scholarship among the Mohammedans. The aim of the University being, I presume, not necessarily to produce natives who have taken English degrees, but cultivated and loyal Indians with a sound knowledge of English. For the alternative (B course) of the F.A., I venture to propose the following subjects:

1. English.
2. Chemistry and Physics.
4. History of Islam—from English and native sources.
5. Akhlak Nasiri—portions only on Ethics.

For the B.A. (C course),
1. English.
2. Arabic and Persian—including history and literature; philosophy, rhetoric and prosody in these languages. In fact the equipment that of an European student of "Islam."

My remarks will bear chiefly on two points, Teaching Universities and Matriculation. If the establishment of a Teaching University could place a check on the ever-increasing number of students trying to secure some kind of certificate or diploma of the University, it would be an unmixed blessing. My opinion is that it would eliminate the large class of candidates who do not care for knowledge, but care only for that piece of paper which has acquired in India a market value never dreamt of by the founders of the Universities. It introduces to a situation or to a wife; hence students want it; they would be ready, if it were for sale, to buy it without attending a single lecture or opening a single book. I do not, evidently, mean to imply that the natives of India are not capable of profiting by a University course. If such were my opinion, I should have to explain the presence of several gentlemen here, and the existence of so many other native gentlemen who have distinguished themselves in every branch of knowledge and in every career. But such distinguished natives would become all the more numerous that the Universities would be more severe in their tests, and would be less hampered by the crowds that do not care for real knowledge. However, whether the establishment of a Teaching University alone would bring on this result, I greatly doubt. What might do more towards it would be to arrange that University certificates should be no longer exacted to the extent to which they are actually required for every possible opening. As long as the present state of affairs exists, there will exist, on the part of everybody, and, consequently, on the part of a large number of unprepared or even unfit candidates, the same anxiety to get hold somehow of a kind of certificate, or, failing that, at least of the Registrar’s receipt certifying that such a one has deposited his fee and will be, therefore, allowed to appear at the examination; for the latter document has come to be valued and treasured as a kind of honourable title. Under the present circumstances also, any attempt to raise the standard, even on paper, will be opposed (we have heard it at the last Senate meeting) as a hardship, as almost a cruelty. With regard to a Teaching University, I should like to call the attention of the Universities’ Commission to a scheme published in 1887, I believe, by Messrs. Eliot and Pedler. In their joint *Note on the Establishment of a Teaching University in Calcutta,* I think there is much that deserves consideration even now, much that would form a sound basis on which to start such a University. I do not know how far the following scheme could be worked into that of these two gentlemen, but I give it as the result of thought and experience. I would add to the present course of studies in high schools, especially if that course could be framed much more after that prescribed for European high schools, two years at least during which the greater portion of the present F.A. course would be taken, e.g., English, Second Language, Mathematics, and Science; to which I would even add something of the B.A. course in English. At the end of these years would come a Matriculation examination for those who wish to enter the Universities, which could be also a final examination for the others. Of course, the present H. S. or an examination of equal value could remain to supply a leaving certificate to those who cannot go higher. After the Matriculation, would begin the course in a Teaching University for the B.A., B.Sc., M.A., and higher degrees. At that period I would suggest specialization, pure and simple, I mean that candidates would be allowed to take their B.A. degree in English Language and Literature, or in Mathematics, or in Classics, or in Natural Science, etc. For a course so arranged, I do not think there would be any unsurmountable difficulty to establish a Teaching University, and we should then come nearer the real idea of a University course as understood in England and on the Continent.

**Age Limit.**

The age at which students would begin their University career would be, I calculate, about 19; and up to that age they would be submitted to school
discipline to their great advantage, without, however, taking more years to obtain a degree. This would save from utter ruin a large number of students who now, at the age of 16 or even earlier, find themselves as undergraduates in a college where they have but to attend lectures, and where they must be necessarily left very much to themselves.

*Matriculation and the European Code.*

"Heads of Information on which opinions were asked have been sent to the colleges. I should like to speak of the fourth head or Matriculation. I have taken the liberty of sending in a scheme of an examination, a portion of which would serve as a kind of test, as suggested in the document I refer to, for candidates who wish to take up the University course, while the whole of my scheme would be a final examination giving a 'leaving certificate.' To this scheme I ought to have added such Oriental languages as Sanskrit and other which may be considered as Classical. I have heard since that the revised European Code, as recommended by the Commission which has just finished its work, will afford a final examination more or less on the lines I suggested; and if this information be correct, I should prefer to wait before urging the consideration of my scheme. I know that it has been stated before this Commission that there exists a very widespread feeling of discontent and dissatisfaction with the European Code examinations. Although I try to keep well informed about matters connected with education, I am not aware of the existence of such a dissatisfaction; and I think I am justified in repeating here what I said in a pamphlet (which I beg to place before this Commission), that this dissatisfaction is non-existing in Catholic schools which represent more than 54 per cent. of the whole of Bengal, as I took the trouble to ascertain about two years ago; that it has not been shown to exist in the two Government schools, in the twelve Railway schools, in the Jewish, Armenian, or private schools; and that it may be assumed to be non-existing in about 70 per cent. of the schools. I may perhaps add that this feeling has not been proved to exist in the girls' schools under the Church of England, or in the Undenominational schools, with the exception of one. I can quite well understand that dissatisfaction exists in such schools as never succeeded at the H. S. examination. Two days ago I read that in the report of the Principal of the Doveton College, Madras, there was a strong complaint about the fickleness, so to speak, of the leaders of the communities in whose interests the Doveton is specially maintained. At one time there is a cry (it is said there) for more or new schools; "at another time the existing examinations come in for violent criticism, and it is seriously proposed to substitute less exacting English examination." This is just what has happened here: violent, ungrounded and incorrect criticism we have heard from men who have not been proved to represent even one-third of the domiciled community; and the proposal of less exacting English examinations has not only been made but has gained its way into one or two schools. My firm conviction is that, as soon as the Cambridge Locals do not yield the success which is expected, fault will found with them, and we shall once more be before a widespread feeling of discontent and dissatisfaction." I do not mean to imply that the Cambridge Locals cannot be made as extensive as our examinations; but I maintain that an examination which makes it possible to gain a certificate (although it bears an English University name) without any English, test and simply with Arithmetic, religious knowledge, French and Drawing or Music, does not stand the comparison with another examination which requires a separate pass in English Composition, in English Grammar, in English text-books, in Arithmetic and at least three optional subjects; nor can such an examination be considered as the equivalent of the E. A. examination at our University. That this is no mere assertion on my part can be seen from the appendix of the pamphlet mentioned above, where I have given a comparative statement of the Cambridge Local and the Indian Code examinations. When, however, the complaint is uttered that these Code examinations do not obtain sufficient recognition, I fully endorse the complaint. I have done more than complain; I have addressed officially our Education Department and given the different cases in which such recognition should be granted; and I am patiently waiting for the result of my appeal:
which was dated the 5th June 1900, and which I learned from the office of the Inspector was endorsed and sent on the 16th June 1900, and the subject-matter of "my letter was again referred to and its recommendations supported in another letter No. 45-0, dated 24th April 1901, from this office."

Other Points: 1. The Senate.

I finish with three brief remarks on three other points. I strongly advocate nomination of Fellows by the Governor General in Council as the only method, evidently expecting the Government to exist all temptation to pay a compliment by appointing a Fellow, as also to give the preference to men actually engaged in education. The present number of Fellows would soon be reduced if, by absence for a certain period, the present Fellows were to lose their seats, unless they take the trouble to report their absence to the Registrar.


I am afraid the Boards after comprise Members that have not the slightest qualification for the branch with which they have to deal. With regard to the special business of appointing text-book, I think some rule should be strictly enforced to the effect that notice of new books to be proposed should be given before the meeting, and even that these books should be circulated if they are new books in the market. Appointing text-books may be good or bad for Physics, Chemistry and other branches, I am not prepared to say; but with regard to Mental and Moral Science, I take the liberty of strongly emphasizing all that Mr. Stephen so well said on the subject when he gave his evidence. It seems to me most evident that with one appointed text-book a syllabus becomes practically a farce, and that, practically also, professors, students, and examiners will confine themselves to the opinions and the arguments of the text-book, notwithstanding the theoretical precaution of a note saying that the questions will have no special reference to the writings of any one author.
I. I do not think that it would be expedient for the University to attempt to teach its students directly except in certain special subjects. It would, under existing circumstances, fulfil the functions of a teaching body best by devising some means of assisting and guiding the College tutors in their work, and of stimulating them to more thorough and earnest study. A very necessary step towards the attainment of this end would be the establishment of a good University library and University laboratories managed by a really first-rate staff of librarians and demonstrators. Such institutions would be teaching influences of immense value, and would be most eagerly welcomed by the large number of Indian graduates who are prevented from carrying on their studies only by want of means.

The special subjects in which it seems to me the University might well appoint professors of its own are those which form only small portions of certain courses of study, but need nevertheless to be handled by specialists. I would instance Comparative Philology as an example.

II. As regards the fostering of a genuine University life in Calcutta, I do not think that this can be done by any system. It must spring from personal influences, and will only be accomplished when the teachers in our Colleges come to realise that their responsibilities do not begin and end in the class-room. The Government could do something to bring about this end if it would urge upon its education officers the necessity of setting an example in this respect. Before we can reach a genuine University life we must begin with the individual College and vitalise that into something more than a mere collection of class-rooms. If our leading College would set an example, it is not impossible that others might follow according to their ability. The plan of each College having hostels under its own control would do more perhaps than anything else to bring students and tutors into closer relations with each other, if it were entered into with energy by the tutors. I do not see what there is to render the plan impracticable, and I consider it feasible even in the case of the private Colleges. But we need also more intercourse between College and College. The students of the different Colleges do come together to some extent, but there is an almost entire lack of intercourse between their teachers. Until something can be done to remedy this defect we can hardly hope to obtain that community of thought and work which the term University implies. The establishment of an University library and laboratories would be of some service as a remedy, but still more could be done by personal effort on the part of the European professors of the Presidency College and the Missionary Colleges who come to us bringing with them nobler traditions of University and College life than India yet possesses. There are other agencies which may help in a subordinate degree towards the fostering of an University life. If the Calcutta University Institute could be invigorated and developed into some resemblance to its prototypes in the English Universities it might do a great deal. The formation of College Athletic Clubs, and of an University Athletic Club, would also be of much value, but most Colleges—mine for instance—labor under the disability of not being able to procure grounds for exercise, while the acquisition of a ground for an University Club seems hopeless.

III. I do not see what useful purpose would be served by the forming of a list of "recognized teachers," and by insisting that candidates for degrees should receive instruction only from such. The rule would have no real application to Government and Missionary Colleges, for the University could hardly refuse to recognize the teachers whom these Colleges import from Europe, and it would be unnecessary and even mischievous so far as private Colleges are concerned: unnecessary, for self-interest already demands that the best available teachers shall be procured: mischievous, inasmuch as it would bring in upon us the evils of patronage. I do not see why the Principals of Colleges should not be allowed absolute discretion in the appointment of teachers. If the University wishes to keep up a high standard of efficiency in its Colleges let it declare that it will disaffiliate any College that shows consistently bad results over a certain number of years, unless it can be shown that these results were the effects of other causes than inefficiency in the staff and slackness of discipline.

IV. With regard to the constitution of the University:

(1) I am of opinion that the Syndicate should be placed on a statutory basis, and that, without increasing the number of members, it should contain a certain number of ex-officio members, as, for instance, the Director of Public Instruction, the
Principals of the Medical College and the Civil Engineering College. 

The President of the Faculty of Law, and the Principal of the Presidency College if he can be relieved of the office of Registrar. That, further, it should have at least one representative of the Missionary Colleges, at least one representative of the private Colleges, and one member nominated by the Principals of the Mofussil Colleges: and that the professional faculties should not have more than one representative each. At present the Colleges are not adequately represented. With regard to the claims of the private Colleges I would beg leave to point out that they educate more than half the total number of candidates taught in the F.A. and B.A. classes of Calcutta Colleges.

V. The statement that "many students begin their university course without sufficient knowledge of English to profit by the lectures they attend" is undoubtedly true, and it may be added that having once so begun it is immensely difficult for them, under ordinary circumstances, to remedy the defect. There are still more who are quite capable of following lectures with profit and of intelligently studying the subjects prescribed, but who are quite unable to express themselves in English. A remedy can be supplied only by revolutionising the methods of instruction followed in our schools, but this, I observe, does not fall within the scope of the enquiry conducted by this Commision. I should, nevertheless, like to express my opinion that no reformation can be effectively worked in our university system until the education given in our schools is put on a sounder basis. The University might, however, to some extent, stimulate the schools by remodelling its Entrance examination. This examination is at present made to serve a double purpose. It is intended to be at once a final school examination and a preliminary University examination. I do not think that one and the same examination should be made to serve both purposes, especially in view of the fact that of the three thousand candidates, or thereabouts, who annually pass the entrance examination, about one thousand proceed no further. But whatever view be taken on this question, there can be no doubt that the Entrance examination in English should be conducted on very different lines to those which prevail at present. It would perhaps be best to appoint no text-book, to lay little stress on knowledge of grammatical technicalities, and to conduct the examination solely with the view of ascertaining the candidate's ability to understand simple everyday English. A candidate who failed to satisfy the examiners in English composition should not on any account be allowed to pass into the College classes. It may be said that a text-book is necessary if only to lay down a standard. I do not agree with this view. It would, to my mind, be far better if the University were to compile a small volume of selections to be put into the hands of teachers with the intimation that their pupils would be expected to show their ability to understand and to write English of the style and character exemplified in the volume.

I am strongly in favour of a minimum age limit of fifteen or even sixteen years being fixed for candidates for matriculation. The number of candidates under these ages is probably not very great, but the absence of a regulation such as that proposed causes the education in our schools to be hurried through at a speed and pressure which must be injurious to the vast majority of pupils.

The F.A. examination in English is a simply enormous advance on the present Entrance examination. If a student has come up to College having just barely succeeded in satisfying the examiners at the Entrance examination, he is from the outset doomed either to undergo two years' rigorous cramming, or to resign himself to inevitable failure, and often to both. I do not, however, wish to be understood as suggesting that the F.A. standard should be lowered. If the matriculation standard in English is raised, it will be possible to raise the standards of the other examinations all the way up. Wherever a student has an initial working knowledge of English, he has, I am convinced, the ability to stand a much severer test than the University at present imposes at the degree examination. The defect in our students...
is not a lack of intellectual capacity, but merely a linguistic deficiency arising from faulty teaching in the schools, which is, in its turn, due to faulty systems of examination.

With regard to the M.A. examination in English I would suggest: (1) that the courses should be less miscellaneous; (2) that the system of alloting grace-marks should be abolished. The regulation can do no conceivable good to any one, and presses very hard upon Eurasian and European students. It is not easy to understand why they should be discouraged from studying the literature which is part of their inheritance. This regulation is the more curious in view of the fact that such candidates are forced to obtain honours in English at the B.A. examination, and may also take it up as a subject at the P.R.S. examination.

With regard to the examinations in Latin it can only be said that the standard at the F.A. and B.A. examinations is absurdly low. It is possible for students to pass these examinations without being able to put three words of the language together. I have known a student pass the F.A. examination without being able to decline a single noun or conjugate a single verb, and I have also known students come up to the first year class with a fair elementary knowledge of Latin, and forget it all in preparing for the F.A. examination. This second illustration points to the curious fact that the standard required at the Entrance examination is much higher than that demanded at the F.A. A reference to the question papers for 1900, published in the Calendar for 1901, will make this abundantly clear.

With regard to the subject of Mental and Moral Science I am strongly of opinion that it should not be made compulsory on all students taking the A course for the B.A. examination. Comparatively few students have any aptitude for the subject, and the work of both teacher and pupil degenerates into the merest drudgery. Its place might very well be taken by History. The study of English Literature, which figures so largely in our examinations, would seem to necessitate a study of English History.

I have a few general remarks to offer on the examinations:—

(1) The honour courses should be kept quite distinct from the pass courses, or else abolished altogether. If they are retained, honour students should be allowed to specialise their studies to a much greater extent than is permitted at present, and the courses should be made much fuller. The present practice of teaching pass and honour students together is most injurious to the interests of the latter.

(2) The time allowed for teaching the B.A. course is in my opinion somewhat too short. Speaking for myself, I have never yet found it possible to go over the entire philosophy course with equal completeness in all parts. It might be a good thing if the F.A. examination were simplified and put earlier, so as to give the student at least two full years in which to prepare himself for the degree examination. This, however, can only be done when the question of school education is satisfactorily settled.

(3) The system of allotting grace-marks should be abolished by being rendered unnecessary. Its employment compels us to infer either that the question papers are badly set, or the answer papers badly examined, unless it be that both evils have conspired against the candidates. If the awarding of grace marks were a rare and occasional incident, we might suppose that their allotment was due to the accidental benevolence of particular syndicates or boards. But when they are awarded year after year in some subject or another with almost unfailing regularity we are forced to the conclusion that in the opinion of the University authorities we need more efficient paper-setters or more efficient examiners, and it seems reasonable to ask that this defect should be dealt with before and not after an examination.

4. The nature of the questions set at examinations must necessarily determine to a great extent the standard of teaching. With regard to this point I can only say that the questions set are not always such as to encourage teachers to put out their best efforts. An examination should indirectly test the teacher through his pupils, and this, I am afraid, is not always done. The teacher has, moreover, a right to expect that papers will be set for his pupils with a carefulness at least equal to that which he has expended in teaching them. This expectation is by no means always fulfilled.

5. The practice of assigning marks to each question is most objectionable in the degree examinations at any rate. It is possible for a candidate to show a real knowledge of his subject without answering many questions; it is equally possible for him to answer nine questions out of ten satisfactorily by the help of assiduous cramming, and yet betray abysmal ignorance in dealing with a tenth question for which he is not prepared. The present mechanical system of marking does not admit of such cases being treated according to their deserts. If it is found necessary to assign marks to each question in certain examinations, the marks thus assigned should not be published in the margin of each paper.

VI. The establishment of a school of Theology seems to me impracticable. If the object desired is the promotion of "the comparative study of religions," I would beg leave to point out that this is not, properly speaking, theology at all. A
comparative study of religions does not necessarily consider the truth or falsity of any system. Theological studies are, on the other hand, directed entirely by the desire to arrive at religious truth, and do not necessarily imply any comparative study of religions at all. If, therefore, we establish courses in theology, we should have to form as many schools as there are shades of religious belief in the country, a proceeding which might possibly be somewhat dangerous. With regard to the comparative study of religions I would deplore any attempt to introduce it into the University. It would, for one thing, easily tend to grow polemical. Where it was not polemical, it would tend to harden the religious indifferentism which seems to be settling down upon our students. A merely intellectual study of religious systems would be fraught with great danger to all students who came to the study without the protection of settled religious convictions.
Teaching Universities.—It is not very clear what is the exact significance of a Teaching University, and what will be its scope if the existing Universities are converted into teaching bodies. In the first place, it may be taken to mean a University which will have its own staff of professors and lecturers, its own college with a well-furnished laboratory, library, etc., and a boarding-house attached to it; in other words, something like the residential College of Oxford and Cambridge. In the second place, it may be taken to mean an University which will furnish licensed teachers and professors to the affiliated schools and colleges, but keep itself aloof from the practical work of teaching. Thirdly, it may mean an University which selects and prescribes text-books and syllabuses, and thus gives a certain shape to the mode of teaching and test it by periodical examinations.

2. If it signifies an University of the class mentioned first, I would welcome the change and say it is desirable that the present Universities should be converted into teaching bodies. Keeping up of a purely mechanical examining University is suicidal to the educational policy in India. As regards the second class, the change will be of doubtful expediency. Teaching, I think, will not be much improved by mere licensed teachers, and it can hardly be expected that it will produce such a result as is desired: first, it will not only be a difficult task to prepare a list of competent teachers, but I doubt whether the best scholars will stoop to registering their names as they do not take up teaching as a profession on account of the meagre prospects held out to them; secondly, it will lead to an encroachment upon the liberty and curtailment of choice of private schools and colleges; thirdly, it is doubtful whether the recognised teachers will accept the same pay as is generally offered in private colleges.

I have already said that mere furnishing licensed teachers and professors will not improve teaching as desired, unless improvements in other respects are effected, such as laboratories, good libraries, museums, raising the pay of teaching staff, etc. Such improvements, if insisted upon, means forcing the authorities of private colleges to do things which they are not in a position to undertake.

3. If the Universities be of the description coming under class III, then the existing Universities are a sort of teaching bodies inasmuch as they prescribe the courses of study, require certain attendance from students of the affiliated colleges in which they receive instructions. If they were to be what they are now, it is desirable that some stringency should be introduced into the rules for affiliation and larger and more adequate provision be made for good libraries, laboratories, etc. But it is highly desirable to have a centre of light and learning, and I would, therefore, advocate teaching Universities with residential colleges. Too much concentration should not be aimed at. Taking into consideration the condition of this country and the scattered nature of colleges, much centralisation of learning may lead to the detriment of motussil colleges. Looking at the enormous and appalling numbers of graduates and undergraduates in this country, I am afraid whether it will not be quite unwieldy if all teaching is confined to Presidency-towns. In order to avoid such congestion and to deal with teaching work efficiently, residential colleges under a teaching University may be established in different parts of the country, but teaching in higher branches of learning such as M.A., B.Sc., M.B., etc., as well as original researches in arts and science, may be concentrated in the Presidency-towns.

4. Spheres of influence.—Each University should have a sphere of influence of its own, and some sort of local limit should be placed upon its right to affiliate colleges. Its local limit narrower and educational scope wider is what is desirable. What I mean is this—students coming from other parts of India or from other countries should be allowed to study in any of its affiliated colleges and go in for its examinations; but the University should not make itself cumbersome and unwieldy by affiliating colleges over which it cannot exercise its influence and supervision.
5. The Senate.—Reconstitution of the Senates appear to be necessary and very desirable. The present bodies are too large for the purpose of business and advice on questions relating to education. The number of the Fellows of the Calcutta University is smaller than that of Madras and Bombay; but it is too large and unwieldy, their respective numbers being 297 (Bombay), 200 (Madras) and 192 (Calcutta). Their numbers should be cut down and limited to 120. It is too true that Fellowships have been conferred merely by way of complement. In very many cases, I may say perhaps without fear of contradiction, the Fellowship has been very loosely given without any consideration of fitness, and not properly exercised by the recipient with adequate idea of responsibility. I know persons who are Fellows of the Calcutta University, but they do not know their duty nor understand their responsibilities. There are some Fellows whose best discharge of duties consists in their continuous absence; again there are some who come to vote for a particular question, because the clique to which they belong arranged with him to do so. I am afraid whether I shall not be charged, with betraying a secret if I were to say that there are Fellows who have no knowledge of English whatever, and still they vote in one way or other without understanding the proceedings of the meeting of the Senate.

It is very desirable to give the Senate a more definite constitution by limiting the number, by prescribing the qualifications of persons to be appointed and by enforcing the rules of attendance. Complement Fellowships should be discouraged. I would suggest that there be three classes of Fellows—

(1) Those who are directly connected with educational work; qualified persons from this class should be picked out and made Fellows. (2) Those who are not engaged with practical educational work, but take a lively interest in educational matters. (3) Experts and specialists in literature, arts and science; these two classes should be made Fellows. But those who are neither educationists nor renowned scholars nor take any interest in educational matters should not be nominated Fellows. Fellowships should not be conferred to oblige a person like Government titles and honours. The Senate should be the close preserve for those responsible persons who are true custodians of education but the official element should not be allowed to preponderate, nor the number of ex officio members should be such as to give them a majority.

Tenure of Fellowship.—Tenure of Fellowship should be terminable. Keeping in view the fact that the number of Fellows would be limited, it becomes expedient that the term of Fellowship should expire after a specified period in order to make room for others, it may be for better persons. Expiry of Fellowship should be contingent on (1) the term of Fellowship, and (2) absence from consecutive meetings without satisfactory explanation. There should be provision for re-election and re-nomination of a Fellow after his expiry of term.

6. Syndicate.—The present constitution of the Syndicate does not appear to be satisfactory. It should be re-constituted on a broader basis. Under the bye-laws of the Senate five members should be elected by the Faculty of Arts and two by the Faculty of Law, but in fact it is generally found that the members of the Faculty of Law preponderate over those of the Faculty of Arts, e.g., in 1899-1900 six gentlemen who have made Law their special subject of study were members of the Syndicate; in 1900-1901, seven such were members of the same. Thus the Faculty of Law is better represented, whereas other departments of study have a comparatively poor representation.

Moreover, while the Government is adequately represented in the Syndicate, colleges are very poorly represented, e.g., in 1899-1900 seven Government officials were in the Syndicate and two members belonging to colleges.

In 1900-1901 six Government officials were in the Syndicate and two college representatives. Such a state of affairs is undesirable. There should be an equilibrium in representation. I should like to see that the colleges for whose interest and welfare the Senate and Syndicate exist are well represented. There is an anomaly in the constitution of the Syndicate which it is difficult to understand. When the text-books on the recommendation of the Board of
Studies come up before the Syndicate, the members select one out of the books recommended. Now some of these members may not have any knowledge of the subject or language of the book, and still they vote for or against it; but on what principle they do so is not clear. It is rather amusing to see a Moulvi voting for a Sanskrit book, and a Pundit voting for Arabic. This is a very unhappy state of affairs and should not be tolerated. A member of one Faculty should not, on principle, vote for or against the subject belonging to another Faculty if he has no knowledge of that subject. I would, therefore, suggest that number of Syndics should be increased and special committees be formed amongst them for dealing with special subjects efficiently on a fixed and intelligent principle. In increasing their number experts and specialists should be added to the present strength of the Syndicate, preference being given to such persons who are conversant with more subjects than one, in order to avoid unnecessary swelling of the number. Moreover, I would strongly but respectfully recommend that two of the Syndics should at least be Mahomedans to look after Mahomedan education.

7. Faculties and Boards of Studies.—It is difficult to congratulate the Boards of Studies upon their selection of books. The way in which text-books are generally selected and recommended does not appear to be commendable. Influence and canvassing often outweigh the merits of a good book, and if a meritorious author has no friends and supporters in the Boards of Studies, his book is apt to be overlooked, whatever merits it might possess. The standard of test for selecting a book does not appear to be its merits, but the amount of influence brought to bear upon the committee. Such unhappy state of things betrays a weakness in the constitution of the Boards of Studies and chiefly accounts for the fact that the books possessing no intrinsic merits, and which should not have been selected, are sometimes prescribed as text-books. Besides this, the method of selecting the members of the Text-books Committee does not appear to be based on a sound principle. Apart from any reflection upon anybody, it may be safely pointed out that members have sometimes been selected on mere recommendation and are allowed to express their opinions on a particular subject of which they have no knowledge. Moreover, there are some members who are so busy with their professions that they can ill-afford to spare time to go through the books submitted to them. If these members are eliminated, and men of literary taste and studious scholars who can afford to spare time be largely appointed, better results may be expected from them. I would suggest that when a book is to be selected, heads of colleges should be consulted. This will be a distinct improvement.

As regards the rule that every Fellow must be assigned to a Faculty, I think it need not be so, e.g., if Government confers complementary Fellowships on a person as a mere mark of honour for obliging him for his valuable services in matters other than educational, without taking into consideration his educational qualification, such a Fellow should not be assigned to a Faculty; otherwise efficiency of the Boards will be impaired. It will be a more salutary rule if Fellows are elected by the general body of graduates subject to the approval of, and confirmation by, the members of a Faculty to which they are to be elected.

8. Graduates.—I think it is desirable that a Register of Graduates higher than Bachelors of Art should be formed and the registered graduates only be allowed to elect Fellows. Such a register should be complete and kept up to date, but I doubt whether it will be reasonable to charge any fee. Many graduates will not like the imposition of a fee. As far as I have been able to ascertain after consulting the opinion of a number of them, they are generally against this imposition. Moreover, the question is how the fee will be collected. After the college career the graduates scatter over the country, and some of them go on service to distant parts of India, and their addresses may now and then be changing and will have to be found out. They may not remember the exact date of payment. Demands for fee will have to be made, reminders are required to be sent to them. The task is neither pleasant nor easy. Again there will be some graduates who will feel difficulty in paying the fee, unless they begin to earn. Taking these facts into consideration, it seems reasonable that no fee should be charged; at any rate, graduates dependent on others and without any income, should be exempted.

There is no harm in honouring with suitable degree the able and distinguished men of letters from other Universities, provided it is not made cheap.
9. Students of the University.—It is an open secret now-a-days that certificates in many cases are granted to the students without due consideration, owing to the unhealthy competition of those schools and colleges which have mercenary end in view; authorities feel less scruple in granting the certificates and class-promotions to the students, so that they may not leave their schools and colleges; on the contrary, disheartened students from other colleges come and swell their number. Such mercenary motives should be effectually repressed. But it must be said in all fairness that the small percentage of passes is no criterion to arrive at the conclusion that certificates are granted without due and proper consideration. There are other more potent causes which accounts for the large number of failures in the University.

It must be admitted with candour that very little attention is paid to the growth of a genuine University life. Professors and pupils seldom interchange their views freely. Relation between the tutors and the taught in schools and colleges is almost the same as the relation between a Government official and his subordinate clerks. Professors ask the students only to do the routine works in the class-room, and keep themselves generally aloof from their pupils, To mix with them freely, to take part in a lively discussion, to discourse with them on a thesis, or give them opportunities of learning manners and morals from personal examples, are of rare occurrence. There is hardly any society where teachers, professors, and students of different colleges assemble together for interchange of views.

In order to foster a genuine University life I would suggest as follows:—

(1) Boarding-houses or hostels should be established under the supervision of the Registrars of the Universities. If it is not possible for any reasons (pecuniary or otherwise), private enterprises should be encouraged by grant of licenses containing the strict rules and regulations of boarding-houses. No owners or proprietors of premises be allowed to let their houses as messes or boarding-houses, unless they or the managers of such boarding-houses take out license and comply with their provisions. There are well-to-do persons whose business is to build large houses for letting out. If they are encouraged, there is a good ground for hope that a number of suitable boarding-houses will come into existence, are being taken that there may not be a spirit of starting small messes on the strength of license. Such private boarding-houses should be under the supervision and timely inspection of the Registrar. Moreover, there should be a rule that those colleges and schools which have no boarding-house of their own should send in turn a professor or teacher after the school hour to supervise these boarding-houses. Such supervising professors should not only inspect them, but remain with the boarders for two or three hours mixing with them freely, playing with them if possible, discussing literary, scientific and theological subjects outside the course of their study and general topics of the day, inspiring them with love of God and reverence for elders and thus shaping their character and forming their manners and morals by personal influence and examples.

(2) Clubs and societies with suitable libraries, and periodicals and journals, and things of historical and literary interests, should be encouraged, and it should be the practice almost amounting to a rule with the professors and principals to invite students of different colleges to such clubs and pass time with them (say hour or two) in pleasant discussions on various topics of the day. They should also invite eminent men and distinguished scholars for delivering lectures on subjects beyond the ranges of their studies, and thus try to create a real taste for reading and culture. The students should also be encouraged to read papers on English and Indian authors and their works, ancient and modern, and keep themselves informed of the educational and scientific progress of the day.

(3) College parties and picnics.—The principals of different colleges may combine together to get up from time to time college parties and picnics in suitable seasons so as not to interfere with examinations, and invite the college students to take part in them. There will be, I think, no hitch in meeting the expenses as the students will be glad to pay a small subscription for the time. If a student be too poor to pay the subscription, he should not be excluded from the parties. The parties and picnics should be held in such places as Botanical
Garden, Zoological Gardens, Asiatic Museum, etc. To give such parties a literary character, dialects in English and Indian classical languages, recitations of poetry and rhetorical passages, scientific experiments by students, soirées, etc., should be introduced. Professors should be present in such picnics. This will give ample scope and good fields to the students for exercising their latent talents, and afford good opportunities to those who are not under the tuition of Eurasian professors to correct and modulate their pronunciations.

(4) College sports and outdoor games.—I think almost all the colleges in big towns have athletic grounds and gymnastic masters. One college now and then enters in a cricket or foot-ball match with another and students from different colleges gather together, but such matches depend more on the predilection of the students than that of the professors or principals. In other sports and gymnastic exercises there is no such competition between different colleges, and the students do not come together to see the gymnastic and athletic performances. I think it will be more useful if the principals of different colleges interest themselves in holding competition in college sports and outdoor games as well as gymnastic performances on suitable grounds and invite the professors and students to come and join such sports; it will not only afford an opportunity of bringing the young men together, but will give an impetus to physical training.

As regards the limit of age, I am of opinion that no minimum age limit be fixed. Instead of limiting the age I think courses of study should be limited and multiplicity of subjects should be cut down. No doubt strain of examination may affect the young brain, but strain of remembering numerous subjects and going through courses of studies out of proportions produces greater strain than that of examination. If it is apprehended that with such multiplicity of subjects strain of Entrance or Matriculation Examination will affect the brain, it will as well affect the brain during several class examinations. Moreover, great majority of students passes the Entrance Examinations above the age of 15, e.g., in 1899 out of 999 boys who passed the Entrance Examination in the first Division—

4 boys were of 12 years,
34 boys were of 13 years,
87 boys were of 14 years,
and the rest were above 15 years. It is the boys of exceptional brilliant parts who appear in the examination at an early age, and their intelligence being naturally sharp, they understand things quicker with less exertion of brain and do not overtax it with cramming, so there is less apprehension of injury to their brain. Fixing the minimum age means checking the progress of these brilliant boys; even if the age is limited, strain of examination will be the same unless the heavy burden of study is reduced.

10. University Teaching.—A mass of information has already been placed before the Commissioners from which they can form a fair estimate of the value of the University teaching. They have heard of the multiplicity of subjects, numerous text-books, faulty mode of teaching, insufficient time at the disposal of the student to assimilate and digest what they learn, their habit of cramming, severe strain of examination, mode of examining papers, whimsical questions, eccentricity of examiners, etc., all of which combine to deteriorate the University teaching and produce results which are neither desirable nor beneficial. To attempt to give a detailed account in each head will lead to the repetition of thrice-told tales and waste of time. Instead of doing this, I would place before the Commissioners the scheme of the University teaching which I hope will be beneficial.

Entrance Examination.—In this examination four main subjects are taught—English, a second language (as it is called), Mathematics, and History and Geography. Besides these, there are minor subjects such as Physical Geography, Science Primer, and Drawing. Formerly there was Mensuration which has been done away with, and Science and Drawing have been introduced. I think these minor subjects should be abolished from the Entrance Course, and two books of Geometry should be prescribed instead of four. Knowledge of the History of England being necessary, it should be prescribed along with the History of India, and the examination should be confined to four main subjects only, so that there may not be division of attention over
multiplicity of subjects and the students may find more time to pay more attention to composition and real mastery of the main subject. Bearing in mind that English as well as the second language (Sanskrit, Persian, or Arabic) are both foreign to the Indian students and they have to learn two foreign languages with other subjects, and that Indian History is increasing with the change of Viceroy's, it is desirable that the courses of study should be simple. In the place of minor subjects, composition in English and in second language may be made compulsory. The courses of studies being thus simplified, students will find time to devote to the study of out-books and real mastery of the subjects, and there will be less temptation to cramming. Moreover, teachers will have time to explain satisfactorily every paragraph of the books to the varying understanding of their pupils instead of hurrying over them with the main object of finishing the prescribed books before the test examination, and to demand more exercises in every subject. There need not be apprehension that such courses of study will lead to the lowering of the standard of examination, rather quality of teaching will be superior and is likely to lead to a high standard and beneficial results. Standard of examination should be sound knowledge of even limited subjects and not superficial knowledge of various subjects.

F.A. Examination.—The above remarks are applicable to the F.A. Course also, but before suggesting how subjects should be grouped in the F.A. Course I would consider whether it is desirable to hold two such mixed examinations as the Entrance and First Arts. It has been suggested to abolish the F.A. Examination and to extend the terms of the B.A. Examination by one year. I think it is not desirable to do so, for this simple reason that after passing the Entrance Examination boys do not become so strong in English or in Indian classics as to understand the difficult subjects of the Degree Examination. It is desirable to teach the F.A. Course but not in its present form. The present F.A. Examination is most cumbrous and multifarious. It should be simplified by judicious arrangements of subjects and divided under two heads, viz.—

I.—(1) English; (2) a second language; (3) History; and (4) Logic.

II.—(1) English; (2) Mathematics; (3) Physics; (4) Chemistry.

The students should be allowed to exercise their discretion in making selections of any of these two groups.

Vernacular Languages of India.—It is true that all the vernacular languages of India have not so developed as to find a place in the higher examinations, but I think there are some vernacular languages which should find a place at least in the F.A. Examination, e.g., Urdu and Bengali. These two languages are not the same as they were 50 years before. They have rapidly developed and are allowed in the F.A. Examinations for female candidates. They may as well be allowed in the case of male candidates. Tamil, Telugu, Hindi, Burmese, etc., are not allowed in the F.A. Course even for the females. This shows that Bengali and Urdu have sufficiently developed to find a place in the F.A. Course for both sexes. I would insist upon the introduction of these languages in the F.A. Standard for the sake of consistency and removing the difficulty which the students who pass the Entrance Examination with Bengali or Urdu greatly feel in the F.A. Examination when they are compelled to take up a new language. In the B.A. Course there is no hitch, as the students who have no taste or aptitude for the classical languages and Mathematics may take up the first group of the F.A. Course and A. Course in the B.A. Examination with History as optional subject. Thus the students will be able to exercise their free choice in selecting the subjects according to their taste and aptitude from the Entrance up to the M.A. Examination.

Sanskrit and Arabic.—These two languages are so very difficult that they should themselves form subjects of independent study, but under the University rules to certain examinations it is not possible. Nevertheless their study should be systematic, and books should be prescribed on some principle; but the way in which the books are selected discloses a lamentable want of an intelligent principle. Study of simple prose facilitates easy mastery of a language than that of poetry, but the maxim seems to be otherwise with those who select Sanskrit and Arabic books. The Sanskrit Entrance Course contains two-thirds poetry and one-third prose; and there is no prose in the F.A. Course,
Raghubansa (cantos I-VII) being the only text; the B.A. Course contains poetry, Kumar-Sambhava (cantos I-VII), and Sishoopalbadha (cantos I-II), and Sakuntolah (prose and poetry) in three-fourths poetry and one-fourth prose. Formerly the F.A. Sanscrit Course consisted of Dasa-Kumar-Charit and four cantos of Raghubansa, and the B.A. Course, Kadumbari, Sakuntolah and Kumar Sambhava, but the Dasa-Kumar-Charit and Kadumbari are the most difficult books containing long and puzzling compound words (Samases) and have been rightly excluded from the courses of studies. But some other simple prose books should have been substituted in their places. The same remark is applicable to the Arabic courses; such selections out of proportion should be done away with.

As regards the teaching of Sanskrit and Arabic Grammar, it is as bad as the system is condemnable. It is an undeniable fact that a thorough knowledge of Sanskrit and Arabic Grammar is required at the initial stage of learning the languages, and therefore it should be taught in an intelligent and systematical manner; but the pity is that, although some sort of Sanskrit Grammar is prescribed for the Entrance Examination, no Grammar is prescribed for the F.A. and B.A. Courses. The matter is still worse with Arabic. Neither for the Entrance nor for any higher examinations any Arabic Grammar is recommended or prescribed. Such palpable and lamentable defects in the case of Arabic are mainly due to the want of proper care, active interest and sense of responsibility on the part of the Mahomedan members of the Board of Studies. What I would suggest is the systematic teaching of the Sanskrit and Arabic Grammars in the college classes. Up to the Entrance Standard, general knowledge of these Grammars may be allowed; but from the first year Panini's Grammar in the case of Sanskrit may be taught, dividing it in such a manner that within five years, i.e., up to the M.A. Class, the Sanskrit students may acquire a mastery over it and may not feel difficulty in understanding the peculiarities of Vedic Grammar in grasping the portions of Vedas and Upanishad prescribed for the M.A. Course. In the case of Arabic it is difficult to point out a grammatical work which will come up to Panini's standard, but a happy selection may be made out of the existing Arabic Grammars; but I would certainly object to the silly method of teaching the rubbish Grammars which find currency in the Madrasha of Bengal.

M.A. Examination in Persian.—The candidates studying Persian for the M.A. Degree are required to learn Arabic up to the F.A. Standard. It is not desirable nor reasonable that a student who has to devote his attention over a larger field of Persian literature is abruptly required, at an advanced stage, to learn a new and difficult language for which he may not have any taste or aptitude. Such division of attention and flitting away energy lead to superficial mastery of the subject. The mere fact that Persian contains a large number of Arabic words or phrases should not be a ground for compelling the students to learn a bit of Arabic (Beacon's Essays contain a large number of Latin words and quotations, but for that reason Latin is not taught to the students of English literature). I would suggest that this rule should be abolished, and in the place of Arabic Persian Philology should be introduced.

Examinations.—Examinations are not conducted on a happy method. There is no uniformity in the framing of the questions; in some years they are too stiff, in some they are so comprehensive that their answers take much more time than the candidates can possibly spare. Again questions are sometimes put which should not have been given at all. Moreover, marks are allowed not according to the merit of an answer, but according to the standard of text and directions given by the Head Examiners. Such an unhappy state of affairs generally give rise to frictions between the Head and Paper Examiners who look upon the directions of the Head Examiners as unreasonable mandates against the dictates of their conscience. But the great defect of the University examinations consists in the fact that it selects persons to examine papers of the graduates and undergraduates on the subjects of which the examiners themselves have no knowledge. As an illustration it may be pointed out that some of the examiners who set and examine Persian and Arabic papers do not know English at all, and it is difficult to understand how they can judge the correctness and merits of those answers which are written in English, or of the translations of the Arabic and Persian extracts rendered into English. These defects should be remedies and uniformity of method in examinations should be established.
11. The present rule of the Calcutta University requires a candidate who has got plucked in one subject to be examined again in all the subjects including the subjects in which he has carried the highest marks. This principle does not appear to be sound and good, rather involves the sheer waste of time and energy. Had he been allowed to devote his undivided time and attention to the subject in which he is deficient, he could have thoroughly made up his deficiency and acquired a mastery over the subject. I would, therefore, suggest that this rule may be observed and the plucked candidates be required to be examined only in the subjects in which they are deficient.

12. Registrar and his staff.—Taking into consideration the increasing and multifarious works of the Calcutta University, and in view of the additional burden to be thrown on the Registrar owing to the supervision of the proposed boarding-houses and hostels, I think it is desirable to have a whole-time Registrar, and he should have an efficient staff of subordinates to assist him in the prompt and satisfactory discharge of his duties.

13. I do not think inter-collegiate lectures are possible in this country. The number of the students in college classes is already high, and if they are to assemble together in a place for a term of special lectures, it will be unmanageable and the students may not be able to follow the lectures. Moreover, unless the lecturer be of very high scholastic reputation, students won’t be curious to attend his lectures, rather they will be satisfied with the lecture of their own college. As to a specialist travelling from college to college and delivering lectures on some special subject, I doubt whether such a plan will be practicable, first, because it will be difficult to get such eminent scholars; secondly, it will be more difficult to induce such scholars to undertake the task; thirdly, the private colleges may not be in a position to meet their demands, but it must be said that inter-collegiate lectures are very useful and should be introduced, if practicable.

What appears to be practicable is the introduction of the system of post-graduate lectures. Such lectures will stimulate the intelligent students to devote themselves to researches and works of original thoughts. Rewards in the shape of handsome scholarships should be given to encourage the students to carry on literary and scientific investigations. It is very desirable that the Universities should create a number of Research Scholarships on the line of Premchand Roychand Studentship, and Tagore Law Professorship, for carrying on investigations in the different branches of Arts and Science. Such Research Scholarships should be of two kinds:—(1) For original researches in India, and (2) for travelling in foreign countries such as Europe, Japan, etc., for the purpose of education and investigation. One of these Research Scholarships should be given to the Medical College for investigation into the system of the Indian Medical Science, and for experiments and analysis of indigenous medicine. The Unani and Ayurvedic systems of medicine are fit subjects of study, and a medical student will find ample field for researches in them. These medical systems recently attracted the attention of the Indian Medical Congress, but nothing practical has been done to make them subjects of study; but an impetus in this direction should be given by establishing a special scholarship for medical researches.

14. Mahomedan Education.—With the permission of the Commissioners I beg to speak a few words with special reference to the Mahomedan education in Bengal. The Bengal Musalmans labour under peculiar disadvantages which seriously interfere with the education of their children. All the primary, vernacular or middle English schools (private, aided or Government) are of such nature that they do not suit the requirements of the Mahomedan boys, so far as learning of languages is concerned; and their knowledge of vernacular as well as their own classical languages being insufficient and defective from the beginning, it greatly affects their educational progress in high English school and college department. Bengali being the medium of instruction in schools of Bengal, it does not suit the boys of all classes and shades of Mahomedan society. There is no provision for Urdu schools under the Director of Public Instruction in Bengal. A very few of the private high schools have Moulvis to teach Urdu or Persian. In the Government and aided schools a Moulvi may be seen teaching the second language only; but all the subjects are taught through the medium of Bengali. Those
boys who do not understand Bengali sit idle staring in the face of their teachers when they explain the passages in Bengali; those who understand Bengali learn the meaning of English words and phrases in Bengali which they do not study, but are required to translate the English passages in their second language to which they are not habituated and taught to translate. This is anomalous and leads to superficial knowledge of the subjects taught.

It will be interesting to examine what sort of teaching and instruction the boys receive from the Moulvis. It is perhaps well known that these Moulvis are the products of the Madrasha of Bengal who do not know English. As regards Urdu, their attainment in it is as poor and meagre as their knowledge of the Bengali language. In teaching the second language, they cannot explain the Persian or Arabic passages in English, nor can give equivalent English words unless a Moulvi happens to be a graduate or undergraduate, which is seldom the case; their explanation in Urdu is far from being correct and satisfactory. Mahomedan boys cannot expect to learn Persian or Arabic translations from the Moulvis. A Hindu composition teacher is no help to the Moslem boys whose second language is Persian or Arabic. Such being the true state of affairs, it is no wonder that we generally find the Bengal Mahomedan candidates writing essays or original compositions in Bengali, a language in which they receive no training but pick up in a haphazard manner. This is a great drawback which seriously interferes with their college education and stands in their way of competition with their Hindu brethren who receive a regular training from their infancy. Such unhappy state of affairs exists, because the pay of these Moulvis is so poor and so little prospect of promotion is before them that no English-knowing Moulvis or graduates in Persian or Arabic will join the schools except the hopeless and helpless Moulvis of the Madrasha.

In mofussil schools demands for Persian teachers are very great, and this demand is quite in keeping with the increased number of Mahomedan students in schools and colleges as will appear from the figures quoted below:

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<tr>
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<th>1889-90.</th>
<th>1898-99.</th>
</tr>
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<tbody>
<tr>
<td>Art Colleges</td>
<td>179</td>
<td>413</td>
</tr>
<tr>
<td>High English Schools</td>
<td>7,960</td>
<td>10,728</td>
</tr>
<tr>
<td>Middle English Schools</td>
<td>8,335</td>
<td>10,669</td>
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This increase in the number of Moslem students is the happy sign of the time, but unless the demand for Persian teachers is supplied, better results in their college education cannot be expected.

In big towns such as Calcutta we find three classes of Muslims—(1) those who come from up-country and permanently live in the town; (2) those who reside in the town on service and for business, their home being elsewhere; and (3) those who are settlers of Bengal. The children of the first two classes speak and understand Urdu. The number of the children of these two classes is greater than those of the third class. In big towns, especially in Calcutta, there is not a single primary or middle English school for the Urdu-speaking children, where English or other subject is taught through the medium of Urdu. Unable to understand Bengali these boys do not like to take admission in the Bengali schools. This is one of the chief reasons why the Mahomedan education in big towns is so limited.

Owing to the want of Persian teachers in mofussil schools there is a growing tendency on the part of the Mahomedan boys to take up Sanskrit in the place of Persian. There are some instances of Mahomedan students studying up to the M.A. Degree in Sanskrit. But as there is no chair in the Presidency College for the M.A. Degree in Sanskrit, the Mahomedan candidates found great difficulty in prosecuting it. Under the circumstances it is desirable in the interest of Mahomedan education that (1) provisions be made for a chair for the M.A. Degree in Sanskrit for those who cannot be admitted in the Sanskrit College; (2) demands for Persian teachers in mofussil be satisfied; (3) English-knowing Moulvis be provided for in the high English schools; (4) Urdu schools be established in big towns. It will be better if the Collinga Branch School which has been amalgamated with the Calcutta Madrasha be separated and removed to the Northern Division of the Metropolis.

G I C P O.—No. 1868 H. D. D.—2-4-1902.—00.—R. deT.
I.—Teaching University.

I would suggest the establishment of University Professorships to be held by specialists of high attainments in subjects for which competent teachers are now rarely available in the country:

For examples.

(i) Comparative Philology,
(ii) Hindu Philosophy,
(iii) Higher mixed Mathematics,
(iv) Physical Science,
(v) Chemistry.

I shall make the lectures of the University Professors in these subjects open to—

(i) Teachers in the affiliated colleges, and
(ii) Candidates for the higher examinations, such as M.A., D.Sc., etc.

The Professorships may be maintained either at the expense of the State or partly at the expense of the State and partly by increasing the income of the University by moderately raising the fees charged for the Arts Examinations. If we rely upon private munificence for the endowment of University Chairs, we may have to wait for an indefinite length of time.

But in order that the University Chairs may be of use in stimulating spirit of culture and original research in the country, our University should possess a library and a laboratory worthy of the premier University in India; and we cannot afford to have either, unless it be at the expense of the State.

II.—Constitution.

(a) Fellowship.—I am not in favour of making Fellowships terminable after a fixed number of years. If only properly qualified men are appointed Fellows, they do not lose their efficiency after some length of time; and if the number of Fellows be not fixed at too low a figure, death, removal for non-attendance, resignation and departure from India, will furnish ample room for the appointment of new Fellows. But a provision for vacating Fellowships by non-attendance at meetings for a certain number of times consecutively, is eminently desirable.

(b) Election of Fellows.—The system of election, or rather nomination, of a certain number of Fellows by the graduates of the Calcutta University, has worked satisfactorily. It has at least resulted in the appointment of Fellows who can intelligently follow, and take part and interest in the proceedings of the different deliberative bodies constituting the Calcutta University.

III.—Boards of Studies.

The Boards should be so remodelled that each may consist only of a small number of experts. The present number of members is too large, making it possible for gentlemen to be elected members of a Board for which they may possess no special qualifications.

IV.—Teaching of English.

My experience as a teacher and examiner has convinced me that the unsatisfactory and irregular results of the different examinations, leading from the Entrance to the B.A. degree, are mainly due to the standards prescribed in English for the Entrance and First Arts Examinations being too low. The
result is that students enter on their University Course with a very inadequate knowledge of English. By far the large majority of them are unable to follow intelligently and appreciate the English of the text-books and lectures intended for their benefit, and they break down completely when they come to the courses of study prescribed for the B.A. Examination. The defect may, to some extent, be remedied by—

(i) Raising the minimum pass marks in English in the Entrance and First Arts Examinations,
(ii) Selecting more suitable pieces for the Entrance Course in English,
(iii) Improving the character of the questions set so as to discourage cramming and to test the candidates' power of expressing their thoughts in correct and clear language, and perhaps,
(iv) Introducing a preliminary examination to the Entrance, in Dictation and Composition, and weeding out candidates who do not do well in these subjects, as has been suggested.

But I venture to think that no real improvement can take place, until the teaching of English is improved in the schools and colleges by insisting upon the appointment of a class of teachers better paid and better qualified than those now generally employed.

The experiment of teaching the English language and literature by gentlemen whose vernacular is not English, however high their scholarship may be, has not, I am afraid, succeeded; and I am strongly of opinion that as regards the affiliated colleges, the University should make it compulsory on the college authorities to appoint, as teachers or lecturers in English, gentlemen whose vernacular is English and who at the same time are graduates of some universities.

V.—Examinations. Setting Papers.

The Calcutta University rule that "No gentleman shall be appointed to set a paper in a subject of which he teaches the whole or a part", has not, to my mind, worked satisfactorily. In spite of elaborate rules for setting and moderating papers, well founded complaints annually recur about

(i) Questions being set outside the courses prescribed,
(ii) Questions being set beyond the capacities of the candidates,
(iii) Questions being set tending to encourage cramming.

[To refer only to the First Arts Examinations which is still going on, a question was set in English outside the course prescribed, another in mathematics of the same character, and a third in Physics beyond the capacities of the candidates.

The old system of having a paper on a subject set only by a gentleman teaching that subject should be reverted to, although it might have led to occasional abuses. Of course, none but gentleman of high attainments and character should be appointed, and that will be a sufficient guarantee against any possible abuse.]

VI.—Affiliation Rules.

(a) Private unendowed Colleges.—I am of opinion that the rules of affiliation should be so modified as to require each affiliated college to maintain a tutorial staff consisting only of men of high attainments and culture on adequate pay, the nominations and scales of pay being subject to the approval of the University authorities, and any lowering of the initial standard in either respect rendering the college concerned liable to disaffiliation.

[The evil which the proposed rule is intended to remove is inevitable in unaided and unendowed private colleges, of which the existence depends entirely upon the fee receipts from their students; and the rates of fees charged by these colleges are, for various reasons, so low that they find it absolutely necessary to entertain, with rare exceptions, a cheap tutorial staff.

(b) Government Colleges.—The reason does not exist in the case of the Government colleges, but I am sorry to find that latterly there has been a
tendency even in the Government colleges to appoint Indian gentlemen on a scale of pay at which I do not consider it generally possible to get the services of really first class men.

(c) Secondary Schools.—The secondary schools in the province which send up boys to one Entrance Examination suffer to a much larger extent from this evil of low pay and consequent inefficiency; and I am afraid that even the Government high schools can not always be excluded from this category. The gradual withdrawal of State support on a liberal scale from the colleges and high schools, will surely prove disastrous to the cause of education in the country.] The rules of recognition of schools should also be similarly modified in regard to the pay and qualifications of teachers. While on this point, I beg to express my entire concurrence in the proposal to institute a degree of Licentiate in Teaching.

Inspecting Staff.—I am of opinion that the University ought to have a highly qualified inspecting staff, exercising in regard to the affiliated colleges the same duties as are exercised by the Government Inspector of Schools in regard to secondary schools.
I. Staff of the Medical College.—I wish to briefly state a few facts connected with the present system of medical education in India. Of all the medical questions which require the attention of this Commission the question of professors appointed to the Medical College is in my humble opinion the most important. All Medical Education is subsidiary to this great cardinal factor, for if it is admitted that the *fons et origo* of medical training is defective the rest of the subject must participate in that defect. At present medical chairs are filled solely by members of the Indian Medical Service in Bombay, Madras, Calcutta and other presidencies. Thereby the field of choice is considerably contracted. Such a contraction obviously cannot possibly conduct to as good a selection as would be the case if the choice were made by open competition by means of public advertisement. The Indian Medical Service enjoy a monopoly, an unwarrantable monopoly, and there is no reason why such an impartial body as this should allow such an injustice to be perpetuated. It is an injustice for more reasons than one. In the first place it is an injustice to the students, for they are placed under teachers who are not always the best available; secondly, it is an injustice to the public at large, inasmuch as College Professors are supposed to be the consultants for their Presidency and carry with them the responsibility attached to high proficiency; thirdly, it is an injustice to the Science of Medicine because the Professors of Medical College as the supreme medical body are looked up to for the creation of that scientific spirit so essential in all civilised communities. As at present constituted we do not get the best available teachers because the medical profession at large is rigidly excluded from the area of selection. As regards the Indian Medical Service it is the exception for its members to show any special aptitude in any special subject not because they are inferior men so far as their initial training is concerned but because the conditions of service are such that there is neither the incentive nor the opportunity for devoting oneself to special research in the majority of instances. The opportunity sometimes comes when they are actually appointed professors and have or ought to have the leisure to attend to laboratory work. But by that time most of them have got into the yellow and sere of their lives and when the energy necessary for vigorous work is wanting. In most countries especially Great Britain which we have taken as our model, no one is appointed a professor unless the fact is notified in the press. It thus ensures the fullest publicity and gives a chance for all to compete. The candidate chosen is one who has given evidence of prolonged specialism having published some original work. Contrast with this the position of the Indian Medical Service professors. The majority of them have had a College or University career of best average merit. Some few amongst them have probably held junior appointments in England as House Physician or House Surgeon or Demonstrator under some lecturer. These appointments though of considerable value in themselves are of little avail unless they are made the first amongst successive rungs in the professional ladder to scale which it is not possible for the average Indian Medical Service officer with his age limit. They compete for the Indian Medical Service which is a general examination and the successful ones are sent to Netley for a few months’ course of training before coming to India. They are then attached to a regiment and then their services are “lent” to civil stations where their duties are multifarious extending from treating a stomach ache to mounting guard over a jail. So far it will be observed the Indian Medical Service officer has had no chance of specialising. As he rises in the grades and what is also of no mean importance, wins his way into the good graces of the powers that be, he suddenly finds himself in the equivocal position of having been transformed into a full fledged specialist by the magic orders of an appreciative Government and he is forthwith attached to an important chair in the Medical College. The task of Cincinnatus was a mere bagatelle compared to the exalted transformation of our friend the Civil Surgeon with his many sided activities into a specialist of a most pronounced character. In all competitions I would *not* exclude Indian Medical Service officers.
Thereby all unfairness would be removed, for if under this system of open com-
petition the Indian Medical Service officer was the best qualified no one would
grudge him his well earned laurels. During the discussions which I had raised
at the most important of all medical bodies in our Empire, viz., the British
Medical Association it was urged by the apologists of the present system, that
it was an "open" system, inasmuch as anybody who desired to compete for
these chairs could do so by entering the Indian Medical Service. This is a
most insidious assertion. There are many reasons which militates against many
in joining the Indian Medical Service. The age limit, the military regulations
and exclusions governing the Indian Medical Service Examination, the
physical qualifications and as regards Indians, having to cross to England on a
precarious mission in an inhospitable climate and amongst a strange people and
all this on the off chance of being successful are some of the objections which
prove that the present is not a policy of the "open door" in the large and true
sense of the term. At present we are perpetuating the monstrous puerility not
of regulating the Medical Service for the nation but the nation for the con-
venience of the service, for there is not the shade of a shadow of a doubt that
the tendency of monopolies such as the present is to produce this anachronism.
The evil is aggravated when we find, as it has been repeatedly done in various parts
of India, one professor has been called upon to teach totally different subjects
each of which requires a lifelong study. There is an instance cited by the
late Dr. Bahadurjee in which an Indian Medical Service officer had held the
posts of Chemical Examiner to the Government, Professor of Chemistry, Profes-
sor of Physics; he had been successively a Surgeon, a Physician, had occupied
the chair of Hygiene, then was Superintendent of the Ophthalmic Hospital,
Lecturer of Ophthalmic Medicine and Surgery and Professor of Jurisprudence. A
varied knowledge in all conscience; and one is tempted to exclaim "still the
wonder grew that one so small a head could hold all that he knew." This
scandal for it is nothing short of one leads to a smattering of knowledges and I
have in my possession evidence to show that in a neighbouring presidency some
of the Indian Medical Service teachers actually read out their lectures verbatim
from certain well-known text-books. Is the reformed University to be satisfied
with such an unenviable notoriety? Human nature had enough to endure. Are
we in India going to intensify that, by shirking our plain duty of reforming
such of the abuses as exist? In Europe all great advances were made by those
who had specialised. Pasteur would not have placed humanity in his debt had
he shifted from subject to subject; James Young Simpson would not have abo-
lished pain by the introduction of chloroform had he changed from chair to chair,
and Lister would not have given life to millions had he frittered away his tran-
cendental genius in varied and diverse pursuits. As regards these professorial
defects of medical training in India, the British Medical Association had by a
large majority taken them into its consideration. Professor Thomas Fraser,
F.R.S., M.D., late Dean of the Faculty of Medicine, Edinburgh, and the late
President of the Royal Commission on plague, has pronounced against the
present system of appointing professors, and Sir William Church Bart, Presi-
dent of the Royal College of Physicians and head of the Medical profession in
England, in a letter to me states—"it seems to me that it cannot be right that
teachers should be changed from chair to chair if the subjects they teach are
different."

II. College accommodation.—The Principal of the Calcutta Medical College
in his evidence the other day frankly admitted that owing to want of space in
his college his policy had been to keep the numbers of medical students from
increasing. More or less this has been the policy in other presidencies. The rules
framed in Calcutta are more Draconian than those which prevail in such
enlightened centres of Medical Education as London and Edinburgh. Under
the circumstances either the Medical College should be enlarged or other insti-
tutions such as Calcutta College of Physicians and Surgeons and Calcutta Medical
School. After a rigid and proper test as regards teachers and appliances should
be recognised as legitimate portals to approach the University examinations.
The Campbell Medical School is now conducted in the vernacular. I believe if
English classes were opened and recognised by the University after a scrutiny
it would do much to relieve the congestion in the Medical College. It cannot
be said that the number of doctors turned out by the University is inordinately large. I have just returned after an extensive tour throughout India and I have come across places where a hospital assistant or "apothecary qualified" officers are doing the duties which should be performed by Assistant Surgeons. The fact is that the fully qualified men do not care to join a service with such inadequate honours and remuneration as the Subordinate Medical Service and what is far more important the paucity in their numbers encourages them to earn a better livelihood as private practitioners. By creating greater facilities for Medical studies we shall be able to turn out more available doctors out of the way places. This system of "Extra-mural" Schools is prevalent in Edinburgh and in the newly remodelled University of London. Several Medical Colleges have been recognised as a part and parcel of the new University. A healthy rivalry would spring up in India. Self-preservation being the first law of nature each would vie with the other in alleviating the ills to which flesh is heir as that alone would be the raison d’être for their existence.

III. Practical teaching.—More attention should be paid to practical teaching than is done at present. Each subject ought to have its practical class room. Without this the study is incomplete and there is no incentive for original research. If it is true that the child is the father of the man, then the opportunities for originality should be afforded early. The University which aims only at a bread and butter ideal is a very poor representative of a noble institution. Regular medical research classes ought to be a part of the reformed University. With all their conceit physicians have to admit their impotence in dealing with many diseases. In India we have tropical diseases of every shade flourishing in rank luxuriance and therefore there is the greater reason why we should train up fighters against these diseases.

IV. Source of Economy.—At present the Calcutta Medical College and the Presidency College though situated cheek by jowl each maintains a separate staff of teachers and classes in subjects which are common to both. I would amalgamate these chairs and make both sets of students attend the same classes. The money thus saved would go towards affecting many improvements which are at present necessary.

V. Control of Medical Education.—The present control of Medical College by the Inspector General of Civil Hospitals is entirely out of harmony with the spirit of the times. The Inspector General, however estimable a gentleman he may be otherwise, is not a proper authority. One of his disqualifications, as Lieutenant-Colonel Bomford rightly observes, “is that he should know nothing of Bengal, at any rate some one is always brought from another province who knows nothing of Bengal and Bengalee students.” Medical education ought to be brought under the direct control of the University. I am convinced that then and only then would the teaching of medicine be efficient. Physicians should receive the best professional help available. They are anxious to befriend their fellow beings to the best of their ability, and instances are neither few nor far between in which they have cheerfully laid down their lives for God and humanity.

G. I. C. P. O.—No. 1920 H. D. — 3-4-1922. — 30.—P. K. B.
UNIVERSITY OF MADRAS.
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A Protest against Exaggerated Pessimism.

I cannot help thinking that the critics of education—and their number is legion—are guilty of exaggerated pessimism in the view they take of the general results of higher education, and more especially of University education in India. The men who are really competent to speak with any authority on the subject are just a handful, but every anonymous scribbler must needs have his fling at the poor Indian graduate. The time has come to protest strongly against this reckless condemnation of University education, which seems to be the fashion at the present day. The fact is, the majority of critics, who write and speak of University education and its effects, merely echo the sentiments which they obtain at second-hand from a few who, probably with the desire to see certain existing defects remedied, lay undue emphasis on them; and this exaggerated view is echoed and re-echoed throughout the country by the unthinking multitude. Take the criticisms of the Press, Indian and Anglo-Indian; it is the same stereotyped remarks that we notice everywhere. The Indian system encourages cram pure and simple; the passing of examinations is the one chief aim of the Indian student; the higher education is made subordinate to a rigid system of examinations; the Indian graduate is lacking in originality; he is wanting in practicalness and thoroughness, in habits of exactitude and directness of action; it is his acquisitive faculty, his memory, that is taxed most, and his creative faculty is left undeveloped,—these are some of the stereotyped criticisms that are copied from one journal into another, and that are passed from the lip of one platform speaker to another. I do not say there is no truth in these criticisms; but I do say that these defects have been unduly magnified and that such criticisms give a very distorted idea of the great work our Universities are doing.

How we should judge.

The spirit of reckless criticism so characteristic of the masses sometimes takes possession of even educationists. But this is because they apply to Indian Universities, that have not even half a century of history behind them, the standards of judgment which they generally apply to English and continental Universities whose origin is almost lost in the mists of a remote antiquity. The transplantation into India of Western institutions, which have been the result of centuries of slow and patient experiment, is no doubt one of the greatest benefits which the people of India have derived from Great Britain, but then we shall be committing a great mistake if we judge of the results of such institutions in India which are still exotic, in the same way as we judge English or European institutions of the same kind. This is the mistake committed even by well-meaning critics. Take, for example, the charge of want of originality laid at the door of the Indian graduate. I certainly admit the comparative barrenness of the Indian intellectual field at the present time; but, in judging of the effects of higher education, we must take into consideration the conditions under which Indians are being educated in English. There is no country in the world that presents so striking an anomaly as India does in respect to its intellectual development. Here we have the strangest of incongruities, namely, a vast population being compelled to pursue higher studies by means of an entirely foreign language. Macaulay decided that the Indian people could not be educated by means of their mother-tongue, and the present system of education is the outcome of that decision. No one would deny that the English language stands preeminent among the languages of the West; but nevertheless it must be remembered that English is a foreign language, and a most difficult foreign language. The best energies of an Indian youth are, I won't say wasted, but exhausted in acquiring the English language. At a time when an English lad of ten or twelve revels in reading volume after volume
of English books, descriptive of nature and of human life, and stores his mind with correct information on every important subject, the Indian lad spends his whole energy in mastering the rudiments of the English language. I do not for a moment disparage the study of English. We have had our prejudices overthrown, our intellectual tastes purified; we have become inheritors of the intellectual achievements of all the Western nations; but at the same time it must be admitted that all this gain has not been without its corresponding loss: loss of energy, loss of creative power, loss of originality. Our acquisitive powers have been tasked to the utmost; no wonder our creative faculties have suffered in consequence. In accounting, therefore, for the comparative barrenness of the Indian intellectual field, we should not lose sight of the barrier of language. When future generations of the Indian races become, through the influence of hereditary transmission, naturalised to the English language, better results may be expected. In the meantime, let us remember that the Indian intellect is undergoing a silent but a most marked transformation, and that it is all the result of Macaulay's Minute. My wonder is that, considering the special limitation of our Universities, and the adverse conditions under which they have been working, the results produced intellectually are so favourable. We have already noteworthy instances to show that the Indian intellect is not simply speculative and assimilative but that it is inventive as well. We have simply to compare America with India, to arrive at a just appreciation of the results of higher education in this land. What immense advantages the Americans have over the Indians in the matter of education, yet the original writers of America can be counted on one's finger's ends. In India we have only had about half a century of English education, and considering what has been accomplished, I, for one, am hopeful of the future.

The mistakes which our Indian graduates commit in English are a perennial source of amusement in certain circles; but even this defect has its extenuating circumstance. I do not defend the bad English of the average graduate; but I do say that, in passing judgment on his bad English, we must take into consideration the circumstances in which he is placed, and not regard this defect in the use of the English language as a defect due to the system of University education. As for "cramming," it is not the peculiar monopoly of the Indian student. It is met with everywhere.

Or take again the other charge brought against the Indian graduate, namely, that he is wanting in practicalness and general adaptability to new kinds of work. I have heard it said over and over again that this is due to the education of the Indian graduate being too literary in character, and that the remedy for this is the study of the physical sciences. Now, when it is remembered that the very same charge of want of practicalness is brought against science students as well, it is time for us to look for the cause of this defect elsewhere. The practicalness of the English lad is seen even before he enters school, it is seen in his varied concrete activities. "He has a mechanical turn, and makes kites, toys, tops, &c.; he wanders in search of birds' eggs, moths, butterflies, fish, orchid, and interests himself in things animate and inanimate around him." In one word he brings his practicalness to bear upon his education, and does not derive his practicalness from his education, and this practicalness is partly innate and partly the result of the training that he receives in his home. We are placing the blame on the wrong shoulder if we say that it is University education of a too literary nature that has made our young men utterly unpractical. There is no necessary logical connection between literary studies and the absence of practicalness.

This leads me to speak of the fallacy involved in ascribing to University education defects due to other causes. It is the opinion of Professor Selby of the Bombay Educational Department that it is the absence of stern education of life to supplement that of the college that is one of the greatest drawbacks of the present system of education. So long as the average Indian home is what it is, so long as the influences brought to bear upon the Indian youth outside the precincts of the college are depressing intellectually, and even stifling morally, there will be serious defects in the products of our Universities. Let us, therefore, be careful not to ascribe to University education the defects that are directly traceable to other causes.
A Comparison.

Having received my University education in England, having travelled widely in Europe and America and seen the working of the different Universities in the West, and having been a teacher in the three Government First Grade Colleges in this Presidency for more than fifteen years, I am in a position to compare the average Indian graduate with the average English graduate, and the comparison is by no means unfavourable to the former. That the standard of knowledge represented by our Indian examinations is not to be despised will be easily seen from the remarkable success that attends our young men when they go to Oxford or Cambridge to compete with the picked young men of England with all their superior advantages, due to enlightened homes and stimulating social environments. I fully admit that an English graduate is superior to an Indian graduate in general information; in what Matthew Arnold calls "openness to ideas," which is culture; in the ease with which he brings his knowledge to bear upon the different activities of life, and in other things that make him more useful as a member of society; but these excellences are due not so much to his University education as to other influences which supplement the training he receives in the Colleges.

I shall not touch upon the moral effects of higher education. Though higher education must not be regarded as the main factor affecting the inner life of the people, still the evidence that the Education Commission was able to obtain has proved beyond doubt that Western education is yielding fruit in rectitude of conduct, zeal in the performance of duty, and in a higher standard of public morality.

The real defects of University Education.

There are, however, in my opinion, certain real defects in our Indian University system. The foremost defect seems to be the absence of freedom and elasticity, which prevents the teacher and the student from striking out new and independent lines. Everything is made to conform to a rigid system of examinations which are governed by a rigid system of syllabuses. The University binds fast the hands of the teacher and of the pupil, prescribing not only an arbitrary and multifarious group of subjects, but the actual text-books that should be taught in each. In England the public schools are allowed to develop along different lines, so that we find one school excelling in Classics, another in Mathematics, another in Science, another in Modern languages and so on; and this is possible because each school chooses to work according to different standards and different ideals. Even from the very same school pupils can appear for different examinations such as the London Matriculation, or the Oxford and Cambridge Local, or for the diploma of the College of Preceptors, &c. This is what I would like to see in India. I should like to see some high schools work for the London Matriculation, others for the Oxford and Cambridge Senior Local. The Madras University should recognize the examinations of other bodies corresponding to the Matriculation. I fear that in this matter of recognizing the examinations of other Universities the Madras University has followed neither a wise nor a liberal policy. This is a matter which, I trust, will engage the attention of the University Commission. This spirit of exclusiveness is again an indication of the policy of rigidity I have referred to above.

I am not sure whether the time has not come for us to consider whether the Matriculation Examination should not be superseded by some test less rigid and giving greater scope for freedom in the curricula. If the Government is going to institute a School Final Examination, it would not be worth while having another examination. If the Final School Examination is conducted by Inspecting officers it will be sufficiently elastic in its scope, and it may be substituted for the Matriculation. As it is, the Matriculation examination has become unwieldy, and the difficulty of ensuring the secrecy of the question papers within recent years has led to its being also discredited. The varying nature of the standard not only from year to year but also between one section of the candidates and another, according as their answer papers go to different examiners, has also contributed to make this examination very unpopular.
Necessity for Honour and Ordinary Courses.

In order to make the courses for the higher examinations less rigid, I am strongly of opinion that the introduction of Honour and Ordinary courses for the B.A. degree is absolutely necessary. I am speaking with special reference to the Madras University; for some of the other Universities have already adopted this plan in some form or another. Some of the most eminent educationists in India are at one on this point (vide the article on "Universities: Actual and Ideal" in the Calcutta Review, October 1896; also Professor Selby's article in East and West, October 1901). The recognition of the distinction between the clever and the ordinary student, and the providing of separate courses of study for them, form two of the chief characteristics of Universities in the West, and it is this that has tended to the very best intellectual results. "If you take the ablest and least able of our Indian under-graduates and lump them all together in one class and proceed to lecture to them collectively, you must either fritter away the time of the more intelligent, by regulating your teaching by the capacity of the duller witted, or else you must be content to leave the slower minds behind entirely with the result of rendering their attendance in the classroom superfluous. In all probability if you have to face the problem practically, in the endeavour to strike a happy medium, you more or less fall into both errors, and at one and the same time succeed in boring your cleverer pupils and in effectually bewildering the more stupid." And, as unfortunately, in India, the merit of a professor is measured by the percentage of students he passes, the Indian school-master directs his attention more to the students of mediocre capacity than to the few really clever scholars he has. The Pioneer gave expression to an educational fact when it said: "In India the reputation of a College depends on its success in passing fools." I, therefore, think that one of the most urgent reforms needed in the Madras University is—and from what Professor Selby says in East and West this would seem to be the need of Bombay too—a limited Pass course for average ability and an Honour course of quite a different kind for superior ability.

In making this proposal I am fully aware of the practical difficulty that will have to be met by Colleges in providing the additional staff necessary for teaching several additional courses. But this difficulty should be no excuse for our University continuing the present unsatisfactory system. It is the University that must set up an ideal for the Colleges to follow. Moreover, the practical difficulty itself would be lessened considerably by allowing each College to concentrate its energies and resources on the subjects it is best able to teach.

Lighten the Burden of Examinations.

As a further step necessary for making our University system more elastic, I would suggest the lessening the number of examinations and lightening their burden as well. If the Matriculation is abolished or if a School Final Examination takes its place, I would only have the F.A.—which might be made to correspond to the Previous or Little Go of the Cambridge University—and after that only the B.A. (Pass or Honour). Even the F.A., which I consider to be at present too severe a test—I should like to see made less comprehensive. For the B.A. Honour course I would encourage specialization, and for the pass course I would suggest two groups of subjects—one literary and another leaning to the scientific side, insisting of course on English in both the courses. I am speaking from a wide knowledge of the nature of examinations in European and American Universities, when I say that our examinations are far too comprehensive, as regards the mass and variety of matter taken up, and consequently far too severe. A great deal has been said about cramming; but surely when we burden our students with these examinations, hardly giving them any time to digest and assimilate what they learn; when we force young men of ordinary attainments into the same groove, which we expect the cleverest young men also to go through, and then complain of "cramming," we are acting most illogically. With "H. R. J." in the Calcutta Review, I would advocate strongly the long vacation which is a well-known feature of Oxford and Cambridge. If no leisure be given to the mind to think, to understand and co-ordinate the knowledge it receives, a kind of mental dyspepsia is induced, and education
fails in its most important function, the cultivation of a vigorous intellect. The long vacation should be made an integral part of the University students' work.

Specialize! Specialize!! Specialize!!!

The absence of facilities for specialization for the brighter classes of Indian students with diverse capacities and natural differences in tastes is also one of the greatest drawbacks in the present system. Specialization of study, the concentration of the intellect upon particular branches of knowledge—this is the chief feature of higher education in England; and, strange to say, this is the very feature that is lost sight of in University education in India. One of the chief functions of a University is to enable young men to follow that line of study systematically to which their aptitudes direct them, under first-rate instruction; but when the brightest young men are made to plod on with the dullest in getting up a multitude of subjects, which have no connection with each other, in each of which they are required to get a minimum to pass, we should not be surprised at the barrenness of results. I feel very strongly on this subject of specialization, for in the encouragement of this lies the future intellectual hope of India.

Reform in the Constitution of the University.

My personal experience as a Professor has naturally led me to dwell more on the subject of reform in the curricula of studies, but I have also a few words to say on the subject of reform in the constitution of the governing body of the University. The Senate, as it is constituted at present, is, I am afraid, a very unwieldy body. I am not against the exclusion of the non-educational element of the Senate. So far as my experience of the Madras Senate is concerned, the presence of the non-educational element is that which has chiefly maintained the spirit of independence and freedom of speech; but, at the same time, the inclusion of men, who take little or no interest in education, who do not attend its meetings regularly, even when they are residents of the city, and who have no academic culture, is a great anomaly; and the sooner such an element is eliminated the better it will be for the University. The distinction of Fellowship owing to the indiscriminate way it has been conferred, has come to be regarded as some complimentary title of distinction identical with that of B. A. or of Dewan Bahadur. The Senate, moreover, seems to have very little to do with the actual governing of the University; whilst the Syndicate, composed of eight members, has somehow come to have thrown on its shoulders the whole burden of the actual working of the machinery. The opinion is general that too much of the responsibility of the work of governing the University rests upon the Syndicate and too little upon the Senate; and hence the feeling of irritation that manifests itself so often in the Madras Senate regarding the usurpation of powers by the Syndicate. I understand that in Allahabad, the Director of Public Instruction and the Principals of all the more important Colleges have seats ex officio on the Syndicate, and most of the Professors belong to the Faculty of Arts, the numbers of which are restricted so as to make it a genuine body of professional experts. I should like to see the Syndicate enlarged and the Senate at the same time given a more prominent part even in the executive work of the University.

The different Boards of Studies are doing very little at present and they should also be utilized to a greater extent than hitherto. I do not think that there are any more competent bodies than these Boards of Studies for recommending examiners to the University.

The University and the Affiliated Colleges.

The bond between the University and the Affiliated Colleges should be made closer, by the appointment of Principals of First and Second Grade Colleges in 1880—2
leges, as *ex-officio* members of the Senate. I am of course for concentrating the First Grade colleges in the leading cities, but flourishing Second Grade colleges may remain where they are. The rules of affiliation recently passed by the Senate, I am afraid, are more honored in the breach than in the observance. In order to ensure the closer connection between the University and the Colleges, these rules should be strictly enforced, and for this the appointment of a visiting officer is desirable. The Registrar may be deputed to do this work as he has so little to do during the time examinations are not going on. The post of Assistant Registrar should be revived.

**Is a Teaching University Possible?**

The question of a Teaching University is a very wide one. The example of London cannot be brought forward as an analogy; for, so long as the interests of existing Colleges in South India are so divergent—we have, for example, the Government *versus* the aided College, and the aided Missionary *versus* the aided Native—it would be impossible to unite the existing Colleges on a common teaching basis; but I do not see why there should not be established University Lectureships in the higher branches of study, the lecturers being chosen by the University from the leading Colleges. This will be not only a beginning in the direction of a Teaching University, but will also help to strengthen the bond between the University and Affiliated Colleges.

**University Examinations and the Public Service.**

In conclusion, I should like to say a word about University Examinations serving as qualifying tests for the Public service. It is the opinion of some that the time has come for severing the present bond between the University and the Public service. I think this would be a very serious mistake indeed. The evidence that was taken by the Education Commission, in 1882, was unanimous in the opinion that the higher tone of the Public service was entirely due to University men being admitted into the service. With all its imperfections the University standard of general qualification, as shown by the graduate, has proved of the highest value to the Government. If the University test of general qualification is given up, the Government will have to devise another test; and I do not think that any test that Government may devise will be superior to the University test. As it is, the Government requires even graduates to qualify specially for separate branches of its service, but as a general qualifying examination, the examination for the B.A. degree will always stand unrivalled. The Pass degree, I have suggested, may be made specially suited as a qualifying general test for entrance to the Public service.
"That it is desirable to enlarge the powers of the University so as to render the same capable of being a teaching and not merely an examining body."

In the absence of University Professors who are expected to make original research in their respective branches of study and to advance knowledge of all kinds, the teaching in Colleges is likely to become lifeless, and the Professors or Tutors of Colleges would have a tendency to become mere expounders of textbooks. The teaching of University Professors would set a standard of original research, besides that of fullness and accuracy, such as would stimulate the exertions and arouse the emulation of College tutors and lecturers. The time is come when the Indian Universities should become teaching as well as examining bodies. The influence of the University Professors would naturally be felt most at the seat of the University, but would extend more or less to the mofussil Colleges also. The large cash balances at the disposal of the University of Madras cannot be better used than in paying Professors of established reputation to deliver courses of lectures open to all students of the University. The Professors should be perfectly free to choose their own subject or mode of treatment. The establishment of a large Library open to all members of the University is a need that must be supplied, if the University is to fulfil its functions as a teaching body.

II.

"That suitable regulations should be made for the election of Fellows."

I would submit for consideration some such rules for the appointment of Fellows as the following:

(a) All persons for the time being holding such offices under the Government as the Local Government may specify by notification. (The list of such ex-officio Fellows should include (1) the heads of three First Grade Arts Colleges in the city of Madras, (2) the heads of three First Grade Arts Colleges in the mofussil, (3) the heads of the Government Colleges of Law, Medicine and Engineering at Madras, (4) the Director of Public Instruction of Madras, the Inspector of Schools, Central Circle, the heads of the Educational Departments of Mysore, Hyderabad and Travancore.)

(b) Persons whom the Chancellor may from time to time appoint by name as being benefactors of the University or persons distinguished for attainments in Literature, Science and Arts, or for services to the cause of education.

(c) Two persons who shall each be nominated by two Fellows and elected by the votes of graduates of the University of not less than ten years' standing.

(d) Such other persons as may be proposed by two Fellows and elected by the Senate of the University.

Provided that the total number appointed under sections (c) and (d) shall not together exceed the number of those appointed in any year by the Chancellor under section (b)."

III.

"That the constitution and powers of the Syndicate should be placed on a statutory basis."

I would increase the number of members of the Syndicate of the Madras University to twenty, of whom the Vice-Chancellor will be ex-officio President,
three will be heads of First Grade Arts Colleges in Madras to be named specifically, three heads of First Grade Arts Colleges in the mofussil within about twelve hours' railway journey from Madras to be appointed by the Chancellor, three elected by the Faculty of Medicine, three elected by the Faculty of Law, three elected by the Faculty of Engineering, and four elected by the Senate after the results of the previously named elections are known.

The University should pay the travelling expenses of such members of the Syndicate as do not reside in Madras.

The duties and powers of the Syndicate may be defined by statute, but it should remain subordinate and be responsible to the Senate as the Executive Committee of the Senate.

IV.

"That the University should be empowered and encouraged to exercise a closer supervision than is at present possible over affiliated Colleges with a view to the maintenance of the standard of teaching and discipline in such Colleges."

I submit that the University should be empowered to appoint Proctors, whose chief duties should be to help in looking after the conduct and maintaining the discipline of students in the Colleges of Madras, and to see by periodical visits that similar duties are satisfactorily performed by officers to be called Pro-Proctors appointed for each of the First Grade Colleges in the mofussil, who should be subordinate to the Proctors. It should be one of the conditions of affiliation that every First Grade College should maintain one or more Pro-Proctors. It should also be a condition of affiliation that every First Grade College should maintain one or more hostels in which students not residing with their parents or guardians should be compelled to lodge. These hostels should be placed not only under paid managers or superintendents, but also under one or more resident tutors, who should reside in the hostels or in their close neighbourhood, and whose duty it should be to supervise the conduct of the students residing in the hostels, to watch over the sanitary and other arrangements made for the comforts of the students, and to guide the students by their advice in all matters relating to social life in the hostels.

Hostels may be supplemented by licensed lodging houses that satisfy the conditions of sanitary arrangements and wholesome discipline, the Pro-Proctors being made responsible to a certain extent for the public conduct of students outside the hostels and lodging houses, and being invested with a certain amount of authority over both hostels and lodging houses.

The Principal and Professors of a First Grade College should be provided with residential quarters close to the College and its hostel, and they should consider it a part of their duties to mix with the students as far as possible out of the lecture room, on the play ground, in literary or debating societies, and in occasional reunions. The honour of attending a social gathering at the house of the Principal or a Professor should be extended to the senior students and all Fellow-Commoners when the latter class comes into existence. At such gatherings an insight should be given into the pure and refined home life of English gentlemen and ladies, the ladies especially contributing largely to the pleasures and elevating influences of such gatherings. The Principal and Professors should be imbued with an enthusiastic desire of cultivating intimate acquaintance with their pupils, of drawing out what is best in the Indian character, of repressing and rebuking sternly all tendencies to meanness and untruthfulness, of supplementing the milder virtues of obedience, modesty and gratefulness in their students by the sterner qualities of manliness, perfect candour, moral courage and self-respect which characterise an English gentleman. I lay great stress on the necessity and usefulness of intercourse out of the lecture room between Professors and students. By such intercourse the Professors could get an insight into the character of the students which no amount of contact in the lecture room alone can give, while the most promising youth of the country would have an opportunity, which is rare in after-life except in the Presidency-towns, of understanding the character of English gentlemen, and appreciating and imitating their many virtues in which they themselves are deficient. In making
such intercourse fruitful of the best results, it is hardly necessary to state that
great care should be taken in selecting Professors of lofty aims and character,
who should be incapable of stooping to mean acts or language, to ungenerous
and narrow-minded criticisms of rival colleges or teachers, or of public men and
their motives. The facilities afforded to the best youth of India of understand­
ing the character of their rulers at the most impressionable period of their life­
time, as well as to the Professors to study the character of Indian youth with all
its limitations and deficiencies as well as its characteristic points of excellence,
cannot but be of supreme importance to both the rulers and the ruled in India.
I believe that in founding the Aligarh College and making it a self-contained
colony, it was one of Sir Syed Ahmed's aims to bring about a close intercourse
between the European Professors and Muhammadan pupils, which, so far as I
know, has produced the happiest results in elevating the character of the Aligarh
boys and in enabling a band of enthusiastic English teachers to understand the
merits and deficiencies of the character of young Muhammadans.

For the maintenance of a high standard of teaching, the best graduates of
Oxford and Cambridge who have had previous experience in teaching in England
should be employed as Principals and Professors as far as possible. At present the
great defect in most of the Arts Colleges is the small number of Professors, who
find it impossible to bestow individual attention on their pupils. Essay-writing
has been too often neglected or perfunctorily attended to. It is not possible for
the Professor of English to examine all the weekly essays of more than one class.
Other Professors might help in correcting the essays of the remaining classes.
The number of English Professors should, however, be increased and their work
should be shared by Fellows and Tutors. The best graduates of each College
should be appointed Fellows for three to five years after they take their degree.
They should hold their Fellowships on condition of continuing their studies for
the M.A. Degree Examination and also helping in the teaching of the F.A.
classes, especially the Junior F.A. class. They should not be overburdened
with teaching work. About five lectures a week and the correcting of the
essays of the Junior and Senior F.A. classes should be all that should be
expected of them. At the same time they should receive guidance and help
in their own studies. The system of Fellowships has worked satisfactorily in
Bombay, but the number of Fellowships attached to each College is small.
If a sufficient number of Fellows are attached to each College, the tutorial
system may be adopted, and each student, especially in the first two years of
study after Matriculation, may be attached to a tutor who would guide him in
his studies and look after his conduct and character. If tutorial fees apart from
college fees are charged, the tutorial fees would pay for the Fellowships. For
the B.A. classes the Professors of the College should as far as possible perform
tutorial duties.

Another condition of affiliation should be the existence of a playground
attached to the College and a Gymnasium and of clubs for out-door sports. The
formation of literary, historical and debating societies under the guidance of the
Professors should also be a condition of affiliation.

Another direction in which the discipline and social life of a College can
be improved is the institution of a class of Fellow-Commoners. There are at
present students of several communities like Parsis, Jews, Muhammadans,
Native Christians, &c., who have little or no objection to dine together. For
these, if they pay adequate fees, a common dining hall with residential rooms
close to the College lecture rooms and library may be provided. They would
really take the place of Commoners in English Colleges, but would be distinguish­
ed from the students residing in the hostels and lodging houses. One College
at least in every Presidency-town should provide accommodation for this superior
class of Commoners.

A weekly moral discourse on the plan of Mr. Chester Macnaghten's
lectures may be organised for the benefit of all students.

The number of lectures a week for the B.A. classes should not exceed 15
and that for the F.A. classes 20. Students should be made to rely more on their
own work than the notes of their Professors. No Professor teaching the B.A.
and M.A. classes should lecture for more than ten hours a week.
I would prefer a smaller number of well-equipped and well-managed First Grade Colleges to the present number. The greater part of the increased cost of an improved system of higher education must necessarily fall on the Government in India, where endowments are small and rare. Increased expenditure, however, from the State funds on higher education is from every point of view justifiable. At the same time the rates of fees should be raised in Colleges which afford special advantages and conveniences. Even at the risk of diminishing the number of College students I would improve the standard of teaching and discipline.

V.

"That there is a tendency of University Examinations to lower the aims and pervert the methods of education in Colleges, and that the courses of study now prescribed should therefore be passed under review."

The first change necessary seems to me to render the F.A. Examination a more efficient test of the knowledge of English, by increasing the severity of the English portion of the Examination, prescribing modern English works for study and setting a three-hour essay paper, and another in paraphrase, letter-writing and translation. Every candidate should pass in each of the two last-named papers separately. In the essay paper half the total marks should be assigned to correct grammar and idiom, and no credit should be given to a candidate who fails to obtain one-third of the marks allotted for correct grammar and idiom.

After the F.A. Examination I would have one course for the ordinary B.A. Degree and another for the Honours Degree. The course for the ordinary B.A. Degree should give a wide choice of subjects, so that students of ordinary abilities may not find it difficult to suit themselves. One or two Colleges at the Presidency-town at least may teach only for the Honours course. I would not have minute syllabuses for the different subjects, as they lessen the freedom of teaching and encourage cram, but only general descriptions of subjects and lists of authors recommended. Original thought and freedom of learning should be encouraged as much as possible. In the Honours course I would not have English and a Second language compulsory for all candidates as at present, but allow candidates to pass in one branch alone, English and a Classical language being prescribed as the sixth branch in addition to the present five branches.

The summer vacation should last for not less than nine weeks and may extend to three months. The University Examinations should be held in the month of November, so that Colleges may resume full work immediately after Christmas.

The teaching of old Vernacular literature by Pandits for the University Examinations has always appeared to me of very doubtful utility. I would substitute a classical language and literature for a vernacular language and literature wherever the latter are prescribed.

H. J. BHABHA,
Inspector-General of Education in Mysore.

Bangalore, 16th February, 1902.
Mr. L. D. SWAMIKANNU PILLAI, M.A., B.L. (Madras), LL.B. (London).

Written statement submitted before the Indian Universities' Commission on the 25th February, 1902.

I am not now directly engaged in educational work, though I was a lecturer for five years, i.e. from 1883—1887, at St. Joseph's College, Trichinopoly. I have served as an Examiner to the University for several years in Latin and more recently in French. I have been a Fellow of the University for two years. Moreover, in my official capacity I see a good deal of our graduates after they have taken their degrees and entered the public offices.

2. As one of the few Indian graduates of the University who have taken an advanced degree in Latin and one of the still smaller number who know French, I wish to bring to the notice of the Commission the desirability of encouraging linguistic studies as a regular part of the University course. It is not at present open to a student to bring up more than a single language besides English at the Matriculation, F.A., or B.A. Examination. He might no doubt spend an extra year at College and pass the B.A. Degree Examination in a third language: but few students can afford to do this. Even the study of a single second language, supposing it happens to be Latin or Greek, is not carried to the requisite standard of proficiency. Owing to the circumstance that Latin and Greek are not accorded a higher place than Tamil or Telugu as second languages, those students who have selected either of the classical languages devote to it about as much time as and not more than others who have selected Tamil or Telugu give to either of those languages.

The result is that in the few cases where Latin is studied—Greek is not studied at all except by one or two occasionally—the level of attainment is very low; and as only one of the classical languages can be studied for the B.A. Degree, there are properly speaking no classical studies for Literae Humaniores in this University in the sense in which these expressions are understood in Europe. The older Universities of Great Britain as well as the University of London have made adequate provision for those students who wish to obtain a thorough knowledge of the classical languages, and it is also open to the ex-students of those Universities to prosecute simultaneously a study of the classical and of two or three of the modern languages of Europe. There are obvious and decided advantages in such a combination. It is a well known fact that some students who display a considerable taste for language studies possess none for, nay evince the greatest possible aversion to, Mathematics for instance. Nor is this feeling peculiar to a section of the Indian student-population, it being a well known fact that many scholars and men of culture in all countries find themselves in the same predicament. There is no reason why the University of Madras should not, like the London University, make separate provision for this description of students, just as it has done for students with a decidedly mathematical or scientific turn of mind.

3. If separate provision is made for language-studies in the B.A. curriculum, the F.A curriculum also will need to be modified somewhat in the same direction. A student who takes up two, three or four languages for the B.A. Degree in addition to English cannot make a complete study of them in the two years allowed him after the F.A. Examination. He must commence his study of all the languages some time before he matriculates and he must pursue these studies concurrently after Matriculation. If he does this, he can have little time for any severe mathematical study after Matriculation, and supposing such a study is forced on him against his inclination, very little good will result from it. In the London University, a student for the Intermediate
Examination in Arts who takes up English, Latin or Greek and another language besides is only required to study in addition *either* Mathematics or Logic. For the B.A. Degree Examination in the same University, such a student is expected to confine himself to four languages at most and is not required, perhaps he is not expected, to bring up Logic, Mathematics or Natural Science. These regulations are very reasonable and something similar should be provided for in the Madras University. I think also provision should be made for Honours Examinations in Languages as well as in Mathematics and Natural Science. The present M.A. Examination will be a suitable Honours Examination if it is made possible to carry on to that Examination the same description of language study as I have recommended for the B.A. Degree Examination.

4. It has been said that Tamil and Telugu rank equally in the public estimation with the classical languages and also that English ought to be the only classical language for India. With all respect for such opinions I must say that the mental discipline, which is the most valuable result of a good classical education, is not a part or a necessary feature of the study of the Dravidian languages as at present prescribed. As regards English, although a careful study of it is by itself a no inconsiderable half of a liberal education, still even to perfect this study, if for no other purpose, a knowledge of the classical languages is essential. I have heard it repeatedly said that Indians are not capable of entering thoroughly into the spirit of English Literature or of expounding it properly to their countrymen because of their lack of classical knowledge, and I wish this want was attended to more than it is in the regulation of our University studies. Another consideration pertinent to the present subject is that it is desirable to have at least as many graduates well equipped for the prosecution of original research in the department of languages—a field of vast interest at the present moment and particularly in this country—as there are graduates equipped for research in Mathematics, Physical Science and Natural History.

To equalize to some extent the labour entailed by the study of second languages, I would recommend that a student electing to be examined for B.A. in any of the Dravidian languages should be required to bring up two of them. At present a student bringing up a single vernacular, generally his own, secures a comparatively easy pass and has an undue advantage over a student who takes up a classical language. If two vernaculars were taken, there would be a guarantee that at least one language other than his mother-tongue was studied by each candidate. Such a combination would also be useful to persons intending to enter the Public Service, for the higher posts of which a knowledge of two vernaculars is usually considered necessary.

To sum up: in the first place the present second language is wedged in somewhat awkwardly into the scheme of the B.A. Degree Examination. Only one language can be taken at a time, whether it happens to be a vernacular or a classical language; but even this single language is not studied sufficiently owing to the fact that more time has necessarily to be devoted to English and the selected Science. The greatest defect in the present scheme, however, so far as the second language is concerned, is that a student wishing to combine Latin with Greek, or both with one or two modern languages—combinations which are allowed everywhere in Europe and are very desirable in this country—may not at present do so. I would therefore recommend that greater latitude be allowed than is done at present in the selection of second languages for the Degree Examination. Secondly, I consider that students taking up a second language should have less of Science, and that the portion of the present Science groups to be studied by them should be regulated with reference to the extra linguistic study imposed on them. Students taking up a sufficient number of languages in addition to English—three, if no vernacular is included, and four, if vernaculars are included, of which there must then be at least two—might be exempted altogether, as they would be in the London University, from bringing up any Science subject. Again, a student bringing up English and no other language might be required to take up in addition either one of the advanced Science groups in the curriculum proposed by the B.S.C. Committee, or an analogous group in the subjects of History, Philosophy and Economics.
In this connection I would suggest that the opportunity be taken to pre­
scribe for the Degree Examination a higher standard of English than at present
and to require candidates to show their acquaintance at first hand with the
productions of at least one of the great periods of modern English Literature.
The present standard in English Literature is not satisfactory. It is generally
understood to mean the study of a text book of English Literature with selected
specimens of English authors, which latter are studied much in the same way
both for the F.A. and for the B.A. Examinations, i.e. with the help of notes,
standard commentaries, &c., but without any intelligent attempt to grasp the
relation of an author to his period and his position in literature. No change
has been made for over twenty years in the standard prescribed in English
Literature for the B.A. Examination.

With more of English it should be feasible, without lowering the B.A.
standard, to dispense with the present unsatisfactory test in a second language
as a necessary part of the B.A. Degree Examination.

L. D. SWAMIKANNU.
UNIVERSITY COMMISSION.

Omissions.

[N.B.—Travancore view = those of the Travancore Professors generally.]

Meetings of Senate.—Larger number of statutory meetings to be held at times convenient to the majority of the Fellows, e.g., in vacations. Agree with Stone— vexatious adjournments. Morning meetings should be held on Saturdays. As few as possible exceptional meetings.

University Teaching.—Selection of text-books, methods—Examining.

Law.—Text-books often unsatisfactory, e.g., Moyle’s Justinian, trans. plus the notes. Notes mainly Latin, students ignorant of Latin. Hence unnecessary and inaccurate quotations.

F.L. (say 1897) : “Mancipatio [omne quod geritur per aec et libram]” is put in F.L. paper

“Omne quo geritur per eas et librum.”

Too ambitious a course: ignorance of students.

B.L. (say 1897 or 1898) in Real Property:

“Feudalism was introduced by William the Conqueror in the year” 1100 and something “at a time when there was a fear of a Dutch invasion.”

L.T.—Text-books employed often quite insufficient. Students seldom show thorough reading.


Practical. Much better and really useful, though standard maintained is too low for a teacher’s degree. Cf. Leipzig.

Large numbers, say two-thirds, of those who pass the theoretical fail to pass practical. Some candidates are old friends and come up over and over again. They might be stopped for some years. Percentages here too.

University teaching and examining continued.—Standard in different branches very unequal.

Arts—M.A. and B.A. English:

M.A. 5 or 6 candidates. No attempt to deal with questions on literary criticism: no guidance in reading: too little work.

B.A. 915 candidates. Disparity implies (1) lack of interest.

(2) lack of knowledge.

B.A. English students clearly unfit for the work and shockingly unprepared. Most of them should not have passed the F.A., some should not have passed Matriculation. About 50 per cent. ploughed: too lenient on the papers.

Scott: Bride of Lammermoor.—Easy paper. Scot; Ravenswood spelt Ravenshood frequently; Dalrymple spelt Darlymple by a large number of students. Craigengelt spelt Craigengull!!

General spelling very bad, sequence of tenses almost always wrong, writing bad and sometimes dirty.

General poverty of ideas and lack of understanding.

Superficial area rather than depth. Don’t intend to examine again in English.

Method of teaching apparently bad or classes too big and students of too low a standard. The best students can generally work for themselves. Scott’s novels not always suitable: dialect takes too much time as compared with construction. Why not Thackeray; if novels at all?
The standard of answering expected in English Composition should be very considerably raised, and no one who cannot write simple but good idiomatic English should pass, however much he gets in texts. Lower proportionate marks should be allowed to text-books, notes on which are often crammed.

**Classical Languages.**—Latin, Greek, Sanskrit, etc.

Scope and standard of examination in Latin and in Sanskrit generally believed very low, especially in Sanskrit. Cf. pass percentages. Difficulty of getting a really good pandit to teach under western conditions—his puja; sometimes knows English and even English books and other European languages, but is ashamed of his pronunciation.

Pandits beginning to apply western methods. Little demand for really advanced work and no encouragement. Sanskrit colleges, temples, mutts, etc., should be encouraged or made to do their duty.

Greek excellent if it is studied.

Boards of Studies will not even prescribe good translations of Greek classics as English texts.

Classical languages should be alternative to Science or to English, i.e., any two of present three branches quite enough if the standard be raised.

M.A. to be considerably raised in standard in these languages.

**Vernaculars.**—

B.A. examination standard very low. Cf. pass percentages. Neither useful intellectually or morally or in every day life. Unsuitable and uninteresting to B.A. students, who always try to avoid the vernacular hour. Think they are right.

Local Vernacular instruction should certainly stop with F.A. The best graduates and students think so—Travancore College view.

M.A. not to be given in one vernacular, perhaps not in vernacular at all.

In Travancore the V and VI forms of Vernacular High Schools are reading the B.A. Malayalam texts.

**Science Branches**—

Mathematics, Physics and Chemistry.—Short memoranda by Drs. Mitchell and Bishop to come in later.

M.A.—There should be no syllabus but a large choice of subjects, and in subjects presented the candidates should be liable for everything known on the subject, anyhow for everything published in English.


B.A.—Mathematics.—Standard of teaching not up to standard of examining: meaning of mathematical expressions not brought out: more book-work and problems.

Physics.—Standard both of teaching and examining low—mainly book-work; candidates often show gross ignorance even of the elements of the subject, especially in cases where knowledge of apparatus is needed. Why?

Chemistry.—Standard of both high, but Board of Examiners small and has men of very different views. Madras and Trivandrum. Difficulty of getting more men of the proper kind.

Mental and Moral Science.—Standard of this subject believed to be the lowest of all science branches, both in teaching and examining, though the subject is peculiarly attractive to Hindu students.

F.A.—General defects. Why?

History and Economics.—Teaching and examining fairly satisfactory for B.A., but quite unsatisfactory for M.A., particularly bad in Indian History.

M.A.—Few of the examiners are really specialists and few of them make up the authorities sufficiently. Some examiners do not seem to have read even such authorities as can now be had in English. Some times examiners are put
on the Board though they have not high enough academic qualifications or adequate knowledge to enable them to set papers that would bring out a good candidate's reading and grasp of the subject. Questions set sometimes show lack of knowledge of the period, or lack of judgment in examining. No specialists for the dissertation.

Still the degree is a good one and corresponds roughly to an honours degree at a good university at home. Requires a dissertation showing original work. Dissertations vary greatly in quality. Students generally pass in third class.

Not yet enough opening in college education to induce first-class B.A.'s to study for M.A. They prefer the Law or the Provincial or Indian Civil Service. Salaries offered are not enough for good Hindu scholars.

Am opposed to regular lecturing for the M.A. until the inter-collegiate system has been working for some time for fear of lowering the standard.

What is needed is more life in the Board of Studies, so that students may get the best books prescribed and some suggestions as to further reading.

Books set in Economics show either ignorance or a strange lack of judgment, or a desire to lower the standard. There are several good economists in Madras City, so there is no excuse for the subject not being duly represented on the Board of Studies. It is doubtful whether any member of the Board has a European or good Indian qualification in Economics. Why is this?

Hindu students if properly taught show a quite remarkable interest in Economics, and have often an excellent grasp of the subject in the B.A. classes. In the M.A. papers the knowledge and grasp of candidates are often inferior to those of B.A. candidates.

Good libraries most important.

**B.A.**—An excellent course fairly well taught, but needs improvements, *e.g.*,
- Shorter periods and a higher standard in European History,
- An up-to-date syllabus in Economics,
- Do, do in Political Science,
- Proper use of authorities available in English,
- Much more attention to Indian History.

A I class in History and English can get a I in the History Tripos two years later at Cambridge.

**B.A. Examinations.**—In general, the I class level is good enough, but the III class is much too low in standard. A I class B.A. is usually far above a III class M.A. both in knowledge and power, II class unsatisfactory being variable. Sometimes only two pass in the I class, sometimes 6 out of 200, probably owing to variation of standard. Standard has steadily risen, especially in Economics and Political Science since 1895, or 1896, owing to strength of Board of Examiners. Doubtful whether this is being maintained. Not enough attention paid to qualifications of examiners. Dangers of patronage in the hands of a Syndicate on which the subject is not represented, or the feeling may arise that the standard should be lowered.

Conflict of interests apt to impair efficiency of examinations. Few specialists on the syndicate.

Many men take examinerships only from—

1. a sense of duty;
2. a sense of poverty.

Salary of a European honours graduate professor in Southern India about Rs 350 to Rs 400 in Native colleges, usually slightly higher in Mission colleges. Work of examining very thankless drudgery. English examining the heaviest in amount, and if properly done—which is doubtful—the most difficult and the dullest.

In favour of more sub-division of papers.
F.A.—Examination excellent in scope but very unsatisfactory in standard, owing probably to—

(1) low standard of F.A. teaching;
(2) great difference in capacity and acquirements of F.A. students;
(3) large numbers entering;
(4) division of answer books in one subject among several examiners, with often great difference in personal estimate, e.g.,—

F.A. History, 1897, December.

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<tr>
<th>Name</th>
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<tr>
<td>Allen (Presidency College)</td>
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<tr>
<td>Lepper (Pachaiyappa’s College)</td>
<td>49:3</td>
</tr>
<tr>
<td>Sturge (His Highness the Nizam’s)</td>
<td>33:9 but said to have been specially lenient believing paper difficult in consideration of nature of text-books prescribed.</td>
</tr>
<tr>
<td>Kellet (Christian College)</td>
<td>32:9 (good centres).</td>
</tr>
<tr>
<td>Nelson (Law College)</td>
<td>21:3 (&quot; ).</td>
</tr>
<tr>
<td>Morrison (Court of Wards)</td>
<td>11:9 (Specialist in Economics).</td>
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Eventually by a considerable levelling up and levelling down the personal equation was to some extent eliminated, but Allen and Lepper were both averse to altering their marks and only did so after a meeting of the Board.

The Chairman (Kellet) one of the most efficient in the university.

(5) Division of passed candidates into two classes insufficient; should be divided into three at least, and those passing in lowest class not allowed to proceed to B.A., but made eligible for Government posts.

(a) Trigonometry only might be dropped.

(b) Scope of the classical and vernacular languages widened, so that vernacular education may stop here.

(c) Quality of English composition improved and mark value of it raised as compared with text-book, no candidate to pass unless he can spell all ordinary English words, including proper names in his different subjects, and write grammatical English.

(d) Better answering in other subjects required.

A considerable number of students pass the F.A. who are unfit for B.A. work and are quite unscholarly in mind.

Matriculation.—General course and scope good, but standard of answering very low.

About 12 per cent. off the passed Matriculates are found unfit for the F.A. classes. Shows all the evils of wholesale examinations in India.

Standard in English composition should be considerably raised, and raised too in all other subjects but to a less degree.

The aim should be not so much to add more to the subjects prescribed, but to insist upon a more real knowledge of what is already prescribed.

A question of securing efficiency in High Schools: Matriculation cannot possibly be left to separate colleges without lowering F.A. classes, still further conflict of interests here: those who want souls to save, and those who want minds to develop.
Selection examinations a grave scandal. True remedy already suggested in part—strict promotions, Government or District Examination for IV form, and careful inspection of High Schools.

Passed candidates to be divided into three classes under same conditions as F.A.

Approve of such an age-limit as sixteen, though it might be slightly difficult to enforce. Students often try to make out they are younger, but seldom older than they are, e.g., for junior foot-ball matches.

Ages can be traced in registers.

Answer on "Edmund Burke."

Theology.—We are not far enough for Comparative Theology. Comparisons, in present circumstances, would be more than usually odious.

Affiliated Colleges.—Desire examination at length on paragraph 13 particularly on—

(1) the general nature of the students of the Madras University and the value of their education;

(2) the nature and peculiarities of Native endowed colleges and prospects and methods of improvement;

(3) the fee question.

On these matters, particularly (2) and (3) can supply the Commission with the results of special experience likely to be of material importance.

R. S. LEPPER.
NOTE

BY

MR. R. S. LEPPER,

PROFESSOR, TRIVANDRUM COLLEGE, TRAVANCORE.

CALCUTTA:

OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA.

1902.
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1. AFFILIATION AND RECOGNITION RULES.

Do the present affiliation rules secure that colleges are up to the mark when admitted?

I am not sure that they do, though much depends on how they are interpreted. There are several things on which the rules should insist, e.g.—

1. That the Governing Body of the proposed institution is competent to manage it on sound educational lines and is not irresponsible;
2. That the salaries and treatment offered to the staff are likely to secure and retain good teachers;
3. That the internal management be left in the hands of the Principal and be not interfered with.

In connexion with this last I would draw attention to the mischievous nature of the new University by-law No. 300, which states that inspection “shall not refer to the internal management of the institution, which shall be left to the discretion of the responsible authority,” without defining who this “responsible authority” is, or in any way securing that it possesses discretion or is fit for its responsibility.

A by-law of this kind operates most perniciously on Aided Native Colleges, whose efficiency is frequently, if not usually, injured by the irresponsibility and incompetence of their managing bodies, and by their vexatious interference in details of administration.

I believe in the form at first proposed the bye-laws provided for the disaffiliation of institutions in which the internal management was not left to the Principal, but that in a select Affiliation Committee of the Senate this most necessary provision was struck out, and the inefficient elements in Native Aided Colleges perpetuated. The nature and composition of this Affiliation Committee might be worth investigation, in view of its effect on these colleges. Action such as this almost makes one believe that some members of the Senate are interested in keeping such colleges as inefficient as possible.

Inspection should, I think, be made obligatory before affiliation is granted, and no new college should be established in the neighbourhood of another. Since the development of railways distance has ceased to matter to the student.

A much higher standard of buildings and equipment should be required, especially in II Grade Colleges where the teaching of Physiology, Physiography and History is often utterly worthless. Books, maps and illustrations are often inadequate.

The University should steadily insist on the employment of specialist teachers in college classes, and should before affiliating a new institution see that the scale of salaries offered is such as will be likely to retain them for some time.

The Department should, as far as possible, enforce the same policy in High School classes. At present History and Geography are usually very badly taught in High Schools, yet I understand there is practically no demand for good History graduates from the managers of schools, though graduates in the literary subjects usually have a better command of English than other graduates. Above all, the Department should refuse recognition to any school that could not guarantee the payment of salaries on a scale approved by the Department, or that made it a practice of dispensing with the services of teachers just before the summer holidays so as to save the holiday pay.

In the opinion of the Travancore Professors “the University should aim at strengthening and developing I Grade Colleges already in existence rather than starting new I Grade Colleges, and at withdrawing affiliation from those that lack stability or efficiency. It should further aim at turning II Grade Colleges into good High Schools, the condition of II Grade Colleges being often very bad.”
That this is no exaggeration may, I think, be seen from the fact that one of the most experienced and successful of II Grade College Principals has told me he considers half the II Grade Colleges not under Government management to be inefficient, i.e. 20 out of 40. I should be inclined to put the figure higher. During the last twenty years there seems to have been the most reckless affiliation of such colleges. One of the best II Grade Colleges in South India has been almost ruined by the utterly needless affiliation of another in the same town.

Do the rules keep affiliated colleges up to the mark?

I think not. Frequent and thorough inspection by specialist Professors of Government Colleges deputed for the purpose would probably be the best way of securing continued and progressive efficiency. The University itself is, however, so much the prey of conflicting interests that I have not much faith in University inspection, and inspection by an ill-qualified amateur or omniscient "educationist" would only make matters worse.

Some colleges have strenuously resisted inspection all along. I think every college should be compulsorily inspected by a board of specialists representing the chief branches of learning taught in the college.

The Department, if properly supported by the Local Government, can do much to secure efficiency by insisting on a high standard of equipment and work, an adequate scale of salaries and pensions, and a maximum number of hours of work in the teacher's day. At present the teaching profession outside Government service is a sweated trade.

Grants should not be given as a rule for the salaries of teachers over 60 years of age, but they should be pensioned off as in Government Colleges.

The University and the Department should withdraw affiliation and grants from all colleges competing unfairly with others either by—

1. touting for students,
2. giving free scholarships recklessly,
3. paying the fees of students privately, or
4. unduly relaxing discipline.

The college accounts should show not only all free scholarships given, but all payments made to students or their families by any member of the staff or managing body, or by the managing body, or by friends of the institution through the staff or managing body. They should clearly show the amount of stipendiary scholarships given. These accounts should be audited by the Department, and if it be found that any institution is either openly or secretly trying to undersell other institutions it should be mended or ended.

Aided colleges efficiently staffed and managed and making a profit should be liberally treated in the matter of grants, and be allowed to fund surpluses till a sufficient endowment is secured, or to invest them in improvements. This would encourage good management and honest book-keeping.

2. GOVERNMENT COLLEGES.

As already stated in my evidence, I consider these colleges usually much better equipped, and often better staffed and better conducted than aided colleges. Their standard of teaching is usually higher, and their teachers are not sweated, though they have quite enough to do if they do it properly. Their system of work and their physical surroundings are good, and they do not tout, or advertise, or take unfair advantage of University or Departmental rules. I say this on five years' experience as Principal of an Aided College in Madras, where I had ample opportunities of comparing Government and Aided Colleges.

Government Colleges in British India.

I believe, however, that these colleges suffer from the following evils:

1. A frequent changing of professors from college to college, or from subject to subject, or from teaching to inspection, to fill leave or furlough vacancies, an evil which could surely be lessened by—

(a) allowing the second in command to act in some cases,
(b) giving each professor one or more specialist assistants capable of acting for him,
(c) greater co-operation between the different parts of India, including perhaps the Native States, where by a few additional specialist teachers should be kept for each subject, and transferred to colleges needing their services temporarily, and a few supernumerary inspectors similarly kept.

II.—The small number of specialist assistant professors.

III.—A difficulty in getting the very best apparatus, chemicals, etc., for the teaching of Natural Science, owing to the Department having to obtain its supplies from certain specified firms only. Government Colleges in Native States consider their chemicals superior to those in some Government Colleges in British India for this reason.

IV.—The underselling of aided Colleges in the matter of fees, scholarships, etc.

These evils are well enough recognised and to some extent inevitable under the present system. But surely it is time the system were bettered. That the colleges of the Indian Government retain their high reputation among the better class of students in spite of these drawbacks and still manage to hold their own on the class lists, is the best proof of their efficiency.

I think it a most short-sighted policy to cramp the energies of Government Colleges till it is clear that their aided rivals—and they are too often but rivals—can do their work as well.

Government Colleges in Native States.

The Paramount Power should encourage wealthy Native States to bring their colleges up to the level of the Government Colleges of British India in the matter of—

(a) buildings,
(b) equipment,
(c) number of the staff (including the clerical staff),
(d) salaries and terms of service of the staff.

It should impress on the Native Governments the advisability of offering as good prospects to really good men in the educational as in other departments, so as to secure for it the best available talent. This is seldom done: yet good teaching is the best guarantee of good government.

It should also explain to such Governments the importance of having the control of the educational policy of the State in competent hands; of having it conducted on sound lines; and of giving the Head of the Educational Department a free enough hand to carry out his policy.

The Governments of Native States have often been most successful in their educational work, but a little more encouragement from the Paramount Power would no doubt secure still better results.

3. Native Aided Colleges.

(General Views, including the opinions of eight other experienced men.

The teaching and discipline of such colleges are usually good, except in so far as they are crippled by bad management. Where the management is good, and even occasionally where it is bad, they are often some of the best colleges in South India. Bad management as distinct from teaching is their peculiar disease. As these colleges are the result of Indian enterprise or charity, it is of the utmost importance to make and keep them efficient, if Indian private enterprise is ever to be able to take over the work of education from Government.
They are of two kinds { A.—Those under Municipalities. 
{ B.—Those under Private Committees.

A.—Municipal Colleges are generally satisfactory and well managed, but there are very few of them. The Victoria College, Falghat, may be taken as a model Municipal Second Grade College.

B.—Colleges under Private Committees are the commoner and are usually badly managed. They are of two kinds—

(1) Those presided over by the Collector or District Judge;
(2) Those administered without such guidance.

Those presided over by the Collector or District Judge are usually, though not always, well managed. Much depends on how far he takes an interest in its affairs and attends its Committee meetings, much also on the way the members of the Committee are chosen. His presence is, however, a source of efficiency.

(2) Those administered without official guidance are nearly always mismanaged, especially if the Committee members are subject to no real control. My experience of such a Committee is sent herewith.

As, however, I have been anxious to see how far my own views and experience of Native Aided Colleges are borne out by others, I have recently consulted privately eight gentlemen connected with education in South India. Of these one is an ex-Principal and five are Principals of such colleges, while two are Hindu College lecturers of long experience and broad general culture.

I find a remarkable practical agreement on the nature and working of the managing bodies of these colleges, and their need of reform, though some difference in the remedies suggested.

Of those who minimise the need of reform one is the Head of an admittedly well-managed Municipal College and never has trouble from it, while another is a Hindu Government College lecturer who expressly limits his view to two institutions in an up-country town. A third declines to answer several questions, as to answer them would, he says, involve reflections on or criticisms of his employers.

The following is the gist of their views:

I.—(a) Management and working—

5 say it is often unsatisfactory.
2 say it is satisfactory with reservations.
1 refuses to answer.

(b) On whether there is room for improvement or not—

All admit there is.

5 say in the nature of or behaviour of Governing Bodies.
4 say in financial stability.
2 say in the choice of teachers, the subjects taught and discipline.

II.—(a) On whether they know of sound learning having suffered from the unsatisfactory nature of such Bodies—

5 say yes.
1 says yes with reservation.
1 says no with reservation.
1 refuses to answer.

(b) On the nature of such cases—

6 give general descriptions of them, as follows:

A.—Vexatious intermeddling in details of internal management.
B.—Retention of teachers of known immorality, and forcing new teachers on the Principal without previous consultation with him, or even sending up their names to him, because apparently they were relatives of members of the Governing Body.
C.—Unbusinesslike habits, in capacity or wrongheadedness of the Governing Body.

D.—Unequal treatment of masters. Only a temporary spasmodic support of improvements. Retrogressive interference in internal affairs of the college. Unprogressiveness of the Governing Body, which does not care to take the recommendations of Principals or educational experts on questions of sanitary expediency or educational efficiency. Delay in sanctioning educational changes, not from sound reasons, but because of party squabbles among the members of the Body. The claim of the Governing Body to have the time-tables submitted for approval.

E.—Lack of interest and unbusinesslike habits of the Managing Body. The Principal's letters left unanswered.

E.—Interference of the Managing Body in the admission and promotion of pupils, the granting of free scholarships, the drawing up of time-tables.

III.—Suggested remedies—

(a) A change in the nature of the Governing Bodies.

(1) Should Government prescribe educational or other qualifications for membership?

4 say yes with emphasis.
3 say no.
1 refuses to answer.

Of those who say no, one objects on the ground of the difficulty of getting good men in small towns, and of the possibility of getting good men who have not high qualifications educationally.

The other two are the two who, as above mentioned, minimise the need of reform.

Of those who say yes, one complains of the age or ignorance of the members of a Governing Body, antiquated and childish ideas, backstairs intrigue, and irritating interference in details.

(2) Should Government introduce new methods of choosing their members, so as to make them more truly representative?

4 say yes.
3 say no (the same three as in (a) (1)).
1 refuses to answer.

Of those who say yes, one suggests instead of co-option, "which ensures jobbery, inefficiency and the predominance of a section of the community" that Government should nominate representative men of each community, or, if feasible, each should choose its own representative.

Another suggests a large body of subscribers of at least R12 per annum. Out of these a Council of not more than 12 to be elected annually. The President to be the Collector or Judge. The Principal to be an ex-officio member.

Another also suggests the presence on the Board of some high European officials as "most desirable," and says "it gives a tone to the management and inspires confidence in the staff," and bases his views on experience.

(3) Should Government limit the tenure of membership to a term of years?

4 say yes.
2 say no (the same as in (1) and (2)).
1 overlooks the question.
1 refuses to answer.
(4) Should there be compulsory retirement at an age limit?

3 say yes.
2 say no.
2 overlook the question.
1 refuses to answer.

(b) Should the sphere of activity of the Governing Body be defined so that the Principal can have a free hand in educational matters?

5 say yes.
1 says not in schools as distinct from colleges.
1 says no (the Municipal College Head).
1 refuses to answer.

One suggests that the Principal should have sole control over all internal affairs, especially the appointment of teachers, curriculum, promotions, timetables, text books, library, discipline.

Another suggests that the Principal or Head master should have power of appointment of subordinates subject to the approval of the Inspector of Schools, or some other outside authority.

(c) Should there be an appeal on questions of policy to some outside power?

4 say yes.
1 say no.
2 are not clear on the matter.
1 refuses to answer.

The Director of Public Instruction is suggested by . . . 4 or 5
Inspector of Schools by . . . . . . 2 or 3
An Educational Charities Board by . . . . . . 1 or 2
The Collector of the District by . . . . . . 1

IV. — Are you in favour of a strong Educational Charities Board representing the interests of the community concerned to—

(a) hold inquiries into the working of institutions,
(b) remodel the rules of Governing Bodies or Trust Boards?

1 says yes emphatically.
1 says yes if under Government control and impartial.
1 considers it very doubtful.
4 say no
1 refuses to answer.

V. — The prospects of the staff in these colleges—

5 say bad, very bad, could not easily be worse.
1 says the salaries should be on a scale to be approved by the Director of Public Instruction.
1 is not clear.
1 has no opinion to express.

One points out that there is no fixed salary scale, and teachers are often thrown out of employment just before the vacation: that there is no permanency of tenure and no pension. He suggests the adoption in Aided Schools and II Grade Colleges of the scale of salaries formerly adopted by Government; the compulsory establishment of provident funds; the reservation of appointments in the Department for teachers in aided schools; the giving a dismissed teacher a right of appeal to the Director; and liberal grants.

Another suggests a graduated scale of pay, and a pension fund.

Another points out that the pay of Europeans is not enough to enable them to go home for furlough.
VI.—Any external evils?
5 say excess of colleges, and underselling by missionaries or others, openly or secretly.
2 say multiplication of schools or colleges without proper regard to efficiency.

Of these, five specially complain of the action of missionary colleges in this matter. Of course missionaries are not the only sinners in this respect.

Remedies suggested—

(a) Reduction of the number of schools and colleges, standard fee rate, no free scholarships.
(b) Fewer schools and colleges and higher fees.
(c) Compulsory standard fee rate.
(d) A clear statement from every college of the free scholarships given and the fees of students privately paid.
(e) "An embargo on mission agencies stepping in for competition wherever there are native institutions carrying on educational work efficiently. Protection for the tender plant of native institutions."
(f) Efficient colleges making a surplus, to be allowed to fund profits as the nucleus of an endowment.

3 (PART 2).—CONSTITUTION OF THE GOVERNING BODY OF A TYPICAL HINDU AIDED COLLEGE, PACHAIYAPPA'S COLLEGE, MADRAS.

"A committee of nine Hindu householders of Madras, chosen for life, and co-opting new members to fill vacancies by a two-thirds majority subject to the confirmation of the Board of Revenue," and established about 1811.

As this "confirmation" has been for long a pure form, and the Trust Board has been co-opting for the last half century on this simple system, the results must be sufficiently clear without a detailed description. Briefly, however, one may say that, with scarcely an exception, the Trustees represent no one but themselves. One place on the Board has been permanently vacant for many years. It might be worth inquiring into the reason for this, if reason there is.

It is a well known fact that in most large towns in South India there is a good deal of rivalry between the Brahmans and the non-Brahman caste Hindus and that there are both Brahman and anti-Brahman cliques, formed as much with the object of injuring men of the opposite party as of helping on men of their own.

Further, of those who matriculate in the University and who, as Caste Hindus, are eligible for admission into Pachaiyappa's College, 75 per cent. are Brahmans. Of those Caste Hindus who pass the E.A. examination, 83 per cent. are Brahmans. Of Caste Hindu graduates, B.A., 80 per cent. are Brahmans, of all B.A. graduates, 66 per cent. are Brahmans. Of M.A. graduates Caste Hindus 80 per cent. are Brahmans, of all M.A. graduates 66 percent. Of Caste Hindu Licentiates in Teaching 93 per cent. are Brahmans, of all Licentiates in Teaching 72 per cent. I quote in all cases figures from the University Calendar, 1901-1902.

It is thus abundantly clear that, of students of the college, and of candidates eligible for educational posts under the Board of Trustees, and particularly those with high educational qualifications, an overwhelming majority are necessarily Brahmans.

The necessity, therefore, of having that caste adequately, if not proportionately represented on the Governing Body is on a priori grounds clear enough if fair treatment is to be secured for the vast majority of those likely to be affected by the action of the Governing Body with reference to students of the College or masters of the College or its High Schools. Such necessity
would only disappear if it could be shown from the nature of the members of the Governing Body, their intellectual or educational attainments, their readiness to abide by recognised educational maxims or the advice of their Principals, that there was a more than ordinary likelihood of fair treatment even in the absence of due representation.

**Analysis of the Board.**

But of the eight members of the Board only one is a Brahman, the interests and prospects of an overwhelming majority of the College students and College and High School staffs being in the keeping of a body on which their community is in a hopeless minority.

Turning now to the members of the Board individually examining their qualifications and arranging them in groups according to their usual attitude we get the following results:

- **M. R. Ry.** S. Appaswami Chettiyar.—A very old gentleman who lives almost in retirement, but who takes a great interest in college matters and yet fully realises that he is not an authority on all educational questions. One of the best members of the Board, though without any special qualifications.

- **M. R. Ry.** P. Rajiah Nayudu.—Formerly a Member of the Madras Legislative Council. A Vakil and influential member of the Mahajana Sabha. One of the few representative men of the Board. Advanced in age. Does not consider himself an expert on all educational matters, having no special qualifications. Takes an interest in the college and is a useful member of the Board.

- **M. R. Ry.** P. V. Krishnastoami Chettiyar, B.A., B.L.—A leading High Court Vakil, and most useful member of the Board, but too busy to be able to give it as much attention as might be desired. On one or two occasions he has, by threatening resignation, brought his colleagues to a change of views. Does not consider himself an authority on educational details. A recent acquisition to the Board.

The above three members usually, if not always, support the Principal and are against interference in details.

**Dewan Bahadur V. Krishnam,a Chariar.**—A gentleman well advanced in years. Formerly an Assistant Inspector of Schools in the fifties and sixties; for the last thirty years Registrar of Books. A man of immense and restless energy, who takes a marvellous and minute interest in all the details of College administration, and speaks with authority by virtue of his ancient educational experience. The author of a vast number of schemes for the improvement of the college, and of an equally vast number of letters on the subject to a succession of Principals. The letters are perhaps of more value than the schemes, as they throw a good deal of light on the inner meaning and working of the Board, and are to a great extent carefully preserved. The schemes are not always such as would command themselves to orthodox educational authorities, and are seldom adopted by Principals of the College. The only Brahman on the Board, but not usually considered representative. Gives a fluctuating support to Principals in so far as he thinks they deserve his confidence and approve of his schemes.

**Baja Sir Savalai Ramaswami Mudaliar, C.I.E.**—A well known Madras business man and conspicuous philanthropist of untold wealth. Entertains Viceroy's and Governors. A large subscriber to all public charities. Takes slight interest in the college and seldom attends meetings of the Board or reads Proceedings. "Does not think the college has any claim upon him" financially as he is not an old student and is only a Trustee.

* The names may be omitted if thought desirable but the statements are true and can easily be proved.—R. S. L.
The following are normally in opposition to the Principal, and approve of interference in details of administration such as estimating the capacity and work of the College and High School staffs, arrangement of time-tables, qualifications and terms of service of candidates for employment, appointments and increments of the staff, etc., etc. Their efforts are rarely appreciated either by Principals or Masters, and are seldom taken seriously. When taken seriously they usually result in friction between the Governing Body and the Principal. They may be regarded as a Triumvirate with a casting vote:—

Deivan Bahadur P. Rajaratna Mudaliart, C.I.E.—late Acting Inspector General of Registration; Member of the Irrigation Commission; and Secretary to the Commissioner of Revenue Settlement, Land Records and Agriculture, Board of Revenue; Member of the Madras Legislative Council. Hence obviously an authority on everything.

An official of ancient experience who still retains, without winning the confidence of the Principal or the staff, all the breadth of statesmanship and generous sympathy to be expected from a Salt Deputy Collector’s gumastah in the sixties, and a responsible official engaged on Salt, Famine, Revenue Collection and Registration. A great theoretical authority on time-tables, and on economic reorganisation affecting the prospects of the native staff.

M. R. B. P. Theagaraya Chettiyar, B.A.—A well known Hide Merchant and critic of the executive of the Madras Municipality. The Cleon of the Trust Board, who has not, however, yet captured his sphacteria. A self-constituted and active though often ill informed critic of everything and everybody connected with the institution, and who before criticising never asks for information from the Principal. Almost always opposed to the Principal, no matter what the subject.

M. R. B. W. S. Venkataramanjulu Naidu.—The President. The owner of a small but heavily encumbered zamindari estate, not infrequently pursued by bailiffs with decrees for debt. A man who takes strange views of his position and rights, and about whom many stories, more amusing than edifying, are told. A permanent “Financial Trustee” of the institution. Apparently in close alliance in matters of policy with the preceding gentleman. Has unorthodox views on the awarding of free scholarships, and is also interested in details of administration and time-tables.

I would submit that a body so constituted and so irresponsible offers no guarantee of efficient management, still less of that special educational experience most likely to secure fair treatment for an almost unrepresented community.

Within ten years there have been no less than five distinct Principals or Acting Principals, all European graduates of well known Universities, and in every case there has been the same irritating friction between the Governing Body and the Principal. I would submit that it is scarcely likely that five successive Principals should all take wrong views of their duties, especially when the College and High School were rapidly increasing in fee income (quadrupled in four years), in numbers and in efficiency as tested by the University results. I would also submit that the spectacle of seeing four or five Principals successively involved against their will in differences with the Governing Body, master after master driven out of the service of the institution by sheer neglect or harsh treatment, Principal after Principal powerless to do justice even to the best and hardest working of his assistants, and at last resigning in disgust, not at the low pay but at studious disregard of his suggestions and the utter ignorance of the rudiments of educational methods shown by the Governing Body, is a scandal so great as to undermine the foundations of sound discipline and to call for prompt inquiry and speedy remedy.

As one who has had more than five years’ experience of the Principalship of this institution, and who has found no material change in its conditions either before or after his time, except a slight and I fear spasmodic improvement in some matters after the appointment of the present Educational Commission, I
desire to say that it bears out almost all the criticisms and complaints brought against the Managing Bodies of Native Aided Colleges by the gentlemen whose views I have already cited, and shows other even worse cases than those mentioned.

The following may be taken as examples of the behaviour of the Governing Body either during my time or in those of my predecessors or successors. There was no very appreciable difference in the treatment accorded to Principals, though some in their power of resisting it.

I desire to say that these are not merely hearsay examples but can be proved from official documents or letters, not to speak of a multitude of witnesses. The behaviour of the Governing Body has often been the subject of criticism and comment in the more responsible press, and complaints have been made to three successive Directors of Public Instruction, all of whom have readily admitted the evils, but two of whom at least have professed themselves powerless to stop them. I trust that the present Director may be enabled to take more energetic action.

General ignorance of—

(a) educational principles, even the rudiments;
(b) the merits of their own Native staff;
(c) their personal or collective responsibilities.

As an example of their methods in institutions for which they are directly responsible, I may mention a case in which an examination mark register had been obviously tampered with, and certain boys promoted who had not deserved promotion. The case was clear, but the necessary inquiry was not held, and the offence not brought home to the culprit.

Internal divisions leading to—

(1) loud altercations at the Trust Board. I have often from another part of the building heard the Governors shouting at one another across the table at which they were supposed to be doing business;
(2) disputes and wranglings over almost every appointment and alteration of salary;
(3) a general disbelief in the impartiality of several members of the Board as shown by—

(a) the opinions of several Principals who have held strong views on the matter;
(b) the opinions of most men who have served under the Board;
(c) the nature of the scale of pay and qualifications of several members of the staff;
(d) a letter to me from an applicant for a post in which, though a weak candidate educationally, he says—

“If you kindly select me I am sure, being a non-Brahmin (sic), the majority of the Trustees will approve of my appointment,” while also saying “I am capable of doing any work you give me either in the High School or in the College. * * * I am for the present unemployed and so I earnestly request you to be kind enough to give me some work in your College.”

He was not selected as I preferred better qualified men.

Delays.

Urgent letters dealing with staff arrangements kept waiting for months in spite of polite reminders.

College and School arrangements not made before the opening of term, and temporary arrangements made in default reversed, or the acting allowances retrospectively cut down.

A Headmaster kept “officiating” and not confirmed for three years, though he had been many years in the service of the Board, was strongly recommended by successive Principals, and though the school was admittedly prospering under his direction.
Temporary arrangements for Pandit's work for years in spite of remonstration.

TREATMENT OF HINDU AND EUROPEAN STAFF.

The pension of one of the oldest Principals, Mr. Basil Lavery, reduced at a stroke to half its small amount when he was known to be on his deathbed, for ostensible reasons of economy, though had the fees of the High School been raised R1 a term, so as to bring them up to the level of other schools, ample funds would have been available. This was shown conclusively in a scheme drawn up by the Principal.

An attempt, which all but succeeded, to supplant the Headmaster of the School attached to the College by his First Assistant, a recent importation, in spite of the objection of two successive Principals.

The retention for some years of this First Assistant on a salary equal to that of the Headmaster, in spite of the Principal's repeated requests that at least some small difference in pay should be made in the interests of discipline.

Delay or refusal of increments, due according to the terms of appointment and recommended by the Principal, on the ground either of alleged "financial" difficulties or of the Board not being satisfied with their work though the Principal was. But no serious attempt to retrench except at the expense of a few selected individuals, and without reference to the Principal's reports on efficiency, concurrent raising of the pay of others against the Principal's recommendations.

The offering of liberal terms to non-Brahmans of slight educational capacity. The keeping down of the pay of several of the best Brahman members of the staff, resulting in a steady and involuntary emigration of many of the best teachers.

The attracting of men into their service by vague verbal promises of considerable increments in future not subsequently given or delayed for years.

Dispensing with the services of members of the staff contrary to the wishes of the Principal.

Giving additional work without additional pay.

TREATMENT OF PRINCIPALS IN MATTERS OF INTERNAL DISCIPLINE.

(1) Free Scholarships—
   (a) Giving of them to unpromoted or failed students.
   (b) Refusing to give them on examination and giving them to those who did not even appear for examination or who did badly.
   (c) Giving insufficient help to really good students, and more than sufficient to inferior ones.
   (d) Refusal to take away free scholarships from those reported to have done badly in work.
   (e) Giving either an inordinate number or suddenly stopping them altogether without notice.
   (f) Giving them as a mere matter of patronage without proper enquiry.
   (g) Disregard of the Principal's recommendations even when based on the most detailed enquiry.

(2) Development of teaching—
   (a) Determining to open a Biology Chair without adequate rooms, staff or apparatus and against the Principal's wishes. Fortunately stopped by the Syndicate.
   (b) Splitting of forms into sections contrary to the Principal's advice.
   (c) Refusal to allow the opening of an M.A. History class on the recommendation of the Principal, when guaranteed not to cost the college an anna, and when several graduates, including one who has since taken a I class M.A., were anxious to join.
(3) Interference in supervision—

Calling for time-tables, progress reports and percentage of passes of different masters officially, when these were available privately on application to the Principal. Abstention from applying privately to the Principal for such information. Unwillingness to take his word on such matters.

(4) Appointments—

(a) Making appointments without reference to the Principal, or even telling him beforehand who the men were.

(b) Withholding testimonials of men appointed until officially asked for under threat of refusing to be responsible for their work.

(c) Retaining and giving an increase of pay to an Assistant Professor who had been asked to send in his resignation by the Principal on the recommendation of a Professor who had been Acting Principal, and who had been dissatisfied with his work. The doing of this in spite of the formal protest of the Principal.

(5) Action on ignorance of the facts and without preliminary enquiry from the Principal as to what the facts were.

(6) Vexatious calling for reports on "mare's nests" or avoidable misunderstandings or misinterpretations of the action of the internal authorities. No attempt to get at the truth by personal or individual application to the Principal.

(7) Hampering of the Principal's work by refusing him an adequately staffed office, by overworking and underpaying his office staff, and thrusting on them work which should have been done by the office of the Trust Board.

(8) Apparently factious opposition to everything proposed by the Principal on the part of some members of the Board, who make no attempt to effect a compromise or to state openly what objections they have to existing arrangements or proposals.

(9) Individual members of the Board coming into the College or School and abusing clerks or masters in the presence of their subordinates or pupils, instead of reporting the matter to the Principal or Headmaster.

In view therefore of the importance of the college in question, and of its prominence as an example of educational evil, I would beg to request in the interests of the Hindu Community for whose benefit it was established, and of its many old students who are disgusted at the way in which its Governing Body behave, that steps should be taken to have that Body made fit for its duties, and its sphere of activity defined.

I would therefore request either—

(1) That an impartial committee of enquiry be nominated by Government to take evidence on oath as to the management both of the trust institutions and of the trust funds, and if found advisable to remodel the Board. And that all records and papers in the offices of the Trust Board and Principal be seized and sealed; or

(2) That Government insist on some effective control being kept over the Board so as to secure proper attention to the interests of discipline and learning; or

(3) That Government insist on the Madras Board drawing up such rules and appointing such Trustees as will conduce more to educational efficiency and the reputation both of the Trust Board and of the Board of Revenue, which hitherto have been worse than useless; or

(4) That the Director of Public Instruction be empowered to draw up such a constitution as will conduce to efficiency and be more truly representative of the Hindus of Madras: above all, one that shall not be—

(a) practically irresponsible—

(b) co-optative.

(c) elected for life.
PROPOSED CONSTITUTION LIKELY TO BE ACCEPTABLE TO THE HINDUS OF MADRAS AND THE OLD GRADUATES.

Nine Trustees, with the Principal as an ex-officio member for educational purposes, but without a vote, but with power to call for papers and to insist on the recording or publication of his minutes of dissent.

Choice of Trustees—
Age limits between 25 and 60.
3 to be elected by old students of the College.
3 to be nominated by the Madras Government.
3 to be nominated by the Madras High Court.

One in each group to be necessarily a man with practical educational experience.

Tenure of office—
Seven years with eligibility for re-appointment.

Qualifications—
(1) Caste Hindus, Buddhists or Jains.
(2) Resident within jurisdiction of Madras High Court.

Disqualifications—
(1) Insolvency.
(2) Conversion to another religion not provided for in the Will of Pachaiyappa Mudaliar.
(3) Those of the Trusts Acts.

Powers and position of Principal—
In matters of internal administration to have a free hand, subject to the right of the Board—
(1) to call for an explanation in writing.
(2) to refer to the Director of Public Instruction.

The Principal to have the same right of reference to the Director.

Temporary staff arrangements for not more than six months, not entailing extra expenditure, to be left to the Principal.

If the Board disapprove they can at any time make fresh substantive arrangements.

Visitors—
The senior Hindu Judge and senior Hindu Official of the Madras Educational service with duty of reporting to Revenue Board and Director of Public Instruction.

4.—SCALE OF FEES, THE "FREE SCHOLARSHIP" QUESTION.

There is, as already pointed out, a good deal of underselling in South Indian Colleges and Schools, and efficient institutions are often injured by it. The Coimbatore College is a striking case in point. But the effect of underselling is often minimised by under-teaching, under-equipment and loss of educational prestige.

I do not think there is much difference between one class of aided institutions and another in this matter, except perhaps in the case of Municipal Colleges which usually give few or no remissions.

One Native College gives free scholarships because it was founded and endowed to do so, and does it openly, sometimes with, sometimes without a searching investigation of the poverty of the applicants, this usually depending on the strength or weakness of the Principal’s position. The risk of its patronage being unfairly exercised is obvious enough, but its fee-income has often if not usually risen in much greater proportion than its numbers.

One Mission College, the champion of the Standard Fee policy, while taking credit for giving no free scholarships, has a huge network of allied free scholarship-giving schools and colleges all over South India, has a system of Government-
aided district scholarships all to itself, offers abundant additional scholarships from endowments and Government grants to promising students, while allowing its staff and its supporters in Europe to pay privately, yet on a fairly liberal scale, the fees or part of the fees of others. Yet it seems to have a nervous dread of being undersold, especially in the ease of clever students. On such an example of Christian morals and Christian logic comment would seem superfluous.

Many schools and colleges, Native and Mission, unable to resist the pressure of managers or filled with a foolish rivalry of neighbouring institutions, simply adopt the view that half a fee is better than no money, and ruin one another in the interest, I suppose of patriotism and religion, by an absurd ill-regulated competition. This is especially the case with High Schools and II Grade Colleges, but is not confined to them. It would be better to put such ill-conducted institutions out of pain at once.

While, therefore, believing to some extent in the advisability of having a Compulsory Standard Fee Rate, I cannot see that this short and easy method would, in itself, even appreciably mend matters, unless it embodied provisions sufficient to prevent its evasion, and to provide at the same time an adequate and fairly distributed system of scholarships for the promising youths of the submerged priestly and learned classes.

In India social and academic conditions are mediaeval, and must be dealt with on mediaeval lines. For the sons of family priests, religious mendicants and poor pandits and teachers, the free-scholarship, in one form or another, is the only road to an honest livelihood, and should not be barred. Some of the ablest statesmen and thinkers in South India have trod this road to honourable office.

The first elements of this question have not been grasped till one realises the great poverty and ability of a large number of present day students. This I have already attempted to describe. In this matter one should not take too seriously the rough and ready classification of the income of students' parents as shown in Departmental returns. Wealth is very unevenly divided in India, and a false shame of poverty often induces students, when asked in open class to declare the family income, to say it is higher than it really is, or to make no allowance for family debt. No man is proud of his father being a bankrupt or a mendicant, not even a Hindu.

In these days too of social and religious reform, many an old family priest has great difficulty in making both ends meet, and most pandits and many school teachers are paid miserable salaries. These surely have a special claim that their sons shall be given the chance of earning an honest livelihood in the only way they can, and not left to grow up as temple loafers or wandering vagabonds. Besides, the poor student is well worth the trouble and expense of educating him: many a poor priest's or pandit's son is a credit to his college. No doubt, if there were more well managed Commercial Schools, and more openings in business, some of these lads might be trained for business life rather than sent up to the University. But it is doubtful how far they could find employment without introductions, and still more doubtful how far they would suit the work.

If rules such as the following were made binding, and all records and accounts of aided colleges and schools audited annually by the Department, the admitted evil of under selling, and the almost equally prevalent though less admitted evil of touting for clever students, would be kept within due limits, and there would be less mutual distrust, more harmony and better work:—

(1) The submission to the Educational Department annually of a record of all Scholarships, Free Scholarships, Money Prizes, or monetary assistance given in any form to students, or the families of students attending the institution—

(a) by the Managing Body or any member of it,
(b) by the staff or any member of it,
(c) from any fund connected with the institution,
(d) as private donations paid through the Managing Body, or the staff, or any member of either.
(2) The reduction of the grants of any institution that gave after due notice excessive assistance or assistance without detailed proofs of poverty, or assistance to students coming from other colleges in subjects taught by those colleges.

(3) The gradual limitation of scholarships, remissions and assistance to a fixed proportion of the fee income of the previous year, and perhaps eventually the introduction of a Compulsory Standard Fee.

(4) An adequate number of District Scholarships to be given—

(a) on the submission of detailed official certificates of the lands, income and debt of the family of the applicant, and as far as possible of his relatives, showing the family to be really too poor to pay fees;

(b) competition in public examinations.

These scholarships might be held in the F.A. classes of any college within a fixed geographical area, and in the B.A. classes of any college affiliated to the University. None should be attached to particular colleges which would be most unfair to the others and tantamount to a State bounty in the interest of such favoured colleges.

(5) Every college receiving grants from Government to be compelled to take in free scholars up to a certain definite number calculated in proportion to its fee income in the previous year. This would prevent wealthy colleges refusing to take in any but paying students and hence leaving the poor but not brilliant students to the almost equally poor colleges.

With such provisions, and the adoption, at least in the B.A. Optional Branches of the inter-collegiate system, of the advantage and practicability of which I am fully convinced, and the taking into generous partnership of all efficient colleges in the larger centres, with the consequent improvement of teaching, at present so hampered by the wasteful aided system, there would begin, I feel sure, a new day for South Indian education, when even heads of colleges might come to think more of the interests of sound learning and less of the rivalry of neighbouring foundations, to recognise that there are between all well-conducted colleges more common than conflicting interests, and to learn, in India as in Europe, how to reconcile with one University, as every earnest teacher must desire, the claims of sound learning and religious education.

5. THE SOUTH INDIAN STUDENT.

My experience of the Indian student has been confined to those of South India, almost entirely to Caste Hindus and mainly to Brahmans.

INTELLECT AND ATTAINMENTS OF STUDENTS.

Students of the same college class vary immensely owing to bad teaching and examining. Out of a class of twenty there will usually be two or three who are quite fit for the best work one can give them, and two or three more who can grasp without any difficulty the meaning of the most difficult parts of the larger books. Then there are two or three who are quite unfit for the class, and who ought not to have passed the University Examinations at all, and who will certainly not secure promotion to the higher class. The remainder vary greatly in capacity, method and application, and often need explanation of portions of their text-books.

A division of papers into elementary and advanced parts, the simplest form of a Pass and Honours system, would probably help teaching here a good deal.

The South Indian Brahman has certainly excellent brains and considerable originality. He has shown this in such subjects as Economics, Philosophy and Law, in which the effects of his bad training and schooling are not so apparent. When his observation is properly trained in youth, and he is taught to use his hands, he will, I think, be successful in Natural Science too. He has great linguistic talent, and, if properly taught, develops an acute and vigorous intellect. When he makes up his mind to work nothing stops him.
Out of B.A. classes of from twelve to twenty students held during the last four years two of my students are now themselves Assistant Professors teaching B.A. classes. One of these has already shown himself a most efficient teacher, has made a good beginning in original work on Indian History, and has a better grasp of Economics than any Cambridge student I can recall in my time.

**The Nature of Their Class Work.**

About half the class read or consult the latest and larger books on Economics, Political Science and Constitutional History, and get some acquaintance with such authorities as are accessible in English, when reading for the B.A. degree. In Economics and Political Science they read about up to the level of the Cambridge History Tripos, in other subjects to a lower level. In Economics we go into Indian land tenures and Indian Currency at considerable length, and try to keep up with the latest work in the *Economic Journal* and to do the subject in a scientific way. Indian examples and problems are constantly employed to illustrate the working of economic laws and the subject proves most attractive and educative. Both in B.A. and F.A. classes we use authorities as far as they are accessible in English, and I encourage the F.A. students to read Polybins, Livy, Sallust, Cicero and Caesar, by reading and commenting on portions in class and giving them the references. We use maps and diagrams continually, and as far as possible photographic illustrations.

As far as possible the lectures are from outline notes, interspersed, for the sake of the backward students, with frequent questioning and a certain amount of dictated notes. Of the latter I am not fond, but in present circumstances I fear they are to some extent necessary. I am still experimenting on the question of their utility. Care is taken that students buy, borrow and read books, and use maps, and questions are set in the class examination to test their grasp of the subject and their intelligence.

As every History student requires my signature before taking a History book from the College Library, and as I sign orders after every class, I can easily see that students read and read wisely. Students are encouraged to read in groups such books as they cannot afford to buy, and to assist in circulating books rapidly.

**General Culture and Reading of Students.**

The South Indian student is often cramped intellectually by his narrow home life and bad schooling. His parents sometimes give him a distaste for study by over-working him when young, or unwittingly spoil his reading by sending him on all sorts of errands. Besides, five hours a day of lecturing, with another four or five of home work are apt to tire even the Indian student. Hence he cannot be expected to do much general reading. He makes, however, a fairly good use of his opportunities and I think reads quite as well as the average English school boy of the upper forms, probably better. In addition to the books of the College Library he can generally borrow from his professors and get their advice on what to read. Scott, Dumas, Sue, Dickens and Gaboriau are the favourite novelists at present. Reynolds is no longer the standard of literary excellence, as he once was. Shakespear and the great English poets are widely read; also Dr Smiles.

Among the books I have lent to students or graduates during the last few years, by far the majority bore on their work, being usually expensive advanced books they could not easily buy for themselves. Of those on general reading, which come a long way behind, the following come in order of popularity: *Ruskin, Ward's English Poets; F. H. A., Tribes on my Frontier; Carlyle, Marcus Aurelins, Wordsworth, J'Froude, Anstey's Babu Tabberjee.*

**Culture and Reading of Graduates.**

My experience is that if a student has been properly taught he likes the subject, and reads more of it and of general English literature after taking his degree. But there is a dearth of good libraries in South India, especially in country towns, and the routine and drudgery of some Government Offices has a deadening effect. Still I generally find my old graduates read, not only books
they have, but any they can borrow. Occasionally a graduate will take up a new branch of study for its own sake. Many graduates would willingly study for the M.A. degree, and go on to advanced work if they had enough to support them while working and reasonable prospects afterwards. Unfortunately there seems as yet little place for the scholar in India until he gives up his scholarship and finds more lucrative work in the Provincial Civil Service or the Law Courts. Until the wealthy landed gentry can be induced to send their sons to the University as a matter of course, learning is hardly likely to be adequately supported. If better prospects were offered to I class graduates in colleges and schools, there would be no difficulty in greatly improving the nature of the education given.

Of one thing I am certain, that the University is now turning out far sounder scholars among its I class graduates than in earlier years. There are very few among the older graduates who would be able to teach advanced work as well as an average I class graduate of the last few years, at least in the Optional Branches. I should not care to entrust B.A. work in such subjects to any but recent I class graduates. I am not so sure, however, that the standard of III class graduates has risen. But I regard it as a gratuitous insult to the ability and industry of the younger graduates, for older and often more ignorant men to say that the graduate of to-day is inferior to them and their contemporaries. I regard this view as the reverse of the truth. The graduates of that mythical golden age of Indian University life, when heaven sent teachers walked and talked with mortal students like the gods of old, seldom show a real grasp of any subject while they are ready to dogmatise on all. Their minds seem narrow or untrained, their ideas crude or vague. The present day graduate takes far broader views, reads more, thinks more, is more logical and more open to argument. He will no doubt train up a still better graduate generation in the future.

REligious attitude.

The South Indian student so far from being “godless” is rather pious than otherwise, is regular in his religious observances, and has got a really high idea of God. I think his position is like that of a pious Unitarian, and I cannot consider that a very lamentable result of education except perhaps from the point of view of the orthodox Christian Missionary. I cannot see that it is part of the duty of Government to make the student an orthodox Christian if he does not wish to become one. The South Indian student is, I think, very broad-minded and tolerant in religious questions, a monotheist who has absorbed the best elements of the different forms of religion presented for his acceptance.

It is an error to imagine that non-sectarian education creates a bias against religion. There is as much or more crude scepticism, among the students of Mission Colleges as among those of other institutions. It is a gratuitous assumption that sound religious and moral ideals can only be imparted in the colleges of foreign mission agencies, an assumption too often belied by facts.

Again as long as Hindu religious institutions are allowed to be so grossly mismanaged as they usually are in South India, and the better class of Hindus left practically powerless to prevent their sacred places becoming dens of iniquity, orthodox Hinduism will have but a doubtful or dangerous moral influence. When one realises the nature of these places, and the character of the people frequenting them, and finds bright promising lads lured into vice and contracting venereal disease before they are half way through their college course, one wonders whether even the great principles of non-intervention may not be worshipped at too great a cost,—the sacrifice of the morals of the youth of this land.

MORAL TONE, CHARACTER, ESPIRIT DE CORPS.

Though the moral tone of South Indian student life leaves much to be desired, one cannot but respect the brave stand many a student makes against the moral depravity of his surroundings.

His home discipline varies from the greatest severity to the greatest indulgence, and the example he gets from his elders varies quite as much. If he lives in one of the great religious centres he finds vice rather than virtue the rule.
In the students' "hotel," the hotel-keeper's wife is often enough but a common prostitute, and the language used even filthier than the food. Gambling and drinking are some of the less degrading influences that surround him. Bad food, bad sanitation and bad companions are ever with him.

In school or college his vernacular text books too often complete his familiarity with vice and keep it ever before him. A rich IV Form Chetty school fellow will sometimes keep a dancing girl. Sometimes even his school master is a notorious profligate or drunkard, though enjoying the favour of unsuspecting European well-wishers. I have heard of such cases, and the wonder seems not so much that students often go wrong, but that they often keep right.

A Hindu graduate friend of mine, who is not given to exaggerate, estimates that of Hindu students over sixteen years of age, from 50 to 60 per cent. go wrong morally. The percentage is probably higher in such religious centres as Tirupati, Trichinopoly, Kumbakonam and Tanjore, but lower in Madras, where the competition of rich men puts the dancing girl beyond the reach of all but the wealthiest. The morality of Native Christian, though not of Mission College students generally, is usually higher than that of Hindus, owing probably to stricter home discipline and the spread of the education of women.

As for a code of honour, it is in a very rudimentary stage as in the case of day schools in Europe which draw their pupils from all social ranks. Students will seldom tell tales on one another, and naturally are not encouraged to do so. But if a student were to be suspected of stealing another's book, the average student would, I understand, probably merely avoid lending him any books, but would not "cut" him openly or show him any incivility. Rather, he would be specially polite to him, to prevent the thief stealing his particular books. Of course many students adopt a much higher standard than this.

Honesty and truthfulness are not yet universal. The sham pauper is not unknown, and the unsuspecting newly arrived European professor is his peculiar prey. A trustful generosity especially during a period of academic unsettlement, is specially favourable to the increase of these impostors, but a little experience soon reduces them to insignificance.

The South Indian student is, however, conspicuous for his shrewd common sense, perseverance and sense of humour. If he has the requisite capacity, and he often has it, it is a real pleasure to teach him. I only wish something better than the present cheap and nasty system were given him, as he is often worth a much better training, judging by what he has made of his opportunities.

The courage, determination and enterprise of the poorer students are beyond all praise. I have known of students practically penniless who have come up long distances to Madras, begged their food from house to house, or been fed free by the Sri Kanaka Parameswara Temple, and who have taken tuitions in their spare time to cover the cost of their clothes, and perhaps even of part of their college fees. I have known students take their meals in three different parts of Madras every week. I have known others too poor to pay for a room, and anxious to be allowed to read and sleep in a school class room at night. Yet poverty such as this, with all the difficulties it puts in the way of study, has not hindered such students winning a creditable degree and a certain amount of culture, nor struggling to pay off a burden of debt left them by an earlier generation. With examples such as these in my mind, I have some difficulty in hearing patiently glib criticisms of the latter-day student and of the small amount of his original research.

**Esprit de Corps.**

There is too a good deal of esprit de corps among the students of any college that works well and of some schools. As an instance of this in a quarter where it would be least expected, I quote portions of a VI Form boy's anonymous letter on a leakage of examination papers some years ago in a Madras College:

"* * * the selection examination held in this college is as worthless as in any of other colleges. Because each and every paper came out through the printers by an enormous bribery. Up to this time I too know the question papers beforehand. * * * *"

*The worthy Manager of this Temple supports a considerable number of poor Brahman students, conditional on their work and conduct satisfying the Heads of their Colleges who are regularly consulted by him. I wish this excellent practice were more generally followed by Temple Managers.*
If you don't hold a strict re-examination, a great partiality is shown to some of us, and there will be a stain upon the character of this college for ever and ever. Let it be done quickly. Let not the other colleges know the mean ways.

In all colleges that are working well the students usually take great pride in the college and its staff, and are prepared to uphold their reputation against all opponents, but a time of crisis or uncertainty in the life of an institution sometimes weakens this pride considerably. Occasionally cliques among students almost destroy it at such times, and several changes in the staff occurring simultaneously naturally tend to extinguish it for the time being.

There is no doubt, however, that the younger graduates take a keen interest in their old college, and are willing to spend much time and trouble in working for it. For example, one of my old students acted as a most efficient resident Superintendent of a new college hostel for a year, paying for his own board and lodging, and not taking an anna for all his trouble. Old students too take a keen interest in the success of their college in the class lists.

Discipline, General Behaviour, Relations with the Staff.

In ordinary class relations the typical South Indian student is polite, well behaved and obliging, and usually interested in the work even when backward in it. Though sometimes slack in carrying out general rules that involve extra trouble or expense, he is scarcely ever intentionally rude. In fact the atmosphere is such, and should always be such as to make impertinence unthinkable. A student will only be rude or disorderly—

1. if he believes himself unjustly treated,
2. if he has been accustomed to culpably lax discipline, or
3. if he has no confidence in his teacher's capacity, industry or character.

The South Indian student usually enjoys his lecture, and, like the German student, sometimes gets quite enthusiastic over a good one. Lectures often form to him the really pleasant part of the day. Hence the question of discipline seldom arises in the case of individuals, though a class may be disorderly with a new teacher till it gets confidence in him. Once he shows his ability, all trouble ceases. The commonest offences are loud talking in a library, slackness in paying fees, returning books or in attendance, want of preparation.

I have known of a class “strike” in consequence of a professor setting an unusually heavy imposition for neglect of home work. The strike was of course met by a lock-out, with the result of an increased penalty being paid within a few days. When the principal went home some months later, certain students in the class privately clubbed together for a special group photograph of themselves and him without giving any reason. The result was duly presented to him without further explanation, and remains a good likeness of the leaders of a strike, conducted on sound lines, without newspaper paragraphs or ill-will, and ending in mutual satisfaction and a useful lesson in Economics.

As for the general relations between students and their European professors, I think that, except where the college discipline is culpably lax or unduly harsh, or where students are treated either as the lords and masters of the college or as an inferior creation, these relations could not be better or friendlier. They are far and away closer and more mutually helpful than those between dons and under-graduates in any European University, or between masters and pupils in large European day schools, and closely resemble the kindly sentiments uniting the house master or tutor and the boys of his house in an old English public school. In fact this friendly comradeship in work is one of the pleasantest and most hopeful features of Indian academic life. Often when weary of the petty worries of Indian college administration, it is in the genial greetings of his students that the jaded teacher can best find encouragement and hope. From the hearty welcome extended by students to their teachers at social gatherings, from their willingness at all times to do many little services for them, from the letters of former students written years after they have left their
college, telling of good or bad fortune in official or domestic life, asking for advice in cases of difficulty or in the choice of books, or even expressing thanks for strict discipline in earlier years, it is clear that, making all allowance for human weakness, gratitude, with them at least, is not, as is sometimes said, merely a sense of favours to come.

I have reason to believe that the effects of education are beginning to make themselves felt in the home, and that many of the younger graduates are adopting in practice a more refined view of married life, and that they often educate their wives and sisters so as to make them take an active interest in their husbands' studies, and a more modern view of woman's work in the home. But a good deal has still to be done before public opinion will deal as it should with the vices of men.

I know that University education has not only trained minds of real culture, but built up characters of strict integrity, simple piety and unselfish virtue, and so far from having been a cause of moral disintegration and degradation, has more often given society a moral integration and elevation, based not upon habit or lack of temptation, but upon a love of duty for its own sake, and a determination to maintain high ideals even in the most adverse circumstances.

6. PROVISION FOR THE PHYSICAL AND MORAL WELFARE OF STUDENTS IN SOUTH INDIA.

INCLUDING—

(a) Hostels and their management.
(b) Athletics.
(c) Personal influence.

First and most important is the compulsory residence of students with their near relatives, or in licensed and properly inspected lodgings, or in hostels, and in the licensing and inspection of students' eating houses.

The difficulty of enforcing this is great in Madras, where the number of students is large, and the University by-law on the subject has so far been almost a dead letter, owing perhaps to the need of larger clerical staffs to keep the required registers and other records.

The first step should be for the University to appoint a Licensed Lodging Committee in every collegiate town, consisting of representatives, European and Hindu, from the staffs of the local colleges.

The members of the Committee should visit every student's lodging and eating house, make enquiries, and license only such as were found suitable, and have the power of inspecting any such house at any time of the day or night without notice.

No student should be allowed to frequent an unlicensed lodging house or eating house.

Gradually sanitary and other rules could be introduced and enforced. If membership of these committees was honorary, it would be a point of honour among the members to be upright in their dealings. If the committees were chosen from the younger and more energetic members of the college staff they would be fearless and efficient. They should be given proctorial powers, subject perhaps to an appeal to the College Principal.

Hostels.

Hostels are of the utmost use if properly supervised. In South India the most absurd ignorance of what constitutes adequate supervision prevails, and it
It seems to be taken for granted that once a building is erected and filled, and supervisors and rules fixed, everything will run smoothly. But unless hostel simply means hotel nothing could be more absurd. From personal experience and from trustworthy sources of information I believe the real question as to the good of a hostel only begins at this stage.

First.—There is the ever present difficulty of resident supervision. The supervisor must live in the building, or so close to it as to be able to visit it at any time, say within the hostel court. Practically this means a Native graduate of the right sort, and to secure him requires a close acquaintance with his character, and a fairly good salary to induce a good man to put up with the inconvenience of separation from his family. Probably it would be better to have two, who would take duty in turns. They should be young and energetic men.

A European is of course useful, but he can easily be deceived in all kinds of ways, and cannot control the food or the bathing arrangements of the students. He is best therefore as Head or Visitor rather than actual Superintendent, and should control the general discipline and finances.

The actual working of Madras hostels is commonly said to leave room for a good deal of improvement.

One is or has been notoriously a hot bed of vice. In another the Native Superintendent is currently reported to play cards most of the night with the students, who are getting more and more convivially inclined, but are otherwise well behaved.

In a third, there is a kind of general boisterous-ness, which takes the form of belabouring the Superintendent with pillows, and playing practical jokes on him, but otherwise things are right enough.

In a fourth, the neighbours heard sounds of revelry by night, including "music and laughter from the bathrooms," which seemed suspicious for various reasons. Of a fifth, I have got a good account, but I do not know much about it.

A sixth is a small one for which I was for some years responsible, and which is conducted on stricter lines. It has worked well for the last three years in a hired house for which Government gives a one-third rent grant. I shall describe it below, as I think it is, on the whole, a type of hostel that might easily be introduced without much expense.

Secondly.—There is the matter of locking up at night. I believe there is scarcely a hostel in Madras where there is a regular roll-call and lock-up at night, or any real security that the inmates sleep inside it and not elsewhere. In other words hostel means hotel.

Thirdly.—There is the need for careful supervision of the food supplies. Students' managing committees often lead to silly waste and extravagance, such as would take place in a house at an English school if the boys were allowed to order the food. If the Superintendent is not of the right sort there may be embezzlement.

Fourthly.—There is the need of enforcing cleanliness, early rising and regularity at meals.

Fifthly.—There is the need of conducting the hostel on the lines of a good Hindu home, so as to secure the observance of useful caste rules and to prevent the students from becoming discontented with the simple fare they receive in vacations.

I think the third, fourth and fifth needs can best be met by an absolute monarchical Government by a Hindu of the right sort, tempered by a Complaint Book to be inspected by the Head of the hostel.
Sixthly.—There is the need of keeping the hostel self-supporting or as nearly so as possible, without at the same time making its rates too dear for the poorer students, and this includes the matter of vacation charges for rent and wages and the salary of the Resident Tutor or Superintendent. This is a matter of some difficulty in the case of the hostel with which I am best acquainted.

The Sri Ramanuja Hostel, Madras.

This is a small hostel for the Vaishnavite Brahman students of Pachaiyappa’s College. It can hold some 15 to 20 residents, including the Resident Superintendent, who is usually a graduate of the college. Other Vaishnavite students of the college can take meals there at a fixed charge. The house is an ordinary Hindu house but with latrine arrangements on a more sanitary system. The rent is Rs 30 a month: of this the Director of Public Instruction gives one-third as a rent grant. The charge, including room rent, is, I believe, about Rs 11 a month. There are no remissions. The Resident Superintendent rules absolutely, but is under the control of the Hostel Tutor or Chief Superintendent, a Vaishnavite Assistant Professor of the College, who in turn is responsible to the Master and Manager, usually the Principal or some other member of the European staff of the college. The hostel is under separate management from the college, and is the better of being so. When the hostel is full and several students take meals there, it practically pays its way, but the cost of superintendence and vacation charges have sometimes to be paid by the Manager.

To start it Rs 75 had to be paid for brass vessels. These and some chairs and tables were presented by Hindu and European well-wishers; more furniture was gradually bought. For the first year, as the Superintendent worked for nothing, the hostel paid its way. During the second and third years, owing to the necessity of giving a new Superintendent room and food free, and to other exceptional circumstances, superintendence and vacation charges were not covered. In prosperous years, or on a slightly larger scale, I think it might be made to pay its way. In any case the small initial charge of say from Rs 150 to Rs 300 is a point in its favour.

The hostel was begun with a good deal of misgiving, as it was considered doubtful whether a Vaishnavite hostel could be a success at all, or indeed could last. It has now lasted for more than three years, and has worked excellently. Caste rules are strictly observed.

There is a regular roll call and lock up at a fixed hour at night, the Resident Superintendent keeping the key and sleeping inside the hostel. The students rise at dawn, perform their ablutions, and get to their work. Meals are served punctually, and the food is plain and thoroughly good. The house is small, but clean and tidy. The students have all along enjoyed the best of health, are orderly, industrious and very well behaved. There is a good spirit of emulation in work, and the best possible relations subsist between the students and the hostel authorities. The European members of the college staff take an interest in it, and look in from time to time. I myself have often visited it without notice, and found everything in order. The Hindu staff are of course of the right sort, and have worked admirably. Only one student has had to be sent away, and that was for faults of temper. The parents of students, orthodox Brahmins from the country, have been greatly pleased with it. During the last few months, owing to the difficulty of getting a qualified Superintendent, a student has been made responsible for the lock-up under the direction of a former Resident Superintendent who lives near. This has worked well, but is of course defective in principle and only a temporary arrangement.

I think Government should encourage the formation of such hostels, as they are both cheap and efficient, and hence can be easily started even by poor
colleges. Government might perhaps give a larger rent grant, or pay wages of superintendence or vacation charges, but it certainly need not do any more.

I am glad to see that Government are about to complete the Victoria Hostel in Chepauk, and to build a new hostel for the students of the Christian College. At the same time I think it would be no harm to remember that the students of Pachaiyappa's College and the Church of Scotland Mission College are just as much exposed to the evils of student life in Madras, and should not be entirely neglected. In this connexion it is much to be regretted that Raja Sir Savalai Ramaswami Mudaliar, C.I.E., has not yet seen his way to fulfil his promise to Lord Wenlock's Government of building a students' hostel on the Esplanade in honour of the late Queen Empress' Diamond Jubilee, on a piece of ground granted for the purpose by the Simla Military Authorities at the special request of the Madras Government. I trust that this philanthropic Raja, whose good works are such conspicuous ornaments to the suburban roads of Madras, may be induced to carry out his laudable design in honour either of the late Queen-Empress or of the present King-Emperor, and thus provide a much needed hostel for the students of the college of which he is so distinguished a Governor.

I think it would also be a good thing if wealthy Native States were encouraged to build hostels, and if British Residents were asked to take an interest in their management and development.

Discipline in religious centres should be specially strict in view of the special temptations in such places.

In religious centres.

Athletics.

The development of athletics is of the next greatest importance, but it cannot be forced. The best ways to encourage them are probably—

1. to provide good athletic grounds, especially tennis, football and cricket grounds, and to keep them up in such a way as to make the games attractive;

2. to impose a small athletic fee on every student, and trust to his seeing that he gets value for his money;

3. for the younger professors and lecturers of every college to play some game at least once a week on the college grounds.

The Madras Athletic Association has done excellent work in organising championship matches, though it has had to depend for support almost entirely on European subscriptions and entries. Compulsory games would be unpopular, and worthless if unpopular. Drill is worse than useless unless it is voluntary. Gymnastics are often unsatisfactory if compulsory.

Students' Societies and Clubs.

Students should not be allowed to join societies outside their college unless the nature of such societies and the characters of the members are thoroughly above suspicion. Societies to which older men and students alike belong, and dramatic societies, should be looked on with suspicion as a general rule. Some are no better than they should be, and some have a very bad reputation.

Students' societies proper, whether confined to the students of one college or not, are always the better of guidance by members of the staff in the matter of the choice of subjects, speakers and chairmen. If properly conducted they do much more good than harm, if not, not. Generally it is a good thing to have only one, and that a strong one, in a college.

Personal Influence.

Though the personal influence of the teacher is always an uncertain element, it is often of great importance, and is perhaps more so in India than in
Europe, as Indian students are generally glad to get and willing to take friendly advice. Perhaps the most obvious ways of doing one's duty by one's students are the following:

(a) **Lending suitable books.**—Of course a register should be kept of all books lent. Students are always glad to get the loan of good books, and usually take good care of them. The practice, if carried out on the lines suggested, not only promotes the students' culture but keeps them in closer touch with their teachers.

(b) **Encouraging students to come and talk over their difficulties** in their work either after class in college, or on holidays at the teacher's house.

(c) **Saying a few plain words of warning** to a student who seems getting into bad habits.

(d) **Playing games** once or twice a week at the college. This is of course sometimes difficult, especially for married men who live at some distance from the college, or for senior men, but the younger European professors might very well do occasionally what English public school masters do regularly. Students are always glad to see their teachers join in out-door sports, and I think there is every thing in favour and nothing against the practice. In some colleges there is too much donnishness in this and in other matters.

(e) **Social gatherings.**—To some extent students may perhaps be asked to play tennis at one's house, if one has a tennis court, and provided they are not expected to drink tea and coffee in defiance of caste. But properly organised social gatherings of the college are probably better. In present circumstances caste should be strictly observed. The breach of caste in minor matters too often leads first to whiskeys and sodas, and later on to brandies and curaçaos in unusual quantities but with the usual results.

Probably Municipal and Native Colleges adopt the happy mean in dealing with students. In some Government Colleges the tendency is towards donnishness and officialism, in some Mission Colleges towards coddling and pampering. I do not know which is the more contemptible. In the one case discipline is everywhere, in the other nowhere. No doubt experience and earnestness will tend to bring about greater uniformity of practice in future, and make it clear that a frank and friendly sympathy does not require a sacrifice of discipline, but rather makes it the easier. Too much is of course often made of this, but still there is room for a further improvement in both directions. In this matter Hindus are just as bad as Europeans. There is no room for the don in India at present, it is the public school master of scholarly mind and broad manly sympathies who is wanted, and who has enough common sense to judge of character and avoid the most obvious errors.

To secure good influence early, far greater care should be taken in the choice of Head Masters and Assistant Masters of Schools, and dismissed masters should not be permitted to be entertained till a full enquiry into the case has been held by the Director or other educational authority. It is astounding to find Managers employing men as teachers whose moral character is notoriously bad. This evil is much wider spread than is realised.

Again, if a teacher is to secure an influence over his pupils he must be left long enough in one place to acquire it. The students must have time to take his measure.

The 14th April 1902.

K. S. LEPPER.
SUPPLEMENT A.

(a) THE VALUE OF THE B. A. EXAMINATION IN ENGLISH,
(b) THE NATURE OF THE GRADUATE MATERIAL UPON WHICH TRAINING COLLEGES HAVE TO WORK,
(c) THE SORT OF MEN WHO OFFER THEMSELVES AS CANDIDATES FOR THE L. T. DEGREE AND WHO BECOME SCHOOL TEACHERS.

The following were selected from the answers given to my paper on Method and School Management (2), 1897:

I. Question.—“The relative value of lecturing and catechetical teaching.”
Answer.—“* * * Many things become intelligible to students when they sit before the teach (sic.) and hear and see words falling from the lips of the teacher.”

II. Question.—How would you explain the italicised portions of this passage and how would you make sure your explanation was effective?

“It is a beauteous evening, calm and free;
The holy time is quiet as a nun
Breathless with adoration; the broad sun
Is sinking down in its tranquillity;
The gentleness of heaven is on the sea:”

Answer No. 1.—“* * * Heaven. Where is it generally located? High up above the skies.”

Answer No. 2.—A nun breathless with adoration, i.e. a female ascetic holding her breath while practising yoga.

No. 3.—“Get from children the natural state of the sea—its roaring waves;
In Heaven everything goes on peacefully, i.e. the murmuring state of the sea has been exchanged for a gentle state, e.g. hen resting on eggs. The gentleness has, as it were, suppressed the ocean waves.”

III. Question.—The main uses of essay writing.
Answer.—“* * * Essay writing is a good training in correcting.”

IV. Question.—Show how you would teach simple proportion.
Answer.—As an example—

“If 3 horses cost R12, what is the cost of 5 horses.”

V. Question.—Teaching notes of a lesson on subordinate and co-ordinate clauses, stating the class for which it is meant and the time it is to occupy.
Answer No. 1.—“Subordinate and co-ordinate clauses may be taught in half an hour for the first form.”

Answer No. 2.—As an example—

“The shock was so great that he fell dead. Exemplify this.”

VI. Question on how to deal with untruthfulness, etc.
Answer—

“White lies” are described as “petty false facts.”

In my 1899 paper on the same subject “Method and School Management (2)” among many other gross blunders, a candidate who had to write teaching notes either on Euclid I., 47 or an eclipse of the sun, and who chose the latter, put the sun during the eclipse between the earth and the moon. These kinds of blunders have been so general in the papers of L.T. candidates during the last five years, that I sent in a list of typical blunders with my marks the last time I examined (1900), but I have heard nothing of it since, and I do not even know whether the Chairman took any action on it or not. I do know, however, that a larger percentage than ever of L.T. candidates have passed the Theoretical Examination since then. I only wish I could believe that this means an improvement in their quality.
SUPPLEMENT B.

ON M.A. EXAMINING.

Greater care should be taken in the selection of examiners for the M.A. degree so as to secure that they really study or have studied the literature and authorities of the subject or period on which they examine.

Specialists, if necessary in Europe or in other parts of India, should be appointed to value the dissertations. This is specially necessary in the literary subjects, e.g. English, Philosophy and History.

At the same time care should be taken that those who examine such dissertations are not the champions of theories which the dissertations attempt to upset by adducing later research.

SUPPLEMENT C.

ON THE VERNACULAR LANGUAGE.

In the opinion of a very experienced Hindu College lecturer of conservative learnings, the vernaculars could have ample justice done to them in the F.A. classes alone, if only present day colloquial and written vernacular were taught, and not vernacular archaisms so dear to the Pandit. In this matter the Pandits should not be listened to, but rather the educated vernacular-speaking graduate.

SUPPLEMENT D.

ON THE PASS AND HONORS COURSES.

The difficulties of the present system of classes of students of varying attainments might be to some extent solved by dividing each paper into Advanced and Elementary Parts. The best students might have special classes (Intercollegiate) to which the more backward would not be admitted who would have their own elementary lectures or coaching instead. I and II class passes would only be given to those who answered the Advanced Part. The present system is bad both for the better and the worse students, and causes much waste of time.
Memorandum submitted to the Indian Universities Commission by Mr. P. Sivasami Aiyar, B.A., Member of the Faculty of Law.

22nd February 1902.

The first point suggested for consideration is the expediency of making the University a teaching body and amending the provisions of the Act of Incorporation so as to make it clear that the University is to be a teaching body. The preamble to Act XXVII of 1857 states the object of the University to be to ascertain by means of examination the persons who have acquired proficiency in different branches of Literature, Science and Art and to reward them by academical degrees as evidence of their respective attainments and marks of honour proportioned thereunto. The aim of the University as set forth in this Act might have represented all that was considered feasible at the time the Act was passed. But it cannot be considered to be a true or adequate ideal of the functions of a University. There cannot be much difference of opinion as to what the ideal of a University should be. A University is essentially a place of teaching to which students from all quarters may resort for all kinds of knowledge. It should not merely provide for the intellectual education of the students, but must inspire them with higher ideals of life and conduct, infuse into them a spirit of culture and enthusiasm in the pursuit of knowledge and must create and maintain a consciousness of membership in a corporate whole. There can be no question as to the necessity of bearing this ideal in mind in any question of University reform or as to the desirability of including it among the objects of the University as defined by Statute. The more important question, however, is whether it is now possible to render our University a teaching body, and if it is not, what steps may now be taken in view of such a consummation at a future date. As regards the feasibility of the ideal, it is entirely a question of money. Given the necessary funds, there will not be much difficulty in starting or maintaining a University equipped on the lines of the older English Universities. In his speech at the Educational Conference at Simla, His Excellency the Viceroy observed that Indian environments are unsuited to an Indian Oxford or Cambridge, and that even if a University came into existence, the students would not be forthcoming. This apprehension is unfounded. If the Government sincerely desires to advance the cause of University education and place it on a sound basis and is prepared to give practical proof of such desire by incurring the necessary expenditure, no difficulty will be experienced in attracting students. The University should be established in a place which, while it possesses the advantage of vicinity to the Metropolis, is yet sufficiently removed to be free from the distraction of a town life, which would be pervaded by an atmosphere of learning and culture, and which would possess healthy, moral and physical surroundings. It would imply the creation of a number of colleges surrounding the central institution and the outlay required will be very large, though not disproportionate to the benefits to be derived by the country. If the ideal of a University is to be realized in the near future, it can only be brought about by Government endowment. It is of no use to compare this country with England and to lay down that the promotion of University education must be left to the munificence of private benefactors. So far as this Presidency at any rate is concerned, the educated classes who appreciate the benefits of a University are not opulent enough to be able to provide the necessary funds for the purpose. The cost will therefore have to be borne almost wholly by the Government. If the Government should think of establishing a University it would not be necessary to endow (in the sense of bearing the whole cost) more Universities than one for each Presidency. If the people are able to start for themselves well-equipped Universities in different parts of the Presidency they may be allowed to do so. Till then, the University which will be endowed by the
Government will be the only University in the proper sense of the term to which students can resort, and it may be desirable to compel students desirous of obtaining degrees to resort to this University and to refuse to recognise residence or study at colleges not forming part of the University. But until the time arrives when a central University with a group of colleges surrounding it comes into existence, it will be neither desirable nor expedient to do anything which will affect the usefulness, popularity or influence of any one of the colleges in Madras or in the mofussil. Besides the question of cost, there are other difficulties likely to be encountered in the creation of a true University. A city of distances like Madras is unsuitable for the formation of a University and the location of the University at some other place within easy distance of Madras would involve the abolition or removal of the colleges now existing in the Presidency town, and though it is perhaps possible that the private agencies in charge of many of the colleges might be subsidised to enable them to transfer their operations to the situation of the proposed University, serious opposition may be met from these agencies. The opposition would not be insurmountable, but it would require a liberal expenditure of money to overcome it. As, however, the Government is likely to require all the money it can spare for military expenditure, famine and other purposes of a more pressing character, it may be too much to expect the Government to spare the funds required for the advancement of University education. While the prospect of the University being in a position to discharge its proper functions appears to be distant, it would not be correct to assume that the University does nothing at present to encourage efficiency of teaching. By means of the examinations which it holds and by the control which it is in a position to exercise over the affiliated colleges, the University can, and does, influence the courses and methods of teaching to a very large extent. While the affiliated colleges are not part of the University in the sense that they are as a matter of right represented on the governing body and are not members of a corporate whole, they are practically bound to conform to the regulations that may be prescribed by the University. The professors and teachers in these colleges have to be, and many of them are, men of high attainments and abilities. Very useful work is being done by many of these gentlemen and it would be unjust to depreciate their labours. The value to the average undergraduate of the direct teaching of a University professoriate is liable to be exaggerated. I have been told by some of my friends who have knowledge of University life in Oxford or Cambridge that though the teaching work of the University professors is of a very high order, it is ordinarily above the capacity of the ordinary undergraduate and that the teaching which really benefits and influences the large mass of undergraduates is the teaching in the colleges. The higher kind of teaching of the University professors will stimulate a few of the most intelligent students to devote themselves to original thought or research and may thus be of great value to the country. It might be possible to inaugurate a central institution in Madras for teaching students for the more advanced degrees. Even this institution may be attended with success, but the immediate benefits of it will be confined to a very small circle of the most intelligent students. If it is desirable that the benefits of University education should be extended and diffused, if it is desirable to create a general feeling of fellowship among the alumni and of attachment and loyalty to the University, the end in view cannot be achieved by an institution intended only for a very select few. While the establishment of such an institution would not justify us in flattering ourselves with the belief that we have got a true University, it would be a step in the right direction. The danger of multiplying institutions which are fixtures in the city of Madras and which are likely to stand in the way of the establishment of a central University outside the Presidency town may be forgotten in view of the slender chances of the ideal being realized in the near future. While it might be impracticable to provide a University life or atmosphere for the benefit of the hosts of students who throng to the University, it would be possible for the University with the help of the Government to promote in various ways a thirst for advanced courses of learning and a love of original research. The University may establish a number of Research Fellowships in the different
branches of Physical and Natural Science which might be attached to the Presidency College or any other College which happens to possess the necessary appliances and facilities. Such Fellowships might be made tenable for a period of five years and might be awarded to distinguished students who have given promise of aptitude for original work. The Fellowships ought to carry a stipend of about Rs. 100 per mensem. Some of them should, like the Craven Fellowship in Oxford, carry with them the obligation of travelling to and residing in European Universities. Fellowships which impose this obligation should carry a higher stipend, say £200 per annum. The Research Fellowships may also be required occasionally to deliver courses of lectures at the University and may be permitted to receive in whole or in part the fees which may be levied for such lectures. Post-graduate courses may also be arranged by the University for the higher examinations and a number of scholarships may be awarded by the University every year to enable a select number of students to prosecute advanced courses of study. In this connection the system of linked lectures mentioned by His Excellency the Viceroy might be brought into existence and professors of different colleges might with advantage be invited to deliver courses of lectures on their special subjects to students desirous of going through a post-graduate course.

While it is expedient to provide for the appointment of University professors and lecturers to be paid for by the University, I have serious objection to the preparation of a list of recognised teachers by the University and the imposition of an obligation upon all affiliated colleges to employ none but such recognised teachers. I have no objection to the University prescribing generally that the teaching staff of affiliated colleges should possess certain qualifications. The rules of affiliation adopted by the University enable it to exercise supervision in this matter; and if it is found that the qualifications of any member or members of the teaching staff of a college are not up to the mark, the University may bring pressure to bear upon the college in question to employ more suitable men. But it is unnecessary and inexpedient for the University to undertake the preparation of a list of qualified teachers and to restrict the choice of managers of institutions to persons mentioned in these lists. I do not believe that the selection of the individuals to be included in the list will never be influenced by personal considerations and that the selection must necessarily be wiser than the selection by the managers.

Another important reform which is necessary and feasible is in regard to the appointment of professors in the Government Colleges. The conditions of service, of pay and promotion that now obtain in these institutions involve the frequent change of professors and of the same professor from one subject to another. Such change cannot but have a detrimental effect upon the efficiency of the teaching. A yet more important departure is necessary in regard to the selection and appointment of professors. In selecting men for the professorships, care should be taken to appoint men who have done original work, or have at least given proof of capacity for such work, and they should be appointed on the understanding that they are expected to devote themselves to original work as well as teaching. About 20 years ago the professors of the Colleges used to work for something like 20 hours a week, but Mr. Grigg, the then Director of Public Instruction, imagined that the large number of hours of work interfered with the carrying on of any original work by the professors and so resolved to reduce their work to ten or twelve hours a week and provided them all with assistants in the fond hope that the leisure thus provided would be utilized by the professors for the carrying on of original work. That hope has not been realized yet. And except Doctor Bourne, who, I am informed, has done original work, I am not aware that any professor of the Presidency College has done any original work at all. In his speech at Simla Lord Curzon stated that there has been no stint in the outpouring of intellectual life in the educational institutions of the country, at any rate in those founded by the Government. I am afraid that this remark is not accurate. The men who have been appointed professors in the different Colleges have not been distinguished by any capacity for any original research. A charge frequently levelled against the Indian graduates is a lack of originality. But when one remembers the facilities that are required for original work and the struggles in life of the Indian graduates and remembers also that, though provided with all the appliances that the
resources of Government can furnish and with all the encouragement of comfortable salaries and favourable leave allowances and exchange compensation allowances, the professors in the Government Colleges have done little or next to nothing, the condemnation pronounced upon the native graduates will be seen to be undeserved.

If it is not possible to secure the services as professors of distinguished graduates with capacity for original work, there is no reason why A ve should not revert to the old system under which the professors of colleges were obliged to work for about 4 hours a day. Such a system might permit of the classes being split up and taken in sections by the professors, so that greater attention might be paid by them to individual students. Opportunities for a closer acquaintance with the students would be available and might be utilised for strengthening the attachment between professors and students. It is a well known fact that during the last twenty years there has been a growing want of touch between the professors and the students especially in Government colleges. Very few of the professors know even the names of their pupils and take very little interest in their students in the concrete and the result cannot but be regarded as a serious defect in the system of education. Some of the best influences of a college life are due to the personal example of the teacher and his ability to win the affection and regard of the students. This loss of touch has been admitted even by some of the professors themselves, but as to the causes which have led to it, different explanations have been put forward. One explanation suggested is the unwieldiness of the classes which prevents the teacher from paying attention to each student and obliges him to deal with them in the mass. It has also been suggested that the handsome salaries received by the professor of the Government colleges induce them to keep aloof from the students. It may perhaps be the case that the temperament of the modern professor is different from that of the professors we used to have in olden days. But we find also that in the Missionary and other aided colleges there is a closer contact between the teachers and the taught and the professors take a keener interest in the welfare of their students. What the real explanation of this state of things is I am not in a position to state; but I cannot help thinking that it is one which deserves the attention of the Government and calls for a remedy.

Among other measures which may be taken for the purpose of creating an esprit de corps among the undergraduates and a healthy college life is the provision of hostels in connection with different colleges.

I shall now pass on to the subject of the affiliation of the colleges. The Madras University has recently considered the subject and framed rules of affiliation which I consider to be quite sufficient to enable the Senate to judge of the efficiency of the affiliated colleges. I should strongly object to the University compelling the affiliated colleges to levy any particular scale of fees or to employ as teachers only the persons included in a list of qualified teachers.

I shall next proceed to the subject of examinations. In the memorandum of points sent to me by Mr. Sankara Neir, it is stated that there is an impression that examinations tend to lower the aims and prevent the methods of education. And in his speech at the Simla Conference, His Excellency the Viceroy asked the question whether the academic standard of examinations was sufficiently high or unduly low. Whether the tendency complained of is considered to be peculiar to University examinations or examinations generally, I do not know. The question, however, which may be considered here is whether the University examinations may be said to have lowered the aims and perverted the methods of education so far as the academic standard of the examinations in this University is concerned. I do not think that it is low. The heavy slaughter in the Matriculation examination of this University referred to by the Viceroy in his address proves, if anything, the severity of the standard adopted. Lord Curzon remarked on the same occasion that by making examinations the sole avenue to employment in the service of the State, the Government unconsciously made examination the sole test of education, and that the result of the system was to encourage cramming to a degree unsurpassed in any country except China. With reference to this remark, I would observe firstly that if examinations have been made the sole avenue to employment in the Public Service, it is not the
fault of the University. I would also remark that one is inclined seriously to
doubt whether His Excellency was speaking with a full knowledge of the condi-
tions of the Public Service when he said that examinations were the sole avenue
to employment in the service of the State. While some regard is paid to the
qualifications of the candidates for employment as tested by the fact of their
having passed particular examinations, it would not be correct to say that the
heads of the departments or the various officials who have to engage their subordi-
nates do not pay sufficient attention to other requirements whether of a general
character, such as physical or moral qualifications, or of a special character
according to the needs of the particular department. A pass in an examination is
only one of the qualifications required by the Government. It may be that
the possession of this qualification is held, other things being equal, to justify
the preference of a candidate and it may perhaps be that in some cases it is
considered indispensable. But it does not mean that other qualifications are not
attended to by the Government. If success in a pass examination is not to be
considered as even one of qualifications for employment, the only other alterna-
tive will be selection by recommendation or favouritism. Whatever faults it
may be possible to find in a system of examinations the system of appointment
without any reference to examinations is open to far graver objections. I may
point out that the system of competitive examinations which is more objection-
able than a system of pass examinations, has not produced any evil effects upon
the character of the Indian Civil Service which is recruited by that method and
the efficiency of which is praised in very high quarters. I take it for granted
that employment in the Public Service requires certain general educational
qualifications and whether candidates possess such educational qualifications or
not must be tested by some method or other, before the Government makes the
selection. The least invidious and objectionable method of ascertaining such
qualifications is by means of an examination. If an examination is to be adopted
for the purpose of testing the qualifications of the candidates, is there any
reason for holding that the University examinations are not a sufficient test and
that some examination unconnected with the University should be adopted as the
test? So far as general attainments are concerned, the University examinations
afford in my opinion a sufficient test and it is utterly unnecessary to institute a
separate examination.

Mr. Justice Candy at Bombay recently remarked that it was the intention
of the Government to cease to recognise the University examinations as a
qualifying test and that it was intended to institute a separate examination to
qualify for entrance into the Public Service. I do not believe that any separate
examination instituted by the Government is likely to be more efficient than
the examinations conducted by the University. Whatever objections may be
urged against making success in a University examination a condition of employ-
ment in the Public Service, will apply with equal, if not greater, force to
examinations which may be held by the Government. Whatever objections may be
urged against holding a separate examination for the purpose of testing not the
general attainments of the candidates, but such special knowledge or qualifica-
tions as are not tested by University examinations. But the proposal to institute
a qualifying examination for entrance into the Public Service which
all candidates for employment in the Public Service should pass, is open to very
great objection. It would induce large numbers of young men to go up for this
examination, while the number of appointments which can be given must
necessarily be very small in proportion to the number even of the successful
candidates. The examination being held specially for the purpose of entrance
into the Public Service, it will call into existence huge crowds of disappoint-
ased aspirants. The only practical effect of such a separate examination would
be to divert a large number of youths from the University to this examination,
to create a large body of discontented office-seekers and to deal a serious blow
to the cause of the University education. For many reasons it is not, I think,
desirable to do anything which will place a check upon the numbers of those
who seek a University education. It would, therefore, be a very unwise and a
retrograde measure to institute separate examinations for the purpose of testing
the general attainments of the candidates for the Public Service or to cease to regard success in the University Examinations as a qualification for employment. I do not see how this association of the Public Service with University Examinations can be said to have prejudiced the University. The University does not regulate its examinations or the methods of teaching with the object of providing a passport to the Public Service. If the University was induced by any such object to swerve from its legitimate aims or to adopt methods which it would not, and should not, have otherwise adopted, there might be ground for complaint. But I do not think that our University can at all be charged with having regulated the aims and perverted the methods of education. That examinations have, all the world over, a tendency to encourage cramming, is a fact. But it is not characteristic of University Examinations more than of other examinations. Examinations are absolutely necessary as a test of attainments. There must be examinations of some sort by the University or by the Colleges themselves. If a system of _vivd voce_ examination could be adopted, I can conceive of no more efficient test of a person's attainments. But there are serious practical difficulties in the way of applying the _vivd voce_ system to a large number of candidates and we are obliged to resort to examinations in writing. Examinations by the Colleges themselves are for several reasons unsuitable to be recognized as qualifying for a degree. Apart from the special considerations which are applicable to local conditions, it is desirable that all those upon whom the University sets its hallmark for the degree should possess, as far as possible, a definite standard of attainments. It will be undesirable that the University should set the same seal upon a number of undergraduates from different colleges with widely different levels of attainments. That examinations have, all the world over, a tendency to encourage cramming, is a fact. But it is not characteristic of University Examinations more than of other examinations. Examinations are absolutely necessary as a test of attainments. There must be examinations of some sort by the University or by the Colleges themselves. If a system of _vivd voce_ examination could be adopted, I can conceive of no more efficient test of a person's attainments. But there are serious practical difficulties in the way of applying the _vivd voce_ system to a large number of candidates and we are obliged to resort to examinations in writing. Examinations by the Colleges themselves are for several reasons unsuitable to be recognized as qualifying for a degree. Apart from the special considerations which are applicable to local conditions, it is desirable that all those upon whom the University sets its hallmark for the degree should possess, as far as possible, a definite standard of attainments. It will be undesirable that the University should set the same seal upon a number of undergraduates from different colleges with widely different levels of attainments. There was a very loud cry against examinations about 15 years ago in the English Magazines. But I am not aware that any less objectionable test has been discovered. While I admit that multiplicity of examinations is an evil, I consider it indispensable to have some examinations at least. Fads have their dangers as well as their advantages and I think that the anti-examination fad is also likely to cause mischief. One disadvantage of associating entrance into the Public Service with University education is alleged to be that it induces people to resort to the University with what has been called a commercial object. The dissociation of the University from the Public Service and the institution of a separate examination would on the other hand tend to make our young men go through such course of education as may be necessary for the Government examination, with a yet more direct and unalloyed commercial object. It may be said that the elimination of those who are desirous of entering the Public Service would be a gain to the University. I do not share this view. The number of those who enter a University career with the object of devoting their lives to original research or to the advancement of knowledge will necessarily be small in any University. There is a great deal of exaggeration about the pursuit of knowledge for the sake of knowledge alone. I should be satisfied if knowledge were recognized as one of the ends to be pursued in a course of University education.

Apropos of examinations I think that either the Matriculation or the F.A. Examination may well be abolished. The abolition of the Matriculation Examination will have a serious effect upon the financial equilibrium of the University and will therefore have to be carefully considered. If the funds required to carry on the work of the University could be otherwise provided, it may be a matter of indifference whether it is the Matriculation or F.A. Examination that is abolished. Some sort of examination will no doubt be necessary before admitting students to a college course. But whether such examination should be held by the admitting college or by the High School which prepares the student for such entrance is a question upon which opinion may be divided. It may be preferable to leave it to each admitting college to institute its own examination for entrance. The interest however which the aided colleges have in the collection of a large fee income which is impressed on them by the Director of Public Instruction as an object to be steadily kept
in view, may induce them to admit a large number of students who may not be really qualified to enter upon a University course with the result that the spectacle of an immense slaughter now witnessed in the Matriculation examination would be transferred to the Degree examinations. Having regard to this consideration of the protection of the University revenue it might be preferable to abolish the F.A. instead of the Matriculation examination. In connection with this subject, I may remark that any increase in the number of examinations to be held by the University is to be strongly deprecated. I do not approve of the institution of a Pass course and an Honors course for the B.A. Degree.

The chief reason urged by Prof. Sathianadhan is that it would enable the teacher to sift the intelligence of the students and divide them into two classes, the slow-witted and the keen-witted.

I do not believe in any such process of dichotomy. There are degrees of dulness and degrees of intelligence and they would not be sufficiently classified by any such single process of division as those who seek the Honors course and those who seek the Pass course. There is also the fact that people will be unwilling to recognize their fitness for the inferior course only. Students who desire to attain higher honours can go up for the M.A. Degree and it is not necessary to institute Honors course. I do not approve of the proposal to oblige students to learn a classical language in addition to English and the Vernacular.

I shall now come to the question of the composition of the Senate and the Syndicate. The total number of Fellows in the University of Madras is 198. I may first of all observe that no inconvenience has been felt by reason of the number of Fellows. A large number of the Fellows reside in the Mofussil and a considerable number of those resident in Madras seldom attend the meetings. Many of the Fellows, European and Native, attend only the meetings at which elections have to be made. I feel justified in saying that no inconvenience has been felt by reason of the size of the Senate. It is, however, a totally different question whether it is necessary to have members who do not attend except for the purpose of election or do not take an active interest in the affairs of the Senate. It must be admitted that it is not necessary. The principles which have to be borne in mind in determining the composition of the Senate are (1) that the heads of the Principal colleges should be members of the Senate, (2) that the official element should not be allowed to preponderate, (3) that there should be a considerable element of persons who are neither officials nor educationists. The number of ex-officio members should not be such as to give them a majority.

In this connection it is necessary to remember that if the heads of all colleges were to be ex-officio members of the Senate, it would tend to give preponderating voice to the missionary institutions. Out of 12 first grade aided colleges and 40 second grade aided colleges, 6 first grade colleges and 22 second grade colleges are managed by missionaries.

The number of non-ex-officio Fellows ought to be at least twice as large as the number of ex-officio Fellows. And of this number half should be appointed by the Senate itself and the remaining half by the graduates. I do not think it desirable or necessary that the Government should have the right of appointing Fellows. The nomination made by election the graduates have compared very favourably with those made by the Government and the duty of making the appointments may safely be entrusted partly to the Senate and partly to the graduates. As regards the qualifications of the graduates who are to be entitled to vote for members of the Senate, the rule now obtaining prescribes a qualification of 20 years' standing as graduates. This qualification is absurdly narrow and I would extend the franchise to all graduates of 5 years' standing or at least to graduates of 10 years' standing (of whom there are now about 1,154). One of the conditions of lowering the franchise would be to make the graduates feel that they have an interest in the management of the University and to promote a sense of corporate life. A very mild proposal was made about 18 years ago to establish a Convocation of graduates, but for some unaccountable reason it fell through. Perhaps the idea of receiving useful advice from the Convocation which was imprudently put forward as one of the grounds
of the measure was distasteful. I think, however, that that proposal for a Convocation of graduates is unsuitable in that it does not go far enough and that the council of graduates should have a larger voice in determining the composition of the University and should have the power to make representations from time to time to the Senate upon questions affecting the well-being and prosperity of the University and the Senate should be obliged to consider the same and return to the Council of graduates their decision thereon. I see no objection to the provision that the persons to be appointed Fellows should possess academic qualifications. I think it, however, objectionable to make the Fellowship tenable for limited periods only. Non-attendance for a period of six months may be made a ground of forfeiture. As regards the Syndicate, the number in Madras, is, I think, too small, and the number may be increased to a maximum of 15 including the Vice-Chancellor. It is not necessary to place the Syndicate on a statutory basis. It is sufficient to provide that the Syndicate shall perform such duties as may be assigned to it by the Senate. Here, again, care must be taken that the official element does not preponderate in the Syndicate, and that there is a proportion of non-official and non-educational men. The Syndicate should be confined to Fellows resident in Madras and it is not necessary that it should represent all the colleges.
1. SHOULD THE UNIVERSITY PROVIDE UNIVERSITY CHAIRS IN VARIOUS BRANCHES OF LEARNING.—There can be little doubt of the superiority of a teaching University over a mere examining body. The main difficulty in converting our Indian Universities into teaching bodies is, presumably, the great expense it would involve. A beginning might be made on a small scale by the appointment of selected Fellows of the Universities to fill, for limited periods of 2, 3 or 5 years, various chairs, such as chairs in,—(1) the English Language, and Comparative Philology, (2) English Literature, (3) Modern History, (4) Archaeology, (5) Mental and Moral Philosophy. I omit purely scientific subjects such as Biology, Physics and Chemistry, merely on the ground of the laboratories required for lectures in such subjects.

My idea is that, for the five subjects named above, five Fellows should be selected to deliver annual courses of 8 to 12 lectures, for which they should be paid from £150 to £200 a year each. It should be understood that at the end of their annual courses, their lectures would be published by the University. The cost of my scheme would roughly be Rs. 15,000 annually. A fair amount of this would be recouped by the fees charged for attendance on the lectures which should be open to everybody on payment of a fixed fee for the whole course of lectures in each separate subject.

2. THE ELECTION AND SELECTION OF FELLOWS.—No doubt suitable regulations should be made for electing Fellows. My view is that none but Fellows of five years' standing at least should elect Fellows.

It is not meant that the rules under which two Fellows are annually elected by Graduates of 20 years' standing and upwards have worked badly, but it is a serious fault in these rules that unless Fellows of the University are also graduates of the Madras University they should have no voting powers. The powers of Government to veto such elections and to Gazette as Fellows persons selected by itself should be clearly defined.

3. THE SYNDICATE.—It is certainly most desirable that the executive body of the University should have statutory powers. Some of us have long held that it would be advisable to raise the strength of the Syndicate from 9 to 12, by the addition of three more Syndics in Arts. The Allahabad University, with about one hundred Fellows has a Syndicate of 19 members which is very nearly one-fifth of the the total number of members composing the Senate, while the Madras University with about 200 Fellows on its rolls has its affairs managed by a Syndicate of 9 or less than one-twentieth of the whole Senate. The proportion seems too high in the one case, and too low in the other.

4. STRENGTH OF THE SENATE.—The custom apparently is always to keep the names of Fellows on the rolls as long as they reside in the East. It would seem advisable to eliminate the names of all Fellows who reside in other Presidencies or Burmah, or who for reasons of distance have not attended a single meeting of the Senate for, say, 3 years. This would sensibly reduce the list. Dummy Fellows cannot be of any use to the University, however eminent they may be. Provision might be made for restoring to the list of Fellows the names of those struck off, in case, by any chance, they should return to this Presidency and once more be willing to take an active interest in University affairs.

As regards the suggestion that Fellowships should be made terminable, a scheme for doing this might be worked out, but provision should be made to allow of each Faculty restoring Fellows whose term had lapsed, in case they found them useful and necessary members of the Faculty to which they belonged.

5. GOVERNMENT'S CONTROL OVER THE UNIVERSITY.—It seems desirable to draw attention to the powers exercised by Government in overriding the action of the Senate and the Syndicate. The Senate after much careful consideration passed, in 1901, a scheme for the revision of the Matriculation Examination. In the usual course this scheme was submitted to Government for
sanction, but has been very recently vetoed in regard to its most important points. It seems highly desirable that the University should be left free to manage its affairs and prescribe its courses of study. So long as the University received grants from Government it was reasonable that it should be more or less under Government control, but it would now seem to be a sufficient guarantee of the proper management of its affairs that the Chancellor and Vice-Chancellor of the University should always be, as they are, Government nominees.

6. UNIVERSITY SUPERVISION OVER AFFILIATED COLLEGES.—It is in every way desirable that the Syndicate should exercise much greater control over its affiliated Colleges—more especially of course those of the Second Grade,—than it now does. All well conducted Institutions would welcome a visit from a University Syndic; those that are not well conducted could not fail to be benefited by the advice and admonition given them. The result of a biennial or triennial visitation would be, (even in thoroughly well conducted Colleges,) to strengthen the hands of the Principals, who, through the Syndicate, could bring pressure to bear on their managers to supply some of their most crying needs.

It would be a decided gain to education if a strict enquiry were made into the stability, class strength and teaching power of all Second Grade Colleges. In my view any College that cannot show an average strength for the last 5 years of, say, 40 College students in its two F. A. classes should be struck off the list. If course exceptions would in certain cases be made by the Syndicate, but where there are two competing Colleges in the same Town, the one which is a weak and inefficient Institution should go to the wall.

If the Syndicate were to send one of its own body, with a selected Fellow or two, to look carefully into the educational needs of such Towns, much good would eventuate from its enquiries. That the list of affiliated Colleges requires revision is a matter beyond question. The only way for the Syndicate to convince itself of this fact is to make a thorough inspection of such Colleges.

There is a suggestion that the Commission should visit a certain number of Colleges. I would suggest a visit to Coimbatore where there are two Second Grade Colleges, both aided, I believe,—to Palghat where there is one of the largest Second Grade Colleges in the Presidency under Municipal management (aided), and under the same strict rules as if it were a Government College,—and to Calicut, where there is a large Second Grade College called the Zamorin's College, unaided. These three stations are all on the same line of rail. It would take 3 days to visit them, and the Sub-Committee of the Commission might be back in Madras in the early morning of the fourth day.

7. UNIVERSITY EXAMINATIONS.—While it is highly probable that great good might result from "passing the courses of study now prescribed by the University under review," it would not, *me judice,* be right to say that the Madras University had either "lowered the aims" or "perverted the methods of education" in Colleges. This seems to be another way of saying that the University has encouraged "cram," so-called, by the courses prescribed and the nature of the examination papers set. Certainly the University of Madras does all in *its* power to discourage "cram," but, writing as an educationist of nearly 33 years' Indian experience, it seems to me next door to an impossibility to prevent, more especially in India, what is opprobriously called "cram." Many years ago the University thought it would effectually put a stop to "cram," so far as the English of the Matriculation course was concerned, by abolishing the English Text-book, and prescribing an English Language paper and a paper in Translation. The outcome of this action has not been by any means as satisfactory as it was expected to be. Instead of learning their Text-books and the notes thereto almost by heart, candidates for Matriculation now "cram" up in private "Manuals of English." That their powers of expressing themselves better in English has improved under the present system in the last 10 years few of us believe. The extension of knowledge, as far as English goes, is now, of course, very much greater than it was, say 15 years ago, but the intention of the subject is much less.

I venture respectfully to contend that, if a student has thoroughly mastered an English Text-book, containing selections from good English authors in
Prose and Verse, he has acquired much more valuable knowledge than if he has merely learnt by heart some "Manual of English." At present we all of us compel the study of some English Text-book in our Matriculation classes, but as these Texts have no University value those who are brought unwillingly to the study of them rarely assimilate their contents.

8. A University Library, the Need of.—It does not seem possible that the various Madras University Syndicates and University Registrars could have overlooked the need of a good University Library. The present apology for a Library does not meet the wants of a University that has been in existence for nearly half a century. Without delay efforts should be made to build up a good Library of the best standard works in all departments of Literature and Science. Fellows who are specialists in various branches of learning might be asked to send in lists of works from which careful selections should be made. A sum of, say, £2,000 should be spent at once in procuring the works selected and an annual sum of Rs. 4,000 to 5,000 allotted for additions for the next 15 or 20 years, until the Library is in some way commensurate with the dignity of the University. The by-laws relating to the University Library should permit the use of it by Fellows at any time, and even allow of their borrowing volumes from it. Under certain mild restrictions any graduate of the University should be permitted to use it freely. All this would necessitate a Librarian, an Assistant Librarian and a peon or two, or, say, an expenditure of Rs. 2,000 per annum on the Library staff.

I would even go one step further in this matter and urge that the Libraries of all Colleges affiliated to the University should receive occasional grants of money or books from the University with a view to strengthening their libraries.

9. Mofussil Fellows.—Something might and ought to be done to bring Fellows of the University, who reside in up-country stations, into closer touch with the University. At present a Fellowship is a bare honour and very little more.

Some of us have given much time and thought to University affairs and attended meetings of the Senate, at considerable personal expense and trouble, in order to vote on important questions. The Act of Incorporation does not, apparently, permit of proxy voting. In certain matters up-country Fellows would consider it a decided advantage if they had the power of voting by proxy,—more especially in the case of the annual Election of the Syndicate. Most of the Fellows residing in the Mofussil are Principals and Professors of Colleges, so that their votes by proxy would almost invariably be given in a way to strengthen the executive of the University.

10. Honorary Degrees.—It would certainly be advisable to allow the Universities to confer Honorary Degrees on distinguished Teachers connected with affiliated Colleges. Such a Degree, for example, as Doctor in Literature would be one which, rarely given, would be highly valued.

II. Certificates to Candidates for Examinations.—The rules on this point should be made much more stringent than they are. At present we have to certify of each candidate for Matriculation that "his conduct and progress has been satisfactory." I would substitute for the words in italics some such phrase as the following:—"I have been such as in my opinion make it probable he will pass the Examination." For the F. A. Examination the final term certificate runs "that his progress and conduct have been satisfactory, and that he has completed the course of instruction prescribed for the First Examination in Arts." This form requires to be worded much more strongly, so as to make it imperative on Principals of affiliated Colleges to certify themselves that the candidates permitted by them to send up their names stand, individually, every chance of successfully undergoing the test.
NOTE ON THE TEACHERS' COLLEGE, SAIDAPET,

BY

MR. A. A. HALL.
TEACHERS' COLLEGE, SAIDAPET.

The staff consists of a Principal (a European specialist), a Vice-Principal (a European specialist), six senior assistants, three junior assistants, a Gymnastic Instructor and a drawing master.

The students are of three grades, the lowest must have passed the Matriculation examination, the next higher the F.A. standard, and the highest are graduates of the University either M.As. or B.As.

Each student signs an agreement, by which he binds himself to serve in a Government or an aided school for a period of three years after training. In return he receives a stipend from Government as follows:

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Stipend</th>
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<tr>
<td>A Matriculate</td>
<td>10 Rs.</td>
</tr>
<tr>
<td>An F.A.</td>
<td>12 Rs.</td>
</tr>
<tr>
<td>A B.A.</td>
<td>15 Rs.</td>
</tr>
<tr>
<td>An M.A.</td>
<td>20 Rs.</td>
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In this college there are, at present 17 Matriculates, 27 F.As., 36 B.As., two M.As., and two lady students (F.As.). Last year we had a Native Christian lady (a B.A.).

The total cost of the college last year was Rs. 40,000.

Attached to the college is a practising school consisting of 420 boys; the lowest standard is the infant or the kindergarten class and the highest is the matriculation class.

Every student lives in quarters provided by Government. The cost of living is about Rs. 9 per mensem per student. The boarding houses in which the Brahmans, Sudras and Christians live form the Teachers' College Hostels.

All the Gymnastic Instructors required for schools in this Presidency are trained in the gymnasium, which forms part of the college. At present we have sixteen students under training, who have passed the Primary examination. The staff consists of a Gymnastic Instructor and a Drill Instructor and a pensioned jemadar. They also have to sign an agreement binding themselves to serve for three years in Government or aided schools. The cost of the gymnasium is Rs. 1,500 per annum. (Copy of the rules enclosed, Appendix I.)

For teaching purposes the students are divided into a senior section and a junior section. The senior section consists of M.As. and B.As. and the junior section of F.As. and Matriculates. In the mornings the senior section is lectured to, while the junior students are at work in the practising school. In the evenings the junior section is lectured to, while the senior students are at work in the practising school. In the morning and in the evening the school work is divided into three periods, and every student teaches under supervision for at least two periods.

The senior students receive instruction in organization, method and school management, history of education and principles of education. I am enclosing, for your perusal and guidance, the detailed syllabus drawn up by the University. (See Appendix II.)

The graduates appear for the L. T. Examination of the Madras University, while the F.As. and Matriculates are examined by a Board appointed by Government.
In addition to these subjects, more particularly relating to Pedagogy, every student in the college and every pupil in the practising school receives instruction in drawing and in drill.

Students' Societies play an important part in the training of teachers. The Teachers' Association hears lectures from the principal educationists of Madras and the Popular Science Club attached to the college gives instruction in science to those who are not science specialists. I enclose for your perusal a copy of the lectures and the debates which show the work of these societies during last year (see Appendix II).

I will now endeavour to give an idea of the practical training which each student receives. The practising school is divided into three blocks. Each block consists of six classes and over each block is placed a permanent assistant who is called a Superintendent. The students teaching the classes in these blocks are supervised and controlled by the Superintendent. At the beginning of each period the student brings to the Superintendent 'notes of lessons' which he has previously prepared and which show exactly what the student is going to teach. I enclose for your perusal 'notes' which were actually prepared by a student (see Appendix IV).

The Superintendent watches the student's teaching and he notes in a notebook the good and the bad points that he observes in the teaching. After the lesson is over, he shows the student the mistake that he has made. The student is aware of his shortcomings and in the next lesson that he gives, he strives to correct those mistakes that he has previously committed. This perhaps is the most important part of the work done at this college, and I think we may regard the system as satisfactory when we consider that, although the students are in many cases, quite without experience, the results of the Practising school in all public examinations, are far above the average of the Presidency. For instance, in the last University Matriculation Examination, we sent up the whole of the sixth form and 15 out of 20 passed, with one in the first class, whereas the average of all the passes in the Presidency was about 27 per cent. I enclose, for your perusal, a few pages of the note-book of one of the Superintendents. (See Appendix V.)

Another interesting feature in the training of the students is the Criticism Lesson.

Each student, during his period of training, gives three criticism lessons. A criticism lesson is conducted as follows. A student who is selected to give the lesson prepares beforehand 'notes of lessons' on some subject which has been selected by the Principal. He then teaches the lesson to a class brought from the practising school before the Principal and the normal students of his section. At the conclusion of the lesson, the Principal calls upon two or three of the students to criticise the teaching of the teacher and to notice specially faults in language, manner, questioning and method. The Principal finally criticises the teacher and the remarks of the lesson are noted in a criticism register as a guidance to the Principal and to the student. I enclose, for your perusal, a specimen page of such a criticism register (see Appendix VI). I think these lessons are as helpful to the student as anything we do.

For the purpose of giving the students training and experience in a variety of subjects every two months, there is a total change in the subjects and in the classes the students have to teach. At the end of each two months each Superintendent reports on the work of the students who are under him. When the report is satisfactory, the Principal praises the students; when it is unsatisfactory, the Principal interviews the students. I enclose a copy of one of these reports (see Appendix VII).

The lecturers in method show in practice by means of a "Model Lesson" what they teach in theory. These model lessons are given once a week. Suppose,
for instance, the method master has been lecturing on the proper mode of teaching arithmetic. He arranges a class from the practising school and he exemplifies his lecture by teaching this class arithmetic before the students. A discussion is held afterwards between the lecturer and the students and the lecturer makes all doubtful points clear.

The use of the black-board I consider most important in the training of teachers. I do not attempt to get artistic excellence, but every student is taught to be neat and clear and ready in sketching illustrations. Skeleton maps, simple drawings from memory, the figures of Euclid are of great educational value. It is surprising how bad the natives are at black-board work when they come to the college and what rapid progress they make when once they settle down.

We pay special attention to the reading of English. Slow, clear, and distinct enunciation is what we aim at. From experience I find that students who come to this college have neglected this important subject in their arts course.

In this Presidency the number of students trained is almost equal to the demand. Every student who was trained last year found employment and the average pay was Rs. 20 for a Matriculate, Rs. 30 for an F.A. and Rs. 50 to Rs. 100 for a B.A. or an M.A.

I have endeavoured in this report not to enter too much into details, but to give a concise account of the college and its working. Any further information that the Commission may require, I shall be happy to furnish.

'TEACHERS' COLLEGE, SAIDAPET; A. A. HALL,

The 31st March 1902. Principal.

A. A. HALL,

The 31st March 1902. Principal.

N. B.—The original papers contained in Appendices IV, V and VI are in office.

R. NATHAN.
APPENDIX I.

GYMNASIUM RULES.

1. The following code of rules relating to the constitution and working of Teachers' College Gymnasium, Saidapet, has been sanctioned by Government.

2. The object of the institution is to train Gymnastic Instructors for schools and colleges throughout the Presidency and in Native States.

3. The responsibility for the discipline and the management of the institution is vested in the Principal of the Teachers' College under the general control of the Director of Public Instruction.

4. The staff shall consist of a Gymnastic Instructor, who shall be responsible for the safe custody of the apparatus and appliances and a Drill Instructor.

5. The gymnasium shall be provided with such apparatus and appliances as may be required for efficient instruction in gymnastics and drill.

6. The period of training shall be one year.

7. Without the express sanction of the Director, the number of students under training at one time shall not exceed 15.

8. Admissions into the gymnasium shall be made in the second week of January.

9. Every candidate for admission into the gymnasium shall produce the following certificates, and, unless specially exempted, provincial stipendiaries shall submit in addition a certificate that they have passed some General Education test not below the Primary examination:

   (i) Certificate of health.—A certificate from a Civil Surgeon or other medical authority accepted by the Director certifying that the candidate is physically fit to undergo the arduous exercises required of him as a Gymnastic Instructor.

   (ii) Certificate of age.—A certificate from a competent authority to the effect that the candidate's age does not exceed 30 years and is not below 17.

   [Note.—The maximum age limit laid down in this rule may be relaxed by the Director in special cases.]

   (iii) Certificate of conduct.—A certificate of conduct signed by an Inspector or an Inspectress or an Assistant Inspector or the President of a Local Board or the Chairman of a Municipal Council or the Manager or head of a recognised Secondary school or of a College.

10. The selection of candidates for admission into the gymnasium shall be made by the Principal to whom all applications shall be submitted. In the selection of provincial stipendiaries, preference shall be given to those of the following classes in the order in which they are mentioned:

   (i) Gymnastic Instructors employed in Government institutions.

   (ii) Gymnastic Instructors employed in Local Fund or Municipal institutions.

   (iii) Persons to whom Local Boards or Municipal Councils have given provisional appointments in institutions under their management.

   (iv) Persons specially selected by Managers under an agreement to return as Gymnastic Instructors.

   (v) Persons desirous of adopting the profession of Gymnastic Instructor, provided that vacancies exist for which eligible candidates from the above four classes cannot be found.
11. The maximum number of provincial stipends shall be eight, and the maximum value of the stipend shall be Rs. 9 per mensem. The Director may sanction a lower rate of stipend if the Principal considers it sufficient in individual cases. In awarding stipends preference shall, other things being equal, be given to the candidate who has passed the highest General Education test, and who possesses good physique, subject to the condition that all the great classes of the population shall, as far as possible, be fairly represented.

12. Subject to the limit fixed in rule 7, the Principal may admit without provincial stipends—

(i) students receiving stipends from other than Provincial funds;
(ii) Gymnastic Instructors who are on the staff of Government, Local or Municipal schools, or of schools under private management and who receive from their employers full or part pay during training;
(iii) students who receive neither pay nor stipend from any source, but who are eligible for stipends as vacancies occur;
(iv) students sent for training from outside the Madras Presidency who are not eligible for stipends.

13. No student in receipt of any salary shall be allowed a provincial stipend to the detriment of those receiving no such aid from their employers; in cases, however, where it is proposed to give, for good and sufficient reasons, a stipend to a student in receipt of salary, the salary plus the provincial stipend shall not exceed Rs. 9 per mensem.

14. Every student shall be considered to be on probation for one month and if it shall appear to the Principal that any student is not likely to prove efficient, he shall, with the sanction of the Director, be required to leave the gymnasium. During probation a stipendiary student shall be entitled to draw the full amount of his stipends, and if rejected at the end of the period of probation, he shall not be required to refund the amount drawn, provided that his rejection was not due to moral delinquency.

15. Every student on being admitted shall enter into an agreement to be executed on stamped paper in such form as may, from time to time, be prescribed, binding himself—

(i) to remain in the institution during the time prescribed, and to abide during that time by such rules as may be laid down for regulating his conduct;
(ii) to abstain, whilst under training, from engaging in any other avocation, and from attending any other institution, except with the permission of the Principal;
(iii) to appear for such examinations as may be prescribed by the department;
(iv) to follow the profession of Gymnastic Instructor for at least three years, immediately after the period of training is over in such district, taluk or municipality as may be named in the agreement;
(v) to furnish the Principal every six months during the three years immediately succeeding training, with information regarding residence, appointment held, salary and any other particulars which may be needed to enable him to keep a history of students trained in the institution.

Note.—This condition shall not apply to non-stipendiaries.

16. If any of the conditions of the agreement be not observed, the student may be declared by the Director to be ineligible for a specified period for employment in the Educational department or in Local or Municipal service, or for receiving a grant from public funds in an aided school. If a stipendiary student, he shall also be required to refund the whole amount drawn by him on account of stipend and travelling allowances. Students who from any cause other than ill-health fail to fulfill the condition of serving as Gymnastic Instructors for three
years shall further be required to defray the cost of their training at the rates
fixed in rule 17 for students coming from outside the Presidency.

17. The fee to be paid by students falling under rule 12 (iii) shall be
one rupee a month, payable before the 15th of each month. Students coming from
outside the Madras Presidency shall pay Rs. 20 for the complete course of one
year. Outsiders may be allowed to practice in the gymnasium under the supervi­
sion of Gymnastic Instructor or the Assistant on payment of one rupee per
mensem.

18. The students shall be taught gymnastics two hours a day and drill one
hour (one hour and-a-half in the morning
and one hour and-a-half in the evening)
on all days of the week except Sunday. To give the students practice in teach­
ing drill and gymnastics, they shall be required to be in independent charge of
classes in the practising school in succession under the supervision of the
Instructors.

19. The gymnastic students shall be

allowed the following holidays:

<table>
<thead>
<tr>
<th>Holiday</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer vacation</td>
<td>1 month</td>
</tr>
<tr>
<td>Christmas</td>
<td>2 do.</td>
</tr>
<tr>
<td>Pongal</td>
<td>1 do.</td>
</tr>
<tr>
<td>Tamil New Year’s Day</td>
<td>1 day</td>
</tr>
<tr>
<td>Sri Ravanam</td>
<td>1 do.</td>
</tr>
<tr>
<td>Vinayakachathurthi</td>
<td>1 do.</td>
</tr>
<tr>
<td>Saraswati Puja</td>
<td>1 do.</td>
</tr>
<tr>
<td>Dipavali</td>
<td>1 do.</td>
</tr>
<tr>
<td>Telugu New Year’s Day</td>
<td>1 do.</td>
</tr>
<tr>
<td>Mahalaya Amavasya</td>
<td>1 do.</td>
</tr>
<tr>
<td>Sivarathree</td>
<td>1 do.</td>
</tr>
<tr>
<td>Krishna Jayanti</td>
<td>1 do.</td>
</tr>
<tr>
<td>King’s Birthday</td>
<td>1 do.</td>
</tr>
<tr>
<td>Easter</td>
<td>1 do.</td>
</tr>
</tbody>
</table>

Note—Any holiday special to Native Christians and Muhammadans may be granted by the Principal.

20. The Principal may grant a gymnastic student casual leave not exceeding
five days at a time and ten days in
a year. In cases of real necessity he
may also, with the sanction of the Director, grant additional leave, but in the
case of stipendiary students such additional leave shall be without stipend. A student shall forfeit one day’s casual leave for every four times he is marked late.

21. A stipendiary student shall forfeit all stipend during any period, however
short, of absence without leave, and any student who has been absent without
leave for three whole consecutive working days or for periods aggregating five
whole days in any one month may be dismissed.

22. The Principal may grant leave without loss of stipend to a stipendiary
who is absent in consequence of severe sickness certified to by a competent
medical authority for a period not exceeding fifteen days, but if the leave
exceeds that period, no stipend shall be granted for the excess period.

23. A student may be dismissed for continued idleness or for misconduct;
and, if so dismissed, may be declared ineligible for employment in the Educational
department or in an aided or recognized institution. If he is a stipendiary
student, he shall be required to refund the whole amount drawn by him from
Provincial, Local or Municipal funds.

24. All the students of the gymnasium shall be required to appear, at
the end of their course, for the certificate
examination, which shall be conducted by
the Board of Examiners for teachers’ certificates. The examination shall
be held at such times of the year as the Director may fix, and a fee of
one rupee shall be paid by each candidate for admission to the examination.

25. Candidates who pass the
examination referred to in rule 24 shall be awarded certificates under the signa­
ture of the President of the Board of
Examiners and the countersigature of the Director.
26. The following registers shall be kept in connection with the gymnastic class:

(i) Register of admissions.
(ii) Attendance register for students.
(iii) Attendance register for Gymnastic and Drill Instructors.
(iv) Register of fees.
(v) Register of measurements and weights.
(vi) Register of scholarships and stipends.
(vii) Pay abstract.
(viii) Acquittance roll.
(ix) Register showing the history of trained students.
(x) Register of gymnastic apparatus.
(xi) Register of attendance at the general education classes.

27. Gymnastic teachers employed in Government, Local or Municipal schools who are sent for training, shall be entitled (subject to the sanction of the Board, or the Municipal Council concerned) to draw travelling allowance from Provincial, Local or Municipal funds, respectively, for a single journey on joining and on leaving the gymnasium at the rates fixed for third-class officers in the Civil Service Regulations. Other students shall not be allowed travelling expenses from public funds.

28. The gymnastic students may, at the discretion of the Principal, be required to attend the classes for general instruction in the practising school and the drawing classes during the day. But no student shall be compelled to attend the latter against his will.

29. All the students shall appear in uniform.

30. These rules, with such alterations as may, from time to time, be sanctioned by Government, shall be published every year by the Principal in the first issue of the Fort St. George Gazette in January.

APPENDIX II.

DETAILED SYLLABUS.

I.—Principles of Education.

1. The relation of education to the science of mind.

2. The various modes of mental activity and their connection with bodily structures and functions.

3. The relation of the teacher to each mode of mental activity.

4. Characteristics of different ages:
   (a) Infancy and childhood. Activity, impressibility, imitativeness, memory, imagination, emotional susceptibilities, sympathy. Early manifestations of will and growth of voluntary power. The infant conscience, its character and the laws of its development.
   
(b) The school-age strictly so-called. The modifications which the mental characteristics of childhood undergo in passing into, and throughout, the school period. Perception, observation, attention, memory, abstraction, generalisation, imagination, conception, judgment, reasoning, as related to school-life. The predominant emotions of the school-age and the uses that may be made of them in intellectual and moral culture. The aesthetic emotions. The formation of habits of thought, feeling and action. Pleasure and pain as motive powers at the teacher's disposal.
   
(c) The period succeeding the school-age when the study of science becomes possible. The great development of the powers of concentration, abstraction, generalisation, and reflection which characterizes this period. The scientific imagination. The deepening and expansion of the emotional nature. The circumstances that tend to give to the character its definite form.
5. The natural order of the acquisition of knowledge during these periods, respectively, as determined by the order of development and the laws of the growth and operation of the intellectual faculties.

II.—History of Education.

1. History of education (general), education in Europe from the rise of the Universities to the present time:
   (a) Monastic schools, their management and course of instruction. The origin and development of the Universities.
   (b) The revival of letters and its educational effects, e.g., the Latin schools.
   (c) The reformation and the partial provision for popular education in Protestant countries.
   (d) The educational work of the Jesuits and the educational work of the Jansenists.
   (e) Changes effected under the influence of Rousseau, Pestalozzi, Froebel and the chief British writers on education.
   (f) The present state of educational practice as exhibited in Germany, Great Britain and India.

2. Special periods or writers to be prescribed from time to time.

III.—Methods of Teaching and School-management.


The junior students are prepared for the Teacher's Certificates Examination in Method and School-management.

The course in the second grade collegiate department (for F. A's.) embraces the following:

**Organization.**

(a) Systems of organization.
(b) Site, plan and dimensions of school buildings.
(c) Sanitary requirements.
(d) Fittings and furniture.
(e) Apparatus.
(f) Libraries—reference and lending.
(g) Qualifications of teachers.
(h) Teaching staff.
(i) Distribution of work among the teachers.
(j) Time-tables.
(k) Registers and returns.
(l) Correspondence.
Discipline and Moral Training.

1. Discipline—
   (a) What it embraces.
   (b) The immediate school values of it.
   (c) Characteristics of good discipline.
   (d) Special requisites in a teacher for the purpose of maintaining discipline.

2. Aims of Discipline—
   (a) Order, attention, diligence and obedience—the meaning, value, causes of violating and means of promoting each of them.
   (b) Truthfulness, honesty, kindness, neatness and cleanliness, regularity and punctuality—the importance and the means of promoting these.
   (c) Formation of habits and character.

3. Characteristics of child-life—
   (a) The leading emotions, the formation of motives and the influence of the will.
   (b) The chief instincts and motives—activity, imitation, curiosity, sympathy, emulation, fear.
   (c) Pleasure and pain as motives.

4. Means of securing Discipline—
   (a) External arrangements—a good organization, drill, a code of rules.
   (b) The authority of the teacher.
   (c) Public opinion—the meaning of it, its influence and how it is formed in a school.
   (d) The use and management of the instincts and motives.
   (e) Rewards and punishments—their values and the conditions of their usefulness.

5. Moral Training—
   (a) The aims and scope of moral training in a school.
   (b) The functions of the teacher.
   (c) The influence of example and precept.

6. Rewards—
   (a) Reasons for and against their use.
   (b) The common kinds of rewards in a school—the value, the need and the manner of use of each.

7. Punishments—
   (a) The necessity, the object and the nature of punishments generally.
   (b) How to minimise them.
   (c) The common kinds of punishments in a school—the occasion, the efficacy and the use of each kind.
   (d) General rules for the infliction of punishments.

Teaching.

(a) Preparation of lessons both by the teacher and the pupils.
(b) Questioning.
(c) Illustrations.
(d) Use of the vernacular languages in teaching English and other subjects.
(e) Use of apparatus.
(f) Home exercises.
(g) Examinations.
(h) Methods of teaching the various subjects included in the curricula of secondary and primary schools with or without text-books.
(i) Physical exercises.

The course in the upper secondary grade department (for Matriculates) embraces the following:

Organisation.

(a) Site, plan and dimensions of school buildings.
(b) Sanitary requirements.
(c) Fittings and furniture.
(d) Apparatus.
(e) Libraries—reference and lending.
(f) Qualifications of teachers.
(g) Teaching staff.
(h) Distribution of work among the teachers.
(i) Time-tables.
(j) Registers and returns.
(k) Correspondence.

Discipline and Moral Training.

1. Discipline—

(a) What it embraces.
(b) The immediate school values of it.
(c) Characteristics of good discipline.
(d) Special requisites in a teacher for the purpose of maintaining discipline.

2. Aims of Discipline—

(a) Order, attention, diligence and obedience—the meaning, value, causes of violating and means of promoting each of them.
(b) Truthfulness, honesty, kindness, neatness and cleanliness, regularity and punctuality—the importance and the means of promoting these.
(c) Formation of habits and character.

3. Characteristics of child-life—

(a) The leading emotions, the formation of motives and the influence of the will.
(b) The chief instincts and motives—activity, imitation, curiosity, sympathy, emulation, fear.
(c) Pleasure and pain as motives.

4. Means of securing Discipline—

(a) External arrangements—a good organization, drill, a code of rules.
(b) The authority of the teacher.

(c) Public opinion—the meaning of it, its influence and how it is formed in a school.

(d) The use and management of the instincts and motives.

(e) Rewards and punishments—their values and the conditions of their usefulness.

5. Moral Training—

(a) The aims and scope of moral training in a school.

(b) The functions of the teacher.

(c) The influence of example and precept.

6. Rewards—

(a) Reasons for and against their use.

(b) The common kinds of rewards in a school—the value, the need and the manner of use of each.

7. Punishments—

(a) The necessity, the object and the nature of punishments generally.

(b) How to minimise them.

(c) The common kinds of punishments in a school—the occasion, the efficacy and the use of each kind.

(d) General rules for the infliction of punishments.

Teaching.

(a) Preparation of lessons both by the teacher and the pupils.

(b) Questioning.

(c) Illustrations.

(d) Use of the vernacular languages in teaching English and other subjects.

(e) Use of apparatus.

(f) Home exercises.

(g) Examinations.

(h) Methods of teaching the various subjects included in the curricula of lower secondary and primary schools, with or without text-books.

(i) Physical exercises.

The course in the primary grade department embraces the following:—

Organization.

(a) The form and size of primary school buildings.

(b) Furniture and apparatus.

(c) Registers and returns.

Discipline.

(d) How to maintain good discipline and secure order.
APPENDIX III.

LECTURES AND DEBATES OF SOCIETIES.

Teachers’ Association.

1. The theory of evolution and its application.
2. Tamil education.
3. Education and national advancement.
4. The place of examinations in education.
5. The kindergarten system.
6. Our responsibilities as teachers.
7. Oriental Pedagogy.
8. The teaching of English.
9. The school as a place of moral training.
11. How far can Home education be a success in India?
12. Rousseau.
15. Thomas Arnold.
17. The system of training teachers.
18. The Republic of Plato.
21. Can students take part in politics?
22. Morality and our Indian schools.
23. Indian culture, past and present.
24. The advantages of intellectual education.
25. The value of history in schools.
26. Rewards in schools, good or bad.
27. The stages of development in Indian education.
28. Classical languages and their position in schools.

Science Club.

1. The movements of the celestial bodies.
2. The steam engine.
3. The influence of trees on the climate and productiveness of South India.
4. The telephone.
5. The efficacy of the gold standard.
6. The sun as the source of all energy in the solar system.
7. The Nebular Hypothesis.
8. Flowers.
9. The dynamos.
10. The human species.
11. The structure of matter.

There is also a recreation club which provides foot-ball, cricket and tennis and the chief daily papers and periodicals.
**APPENDIX IV.**

**SPECIMEN NOTES OF A LESSON.**

***1st August 1901.***

**K. S. Ramachandran.**

**Science—Chlorine. IV Form. Time—30 minutes.***

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apparatus.</strong></td>
<td>Show and get the boys to describe. Show them a quantity of common salt and let them say what it is.</td>
</tr>
<tr>
<td>In the flask has been put a mixture of common salt and oxide of manganese.</td>
<td>Tell.</td>
</tr>
<tr>
<td>Common salt is a compound of two elements—one, the metal sodium and another non-metal which we shall presently see.</td>
<td>Tell and put on B.B.</td>
</tr>
<tr>
<td>Introduce sulphuric acid into the flask and heat it gently by means of a spirit-lamp. Evolution of gas.</td>
<td>Tell and let the boys observe carefully. Let the boys observe.</td>
</tr>
<tr>
<td><strong>Properties (Physical)—</strong></td>
<td></td>
</tr>
<tr>
<td>Colour—Greenish-yellow</td>
<td>Let the boys observe and say.</td>
</tr>
<tr>
<td>Smell—Strong suffocating</td>
<td>Get from the boys.</td>
</tr>
<tr>
<td>Density</td>
<td>Let the boys see that the gas collects from bottom upwards in the cylinder. Hence lead them to infer that Cl is heavier than air.</td>
</tr>
<tr>
<td>$\frac{3}{4}$ times heavier than air</td>
<td>Tell and compare with hydrogen.</td>
</tr>
<tr>
<td>This gas is chlorine</td>
<td>Tell and put on B.B.</td>
</tr>
<tr>
<td>Solubility—Dissolves in water</td>
<td>Let the Cl bubble through water contained in a cylinder.</td>
</tr>
<tr>
<td>Acid turns blue-litmus red</td>
<td>Add a few drops of $H_2SO_4$ to blue-litmus solution and let the boys see that the blue-litmus turns red. Add a few drops of the $H_2O$ through which Cl has bubbled to a blue-litmus solution and let the boys see that it turns red. Hence lead them to infer that the water must have become an acid.</td>
</tr>
<tr>
<td>—forming HCl</td>
<td>Tell and impress the affinity of Cl for H.</td>
</tr>
<tr>
<td>(Chemical)—Cl bleaches vegetable colours in a wet state.</td>
<td>Introduce a printed paper smeared over with ink near the end of the delivery tube. Let them see that the ink is gone while the print remains unaffected.</td>
</tr>
</tbody>
</table>

Supports combustion ...

Impress:—Only vegetable colours bleached. The coloured thing must be wetted beforehand.

Introduce a lighted taper into one of the jars containing Cl. Let them observe that the candle burns with a smoky flame for the H. of the candle combines with Cl to form HCl while the C is liberated in the form of smoke. Compare with oxygen.

Combines with many substances forming chlorides—a very active element.

Put in a small quantity of powdered antimony into the jar containing Cl. Sb burns forming white fumes of SbCl₅. Tell also that Cl combines and forms chlorides, similarly with P, Na, Cu, H etc. Tell and impress that Cl in an absolutely dry state will not combine with these substances.

B. B. Sketch—

I. Subst. put in.—Common salt (a comp. of sodium and.........) and oxide of manganese. Add—Sulphuric acid and heat.

II. Prep.—

A. Physical—

(1) Colour—Greenish-yellow.
(2) Smell—Strong suffocating, causing irritation.
(3) Density—Heavier than air, 2½ times.
(4) Solubility—Dissolves in water.

B. Chemical—

(1) Supports combustion.
(2) Bleaches vegetable colours.
(3) Actively combines with many substances, forming chlorides.

APPENDIX V.

SPECIMEN PAGE OF DAILY CRITICISM OF STUDENT'S WORK IN THE PRACTISING SCHOOL.

GLORIA, FORM 4—ENGLISH HISTORY.

"Bigger clergy and smaller clergy." Explain.
"How did that end, how did the rebellion in Scotland end?"
"What became of Richard II?" (Nothing was known to the pupils.)
"Talk a little too fast."
"James Watt."
"Sent to France for education, because very friendly." (English.)
"Remarks and exclamations to himself."
"How do you know he was the nearest heir to the throne?"
"Do you understand?"
"Do you see?"
"Did he think he had a right?"

Describes fairly. Homely illustrations wanting. Talked to one portion—and too long. Lectured regarding the claim of Henry V and boys did not carry away. Explain why, etc. (not suitable). Parties in France (put on black-board). Black-board summary—poor.
Summary:

APPENDIX VI.
SPECIMEN PAGE OF CRITICISM REGISTER.

<table>
<thead>
<tr>
<th>First lesson.</th>
<th>Algebra (Factors)</th>
<th>IV Form.</th>
<th>26th February 1901</th>
<th>S. Raghunatha Ram, B.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teacher is vigorous and active. Teaches brightly and almost well. He is too impatient; repeats all the ends of answers and answers his own questions. His B. B. is very untidy. He promises well however, since he is so energetic.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second lesson.</th>
<th>English (Prose)</th>
<th>V Form.</th>
<th>1st August 1901</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher again taught well in a bright cheerful manner. He was not too impatient this time, and he has dropped his mannerisms. His verbal illustrations were apt and ready and he kept the class attentive and interested. A good lesson.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third lesson.</th>
<th>History (Indian Mutiny)</th>
<th>V Form.</th>
<th>17th September 1901</th>
</tr>
</thead>
<tbody>
<tr>
<td>Another good lesson with a few blemishes. His English is not very good; he speaks too fast and his B. B. was untidy. But he questioned well, was impressive, made ready use of the B. B. and kept the class thoroughly interested. A good lesson.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX VII.
SPECIMEN REPORT ON THE WORKING OF THE NORMAL STUDENTS FOR THE COURSE ENDING 31ST OCTOBER 1901.

Senior section.


Arithmetic—F. IV. B.
This student's manner is fairly bright and he has no mannerisms. His language is also fairly good. His method, however, is very unsatisfactory. He is more anxious to explain than to elicit and his explanations are generally unintelligible to the pupils. Hence he gives room to questions from the pupils. His B. B. writing is very small.

A tolerably fair teacher.


Geometry—V. F.
This young man's manner is impressive and bright. His language is accurate. His questions and explanations are good, and he manages the class very well. B. B. neat and well used.

A good teacher.

A. Narayana Iyer, B. A. 6th period.

Algebra—V. F.
Manner—very impressive and bright. Language—good. Method—questions and explanations very satisfactory. He manages the class well. B. B. fair.

A good teacher.
K. S. Natesu Iyer, B. A.

Translation—F. II D.

This teacher has a sympathetic and impressive manner. His language is fair. His method was not quite satisfactory; he generally gave written translation and so occupied the whole time with a few sentences. The class ought to have a good deal of exercise in speaking and hearing English spoken and the method therefore is not suited to it. B. B. fairly used.

A fairly good teacher.

Junior section.

D. Swamidoss.

Geometry—F. IV. B.

Manner—patient, bright and fairly impressive. Has no mannerisms; speaks generally correct English. Questions and explanations—fair. B. B. neat and well used.

A good teacher.

K. Desika Iyengar.

Geometry—F. IV. A.

Manner—listless and unimpressive. Language and pronunciation—poor. He rarely questions, but tells everything himself and does not exercise the thinking power of the pupils; and when he questions, the questions are mechanical and not requiring thinking. He thus fails to keep the pupils interested. In solving riders he does not take the shortest methods. B. B. fair.

A poor teacher.

J. Asiroatham.

English Prose—F. IV. A.

Manner—monotonous and unimpressive. Language—very poor. He has no definite plan in his teaching and his notes not carefully prepared or full. His explanations and illustrations were poor, and in some cases wrong and in most cases given in the dictionary form. He might do better in a lower class. B. B. very sparingly used.

A poor teacher.

S. S. Venkatakrishnaya.

Translation—F. II C.

Manner—fairly bright and impressive. Language—not quite satisfactory. Management—fair. Questions—rather mechanical. Slow in deciding whether an answer is correct or not, perhaps due to his imperfect knowledge of Tamil. B. B. very fair.

A fair teacher.

V. Vijiaraghavachary.

Arithmetic—F. V.

Manner—very bright and impressive, but hasty. Language and management—fair. Questioning fair and quick, and explanations good. B. B. very fair.

A good teacher.

The 5th November 1901.

S. Mangesh Ram.
Memorandum submitted to the Universities Commission by
M. Rangacharya, M.A., Professor of Sanskrit and Comparative Philology, Presidency College, Madras.

1. The chief aims of the present enquiry into the condition and prospects of the Indian Universities appear to be the advancement of learning in India and the appropriate organisation of these Universities so as to make them serve this purpose well and always adequately. The latter of these aims is clearly subservient to the former; nevertheless, the healthy organisation of the body politic constituting the University is a matter of supreme practical importance. In respect of the advancement of learning also, it is the aptness and efficiency of the instrument, by means of which it is to be accomplished, that largely determine the nature and the value of the success that is attained. I take this to be the reason why the various questions concerning which it is now sought to focus information and opinion relate chiefly to the administrative details of the machinery of the University.

2. It is everywhere recognised to be highly unpractical to ignore actual conditions and existing forces in the endeavour to advocate whatever may be conceived to be the essential purpose of an ideal that is in view. Therefore, without previously ascertaining the nature of the existing interests in connection with the University and its work, it is not possible to arrive at any really practical solution of the problem of University reform. Broadly speaking there seem to be three different kinds of such existing interests; firstly, there is the interest of the State in liberal education and in the advancement of learning; then there is the interest of the people; and lastly, there is the interest of the Christian missionary. These may be respectively characterised as political, popular and missionary interests. Although all of them are conscientiously directed so as to accelerate enlightenment and the progress of civilisation in India, the standpoint from which they judge the function of the University cannot obviously be the same in all cases and under all circumstances. Accordingly any proposal in which all these different interests are not equitably co-ordinated is sure to give rise to dissatisfaction and to prove more or less undesirable in the long run. The following remarks are offered in reference to the "views and suggestions" that have been put forward in Mr. Sankaran Nair's letter desiring me to give evidence before the Commission.

3. Considered in itself there can really be no two opinions in regard to the desirability of enlarging the powers of the University so as to render the same capable of being a teaching, and not merely an examining, body. The Act of Incorporation has empowered it to be merely an examining body; and if it is to be converted into a teaching body also, then the question to be considered is in what way the desired change can be practically accomplished. It is quite plain that the Madras University cannot now be reorganised as a teaching body on the model of the Scottish Universities. One such University for the Southern Districts, another for the Northern Districts, and a third for the Central and Western Districts of the Madras Presidency will in many respects be an improvement upon existing conditions. But in an arrangement like this it is hard to find an appropriate place for the evangelistic interests of the Christian Missionary, and it is harder still to have to retrace for such a purpose many of the steps that have already been taken in the history of higher education in India. The adoption of the Oxford or Cambridge model is also beset with difficulties; but it seems to be the more feasible plan to try.

The chief difficulty here is that all the affiliated colleges are not concentrated in one place which forms the head-quarters of the University. In consequence the Professors of the University, when they come into existence as distinguished from the professors of the various colleges, cannot be made to extend their influence and inspiration equally well to all the affiliated colleges.
Moreover, the appointment of University Professors necessarily implies the institution of University Laboratories which are mainly fitted for research work. A peripatetic University Professor of a modern physical or natural science will succeed neither in sending out the inspiration that is expected to flow from him, nor in enhancing the esteem in which the science to which he is devoted is held, not to say that he will not have enough time for his work of original research. It is of course taken for granted that the University Professor does more of research-work, while the College Professor does more of tuition-work. On the other hand, such University Professors as are not dependent for their work on well equipped laboratories may well be peripatetic without any serious harm to their usefulness. Thus it will perhaps be found necessary to see that all those affiliated colleges which are away from the headquarters of the University do not, except under specially favourable circumstances, undertake the teaching of the physical and the natural sciences.

This naturally leads us to the consideration of the question whether the affiliated colleges that are at a distance from the centre are absolutely necessary in the true interest of University-education. As long as there is only one University for the whole of the Madras Presidency, it cannot be incontrovertibly asserted that they are not so needed. The propagation of liberal learning is as much a necessary part of the function of a University as the advancement of learning. Indeed all Universities have to spend a large proportion of their energy and resources in teaching and in spreading the knowledge that has already been acquired by man, although many of them are famous for the work that they have been doing in the way of adding to the already existing store of human knowledge. The distantly-situated affiliated colleges are found to be very useful institutions in propagating liberal learning. They have carried the new enlightenment into regions which, but for them, would have had to remain unenlightened. Moreover, with many of them what I have called popular and missionary interests have become closely associated, as some of these institutions owe their existence to the benevolent enterprise of the Christian missionary, while some others are the result of local patriotism and popular self-help. It is always desirable to have these moral forces enlisted on the side of education and enlightenment. Such are some of the considerations why it may be held to be necessary to maintain and encourage even all those affiliated colleges that are situated away from Madras.

It is quite true that to be half-educated or ill-educated is in many respects worse than to be uneducated; and it is certainly not easy for our mofussil colleges to become as efficient as the best ones in Madras, nor can they as easily create around themselves an atmosphere of culture and science and nobility of character and purpose. For the creation of such an atmosphere of inspiration both emulation and high example are amply needed. Without enough of the magnetic influence of life upon life and thought upon thought, culture becomes cramped and education soulless. But the best way of avoiding such a danger here is not by abolishing the mofussil colleges; that would be like killing the patient for curing the disease. This does not mean that no check is to be placed on the unnecessary multiplication of mofussil colleges; in the Indian University System they have unavoidably to be tolerated even though they are a source of weakness. It is therefore best to have as few of them as are compatible with the needs of the situation. The Professors of the University, when they are appointed, may be made to lend, as occasion needs, the force of their personal magnetism to these distant institutions, and thus make the blood of true life and thought circulate better in them. Students' hostels also may be made to act as correctives in this matter. It is desirable to see that every affiliated college has the needed number of hostels attached to it, and that proper discipline and a proper esprit de corps are carefully and systematically maintained in them. These students' hostels may also become the means of solving the difficulty of religious education in connection with all the non-missionary colleges in India. Wherever religious teaching cannot appropriately be made to be a recognised part of the college curriculum, the students in the various hostels may be induced to elect and accept such teaching as a part of the discipline of the hostels themselves, provided that care is always taken not to convert them into propagandistic institutions. There is no doubt that the appointment of
University Professors and the institution of students' hostels will both in this manner tend “to infuse greater unity into the present conflict of jarring atoms, and to inspire higher education in India with a nobler ideal.”

It will be conducive to the attainment of this object if the various collegiate institutions which are now maintained by Government in Madras are all unified into what may be termed a University College. Besides the Presidency College, the Government maintains a Law College, a Medical College, an Engineering College, an Agricultural College and a Teachers' College; and if all these are organised into one well co-ordinated whole, we may have here an approximation to the Scottish University. The life and spirit of such a combined institution will certainly be far different from what obtains in any one of them separately; and their mutual helpfulness will lead to all of them being better equipped with men as well as appliances than when each of them is left to itself. There are of course practical difficulties in the way of carrying out this suggestion; but if we take the aim, capacity and resources of Government into consideration, they do not seem to be insuperable.

In addition to the appointment of University Professors and the organisation of University Laboratories, there is very great need for the institution of a University Library. However, it must be seen to that this Library is made to serve a really higher purpose than the libraries that are now found in the various affiliated colleges. The new University Library must be made to correspond as nearly as possible to the German Seminar, which has been described by Professor W. Ramsay, F.R.S., as a “literary laboratory”; and according to him students are in it “launched in what may be a career in historical, literary, or economic research.” India offers a very wide scope for such research, inasmuch as the mine of Indian literature and Indian antiquities has as yet been only partially and superficially worked. And as Professor Ramsay says—“Such a Seminar is carried on in philological and linguistic studies, in problems of economy involving statistics, in problems of law involving judicial decision, and of history in which the relation between the development of the various phases in the progress of nations is traced. The system is borrowed from the well known plan of instruction in a physical or chemical laboratory. Experiments are made in literary style. These experiments are subjected to the criticism of the teacher, and thus the investigator is trained.” The Library which has to be fitted so as to train such investigators must, in addition to all other needed works, also contain the many manuscript works of Indian literature, which are sure to yield valuable results when subjected to proper study and examination. Much of imagination is not needed to make out that the power of such a University Library will be great in stimulating and strengthening the life that is in the heart of the University and in exalting and unifying its necessarily many-sided work.

In this way it is quite possible to “combine with the obligatory features of in Indian University some portions of the advantages of Western institutions.” The reforms that may be adopted to carry out this purpose are—

(1) The appointment of University Professors as distinguished from the Professors of the various affiliated colleges. The Professors of the University are to employ themselves and their assistants and pupils in the conduct of original research and investigation, and are to deliver inter-collegiate lectures on such subjects as have from time to time engaged their attention. Some of these lectures may occasionally be delivered with advantage in selected outside stations for the benefit of the mofussil colleges.

(2) The organisation of University Laboratories. This is a necessary corollary of the appointment of University Professors. It goes without saying that the equipment of these laboratories has to be different from the equipment of the ordinary college laboratory, in which lecture-demonstration and more or less elementary practical training to go over what is already well trodden and well surveyed ground are the things that are chiefly kept in view. The University Laboratory must be so equipped as to be always capable of doing much higher and more original practical work.
The creation of a University Library. As in the case of the University Laboratory, so also in the case of the University Library, the purpose to be served by it is different from that of the various similar institutions which are attached to the affiliated colleges. The University Library must be so organised and equipped as to be made into a literary laboratory of research.

The institution and development of Students' Hostels in association with all the affiliated colleges. The possibility of working these hostels well and without serious friction is now placed beyond doubt; and as adjuncts to the purely educational institutions, they have a promising future before them. They may also be safely taken advantage of to impart religious instruction.

The synthetic unification of the various collegiate institutions maintained in and near Madras by the Government. This will prove so useful in the way of setting an actual example of unified University endeavour, and will give rise to an institution of great helpfulness in the cause of higher education.

A check upon the too great multiplication of mofussil colleges and upon the subjects that are to be taught in them. This is needed in the interest of the central life of the University. It must also be seen to that these colleges are not, except under specially favourable circumstances, allowed to teach such subjects as require a well equipped laboratory. The main reason for this is that the University Professors of these subjects cannot adequately influence the distant institutions.

A very important part of the question of University reform is that which relates to the outlay of money that is essential for carrying out such of the reforms as are considered desirable. Without spending more money than at present on what the University has to do, it is not possible either to improve appreciably the standard of higher education or to promote the advancement of learning in any noticeable manner. The above suggestions to improve the conditions and prospects of the University are all made, however, irrespective of financial considerations, which alone have ultimately to determine their practicability as well as the time and the manner of carrying them out.

4. The next point on which opinion has been invited is that suitable regulations should be made for the election of Fellows. No one can have the courage to assert that the Senate of the Madras University is an ideally constituted body. It has for long been a matter of common criticism here that the Senate is too big and too miscellaneous in its composition, that there are many in the Senate who ought not to be there at all, while some who ought to be there are not there, and that the largest attendance at the meetings of the Senate comes off generally when patronage is to be disposed of and members are either directly or indirectly coaxed to exercise their right of voting in favour of or against particular persons or interests. The real work of the Senate is done only by a small part of its members; and therefore no harm will result to the University if the occasionally ornamental members of its Senate are reduced in number. In endeavouring to make the Senate a more appropriately and efficiently constituted body, it is necessary to see that the various interests associated with University education are all adequately represented on it. While the Senate has often to guard and adjudicate between the interests of persons, parties, and institutions, its various Faculties have always and strenuously to maintain the high character and purpose of liberal learning. Therefore the representation of true learning and high culture of all kinds must be even more prominent on the Senate than the representation of associated interests. There is no harm in making that Fellowship, which is representative of interests only, to be a terminable honour capable of renewal. But what may be called the Fellowship of Learning deserves to be more honourably treated. Such a distinction between the Fellowship of Interests and the Fellowship of Learning, however, is too invidious to be openly adopted. Therefore the imposition of a reasonable attendance test to gauge the fitness of a Fellow to continue on the Senate is as unobjectionable as it is useful. Indeed the Fellow of Interest and the Fellow of Learning are very frequently apt to be seen together in the same person. These
apply to the appointment of Fellows in general. In regard to the election of Fellows by the Graduates of the University, it is certainly desirable to give this privilege a statutory basis, and make it one of the means of supporting the corporate life of the University. For this purpose a Convocation of Graduates may be brought into existence and given a legal status in the constitution of the University as it is found in the London University. To give to such a body of Graduates the power of sending up the names of a certain proportion of Fellows that are to be appointed year after year will not only lead to the election of Fellows by the Graduates being more satisfactorily conducted, but will also tend to foster a healthy feeling of affinity between the University and the Graduates whom it sends out to the world. The Convocation may also be consulted by the Senate on such other points as may be found desirable from time to time, and an institution like this will in a direct and tangible way contribute largely to the attainment of the moral aims of the University.

5. The next point relates to the desirability of placing the constitution and powers of the Syndicate on a statutory basis. It is not quite easy to see why this change is needed. However, it cannot be ignored that even our Syndicate has not been free from much unfavourable criticism. It has been pretty frequently said that it is a kind of close family party made up of a few prominent members belonging to the staff of two Madras colleges. This is a criticism which is certainly not strictly true. It mainly proceeds from the representatives of the interests of mofussil colleges, and in so far it indicates a deficiency in the representative character of the Syndicate. It is generally granted also that a Syndicate some of whose members are in distant outside stations is apt to prove a lax, unready, and somewhat unworkable body. But what gives dissatisfaction is that only two out of the many affiliated Arts Colleges have at their disposal the best part of the power to control the executive affairs of the University. That the popularity of a College and its capacity for increased work and improved efficiency depend to a marked extent upon its power to mould the decisions of the Syndicate, is a matter the truth of which is more easily guessed than proved. The complaint is really against this kind of unbalanced condition of the Syndicate, which want of balance must surely be remedied. One of the remedies suggested is to enlarge the Syndicate and add to it a sufficient number of such members as are known to be independent, that is, unassociated in the spirit of partisanship with the interest of any particular local educational institution. Care has, however, to be taken that those who are not professionally connected with education do not form the majority. It may be argued that to make an executive body like the Syndicate consist of a large number of members is to make it weak and incapable of acting promptly and with a will of its own. There is much truth in this objection. But if the Syndicate is in danger of being dominated by a tendency to be autocratic and to assert its own will as supreme, it cannot be said that even in such a case an increase in the number of its members is not wanted. A larger body generally finds it harder to become autocratic than a comparatively smaller one. We must maintain the executive efficiency of the Syndicate at the same time that we try to keep in check its more or less natural tendency to become a close and autocratic body. There is, therefore, danger in making the Syndicate too small as much as there is in making it too large. If the suggested legislation is intended to hit the golden mean and to make the Syndicate acquire a better balance than what has been possible hitherto, it is certainly desirable and very much wanted. Placing the constitution and powers of the Syndicate on a statutory basis may also by exact definition and mutual limitation make it impossible for the relation between the Syndicate and the Senate becoming at any time too readily unpleasant. The control of the Government on the executive affairs of the University may also be thereby more easily and effectively exercised, whenever this is found necessary in the interest of the Government or of the University. These are some of the advantages which may result from such a legislation. But there is also the danger that thereby the Senate may sometimes find itself too weak to see that its will is carried out even in matters where its will alone ought to prevail.

6. In regard to the question of investing the University with visitorial power over the affiliated colleges, the Madras University has already got such
a power in accordance with a by-law of its own to be found among the rules of affiliation. This by-law relative to the affiliated colleges (297) runs thus:—The following shall be kept and submitted when required to the Syndicate or to an officer appointed by the Syndicate:

(1) A register of admissions and withdrawals.
(2) A register of attendance.
(3) A register of fees.
(4) A time-table.

According to this by-law the visitorial power seems to be confined to the examination of the machinery of management of the various affiliated colleges, to carry out which examination even the appointment of a special officer is therein contemplated. Nevertheless, it is easily seen that the University has been very shy of using this power and of accepting the consequent responsibility, although the supervision in view here does not extend over the whole of what constitutes 'the maintenance of the standard of teaching and discipline' in the affiliated colleges. The reason of this is to be found in the sense of rivalry that now exists between the various colleges; and I remember distinctly that the Principal of a college in the Mysore State remarked in the Senate on the last occasion when the rules of affiliation were being discussed that, if the Madras men wanted to inspect the Mysore colleges, the Mysore men would want to inspect the Madras colleges. If, however, the University itself becomes a teaching body and has its own staff of Professors, there can arise no such jealous discontent as against their exercising the visi­torial power of the University in any way in which it may hereafter be arranged. It is only too patent that the exercise of the contemplated kind of visitorial power by the University is badly needed. It is freely suspected that both languor and laxity are to be found in many of our affiliated colleges, and it is therefore no wonder that the distant colleges will in the long run feel thankful for occasionally receiving the always needed stimulus and guidance from a competent and legitimate central body of irreproachable name and reputation. The solution of this question is thus closely bound up with the solution of the other question which relates to the conversion of the University into a teaching institution. A central co-ordinating body of really learned men, which is impartially related to all the affiliated colleges, can alone exercise the visitorial power of the University to the satisfaction of all the colleges and to the best advantage of the University itself.

7. "That there is a tendency of University examinations to lower the aims and pervert the methods of education in colleges, and that the courses of study now prescribed should therefore be passed under review"—is how the last of the views and suggestions that have been put forward is stated in the letter sent by Mr. C. Sankaran Nair. It is somewhat hard to exactly understand the meaning of the above statement. It cannot be that we are now called upon to discuss the general question of the relation of examination to education. I apprehend that the suggestion made in the above statement has a more practical end in view than merely arriving at the well worn academic pronouncement that, in relation to education, examinations are always an evil, but only a necessary evil. The question really is to find out if any extraneous influence has so operated upon our University examinations as to lead to the lowering of the aims and the perverting of the methods of education in our colleges. One such influence that at once strikes an observer is the association of University education with service under the State. In itself there is nothing wrong in such an association, and there is overwhelming evidence to show that the State has already derived untold advantages from it. Has the reaction upon the University been wholly good? It does not appear to have been wholly so. The connection between public service and University education has, however, tended to make the University rapidly popular and to feed unstintingly its finances. To break this connection at once or altogether is apt to give a serious shock to the University, from which it may take much time to recover. In the meanwhile the harm done to the efficiency of public service and the spread of enlightenment in the country may prove really too great to risk.

It is not however meant that no endeavour should be made to make the rather too commonly mercenary way of looking at University education much
less common than it is. At the same time it must be said to the credit and
glory of the Madras University that it has not allowed itself to be lured
away from the path of right-doing by the temptations of public service and the
learned professions. To stamp the unworthy with the seal of fitness, because
such a seal-mark carries a more or less high pecuniary value with it, has not
been even for a moment the aim of the University, nor is such a thing known
to have been at any time its weakness. In fact the rigour with which the
Madras University guards the entrance into its inner precincts of thought and
culture appears to many to be too harsh and merciless; and it can be proved
that the examinations that come after Matriculation have steadily risen in
standard and improved in character. To impel the seeker of the B.A.
degree to know something of everything and everything of something, as it is popularly
expressed, has all along been the object kept in view. But in later years the
importance attached to the knowledge of the something of everything has been
rightly made to be less than that which is attached to the knowledge of the
everything of something. In this way we have gone on specialising our B.A.
and M.A. courses, and the standard and character of our professional examina-
tions are also steadily kept up to the daily improving modern level. Thus the
proverbially dangerous danger of little knowledge has been minimised as far as
possible, and the best of our modern graduates are seen to be as well impressed
with the immensity of what is to be known as with the nullity of what they
actually know. Moreover their sense of sobriety and thoughtful moderation
are also qualities that are widely appreciated. Under these circumstances it
ought to come upon no one with surprise if there are some among the members
of the Madras University who think that University education in Madras is as
well off as it can possibly be, and that the other Indian Universities will do
well to follow the example of Madras.

Still even the Madras University has not become so perfect as not to be
capable of improvement. Some of the ways in which such an improvement may
be brought about have already been suggested in this memorandum for the
consideration of the Commissioners. The courses of study now prescribed for
the various examinations may with very great advantage be passed under
review. In a matter like this it is possible for vested interests to stand in
the way of advancement. The capacity of the affiliated colleges to cope with
the improved courses of study is clearly dependent upon their strength in men
and money; and such of them as do not feel confident about their own resources
will naturally be inclined to protest against changes, even though they are in
the direction of improvement. The adjustment between the ideal of the Univer-
sity and the general capacity of its affiliated colleges to work up to that ideal,
is an ever present problem of great moment in this connection. I believe that
it is more the duty of the colleges to come up to the ideal of the University
than of the University to go down to the level of the colleges. If the correct
opinion in regard to this matter be otherwise, there would then be very little
stimulus in favour of progress. Vested interests, therefore, impose upon us
the duty of being cautious, but they cannot and ought not to veto progressive
changes and modifications. Therefore great care must be taken to see distinctly
that the proposed changes in the courses of study are really progressive and
practicable.

One of the objects with which the present courses of study may be passed
under review is to institute examinations for honours. These are contemplated
by the Act of Incorporation itself, as may be made out by a reference to the
eleventh and the thirteenth paragraphs thereof. Why, in spite of this provision,
the Madras University has not worked out the distinction between an ordinary
degree and a degree with honours, we cannot now be sure about. In the earlier
years the arts degrees were mainly intended to be a measure as well as a mark
of general culture, and therefore no special degrees were probably needed for
the purpose of bestowing honour upon 'a high degree of proficiency.' The case
is now quite otherwise. Our courses of study have all become specialised in
character, and we can now clearly conceive and work out such a kind of high
proficiency as is really different from that which distinguishes a higher class or
place from a lower one in the pass list. In instituting the examinations for
honours we effectively distinguish the more capable from the less capable set of
students. They themselves learn thereby how to measure their own worth
accurately and without loss of mental balance; and the love of high proficiency on the part of a few abler students will, by the encouragement it thus receives, become available for maintaining the high and noble character of the ideal of University-education. This same love of high proficiency may also lead some of those who possess it to become original investigators and practical workers in the cause of culture and truth; and above all, the work done in the various colleges will thereby be placed on a decidedly better footing. As we are now situated, our teaching and our examinations are neither pitched exactly on the level of the weaker nor exactly on the level of the stronger student. Thus there is much waste of power on the one side of the teacher as well as on the side of the taught, as it has occurred to me more than once. To avoid this waste of power cannot be in any way other than positively advantageous.

Another object with which the courses of study in our University may be revised has been quite recently engaging the attention of the Senate. I refer to the attempt to institute the B.Sc. degree. Although in recent years there has been a great deal of specialisation in the character of our courses of study, the differentiation between the 'humanities' and the 'sciences' does not come out well in them. A certain amount of mixing up of these is absolutely necessary even in an ideally perfect curriculum as a of studies, and such a mixture is perhaps more needed in India than in Europe. But the effect of the mixture ought not to tend to lower the standard or to injure the completeness of either the humanistic or the scientific curriculum of studies. It cannot certainly be said that our B.A. courses of study are in this respect as good as it is possible to make them. The idea of retaining the present B.A. courses unaltered and as they are on the score that they represent general culture, and of instituting the B.Sc. degree for specially encouraging modern scientific education has not much to be said in its favour. It is against the line along which our examinations have progressed hitherto, and will prevent the possibility of further specialisation and improvement in the humanistic studies, which are also equally worthy of encouragement. To make the B.A. degree representative of the 'humanities' and the B.Sc. degree representative of the 'sciences' is a very desirable reform, inasmuch as it will lead us farther along the old line of progress and distinctly encourage the advancement of learning all round. The M.A. and the D.Sc. degrees have also to be made to rest on a similar basis of differentiation. I have no doubt that this reform, if carried out along with the institution of the examinations for honours, will soon prove to be productive of good in the cause of higher education as a whole. Scientific research and industrial development will as much derive benefit from it as the advancement of learning and morals. It is also highly desirable to find room in the University for a fuller and more practical study of what are called 'applied sciences'. The application of modern science to the production of wealth and the development of industries has become an art of a highly learned character demanding very superior capacity and training; and such a learned art it may naturally come within the scope of the University.

Another error in our courses of study that has to be remedied is that it is now possible for one to become a graduate of the Madras University without having ever studied anything of a classical language and its literature. Without undergoing a training and an examination in Sanskrit, Arabic, Persian, Greek, or Latin, it ought to be made impossible for any one to obtain a degree. The true value of classical learning is too well known to require any special mention here; and that no direct and immediate utilitarian profit can be derived out of such learning perhaps constitutes as a special recommendation in its favour in so far as we in Madras are concerned. The question of the vernacular languages versus the classical languages is a fairly old one in the Madras University. A wrong notion seems to have prevailed that the cultivation of the former of these would suffer by paying special attention to the latter. However, among us the opinion is now fairly general that vernacular literature and popular enlightenment in Madras have, when compared with Bombay and Bengal, received the least benefit from modern University-education. It is true that the vernacular languages of the Madras Presidency are not philologically Sanskritic; but their literary and scientific indebtedness to Sanskrit is in no way less than in the case of any other Indian vernacular language. I do not believe that there is the smallest amount of truth in the remark that one sometimes hears that Christian
missionary interests are against this reform. On previous occasions some missionary members of the Senate have spoken against such a proposal, it must be due more to their interest in popular enlightenment than any opposition to classical culture. But ever since popular enlightenment with the aid of vernacular literature and education has been so considerable by a more general acquaintance with the classical Sanskrit from which all later branches of Indian literature have received so much inspiration and guidance. A fair knowledge of Greek and Latin literature among our Graduates will be so useful as a means to culture, and will enable them to realise how and why the course of thought and civilisation has been so different in Europe from what it has been in India. This reform need not necessarily lead to the total abandonment of the study of our vernacular literatures. Therefore without adequately studying to the required standard a certain number of prescribed works in a classical language, a vernacular language, and in English, no man should have a degree within his reach. It is quite possible to arrange combined courses of study in these languages without making the curriculum too heavy.

The above suggestions regarding our courses of study have been made on the supposition that English alone is to be the main medium of higher education, and more details in regard to these suggestions have not been given here as it appeared to me that it is unnecessary to mention them in this memorandum. I hold that the Indian Universities have a very peculiar function to perform on account of the peculiarity of their situation in history. The advancement and propagation of learning are among the common functions of all Universities; but Indian Universities have in addition a more particular function as much as to Europeanise Indian thought and culture as much as to Europeanise Indian thought and culture. In the speech delivered by His Excellency the Viceroy recently at Simla to the members of the Educational Conference held there, we find the following remarks in relation to vernacular education, which I request permission to quote:

"Primary education—by which I understand the teaching of the masses in the vernacular—opens a wider and a more contested field for those who think that Government has not fulfilled its duty in this respect. The education of the people in their own tongues has shrivelled and pined. This, I think, has been a mistake, and I say so for two principal reasons; in the first place, the vernaculars are living languages of this great continent; English is a vehicle of learning and of advancement to a small minority but for the vast bulk it is a foreign tongue which they do not speak or rarely hear. If the vernaculars contained no literary models, no classics, I might be so willing to recommend them; but we all know that in them are imbedded immemorial treasures of literature and art, while even the secrets of modern knowledge are capable of being communicated thereby in an idiom and in which will be understood by millions of people, to whom our English terminology and ideas will never be anything but an unintelligible jargon. My second reason is even wider in its application. What is the greatest danger in India? What is the source of suspicion, superstition, outbreaks, crime, yes, and also of mutual agrarian discontent and suffering among the masses? It is ignorance; and what is the only antidote to ignorance?—Knowledge. In proportion as we teach the masses, so shall we make their lot happier, and in proportion as they are happier, so they will become more useful members of the body politic. The main obstacles which primary education has to contend with spring from the people themselves. As they rise in the social scale, they wish their children to learn English. The Zemindars encourage this tendency, and District Boards and Municipalities do little to drag the pendulum back. Thus we find that in some provinces primary education is almost stationary, while in others it is only making slow speed. The question is really in the main one of money. If it be the means were forthcoming, I do not doubt that Local Governments would be ready to adopt a more liberal policy."

This sad state of affairs has been going on for many years now in India, and it is worthwhile considering if the University cannot be utilised for improving it as far as possible. Dr. D. Duunean, or late Director of Public Instruction, made an attempt to see if an Oriental faculty could not be instituted in the Madras University, so as to make it thereby possible for some to obtain a more liberal education of the modern type through the medium of
of the Indian languages alone. The idea was given up because it was thought that it would not receive sufficient support in the Senate. I consider the question to be so important both from the standpoint of the state and of the people as to deserve to be placed before this Commission; and I hence append to this memorandum a copy of the report of the Sub-committee appointed to draft a scheme of examinations in connection with the proposed Oriental Side of the University of Madras. This report is so drafted that it is capable of explaining itself, while it explains also the need for the institution of the Oriental Faculty in Indian Universities. No better way can be devised by the University to combat popular ignorance to which so many of our ills are due. To help directly in this great and noble work cannot be beneath the dignity of any modern Indian University. The honour of a University degree bestowed on purely Oriental Learning and the better training and examination therein consequent on the institution of such a degree will surely infuse more life into popular as well as higher indigenous education, both of which are now languishing for want of recognition and encouragement. Moreover, the ancient learning and culture of this great and historic continent of India will by an arrangement like this, become so closely linked to the modern University as to convert it soon into even a more highly valued national institution than at present.

These are some of the objects for attaining which the various courses of study in our University may well be passed under review.

M. RANGACHARYA.

Madras, 17th February 1990.
UNIVERSITY OF BOMBAY.
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* Examined at Poona.
Dr. R. G. BHANDARKAR, M.A., Ph.D., C.I.E.

Statement read to the Commission on the 27th February 1902.

1. The education of our Graduates is in most cases unsatisfactory. The thinking and critical powers are not awakened, and the moral feelings are not cultured. This appears to be due to the following facts:

(a) The students read their books and study their subjects with a view only to pass their Examinations. Their interest in them is not awakened and ideas and facts are not assimilated.

(b) The Teachers are in a good many cases not up to their requirements. They do not show much learning nor the spirit of a student, which alone are calculated to inspire reverence for them in the minds of their pupils.

(c) No care is taken to appoint good Examiners, or good Examiners are not available.

(d) There is no educational public opinion which Teachers, Examiners and the Executive body of the University might be expected to fear and respect in the discharge of their duties.

2. To counteract the operation of these causes, the importance of a mere Degree ought to be lessened, and endeavours should be made to create a large body of men devoted to learning, research and teaching, and resident within a limited area. To create such a body as this—

(a) As many Colleges as possible should be located in one place.

(b) The Professors should be selected from the best English and Continental Universities from among men who have lived for a good many years within the atmosphere of their Universities after graduation. Fresh Graduates should not be brought out. These will form the European portion of the learned body, which should have a Native portion also. This should be constituted by the creation of a large number of Fellowships to be conferred on Natives who have achieved distinction and who should be required to devote their lives to learning, making researches, and teaching. Examiners should be selected from this learned body, and Native Professors from the Fellows.

3. The Professors and Fellows of the several Colleges located in one place should constitute the University, lay down courses of instruction, hold Examinations and grant Degrees.

4. It will not be possible to have many such Universities in one Province. Each Province should have one; and the Colleges at present scattered in different parts of the Province should remove to the place where the University is located, and incorporate themselves with it. They should, at the same time, increase the European portion of their establishment in the manner mentioned above, and have also a stronger Native establishment than they seem to have. If these things cannot be done, the students trained in those Colleges will not be eligible for Degrees. For the benefit of these Colleges, however,—and we have a number of them in British territory and Native States,—an inferior Degree should be instituted. The University should hold Examinations for it and give diplomas to the successful candidates. But these will not be called Graduates of the University.

5. I have thus sketched the ideal which, I think, we should aim at. It cannot be realized at once, nor is it advisable that it should be artificially brought into existence. We must gradually grow towards it, so that a body of wholesome traditions may gather round the institution. But a beginning should be made by introducing changes in the constitution and functions of the
The most important object we should have in view is to give preponderance in its deliberations to the views of men who are engaged in the work of education.

6. To attain this object I would propose that a new Senate of a hundred members should be created, sixty of them being educationists and forty outsiders. The first should be chosen by Government from the Professorial staff of the Colleges, from the High Schools, and the Directorial and Supervising establishments in the following proportion:

- **Arts.**
  - 6 from the Elphinstone College, Bombay.
  - 20 from the Wilson, St. Xavier, Deccan and Fergusson Colleges at the rate of 5 from each.
  - 12 from the Baroda, Ahmedabad, Bhavnagar, Junagadh, Kolhapur and Sind Colleges at the rate of two from each.

- **Law.**
  - 2 from the Law College, Bombay.

- **Medicine.**
  - 6 from the Grant Medical College, Bombay.

- **Engineering.**
  - 5 from the Science College, Poona.

- **High Schools.**
  - 4 Head Masters of the Elphinstone, Poona and Ahmedabad High Schools, and of the Fort High School, Bombay.
  - 1 The Director of Public Instruction.
  - 4 Educational Inspectors.

Out of the forty outsiders ten should be elected by Government, ten by the existing Senate out of its members, and twenty by Graduates of the University who are of ten years' standing from among Graduates with the same qualifications as themselves. Any vacancy in this new Senate should be filled up by the body which elected the person who has vacated his place, and, in the case of the Educational members, from the institution or establishment from which he was elected.

7. It will thus be seen that I do not propose the abolition of the present Senate, but the limitation of its functions to the election of ten of their number to be members of the new Senate, which, to distinguish it from the existing Senate, should be called the Working Senate. Or the existing Senate might be called "A body of Associates," and the name "Senate" restricted to the new body. A Fellowship of the University is highly appreciated and sought after by persons of position in society; and this feeling should be made use of by keeping the existing Senate and by Government adding to it from time to time.

8. The new Senate should be divided into Faculties as at present.

9. Whenever a question relating to studies and discipline comes up before the Senate, the Educational members usually residing in places other than Bombay and Poona should be entitled to give their vote in writing and be not required to be present in Bombay at the meeting. All other questions should be decided by the meeting in Bombay. A Fellow resident in Bombay who does not attend two successive meetings of the Senate should cease to be a Fellow.
10. The Syndicate should consist of the following members:

- **Ex-Officio.**
  1. The Vice-Chancellor.
  1. Principal, Elphinstone College.
  1. Do. Law College.
  1. Do. Grant Medical College.
  1. Do. College of Science, Poona.

- 5

*To be elected by the Faculty of Arts every two years.*

  2. out of the Principals of the Wilson, St. Xavier, Deccan and Fergusson Colleges.
  2. out of the Professors in the Elphinstone and the other four Colleges who are members of the Faculty.
  1. from among the other members of the Faculty.

- 5

*To be elected by the Faculty of Law every two years.*

  1. a Professor of the Law College belonging to the Faculty.
  1. from among the other members of the Law Faculty.

- 2

*To be elected by the Faculty of Medicine every two years.*

  1. a Professor of the Grant College belonging to the Medical Faculty.
  1. from among the other members of the Faculty.

- 2

*To be elected by the Faculty of Engineering.*

  1. a Professor of the College of Science, Poona, who is a member of the Faculty.
  1. from among the other members of the Faculty.

- 2

Total ... 16

11. The University should insist that the European Professors in the affiliated Colleges should be selected in the manner mentioned in paragraph 2 (b) and the Native Professors should be men who have obtained the highest degree in the branch they have to teach and at the same time have distinguished themselves by delivering public lectures, writing original works, or editing texts in
their particular subject. The mofussil Colleges, i.e., Colleges at places other than Poona and Bombay, should be required to have two European members on their teaching staff. English Literature, History, and Philosophy should be taught by European Professors.

In the present state of things I would restrict the control of the University on the teaching establishments to this: I would not have it make appointments to Lectureships or Professorships.

12. No one should be appointed an Examiner in any subject unless he has achieved distinction on account of his knowledge of that subject or is a Professor in that subject answering to the description in the last paragraph. If such Examiners are not to be had in Bombay, members of the Colleges at Calcutta, Madras, Allahabad or the Punjab should be chosen; and when none is available there, Examiners for the highest of our Examinations, such as that for the M.A. Degree, should be chosen from among the members of the Universities of Oxford and Cambridge. The number of candidates for these Examinations is small, and no great inconvenience will be experienced if we get our question papers printed in England under the supervision of the Examiners and send the answers of the candidates to them.

13. Special Boards of Studies, consisting of the Professors in each subject and other men known to be experts, should be appointed by the Syndicate, who should report to the Syndicate on any point relating to studies referred to them.

R. G. BHANDARKAR.
Memorandum submitted to the Indian Universities' Commission
by Mr. R. P. Paranjpe, Acting Principal of the Fergusson
College, Poona.

Teaching Universities.—It will be the greatest boon to the country if the present Universities could be transformed into teaching Universities, and attain the same standard of efficiency that obtains in the Universities of Cambridge and Oxford or any of the German Universities. There are however many difficulties in the way of realising such a scheme:

First and foremost there is the financial consideration. The endowments of the English Universities are magnificent (Oxford and Cambridge derive their income by taxing the Colleges). The Universities in Germany are mainly financed by the German Government. Unless some means can be found to obtain an adequate source of income, the idea of teaching Universities seems destined to remain an idea. Eminent men can be attracted to India only by the payment of liberal salaries, and it is a question even then if good men can be induced to come out. Supposing we appoint fifteen Professors in the Bombay University—a number which is totally inadequate if we are to include all branches of knowledge—their salaries would amount to more than three lakhs of rupees. Buildings, libraries, laboratories and various other necessary accompaniments of a University will also cost a great deal.

If all the system of higher education were to be re-cast, then by requiring the Colleges to be located in one centre we might be able to create a teaching University which might co-operate with the Colleges, but at present as the colleges are distributed all over the Presidency, they would be rendered useless if the University undertakes to teach students up to the same standard.

A teaching University is barely possible if it has only postgraduate teaching in view, and even then, for some time at any rate, it will suffer from want of students. There are at present not many openings for students to induce them to undergo a course of postgraduate studies. This difficulty is to a certain extent experienced even in Cambridge and other places. Not many students even in Cambridge study for the second parts of the mathematical and other triposes when the first parts are sufficient to secure a degree. I have seen two of the most eminent mathematicians of France lecture to audiences of two or four students.

Supposing we want to have a body of very distinguished Professors simply to advance knowledge and to offer an ideal to our students, we may have to consider whether the best Europeans will come out to India where they will not be in congenial surroundings. For some time at any rate professorships in Europe will be regarded as more important than those in India and there is the risk of some Professors being tempted back to Europe.

The remedy, I think, lies in the creation of a body of learned Indians themselves. The example of Japan will help us in this matter. At present the Japanese Government has about a hundred of its best students sent at Government expense to acquire learning in Europe. About fifty of these students are in Germany. Some are in England, some in America, and if I am not mis-informed, one or two in India (to learn Sanskrit). The Japanese Government imported distinguished European Professors for a term of years only and when their own men were ready and capable to occupy these professorships, Europeans were no longer imported. If a similar course were followed in India, we should soon get a body of learned Indians who would then themselves raise the tone of learning in this country. After some twenty or thirty years the expense of sending students can be diminished by diminishing their number, as foreign education will not be so necessary then to prepare capable men.

Recognised teachers.—The proposal presents many practical difficulties. The University will have to judge of a man only from the report about him forwarded by the governing body of the College. It will in general have no
direct means of judging about him. The College authorities are in a better position to appoint their Professors. All that a University need do is to veto any obviously bad selection which the new Bombay University can do even at present. In general the sanctioning of teachers will be merely a formal matter. It is obviously the interest of the Colleges to appoint the best men available.

The Fergusson College, for instance, generally appoints persons who have been tried in the New English School and confirms them after giving them a trial in higher teaching.

If these recognized teachers are intended to prepare candidates privately without their having to join a College, I am entirely against this proposal. The Colleges even though not so efficient as those of Cambridge are certainly better than none at all.

**Spheres of influence.**—Colleges at a distance should not be affiliated. If the standards of the various Universities are made uniform, the Colleges would not desire affiliation with distant Universities. In some Universities degrees are given with comparatively greater facility.

**Constitution of the Senate.**—The Senate should consist of some 150 Fellows, 20 in Law and Engineering each, 40 in Medicine and 60 in Arts. These last should in general represent all the subjects of study in Arts. The principals of all the affiliated Colleges and the Director of Public Instruction should be ex officio members. The membership of the Senate should be made terminable after five years and the Fellows should be made eligible for re-appointment. The membership should also lapse in case of non-attendance at half the number of meetings in a year. Thirty Fellows will thus retire in order of seniority. Half of these places are to be filled up on the recommendation of graduates who are of five years' standing in the respective faculties and who have obtained at least a second class degree. The other half of the Fellows should be nominated by Government from among persons of the Universities who have great academical distinctions or have done eminent service to the cause of education in this country.

From the experience of the past few years during which two Fellows have been nominated annually on the recommendation of the graduates of the University, it is seen that the persons selected by the graduates are generally fit and proper persons to take part in the Government of the University. The nomination by the Government is often looked upon as a kind of distinction without any responsibility attached to it.

As to how these changes may be introduced in the beginning, we may propose that of the present Fellows those who have permanently left India should no longer continue to be Fellows. Of the others a sufficient number of the most senior be requested to retire to bring the body to the normal form; or these changes may be introduced gradually as circumstances may suggest.

**The Syndicate.**—The Syndicate should be a Managing Committee of the Senate. The present Syndicate is not at all an unwieldy body. Some of its duties should, however, be relegated to Boards of studies as suggested below.

Two-thirds of the members of the Syndicate should be actually engaged in teaching. With this proviso the Syndicate can be elected by the Senate.

**Boards of studies.**—These should be advisory boards nominated by the Syndicate. There should be one board for each subject of study. These boards of studies may contain persons who are not Fellows of the Senate. But the greater number of members must be actually engaged in teaching. The Boards are to recommend text-books and examiners for the approval of the Syndicate. The membership of a board may be made terminable after five years. A question dealing with any subject should be referred to the corresponding board for consideration and opinion before it is taken up by the Syndicate or the Senate. Examiners should send a report to the Board on how the general body of the candidates have acquitted themselves in their subjects.

**Graduates.**—It is not worth while to confer an honorary degree as suggested. In Cambridge, for instance, an M. A. degree gives some important privileges and that is why it is ususally conferred there.
There should be a register of graduates containing, if possible, information about their careers in after-life, as is to a certain minimum extent done in the list of graduates printed in the Madras calendar.

Students of the University.—It is true that there is a very great percentage of failures in the University examinations. This is due to the fact that a great many are just near the margin and a few marks on one side or the other makes all the difference. The Colleges generally hold a preliminary test about two months before the University examinations and if a student just fails in any subject they hope that he will make it up in these two months. Owing to the number of examinations, a student has to sacrifice a year perhaps if he is deprived of even his slight chance of success by recorntion being allowed to appear for the examination, and consequently the Colleges are generally inclined to consider the question of the necessary certificates leniently. An improvement is possible without an appearance of undue harshness; the number of examinations were diminished and there be a greater amount of specialization in the studies. These are discussed more fully under “Curriculum.”

Discipline.—Students are not compelled to reside in the residential quarters provided by the Colleges. There is a certain amount of supervision over those who do reside in the quarters. There is, however, no way of exercising proper control over day students when out of College. In the Fergusson College, for instance, the Principal and one other Professor reside in the College grounds and frequently visit the students’ quarters. Students have to pay a certain subscription for the College Gymkhana. They are not, however, compelled to play, and the only exercise some of them take is a walk for an hour or so.

The students of the College have a debating and there is also held an Annual Gathering of the past and present students of the College. In general the students are coming more and more to feel that they join the College for something else besides the learning of so many portions of so many subjects which are required for their examinations. Any great improvement is of course a matter of time.

In the Fergusson College, since the beginning of this year, a plan is being tried with the object of bringing the professors and students in closer contact and of exercising a stricter supervision over the last. The students are divided into batches of about twenty-five and are assigned to he several professors. The professors are to see that they work neither too little nor too much, that they take proper physical exercise, that they read something else besides their usual text-books, and in general to take care that they spend their time to some purpose. It is too early at present to say anything about the results of such an experiment, but at any rate it won’t do any harm.

The two Arts Colleges in Poona are about four miles from each other and much common action between the students of these Colleges is not possible. There are, however, cricket and tennis matches between these Colleges once or twice a term.

Curriculum.—The subject, however, which is the most important and without which reforms or changes in any other matter are destined to failure, is that of the improvement of the curriculum. At present there appear to be several defects which may be classified under (a) Neglect of the Vernaculars and consequent lack of general knowledge, (b) too many examinations, (c) want of specialization.

(a) The neglect of the Vernaculars is patent to everybody and needs little discussion. This subject is more directly to the schools which supply students for the Colleges, but no apology is required for discussing it here. There has been a growing tendency of late years to make a boy begin English earlier and earlier. This leaves him no opportunity to perfect his knowledge of his mother tongue without which nobody can expect to acquire a thorough mastery over a foreign language and he begins to learn these very elements of such subjects as History, Euclid, Science, through the medium of English. The result of this is that the classes in these subjects transfigure into classes in English in the better class of schools and degenerate into cramming lessons in the worse class. A boy stumbles at many propositions of Euclid, for instance, not so
much on account of their intrinsic difficulty (though even here I should advocate the abolition of Euclid and follow the continental system of teaching Geometry without the fetters of Euclid), but because he cannot follow the successive steps as he has to consider the meaning of the various sentences in which these steps are expressed. When a student has got a fund of ideas, expressing them in one language or another would not be so very difficult. In the schools then care should be taken to teach all subjects through the medium of the Vernacular until the student is perfectly familiar with English.

The teaching of English is again extremely faulty. All the time of the students in the schools is taken up in cramming up rules about the technicalities of grammar and analysis, and it is not at all too much to say that many students who appear for the Matriculation Examination have not read half a dozen books of English literature and cannot write a correct sentence out of ten. A glance at the English paper in the Matriculation will show that a student who has his crib about grammar and idioms at his fingers ends, may answer miserably the questions in paraphrasing or translation or essay-writing and yet get through. It is a common complaint that students who join Colleges are absurdly weak in English and find it difficult to understand the lectures.

(b) Before a student can get his degree at present he has to pass four examinations, and it is the frequency of examinations which tell greatly on his health and stands in the way of his acquiring sound knowledge. A student, who reads Roman History in one year along with many other subjects which have no bearing on it, cannot be expected to have a deep knowledge of that subject and to take any genuine interest in it. Preparing a subject for an examination is far different from knowing it. If the burden of these examinations be removed to a certain extent there will not exist some of that superficiality that now exists.

(c) This superficiality is closely connected with the absence of specialization. At present before the University grants the degree of B.A. it examines candidates in the following subjects: English (4 times), second language (a classical language generally or a modern European language four times), Indian History, English History, Geography (including Physical Geography), Latin or Greek, History, Logic, Physics, Trigonometry, Political Economy and one voluntary subject once each. By examining in so many subjects the University looks as if determined to allow him no opportunity to read anything for himself. The voluntary subject which is to give him the hallmark of a specialist would to an outsider look like the greatest fraud practised upon the credulous public. Taking a graduate with mathematics as his voluntary subject—a subject by the way which has the reputation among students of being the easiest of the voluntary subjects—I can safely say about him that he has not the knowledge of mathematics which a good student in an English public school has when he joins Cambridge with the intention of taking mathematical Honours there. And it is no wonder, for he has to learn too many other subjects to be able to devote much attention to his voluntary subjects. The remedy for all this appears to be specialization and specialization alone.

The studies done up to the present Intermediate Examination should with a few changes be the syllabus of the new Entrance Examination. Text-books in English (at least, ten in number), some in prose and some in poetry, should be appointed, and students should be examined in the general contents of these books and in composition and not in the trivialities and technicalities of grammar, Versaculuar, Arithmetic, Algebra, Euclid, History and Geography should be compulsory and there should be severer groups of optional subjects which would fit a candidate for the study of any or of the three faculties—Arts, Medicine and Engineering.

In this connection I should propose the following reforms.—The Matriculation Examination should be made much stiffer, especially in English. No student should be allowed to appear for the examination before he has completed 18 years to prevent the present hothouse system of coaching up boys and sending them up immature for the University Examinations.
The groups should be somewhat as follows:—Advanced portions of Euclid and Algebra, Elementary Trigonometry and Mensuration, Physics and Mechanics, and Astronomy (for students going in for for engineering).

Elementary Physics, Chemistry, Botany, Physiology.

Two languages (one of which may be Vernacular language of India other than the candidate's mother-language), Ancient History, Logic.

Elementary Physics, Astronomy (any two of these sciences), Elementary Trigonometry and advanced portions of Euclid and Algebra.

Students may begin to work at the particular subject they want to study after such a searching test. They should have only one examination in this subject after three years. This examination should entitle a man to a B.A. degree, which should be called an Honours degree. The standard of these examinations should be pretty hard and should be just about the standard of the various Cambridge triposes. There need not be any further examination for the M.A. degree, but for those who would like to study further there should be a further examination to test their knowledge (as is the case at Cambridge).

Along with this there should be a pass-course, but the pass-course should consist of two examinations after a matriculation of the kind specified above. The syllabus for the first of these two examinations should contain English Vernacular, a little mathematics and History of England and India, and for the second examination there should be optional subjects one of about the same standard as the voluntary subject in the present examination for the degree of B.A. or the subjects for the special examinations as for the ordinary degree in Cambridge.

These graduates should not be allowed to proceed to M.A. and should not have the privilege of a vote in the election of Fellows, &c.

The classification given in the note of the President of the Commission may be advantageously extended to include modern European languages and to separate the northern and southern Vernaculars of India.

Examinations.—The way in which the examiners are appointed is of course only known to the Syndicate. But so far as is known there is no general meeting of the body of the examiners. This is a reform which is very desirable. It often happens that a student who has obtained the bare minimum in every subject passes, while another who has done well in all subjects but wants about four or five marks in one subject fails, because the examiners do not meet together and consult the various cases. A regular system of examination should be formulated. Half of the examiners of one year should retire in the next year so as to preserve continuity in the standards required for passing any examination. A part of the examiners should be men from other Universities. To maintain uniformity of standard there should be periodic conferences between the Boards of studies of the various Universities.

The practice of giving high sounding degrees on the results of easy examinations in some of the Universities should be stopped. There should be two or three honorary degrees, e.g., D.Sc., LL.D., &c., for high excellence in research only.

A few of the points, such as the question of Registrar and staff, supervision at examinations, &c., lie within the province of the Syndicate, and I am not in a position to pronounce either way on the present system.

FERGUSON COLLEGE, PUNA.

Buildings, &c.—College building, 5 large class rooms, 4 small rooms for voluntary subjects, Laboratory, College Library, office room, students' Library.

Sir Bhagwatisingji Students' Quarters.—Two-storied 28 rooms on the ground floor and 30 on the first floor. Accommodation for 114 students. A new block of 12 rooms to accommodate 18 students.

Mess-rooms.—Quarters for the Principal and the Resident Professor, quarters for the hospital assistant, servants' quarters, bath-rooms, &c. A botanical garden in the town for the common use of the New English School and the Fergusson College and another in course of preparation near the College.
For constitution refer to Appendix B of the Reports of the Deccan Education Society for the year 1898-9-99 and 1899-1900, copies of which are sent herewith.

**Finance.**

*Items of Income—*

Fees from students—about Rs. 14,000.

Grant from Government—Rs. 3,000.

Expenditure Rs. 16,000. This covers, besides salaries, scholarships paid to promising students. Compared with the expenditure of other Colleges this is too low. But it admits of an easy explanation. All the professors are life-members of the Deccan Education Society and as such are paid Rs. 880 only per annum.

Endowments of the value of about Rs. 17,700 for the purposes of prizes and scholarships.

*Provision for Physical Education.—* Two tennis courts; two cricket fields; one foot-ball field; one native gymnasium.

R. P. PARANJPYE.
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<tr>
<th>No.</th>
<th>Name</th>
<th>University Standing</th>
<th>Subjects</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>1</td>
<td>Mahadev Shriram Gole, Esq.</td>
<td>B.A. 1881, M.A. 1883</td>
<td>Professor of Physics and Chemistry and Principal; Dakshina Fellow, Deccan College, 1881-82; Eighteen years' standing; Principal; Author of several Marathi works on Education, Social Reform and Physics.</td>
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<tr>
<td>2</td>
<td>Raghunath Parsbottam Paranjpye, Esq.</td>
<td>B.Sc. (Bombay) 1894; B.A. (Cantab.) 1899</td>
<td>Professor of Mathematics and Acting Principal and Resident Professor; Sir James Ferguson Scholar 1894; Dakshina Fellow, Ferguson College, 1895-96; 1st Class B.Sc., Government of India Scholar 1896-97; Foundation Scholar, St. John's College, Cambridge, 1897-1901; Struck out Senior Wrangler 1899; 1st Class, 1st Division, Mathematical Tripos, 2nd part, 1900; Fellow of St. John's College, Joint College 1902.</td>
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<tr>
<td>3</td>
<td>Vaijanath Kashinath Rajawade, Esq.</td>
<td>B.A. 1884, M.A. 1887</td>
<td>Professor of English and Sanskrit; Dakshina Fellow, Deccan College, 1881-82; 1st Class B.A.; 2nd Class M.A.; Virjiwandas Madhudas Sanskrit Prisman 1882; Dakshina Fellow, Deccan College, 1888-89; Professor of English and Sanskrit at D. J. Sindhi College, Karachi, 1887-88; Six years' standing; Edited Kathopanishada for the Andamana Annual Series.</td>
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<tr>
<td>4</td>
<td>The Hon'ble Mr. Gopal Krishna Gokhale</td>
<td>B.A. 1888</td>
<td>Professor of English, History and Political Economy; Seventeen years' standing.</td>
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<td>5</td>
<td>Govind Chimanji Bhave, Esq.</td>
<td>B.A. 1893, M.A. 1896</td>
<td>Professor of Logic and Moral Philosophy; Ellis Prize man in English 1893; Dakshina Fellow, Deccan College, 1893-94; Kashinath Trimbak Tengh Gold Medalist 1895; 2nd Class M.A. Seven years' standing.</td>
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<tr>
<td>6</td>
<td>Narayan Sakharam Parne, Esq.</td>
<td>B.A. 1891</td>
<td>Professor of Sanskrit; Jagannath Shankarshet Sanskrit Scholar; Edited Prasanna Engilava Eight years' standing.</td>
<td></td>
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<tr>
<td>7</td>
<td>Mohomadkhan Munsbi, Esq.</td>
<td>Nil</td>
<td>Professor of Persian; Ten years' standing.</td>
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<td>8</td>
<td>Dhirendra Keshav Karve, Esq.</td>
<td>B.A. 1895</td>
<td>Professor of Mathematics; Dakshina Fellow, Deccan College, 1888-89; Translator of two of Spencer's works, and Editor of the Bhagawatgeeta. Fifteen years' standing.</td>
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<td>9</td>
<td>Chintanram Gangadhar Bhanu, Esq.</td>
<td>B.A. 1886</td>
<td>Professor of History; Dakshina Fellow, Deccan College, 1888-89;Translator of two of Spencer's works, and Editor of the Bhagawtgeeta. Fifteen years' standing.</td>
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<td>10</td>
<td>Vasudeo Balwant Patwardhan, Esq.</td>
<td>B.A. 1893 (Calcutta)</td>
<td>Lecturer in English; Four years' standing.</td>
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<td>11</td>
<td>Bivarsam Vinayak Shewade, Esq.</td>
<td>B.Sc. 1899 (in Botany and Geology)</td>
<td>Lecturer in Biological Science; Col. Patrick French Scholar 1897; Fellow, College of Science, Poona, 1900. Has also taken a first class in two examinations in Engineering.</td>
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<td>12</td>
<td>Vasudev Shastri Abhyankar, Esq.</td>
<td>Nil</td>
<td>Shastri; Has studied Sanskrit Grammar, Rhetoric, Logic and Philosophy and translated into Marathi Shankaracharya's Shastri Bhadha, a work on Vedanta.</td>
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<td>13</td>
<td>Keshav Ramchandra Kanitkar, Esq.</td>
<td>B.Sc. 1899 (in Botany, Chemistry and Pure Mathematics); B.A. 1901.</td>
<td>Lecturer in Physics; Superintendent of Resident students.</td>
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<tr>
<td>14</td>
<td>Vishwanath Balwant Naik, Esq.</td>
<td>B.A. 1902</td>
<td>Lecturer in English Composition.</td>
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I will not repeat what I said in my Convocation Address, which has possibly been read by members of the Commission.

2. I wish it to be clearly understood that in what I have said or may say on the important questions before the Commission, my remarks must be taken as solely applying to the Bombay Presidency, with which I have been well acquainted for thirty-six and-a-half years. I have no personal knowledge in regard to the other presidencies. From what I have heard I take it that there may be circumstances connected with the other presidencies which in regard to those presidencies, might induce me to modify my views.

3. I confess that I have not yet been able to formulate a satisfactory plan by which the Bombay University can be made "a teaching body." Admitting that we could make a beginning by finding funds for providing one or more Professors or Lecturers in the most advanced subjects, (say for those students only who are preparing for their M. A. degree) there is still the geographical difficulty, and the only way I see of meeting that difficulty is by insisting that more students should be members of one of the Colleges at the Presidency Town.

4. A perusal of many papers such as those mentioned in a foot-note* has at present left the impression on my mind that we should do well to hasten slowly, and make but few modifications in and additions to our Constitution. I would retain the Senate and Syndicate as our governing bodies, remembering that we are probably not ripe for elaborate schemes. Court of Governors, Academic Council and such like are not suitable to Indian Universities. But I am in favour of providing in our Constitution for the presence of representatives of corporate bodies or benefactors, who have contributed largely to our funds.

5. I am strongly in favour of limiting the number of Fellows, and providing that Fellowships should be vacated by non-attendance at meetings, in which case tenure need not be originally for a term of years only. Elected Fellows should be in a fixed proportion to the total number, and election should be by the Faculties, Electors and Candidates being graduates of a certain standing (say twenty years) in that faculty. Care will be necessary in fixing the number of Fellows for each Faculty—say Arts (including Science) 50, Law 30, Medicine 30, and Engineering 20.

6. The Syndicate should in my opinion be composed of not less than twenty members, so that committees can be formed for the disposal of the various matters, and rules being made for bringing questions, where necessary, before the full body for decision. The majority of the Syndics should be representatives of the Constituent Colleges. Where necessary—e.g., the College at Karachi, a representative, not a member of the College staff, might be permitted. In Bombay the tendency is (and I think rightly) to discourage affiliated Institutions which do not teach up to the highest standard degree in a Faculty. But these (called Second Grade Colleges in some parts of India) together perhaps with the Head Masters of High Schools, might have the privilege of electing one or more representatives on the Syndicate.

7. In Bombay we have no Boards of Studies, a defect which certainly should be cured. And I should like to see permanent Boards for choosing "Text Books, selecting Examiners, supervising Examinations, and all such like matters. Members of these Boards need not necessarily be Syndics, and they should advise, and report to the Syndicate.

* Copies of the Statutes made for the University of London by the Commissioners appointed under the University of London Act, 1898, and of some of the Regulations made by the same Commissioners. Also a Memorandum prepared (not published) by Sir Courtenary Ilbert on "University Constitutions," Also the volume of the Board of Education containing the reports received from the twelve University Colleges which participated during the year ended 31st March 1901 in the annual grant, now amounting to £35,000, made by Parliament for "University Colleges in Great Britain," and the three Colleges in Wales which receive from the Treasury a grant of £4,000 each.
8. Every Fellow should be assigned to one Faculty only. I prefer this to making the Faculties consist of the Professors and Teachers and Examiners in subjects of the Faculties, together with some additional members (of London University Scheme).

9. It is obviously desirable that a register of graduates should be kept with provisions for keeping it up to date.

10. Students of the University.—I apprehend that our present Act of Incorporation will be repealed, and that a new Act will be passed, in which the difficulty at present felt with regard to Section XII will be removed. I refer to In re Darasha Ratanji, I. L. R. 23, Bombay, 465. In that case a candidate for the Previous Examination (one of our Examinations which a candidate for the B.A. degree must pass before he presents himself for the final degree Examination) claimed to present himself without obtaining a certificate from an Institution authorized by Government under section XII. I am of opinion that all institutions whether teaching up to the degree standard or not, should be authorized by Government. And the certificate which every candidate should produce before presenting himself for the Examination should not be merely a certificate of attendance, but also of fitness to appear for the Examination.

11. I see some difficulties in the way of the University supervising the Colleges in respect of the physical and moral welfare of the students. And I may add that in Bombay Presidency there is (I believe) no reason to suppose that Colleges do not do their duty in this respect. The Despatch of 1854 says that "the affiliated institutions will be periodically visited by Government inspectors;" but I doubt whether this rule has been followed in Western India. I am strongly in favour of continued efforts being made to make all the Colleges residential Colleges. The Despatch of 1854 speaks of substituting some mode of Entrance Examination which may secure a certain amount of knowledge in the Candidates for degrees without making their attendance at the University necessary, previous to the final Examination. If this is a suggestion to dispense with attendance at a College, I am respectfully but entirely opposed to it. It is the discipline and moral training at a college (especially if residence within the College precincts is feasible) on which reliance should be placed for the education of the character of our University Students. For those who are too old to be in statu pupillari, but who are anxious to increase their knowledge of certain Sciences, it may be possible for the University to provide something on the lines of extension courses (see Sir Courtenay Ilbert's Memorandum, page 24).

12. University Teaching.—I would like to say a few words on two of the subjects, English and Vernacular languages of India. I think it is possible that students at first find some difficulties in following their Lectures, the knowledge of English in some candidates for Matriculation being said to be slipshod. (This possibly is due to the fact that in Bombay it is thought well to begin the acquisition of English early. See paragraph 10 or Government of India Resolution No. 495-506, dated 28th October 1899, on Mr. Cotton's quinquennial report). But they probably soon overcome that difficulty. As to the Vernaculars, however, I am sure that the majority of candidates for matriculation do not thoroughly know their own vernacular languages. The Despatch of 1854 apparently contemplated among affiliated institutions the inclusion of Anglo-Vernacular Colleges, in which the scheme of Education should provide for a careful cultivation of the vernacular languages. As far as I know, there have not been any such Anglo-vernacular colleges on this side of India. And the opinion seems universal that there is no place in the University Course for the vernacular languages. As it is, the student is burdened with a multiplicity of subjects. If that be so, then it is all the more necessary that that student, before he starts on his University Course, should be thoroughly conversant with his own vernacular. With this object I would make English and the candidate's vernacular compulsory subjects in the School Final and the Matriculation Examinations, In the case of those candidates, whose vernacular is not Marathi or Gujarathi, or Canarese, or Sindhi, or Hindustani (e.g. the few European or Portuguese or Goanese,) one or more extra papers in English might be substituted.
13. There is one point connected with this question of the vernaculars in
regard to which I respectfully dissent from the Despatch of 1854, and that is that
a knowledge of Sanskrit is of great importance for the critical cultivation and im­
provement of the Marathi and Guzarathi languages, and that it is more especially
necessary to those who are engaged in the work of composition in those
languages, or that its grammar can be applied to the improvement of the spoken
languages (Marathi and Guzarathi). We do not want Sanskritized vernaculars.
But if we want (as I submit we ought) to retain the pure vernaculars as spoken
and understood by the people, then we should insist on all students showing a
thorough knowledge in those vernaculars.

14. As our Registrar can give full details of all the subjects connected with
"Examinations" I will not dwell further on these points.

15. There is one point, as to which I am not sure whether it falls within the
scope of the Commission. It relates to Government scholarships offered to
graduates to enable them to proceed to England for further study. In my opinion
the Rules for election should permit the electors to look at the subjects and
class in which the several candidates obtained their degrees; and also to consi­
der the pecuniary condition of any candidates. Other things being equal, the
poor man should be chosen, and the emoluments of the scholarship should be
sufficient to maintain him in England. Lastly, prospects should be held out to
him of employment on his return to India. I am struck with the fact how few
candidates we have in Western India for scholarships or Fellowships in England.

26th February 1902.
THE BATTLE OF THE VERNACULARS.

Now that the din of the battle has passed away, it will be well to set forth as clearly as possible some aspects of the matter which in various quarters have been lost sight of or misunderstood. The first point—and one of paramount importance—is the question, what is the main reason for desiring a more thorough or extended study of the vernaculars in this Presidency? The answer is well expressed in the following extract from the late Mr. Justice Ranade's Note on the growth of Mahratti Literature:—"As a rule, our boys cease to study the vernaculars as soon as they enter English (High) Schools about the twelfth year of their age, if not earlier. They thus practically lose touch with their people, and by the time they obtain their degrees too many among them find that they are unable either to talk or to write or read their current vernacular language." This want of familiarity breeds contempt for their mother-tongue, and people find it difficult to sympathise with a system which produces the unnatural results of so-called educated men being unable to speak or to write their own mother-tongue fluently and correctly.

It will be noticed that the above proposition is general in its terms, and not confined to any particular place or district. It was stated recently in the Senate that "they were the people in Bombay, who spoke half English and half Mahratti or Gujarati language. It was not so much the fault of the Educational Department as that of the circumstances under which they were placed in a cosmopolitan city like Bombay." This is a mistaken view. The illustrations of jargon which were quoted in the Senate came from the mofussil; and in the various complaints which have from time to time been formulated as to the deterioration of the principal vernacular languages of the Presidency, no attempt has ever been made to limit the evil to the Presidency Town. The subject is not local. In December 1888, the Kannarareese Association, in addressing the University, stated that "graduates have a very poor command over their mother-tongue and a defective grasp of vernacular idiom." This is the complaint in regard to the interpreters of the High Court many of whom have been brought up and educated outside Bombay. They are fairly acquainted with the English language, but they are sadly ignorant of the idiom of the vernacular languages into which they are supposed to translate the questions of judge and counsel. So, too, on the appellate side of the High Court an interpreter often finds it difficult to read aloud at sight with any degree of fluency a vernacular document written in the current handwriting. And yet he may be—a B.A. of our University. This is the evil which was apparently in Mr. Justice Ranade's mind when he wrote the words quoted above. Of course there is another aspect of the matter which deserves consideration, and that is the subject touched upon by Mr. Sathe, the Registrar of Native Publications, in his oft-quoted Report for 1892. Put in a few words, it is this: "The intelligents that are working to develop the literature of the country do not very often belong to the highly educated class, and the leading intellects do not devote much of their time and energy to the enrichment of their vernacular literature. Moreover, having received their education in the English language, the study of which takes up much of their school and college course, very few of them (graduates) can write in their vernaculars even on the liberal arts."

Which of these much-to-be-desired ends should be our first and main object? That is the question which we should at first strain all our efforts to the latter one. When that is attained, when an educated Hindu gentleman may be able to talk and read and write his current vernacular language fluently and correctly? Surely the goal towards which we should at first strain all our efforts is the latter one. We should, in the first instance, try to attain a knowledge of our vernacular purely, and not with a jargon, when he can read and write it correctly, and when he can translate from English idiomatically, then the other object will be attainable, and we may expect a supply of pure vernacular literature.

Let us see how far the resolution, which was recently passed in the Senate, may be expected to assist in attaining the latter result which should be our first aim and object. The Bombay University recognises two main divisions of
languages—A (Classical) and B (Vernacular). The classical languages are (1) Sanskrit, (2) Greek, (3) Latin, (4) Hebrew, (5) Arabic, (6) French, (7) Persian and (8) Avesta and Pahlavi. The Vernaculars are (1) Mahratti, (2) Guzerati, (3) Kanarese, (4) Hindustani, (5) Sindhi, and (6) Portuguese. At present candidates at the Matriculation examination are examined in English and one of the classical (excluding Avesta and Pahlavi or vernacular) languages. In English there is one paper containing (1) one or more passages for paraphrase, with, as an alternative, one or more passages for translation into English in one of the vernaculars; (2) questions in grammar; and (3) an exercise or exercises in composition. In the second language, which may be either classical or vernacular, there is one paper containing prose passages for translation from and into English, and questions in grammar.

From that stage onwards a candidate for the University degree has no opportunity of showing his proficiency in his own vernacular. In the previous examination candidates are examined in (1) English, (2) Classical Language, (3) Mathematics, (4) History. In the two papers on English and in the one paper in the classical language the examination is entirely conducted in English. The same remarks hold good for the intermediate examination, the subjects for which are (1) English, (2) Classical Language, (3) Mathematics and Physics, and (4) Deductive Logic. Then we come to the examination for the Degree of Bachelor of Arts. Subjects (1) and (2) are English with composition and classical language. There is no use of any vernacular. Lastly, we have the Degree of Master of Arts, which a candidate may obtain on the expiration of five years from the date of Matriculation, should he pass the examination in any one of six branches, the first of which is languages. In languages English is compulsory, and there must be one or more of the classical or vernacular languages. At present Portuguese, Hindustani and Sindhi are not included in the vernaculars in which a candidate may be examined for his M.A. degree. They are probably not considered to be "advanced" vernaculars to which the recent Committee of the Syndicate deemed their attention should be confined. This is certainly true of the Portuguese language, the use of which as a vernacular among University candidates is restricted. The case of Hindustani and Sindhi is different, and different considerations have to be borne in mind as regards these two languages when one is compared with the other. The use of Hindustani is more or less general; Sindhi is confined to the Province of Sind. To avoid confusion it will be better at present to leave these languages out of consideration in the argument, but it will be understood that in so doing no discourtesy is intended. Confining ourselves then to the three main languages of the Presidency proper—Guzerati belonging to the Northern Division as it is known in official circles, Mahratti to the Central, and Kanarese to the Southern Division—the question for consideration is whether the regulations above referred to will tend to make the ordinary educated Hindu gentleman able to read and write his own vernacular correctly and fluently. As shown before in the Matriculation examination, assuming that he then exercised his option of taking his vernacular as his second language instead of a classical language, he will have had one paper containing prose passages for translation from and into English and questions in grammar. Then for four years he will be busily engaged with subjects in which his vernacular can have no place. Is it to be expected that in his fifth year of University study he will return to his vernacular and prepare himself for questions on the several books to be taken up by him, including points of scholarship, comparative philology, criticism, and the history of literature? Those will be the subjects of his 3rd and 4th papers. (See page 67 of the current University Calendar.) Where are the professors who are to guide him in this course of study? It has been said that this objection need not be considered, because the recognition of the vernaculars in the M.A. degree will alone create a demand, which will surely in due time be easily supplied by special endowments and other agencies. The accuracy of this proposition may be doubted, but let it pass; it is, to quote an expression used by the Dean of the Faculty of Arts “in the lap of the future.” But how about the students? Will an impression be made on the ordinary educated Hindu gentleman. No doubt, if a certain number of scholars come forward and make critical and scholarly examination of their languages, and write good books in their languages, no one can deny that this will be to the advantage of their communities. But it is submitted that this is not the main object in view. Will these scholarly critics
improve the ordinary Hindu gentleman? A glance at the University lists will show that the proportion of B.A. graduates who proceed to the M.A. degree is exceedingly small. Then of these all do not go out in "languages." Within the last ten years fifty-six successful candidates did so. Of these besides English twenty took Persian, fifteen Sanskrit and eleven Latin. Of those forty-six how many would have taken their vernacular in lieu of, or in addition to, their second language? But quite apart from the fact that the "real scholars" will be very few who will devote themselves to the higher study of their own vernaculars, and will be of incalculable service in developing in after-life still further the resources of their mother-tongue, the question which is one of urgency is not whether these real scholars will bring honour to the University, but whether they will in ordinary daily life have an appreciable effect on the present pernicious practice, as shown in the fact that the ordinary educated Hindu gentleman very often cannot read and write his own vernacular fluently and correctly. They may be learned in comparative philosophy, criticisms and the history of literature; but in their ordinary life will they stem the tide which is having such a deteriorating influence on the vernaculars of this Presidency? It is unnecessary to elaborate other points which must occur to any one who ponders over this subject. Thus, with reference to the fact that our University students are now asked to drop the study of their vernaculars for four years, and then to resume them in an advanced stage, it is not inapt to quote the following extract from a representation made to the University some years ago:—"It would indeed be without precedent in the past history of education to lay down a curriculum in which a language is omitted for years to be taken up again when higher examinations are held."

Be that as it may, the Senate has deliberately resolved that the three principal vernaculars of the Presidency shall be optional subjects in the examination for the M.A. degree. It is not likely, nor is it to be wished, that Government will veto such a clearly expressed opinion. The question, which is now of pressing importance, is, having erected the pinnacle, which in a marvellous manner hangs suspended in mid air, how can we best build up to it and so make the edifice complete? The subject is one which requires most careful handling, and if we are to profit by past experience we must be careful to avoid certain pitfalls. Thus there is the difficulty in regard to those students who have no vernacular among the Indian vernaculars. This is true of the European or Eurasian students, and possibly it may be held to apply to Parsis, among whom the habit of speaking Guzerat in their homes is said to be becoming less. Then we must reckon, with the clearly expressed opinion of the Senate, that candidates, between their Matriculation and B.A. degree, shall not have appreciable burdens laid upon them in addition to the course of studies which they have already to undertake. These and similar considerations point to the fact that reform is only practicable in an earlier stage of a student's career; in short, that we should work in the directions indicated by the late Divan Bahadur Manibhai Jasbhai in his "Memorandum on our Vernaculars" published in 1899. His object was improvement in the course of studies leading up to the Matriculation Examination. But, in brief, the argument is that the study of English is begun too soon before the student has thoroughly learnt his own vernacular. As the Reverend Mackichan said: "It is the early use of English as a medium of school study that is driving out or corrupting the vernaculars." And as he said in another place, "the truth is that the evil which has led to the neglect of the vernaculars by University men begins at a much earlier stage in the career of the students, and the cure must be sought in a revision of our methods of High School education and not a modification of the University curriculum." Surely the time has now come when this matter should be taken up in earnest. In no quarter is there any proposal to "kill the vernaculars with kindness." But those who do love this country, its peoples, and their languages, are anxious that some steps should be taken as soon as possible to ensure that the ordinary student when closing his school career, either by entering the University through the portal of Matriculation, or by passing the University School Final Examination, shall be compelled to show that he has a thorough knowledge of his own vernacular, not a critical, philological, or literary knowledge, but a sound acquaintance with the grammar and idioms of the language, and an ability to read and write it fluently. At present both in the School Final and the Matriculation one of the Indian vernaculars is only an optional subject. It is suggested that for all Hindus it should be compulsory, and that there
should be some change in the present system which fails to ensure a scholarly knowledge on the part of the student of his vernacular before leaving the High School. Whether the change should be on the lines suggested by the late Divan Bahadur Manibhai Jalaebhai is a matter for careful inquiry. Also there is the question how far the University should be ordered to take action, and how much should depend upon the efforts of individuals or associations of persons outside the University. In regard to the University it would apparently suffice to revert to the policy which was so highly commended by the Chancellor in the first Convocation address delivered nearly forty years ago on the 28th April 1862. His Excellency Sir Bartle Frere said:

"I find that in 1859 the first Matriculation Examination was held, when 132 candidates presented themselves. Of these, only twenty-two passed. The cause of so small a proportion succeeding will be fresh in the recollection of all who took an interest in the University at that period. It was found that a great number of the candidates, who would have been well qualified for admission if judged simply by the progress they had made in those branches of learning which were to be the subjects of their University studies, were yet deficient in a complete and scholarly knowledge of their own mother-tongue. I for one while regretting the disappointment entailed on many an anxious and zealous student, cannot regret the decision at which the Examiners of that period arrived, that a knowledge of the student's own vernacular language should be required as indispensable in any one who applies for admission to this University."

In the following year the Vice-Chancellor, Sir A. Grant, carried in the Senate the resolution that in all language examinations after Matriculation the University should recognise besides English, none but classic languages. It is unnecessary to dwell on the reasons which were urged in support of that resolution; some of them have no force in the present day. But the point which must not be lost sight of is that it was not intended to abolish the vernaculars from the Matriculation. On the contrary, as the author of the scheme explained, "what is proposed is that the Universities should continue to examine candidates for Matriculation in the vernaculars as at present. This is desirable, because by so doing the University will test the efficiency of school teaching throughout the country. She will ascertain that each candidate is able to translate into his own tongue the ideas which he has acquired in rough English." And in the debate Dr. Wilson dwelt on the necessity of making it "imperative on all Indian students to pass an examination in their vernacular when they offer themselves for Matriculation, as strongly urged by Lord Alphinston, the first Chancellor of this University." And Mr. West, while illustrating the same points, mentioned that he had himself met with students in the mofussil who while attaining a proficiency in English had quite lost the use of their own language, except for such homely purposes as buying their dinners or scolding their wives: they were unable to write or even to read the most ordinary letter in the common written character.

These being the facts, it cannot be easily understood why Mr. (now Sir James) Peilee, when Director of Public Instruction, urged on the University that every candidate for Matriculation, whether he takes up a classic beside or not, should be required to satisfy the examiners in the paper set and oral examinations held in his vernacular. As Mr. Peilee said "a great deal of labour in this Department will not be as effective as the adoption of this simple regulation by the University." But the Syndicate did not feel themselves able to accede to the proposal. They said: "The vernaculars have, after much deliberation and discussion, been excluded from the higher examinations of the University; they are not studied in any of the recognized Colleges, and the Syndicate are of opinion that by placing them on the same footing as the classical languages in the regulations for the Matriculation Examination, the University does all it can be expected to do for their encouragement." This, then, is how the matter stands. The "advanced" vernaculars are now not excluded from the highest examination of the University. The question is not whether the University has done all it can be expected to do for their encouragement, but whether it should take its part in ensuring that the ordinary educated Hindu gentleman should be able to speak and read and write his own mother-tongue fluently and correctly.
The Honourable Mr. Justice E. T. CANDY.

Note by Mr. Justice Candy, Vice-Chancellor of the University of Bombay, on Section XII of the Act of Incorporation.

As these papers have again come through my lands, I will, at the risk of prolixity, set out the salient points, some of which are in danger of being overlooked.

1. Section VIII of the three Acts, Act III of 1857 for Calcutta, Act XXII of 1857 for Bombay, Act XXIV of 1857 for Madras, incorporating the three Universities respectively, provides that the Senate shall have full power from time to time to make and alter any by-laws and regulations (so as the same be not repugnant to law, or to the general objects and provisions of this Act) touching the examination for the degrees and the granting of the same, and touching the qualifications of the candidates for the degrees, and the previous course of instruction to be followed by them, and the preliminary examinations to be submitted to by them.

2. Section XII of the same Acts provides that, except by special order of the Senate, no person shall be admitted as a candidate for the degree in the various Faculties unless he shall present to the Senate a Certificate from one of the Institutions authorized by the Governor in Council to the effect that he has completed the course of instruction prescribed by the Senate in the by-laws to be made by them under the power given by this Act.

3. The close connection between Sections VII and XII of the Acts is very marked. Section VIII gives power to the Senate to make by-laws touching the previous course of instruction to be followed by candidates for degrees, and the preliminary examinations to be submitted to by such candidates for degrees; while Section XII refers pointedly to the power so given to make such by-laws, and provides that every candidate for a degree must first present a Certificate from an authorized Institution that he has completed the course of instruction laid down in such by-laws.

4. These sections were in 1898 judicially interpreted by the Bombay High Court (I. L. R. 23 Bom. 465). It was held that the expression "Candidates for degrees" means all persons who make use of the University with the object of obtaining a degree, but that in Section XII it means simply candidates for the final examination for a degree. The Chief Justice, the late Sir L. Kershaw, said (page 471): — "I do not agree with the interpretation of my learned brother."

Parsons J., said (page 472): — "In Section VIII of the Act the expression "Candidates for degrees" apparently means all persons who make use of the University with the object of obtaining a degree. But the same meaning was not attached by him to the expression in Section XII. To the argument that the words in Section XII meant that no person should be admitted to any examination which was prescribed for a degree, unless he produced the necessary certificate from an "authorized" Institution, Parsons J. said (page 473): — "To suit this argument we should have to read the section as providing that no person shall be admitted as a candidate for any examination, preliminary or final, prescribed for the degree, without a certificate from an "authorized" Institution."

It was, therefore, held that the certificate mentioned in Section XII ("and one only is mentioned") was a certificate to be given solely by the Senate at the final examination for the degree; and "it follows that a certificate is not required by that section or by
any other provision of law or of the previous examination, which is a preliminary one made by by-laws under Section VIII of the Act."

5. The above is the only interpretation hitherto given by any of our High Courts regarding any sections of the Acts of Incorporation. Though not binding on the other High Courts, it would possibly be followed by them. Mr. Justice Michell, officiating Judge of the Madras High Court, says that he would have given the same decision.

Let us then, see how it affects the existing by-laws and regulations of the three Universities.

6. In Bombay for 40 years Section XII of the Act has been utterly ignored. There is no allusion to it in any of the by-laws and regulations till last year, 1898, when the attention of the Government was called to the point. This is fully explained in the letter from the Government of Bombay to the Government of India, No. 129, 28th January 1899, so I need not repeat. In Bombay we simply have Institutions "recognized" by the Senate. Of the "preliminary examinations" prescribed by the Senate in the "previous course of instruction" to be followed by "a candidate for a degree in Arts," the "Previous Examination" is one. By Regulation 111 (page 44 of the Bombay University Calendar for 1898-9) no undergraduate will be admitted to this examination, unless he shall have kept two terms at a College or Institution recognized in Arts, and unless he produce satisfactory testimonials under Form G. This Form is to be found at page 507 of the same Calendar, and is to be signed by the Head of the College or Institution at which the student may have attended. It certifies that the candidate has kept the two terms required by the Regulation. Thus all that is necessary is that the College, the Head of which grants the above certificate, is "recognized in Arts." The Regulations of the Bombay University for such "recognition" are to be found at page 247 of the same Calendar. The "recognition" is simply by the Senate. There is no mention of sanction or authorization by Government. And though, as shown by 1 (b) of the Regulations, the primary intention was that no Institution should be "recognized," unless it had the means of diluting up to the standard of the highest degree in the Faculty in which recognition is desired, yet it was subsequently found necessary to add a Regulation (No. 3) permitting the Senate to recognize an Institution for the purpose of a particular examination or examinations only. Thus, to take a concrete instance, in the list of recognized Institutions to be found at pages 247-8 of the same Calendar, No. VI is the Rajaram College, Kolhapur, which is "recognized in Arts" for the purpose of the Previous and Intermediate Examinations. This College has also been "authorized" by Government under Section XI of the Act but under the High Court decision such authorization is a dead letter and meaningless. Being an Institution, unable to give a certificate that a candidate has completed the course of instruction prescribed up to the final examination for the degree, it requires no authorization by Government, and can send candidates up for the Previous and Intermediate Examinations simply on the strength of the fact that it has been "recognized" by the Senate. That was exactly the case of the "Collegiate Institution," which came before the Bombay High Court, and resulted in the decision above quoted. The Rajaram College, Kolhapur, is, it is believed, absolutely free from Government control. The Maharaja may at any time dispense with the services of its present Principal, and appoint some one, whose aim may be to inculcate in its students hostility to the British Government. According to the present Regulations (page 247) the Senate even cannot withdraw its "recognition" unless the Rajaram College changes its course of instruction or ceases to educate up to the University standard. If the present state of things is allowed to continue, the situation may at any time become intolerable.

7. Let us now turn to the Calcutta Regulations, and see how far they are affected by this decision of the Bombay High Court. There the "First Examination in Arts" answers to our "Previous." By Regulation No. 2, page 23 of the Calendar for 1899, any undergraduate may be admitted to this examination provided he has prosecuted a regular course of study in an "affiliated" Institution for not less than two and a half years after passing the Entrance Examination (answering to our Matriculation). By Regulation 3 every candidate shall
send his application with a certificate in the form entered in Appendix A, which is to be found at page 82 of the same Calendar. It is to be signed by the Principal or Head Master of the "affiliated" institution in which the candidate has studied, and certifies that the candidate has completed in one or more of the "affiliated" institutions the course of instruction provided by the University for the F.A. Examination. Turning now to page 78 of the same Calendar, we find the rules for "affiliation." In Calcutta, colleges are "affiliated," while schools sending up candidates for the Entrance (Matriculation) Examination are "recognized." But—and this is the important point—both to "affiliation" and to "recognition" the foot-note is appended "See Section XII." Thus the Calcutta Regulations imply in the clearest possible terms that a "Candidate for a degree" in Section XII of the Act includes candidates both for the Entrance (Matriculation) and also for the Preliminary Examinations (such as the Previous or First Examination in Arts) prescribed by the Senate under Section VIII as among the Preliminary Examinations to be submitted to by candidates for degrees. Such candidates must under the Calcutta Regulations produce certificates from institutions "authorized" under Section XII of the Act. But according to the High Court decision such an idea is contrary to the provisions of the Act, which requires only one certificate from an "authorized" institution, and that is when a candidate appears for his final examination for his degree. To require under Section XII of the Act a candidate for the Previous or First Examination in Arts at Calcutta to produce a certificate from an "authorized" institution, is to do what the Bombay High Court declares is contrary to the provisions of Section XII which requires no such certificate from such candidates. The only other points to be noticed in regard to the Calcutta Rules of "affiliation" ("See Section XII") are that the rules contemplate an institution being affiliated in a department of Arts and the other faculties, and not necessarily up to the standard of the degree in each faculty, and that (unlike Bombay) the power of affiliation rests under the sanction of the Governor General in Council with the Syndicate, and the power of withdrawal, for any reason, rests with the Senate on the recommendation of the Syndicate and with the sanction of the Governor General in Council. As to the first point, attention may be called to the lists at page 240 et seq. of the Calendar. Thus, for instance, in Arts there are 45 institutions affiliated up to the B.A. standard and 30 affiliated "up to the First Arts standard." According to the High Court decision, these latter 30 institutions require under the Act no authorization by Government according to Section XXI. The Regulations do not expressly provide for certificates in the case of candidates for Preliminary Examinations being given by the Heads of Institutions "unauthorized" under Section XII. Even if they did, the question would arise whether such Regulations would not be ultra vires as going beyond the Act which, it has been held, requires no certificate from an "authorized" institution in the case of candidates for Preliminary Examinations. Further, there is this difficulty: according to the High Court decision, the only institution, which can be "authorized" under Section XII, is an institution which can give a certificate that a candidate has completed the course of instruction up to the final examination, for a degree. Then the 30 institutions at pages 240-1 of the Calcutta Calendar, which can only give certificates up to the First Arts standard, cannot be "authorized" under Section XII. Therefore if "affiliated" on pages 8, 78 and 12 of the Calcutta Calendar means "authorized," the Calcutta Regulations are useless so far as institutions teaching up to less than the degree standard are concerned. Now that the decision of the Bombay High Court has by the medium of the Indian Law Reports reached Calcutta, it may be taken as extremely probable that some member of the Senate of the Calcutta University will give voice to the obvious difficulties which arise in attempting to reconcile the Regulations with the Act as judicially interpreted.

8. Let us now turn to the Madras Regulations. At page 46 of the Madras University Calendar for 1898-99 we find the Regulations regarding the First Examination in Arts (answering to our Previous Examination in Bombay). By Regulation 141 (page 47) each candidate must forward a certificate in the form hereinafter prescribed from the head of some College authorized in that behalf by the Government of Fort St. George in Council to the effect that he has attended an authorized College or Colleges for a period of, at least, four terms.
after passing the Matriculation or other accepted Examination, and has completed the course of instruction prescribed by this University."

A comparison of these words with the language of Sections VIII and XII of the Act makes it clear that the framers of this Regulation thought that Section XII did apply to candidates for Preliminary Examinations (such as the First Examination in Arts) as well as for final examinations for degrees. This is made still more clear on looking at "the form hereinafter prescribed." It is to be found at page 133 of the same Calendar under the heading (page 132)—"Certificates required under Section XII of the Act of Incorporation." But according to the Bombay High Court decision, no certificates are required under Section XII of the Act of Incorporation, except in the case of candidates for the final examination for the degree. Therefore, the Madras By-laws and Regulations are in this respect not in accordance with the Act of Incorporation. Further, on turning to the "Rules of affiliation" of the Madras University (same Calendar, page 131), we find it that "in the Faculty of Arts Institutions shall be affiliated as second-grade or as first-grade Colleges, the former being entitled to enter students for the first Examination in Arts only, the latter for both the First Examination in Arts as and the Bachelor of Arts degree Examination." There are (pages 141, 142) nono less than 38 of these second-grade Colleges, while there are 15 first-grade, and according to the High Court decision these 38 second-grade Colleges cannot be "authorized" under Section XII of the Act, for they cannot give a certificate that a candidate has completed the course of instruction up to the final examination for the degree. The Madras University By-law is, therefore, to say the least, incorrect, when it says that a candidate for the First Examination in Arts coming from a second-grade College must produce a certificate required under Section XII of the Act of Incorporation to the effect that he has kept so many terms and has completed the course of instruction prescribed by the University.

9. What then is the appropriate remedy for this state of things? It is submitted that the only remedy, which will effectually remove all difficulties, is an amendment of Section XII of those three Acts of Incorporation. The opportunity can be taken of making the language of the section clearer in other respects: thus, it may be shown that the certificate required from a candidate is to be produced before he presents himself for examination. Thus the amended section may run:—

"Except by special order of the Senate no person shall be admitted as a candidate for the Final Examination for a degree, or for any of the Preliminary Examinations to be submitted to by candidates for degrees, unless he shall present . . . . a certificate from one of the Institutions authorized in that behalf by . . . . to the effect that he has completed the course of instruction prescribed, &c;"

If Section XII is amended as above shown, then no question can in future arise regarding the By-laws and Regulations of the Calcutta or Madras Universities. At present, as I have indicated, according to the Bombay High Court decision grave difficulties may at any time arise in regard to those By-laws and Resolutions.

10. Amendment of Section XIX was the course proposed by the Government of Bombay to the Government of India in their letter No. 129 of 28th January 1899. But the Government of India have replied (No. 294 of 29th June 1899) that a certain suggestion of the Syndicate's Committee of the Madras University affords a solution of the difficulty by which recourse to legislation may be avoided. The suggestion is that the Senate of the Bombay University should under Section VIII of the Act make a by-law providing that persons presenting themselves for examination in any of the preliminary examinations must present a certificate from one of the institutions specified in Section XII—that is to say, an institution authorized by the Governor in Council to give the certificate as to the completion of the whole course of instruction required for admission to the Final Examination—to the effect that they have gone through a certain course of instruction.
11. There are the following objections to this proposed solution of the difficulty:—

(a) It purports to meet the difficulty only in Bombay. It leaves the difficulties in Calcutta and Madras unattended.

(b) It is doubtful whether a majority could be obtained in the Bombay Senate to pass such a by-law. There is a powerful party in the Senate of the Bombay University whose objection is to free educational institutions from Government control. The members of this party would be sure to oppose such a by-law in the Senate, and a disagreeable debate would ensue.

(c) If such a by-law were passed by the Senate and sanctioned by Government, the same party would take the earliest opportunity of testing its legality in a Court of Law. That is just what they did in the case of Mr. Karkaria's "Collegiate Institution", which resulted in the decision of the Bombay High Court. There was no sympathy with Mr. Karkaria; the motive was simply to show that all institutions teaching up to less than the degree standard are free from Government control. We should have, then, fresh proceedings in the High Court; and, with the greatest respect for the Acting Advocate General, I feel sure that the point is at least arguable. Section VIII of the Act says that the by-laws and regulations must be not repugnant to law, or to the general objects and provisions of this Act. Section XII as judicially interpreted says that a certificate from an "authorised" institution can be demanded from a candidate only once, and that at the time of his final examination for his degree. A by-law that candidates for degrees must prepare themselves throughout at certain institutions recognised by the Senate, as the Acting Advocate General shows, be not repugnant to the general provisions of the Act. But he does not apparently appreciate the distinction between "recognised by the Senate" and "authorized by Government under Section XVIII of the Act." It is compelling a candidate for a degree to produce a certificate which, according to the High Court decision, the Act provides shall be demanded from him once only, which is not consonant with the spirit of the Act. The Acting Advocate General says that the mere fact that an extra burden in the matter of education is imposed by a by-law over and above the Statutory burden is not in itself a sufficient reason for holding such by-law to be bad as contrary to the Act (See Bury vs. Cherryholm, L.R., 1 Ex., Div. 437). An examination of the case quoted by Mr. Scott shows that it is clearly distinguishable from the present case. It was not in that case the question whether a certain by-law was repugnant to the provisions of the Act under which the by-law was made. On the contrary, the question was simply whether the by-law was inconsistent with one of its own clauses. Thus, the Workshop Regulation Act, 1867, provides that a child may not be set to work unless he attends school ten hours at least during each week. The then in 1870, the Education Act was passed, by which by-laws when sanctioned were to have the same effect as if they were enacted in the Statutes. One of the by-laws in question expressly provided that nothing should Id be of any effect, so far as it may be contrary to anything contained in a Statute for regulating the education of children employed in labour. Thus is the question was whether the by-law, providing that all children of a certain age must attend school for the full time that the school is open, was contrary to the Workshop Regulation Act of 1867. It was held that it was not. If the provision of the Workshop Regulation Act had been to the effect that "every child who is employed in a Workshop shall attend school for ten hours in every week, and no more," then no doubt the by-law would be contrary to the provisions of the Workshop Regulation Act, 18636577; but this is not so; for the provision of the Workshop Regulation Act is simply that the child must attend school ten hours at least in every week. If the Education Act, 1870, had provided that every child need attend school for nine hours only in every week, then no doubt the by-law would have been bad. So here, the Act provides that a particular kind of certificate can only be demanded from a candidate for a degree at one particular stage in his "course of instruction."
The proposed by-law alters that, and says that this particular kind of certificate must be produced by the candidate at each and every stage of his course of instruction. I think I have said enough to show that the question whether the proposed by-law would be good or bad is certainly arguable. Is it wise to invite further litigation?

(d) Lastly, the result of such a by-law, if passed and sanctioned, will be to shut up all Colleges not teaching up to the degree standard. As the certificate required from candidates at preliminary examinations would have to be given by "authorized" institutions only, and as the only institutions which can be "authorized" are institutions which teach up to the degree standard, the result is that "second grade" institutions in Bombay must close their doors. For, as it is obvious that the Head of an Institution granting the certificate can only do so for the students who have studied in that institution, the result will be that we can only have Degree Colleges in Bombay Presidency.

E. T. CANDY.

30th August 1899.
I.—Teaching University.—The Bombay University, like its sisters of Calcutta, Madras, Allahabad and Punjab, is a mere examining body. I should much like it, if it could be made a teaching University, since by doing so its efficiency would be considerably enhanced. As in European Universities, the actual personal instruction in Colleges should be entrusted to tutors. A select number of Professors of special eminence, while serving in the Colleges, should be recognised as being attached to the University. Candidates for degrees should be required to hear a course of lectures as from such recognised Professors. The system of instruction, in which a hundred or more students gather in one class room and listen to a Professor's lectures, is highly defective, whether for discipline or for knowledge. Instruction to be effective must be personal and direct. The teacher and the pupil must come into close contact. Such a thing is not feasible in the unwieldy classes that are now generally observable in Colleges. To meet this difficulty the studenttats should be distributed in batches and each batch given into the charge of a tutor or a fellow. Besides the tutors there may be a class of lecturers or demonstrators, who may carry on the work of the tutors on a higher plan, conveying instruction to larger groups and by more comprehensive methods such as demonstration and experiment. The Professors should be a yet higher class of teachers, who should be men of superior standing in their respective subjects. There may be inter-collegiate lectures as well as University lectures, the Professors in the different Colleges forming, so to say, one corporation of learned men and jointly working in the cause of education and learning. Besides this I would also advocate the foundation of chairs at the University for the purpose of delivering lectures on special subjects similar to the chair of Agricultural Chemistry which was founded in connection with this University for the whole of India in 1888. Eminent and highly qualified experts may also be invited from England, as was suggested by Lord Reay in his speech as Chancellor of this University in 1888, to give a course of lectures at our Universities. Such a provision for postgraduate instruction will stimulate higher education in India in the real sense. Referring to outside teachers Lord Reay said: "Occasional teaching of this kind would in any faculty not only benefit the students, but graduates and others would secure thereby a fresh impetus to their whole intellectual life. If we could have induced Lord Herschell and Mr. Bryce to give us, while they were here, some of the treasures of their store of knowledge, we should certainly have been the better for it, even though no examination tested the results. I shall not fail to communicate with my University friends on the subject. It is
a great mistake to confine higher teaching to those who occupy chairs. The University should seize every opportunity of opening its doors to those whose learning can be made available, even though it is only for a short period. As long as excellence is reached, it matters very little what the nature of the connection is of the lecturer with the University."

II.—The constitution of the Senate.—The Act of Incorporation of this University fixed the number of Fellows at 28, excluding the Chancellor. The number rose to its highest point at 333 in 1897-98. The present number is 293. I am of opinion that the number of Fellows may well be limited to 150. One way of limiting the number of Fellows is to make the Fellowship tenable for a fixed term, making the holders eligible for re-election. The qualifications for a Fellowship should be: (a) high academic attainments, (b) conspicuous distinction in the higher walks of life, and (c) special benefactions. Under (a) I would include (1) educationists and scholars, (2) Professors in the different Colleges, and (3) distinguished graduates of Indian or other Universities. Class (b) would provide for successful merchants, soldiers and others who, though not belonging to any University, will be valuable advisers as practical business men. Class (c) would furnish scope for the recognition of wealth and benevolence. The disqualifications for keeping office after nomination or election should be: (a) non-attendance at 50 per cent. of the meetings of the Senate in any given period, (b) insolvency, and (c) grave misconduct. As regards the appointments of Fellows, I would suggest that (a) 50 per cent. should be nominated by Government, (b) 30 per cent. should be elected by the Senate in the different Faculties (Arts 10, Law 5, Medicine 7, and including Agriculture 8), and (c) 20 per cent. should be elected by graduates.

III.—The Syndicate.—This body has no statutory existence by the Act of Incorporation of this University, but has been called into being under the bye-laws. I think it should have a statutory sanction and the law should define its powers in the same manner as those of Managing Committees of other corporate bodies. The original number of Syndics was 11 including the Vice-Chancellor, but by a resolution of the Senate in 1897 which was sanctioned by Government, the Deans of the Faculties were added to that body raising the total number to 15. The method of election of the Deans and the Syndics has, I believe, worked well and requires no alteration except in one respect, viz., that the actual teaching elements of the Colleges should, if possible, receive yet greater representation.

The office of the Vice-Chancellor should, I think, be elective. In 1887 the proposal was made in a draft Act framed by Mr. Justice West, but the scheme of the Act fell through apparently for want of approval of the Government. Now that the whole constitution of the University is under revision, the question of making the Vice-Chancellor's office elective may well be considered. Such offices in European Universities are invariably elective. In India, at that time when Universities were first established there was a total absence of eligible men. Even then the principle of election was unknown. After a life of nearly fifty years of the University and the expansion of the principle of election in other directions, it is high time the University adopts the principle in filling its highest executive office.

IV.—The appointment of Examiners.—In past time Examiners were appointed by selection made by the Syndicate out of regard to recognized ability. The system now in vogue is to invite applications and to make a selection from among the applicants. This system facilitates choice and possibly enlarges the scope of selections, but it works injuriously in two ways. It deprives the University of the services of those who are really capable but who out of self-respect will not come forward as applicants. Secondly, it has opened the door to all and sundry to put in their petitions and ply the University authorities with importunities. The result has often been to put in young graduates with no special qualifications and for whom even the candidates could have little respect. This system has caused a variation in the standard of examinations and a general demoralization among examiners as well as examinees. An examinership must not be treated as a mere matter of patronage or easy gain. It must rather be looked upon as a serious undertaking and as a reward of
conspicuous merit, of proved standing and capacity, and special application. Examiners should be selected from among the class of persons who should serve as ideals to students and fill them with awe and respect. A young graduate of two or three years' standing can hardly fill the position with credit to himself or honour to the University.

V.—The course of Studies.—On this point I shall confine my observations to the Medical Faculty and the course of studies at the Grant Medical College. The existing degrees in connection with the Medical Faculty are the L.M. & S. and the M.D. The L.M. & S. is commonly looked upon as a license, though the University calls it a degree. I think it a degree; it is a misnomer. It should be abolished and the M.B. degree substituted in its place. I may mention that several attempts were made in times past to substitute the M.B. for the L.M. & S., but I regret to say they have failed to bear any fruit. I hope the Commission will see its way to effect the reform which has long been sought after by the Native medical profession.

There has been considerable difference of opinion as regards the standard of preliminary education necessary to qualify for the M.B. degree and the entrance examination for admission to the Grant Medical College. The standard required by the general Medical Council is in some respects lower than the Bombay University Matriculation, and the general Medical Council recognises the Bombay Matriculation as sufficient qualification for registration as a medical student. The London University also requires its own Matriculation, and the London Matriculation differs from its Bombay analogue in requiring Latin as a compulsory subject and Greek, Germand, French or some elementary science, such as mechanics or chemistry, as an optional subject. I would recommend that the additional subjects required at the Bombay Matriculation may be insisted on as a test of admission into the Grant Medical College. This will obviate the necessity of insisting on a higher test than the Matriculation. Even for the London M.D. no higher test than the Matriculation is requisite. The course of studies should likewise be framed on the model of the London course. The curriculum of that University includes (1) the Preliminary Scientific, (2) the Intermediate Examination, and (3) the M.B. Examination. If the Bombay University adopts the London examination it may as well adopt the nomenclature of the different degrees. In London B.S. and M.S. are awarded to signify proficiency in surgery, and M.B. and M.D. mark proficiency in medicine.

VI.—The Personnel of the College.—When the Government Medical College was established the Professorial staff was selected from the Indian Medical Service, because there were very few trained men outside the service available at that time. It was thus necessary in the interests of medical education to restrict the field of selection to men from the Indian Medical Service. The Professorships were made consolvent appointments and their pay was drawn from the Medical Service as well as the Educational Department. This system led to the dual control of the Surgeon-General to the Government of Bombay on the one hand and the Director of Public Instruction on the other. The former officer has had invested in him the principal control as regards selection, transfer, dismissal, and so forth. The latter officer, although the head of the Educational Department, has practically very little voice in the selection of Professors. As the officer himself remarked the other day, he is a mere post-bearer. The important claims of the medical education of this Presidency were thus subordinated to the convenience and exigencies of the Indian Medical Service. Professors were shifted from one chair to another at the sweet will of the Surgeon-General to the great detriment of the College.

In 1868 the Government of India proposed to attach certain chairs in the Grant Medical College to appointments held by certain officers in the Presidency, and to attach duties to certain full Professorships in addition to the legitimate work of these posts. The proposal was considered by the Faculty of Medicine and it was reported to the Syndicate that it was proposed order of Government to attach certain chairs in the Grant Medical College to appointments held by officers in the Indian Medical Service without reference to their scientific attainments, and to add duties of an incongruous nature to certain other Pro-
fessorships, destroys the system of selection to the College chairs, encourages a perfunctory discharge of Professorial duties, interferes with the authority of the Principal of the College over its internal discipline and his privilege of recommendation to the chairs, subverts the control of the 'Director of Public Instruction over one of the most important educational institutions in his Department, and weakens the academic tie between the University and the College. The Medical Faculty therefore resolved that all Professors should be chosen for their scientific claims, that they should be selected from the Medical Service, from Europe or from any other source, and that Professors should continue to be under the immediate control of the Principal, who is subordinate to the Director of Public Instruction. Dr. (now Sir William Guyer) Hunter, in the course of an able minute, remarked: "In consequence of the chairs being attached to the Presidency appointments, the system of selection which formerly existed is virtually abolished and scientific attainments are made of secondary importance to Military claims." Under these circumstances the efficiency of the Grant Medical College as an educational institution could not fail to be seriously impaired." He accordingly recommended that all Professors of the Grant Medical College should be chosen for their scientific attainments, and that they should be selected from either the Indian or the British Medical Service or from the open profession of medicine. Dr. (now Sir George) Birdwood was even more outspoken, as will appear from the following extract from his minute: "I would submit to Government that, with a due regard to the progress of University studies in the Grant Medical College, the Principal and Professors of the College should be appointed to the College and be attached to the Sir J. J. Hospital on account of their academic qualifications alone or fitness to hold the College chairs, being selected from whatever quarters, including the services as well as the open profession of medicine. The most eligible candidates offered themselves, and here parenthetically I would observe, the Syndicate cannot allow this paramount question to be hampered by any impertinent and irrelevant questions of the interests of the Military Service of Government in the Grant Medical College, by which its consideration by some of its members is seemingly conditioned and determined. All such questions must be faithfully put aside, and the efficiency of the College as an affiliated institution of the University solely and wholly considered." Dr. Birdwood further added that it was as difficult to make Professors of certain arbitrarily named Military officers as it was easy to order them to be made. The University cordially endorsed this view and submitted to Government that, in the interests of learning and science, the Principal and Professors of the Grant Medical College and the attached J. J. Hospital should be appointed solely on the ground of their scientific attainments and teaching powers, the choice not being limited to the Bombay Military Service, but the best candidates being accepted from whatever quarter they may offer themselves. Sir Alexander Grant, then Director of Public Instruction, also observed that "Professorships in the College should be regarded as purely scientific appointments, to be filled up irrespectively of the claims of the Military Service."

Dr. Henry Cook, one of the best Principals the College has had the honour of being presided over, remarked: "I would strongly advocate that the process might be immediately begun by the appointment of members of the general profession as a supplementary to the existing hospitals; while I hope the time is not far distant when other hospitals may spring up in this city and elsewhere, which may be entirely under the management of medical men, independent of the Medical Service." According to Dr. Cook "the profession has reached a stage when it might lay claim to a share of those public duties which, though they should be everywhere, as elsewhere, unpaid, bring with them their own reward."

Another distinguished Principal, Dr. Carter, observed: "It has become urgently desirable to appoint a few talented Native tutors and demonstrators whose whole time would be devoted to the learners' benefit." He further suggested whether it would not be expedient to nominate an Assistant or Deputy
Professor in the more highly technical subjects, who on emergency or as a successor could take the place of the full Professor. He remarked: "The suggestion seems not amiss that College Professors be always taken, as they are in the chief European Colleges, from amongst the best qualified men available wherever to be found, and eventually it may happen that a moiety at least of our teachers will be thus derived from the alumni of the Grant College, their alma mater.

It will be seen from the opinions of these distinguished men that the evil of limiting the selection of Professors from the Indian Medical Service had grown to a great magnitude. It practically prevented the selection of the best men and precluded local talent from coming into prominence. The evil of shuffling the Professors from chair to chair had grown intense. Any Professor was considered qualified to occupy any chair, and instances have occurred in which one Professor was called on to teach such diverse subjects as Anatomy, Botany, Materia Medica, Hygiene and Surgery in succession. I leave it to the Commission to judge of the efficiency of such teaching. In 1885 this state of things reached an acute stage, when the Native medical profession took up the question of medical reform and brought the evils and defects of the system to the notice of Lord Reay, then Governor of Bombay. His Government issued a Resolution on the question of medical reform. The principle of those reforms was (1) to strengthen the scientific character of the Grant Medical College, (2) to create the Faculty membership of which would constitute the highest reward for the professional ability, (3) to ensure the continuity of teaching as well as to open up possibilities of research, and (4) to make the fullest use of the splendid opportunities which this city offers to the medical students by throwing the Hospital open to the best men of the local profession, so that their professional knowledge may benefit the students and they themselves may remain in touch with the advance in the medical science. Under this Resolution two Professorships, of Pathology and Physiology, were made whole-time and the Professors were required to devote themselves to the cultivation of those subjects and were not to be transferred to any other chair. The spirit of this Resolution, however, was departed from as soon as Lord Reay left these shores and I regret to say there has once more been a relapse of the old abuses.

During the Government of his successor the Professor of Pathology was appointed to the chair of Chemistry and Medical Jurisprudence and was likewise entrusted with the duties of Chemical Analyst to Government, and this was done in the face of the fact that there was a highly qualified medical man holding the degrees of B.A., B.Sc., and M.D. of this University as Assistant Chemical Analyst to take up the post and competent in every respect to occupy the chairs of Chemistry and Medical Jurisprudence. Like instances are occurring to the present day. It was in pursuance of Lord Reay's policy that Dr. Meyer's appointment to the chair of Physiology was made, and it may be noted with pleasure that he inaugurated quite a new era in the method of Physiological teaching. It is such Professorships that are wanted, and unless we get for each of the principal subjects men who have made a life-study of their respective subjects medical education will not advance in this Presidency. With all deference to the Professors at the Grant College, I have respectfully to say that the teaching there requires to be made more effective and practical. It is the absence of such inspiring teaching that is the cause of lack of talent for original research that is observable among us.

I believe the time has come now to change this pernicious system. I would suggest that the Professors should be selected from the best men available on the ground of efficiency and merit. These Professors and Tutors should be required to have special qualifications for teaching the subjects, as signified by their possession of the highest degrees and diplomas or by actual work and authorship. The Professors should, as far as practicable, be full-time men. They should be assisted by Graduates holding special Degrees in those subjects. All the special branches of medical study which are here at present only in an embryo stage should be developed and encouraged, namely, (1) Bacteriology, (2) Sanitary Science, (3) Dental Surgery, (4) Diseases of nose, ear and throat, (5) Teaching of Infectious Diseases, (6) Medical Electricity, and the like.
a view to secure the best attention of the Professors to the cultivation of their respective subjects, some restrictions may be imposed as to the extent of consulting practice to be open to them.

VII.—The method of Teaching.—The number of class lectures may be diminished and that of clinical lectures increased, in order that there may be more practical instruction available to students. They may be entrusted with a greater share of Hospital work than at present. They should be also given more practical work in connection with Laboratory study, both Physiological and Pathological, as well as external and midwifery practice. As to the Professorial and teaching staff, I have already suggested that the work should be distributed in the first instance among tutors with a select batch of students allotted to each. The tutorial work may be taken up at higher stages and improved upon by Lecturers and Professors.

VIII.—College Buildings.—I learn that Government are already alive to the increased want of College accommodation and have sanctioned an outlay which will in some measure meet the want. But another equally crying want is the provision for residential quarters, which has not yet sufficiently engaged the attention of the authorities. Four or medical students residential quarters are an absolute necessity. They are invaluable not only for the disciplinary and moral benefits which usually accrue from residence at the College, but are indispensable under the special conditions of study and attendance at the Medical College. Their absence so long has been a source of manifold evil. To provide for the want of it an effort has been made since last year and a Committee has been organised to take steps to accomplish the object. It is to be hoped that Government will come to the rescue of this long neglected undertaking and will help the movement with bountiful hands.

IX.—The physical effects of the system of Examinations.—Another point which calls for consideration is the general character of the University system of teaching and its effects on the physical condition of the students. There have been many premature breakdowns of health which have frequently resulted in early death. This subject aroused considerable public attention in 1891, and the late Mr. Justice Ranade brought it before discussion to an issue by collecting opinions and statistics and reading a paper at a public meeting of the Graduates' Association. There has not been any decided agreement as to the causes and the effects, but the fact of early mortality among graduates has been a cause of not a little uneasiness in the public mind. In my view, among other causes, the multiplicity of examinations in all the Faculties put a continual strain upon the students, under which those not blessed with robust constitution break down. The statistics and other information compiled by the late Mr. Justice Ranade and embodied in his lecture are very valuable, and I respectfully invite the attention of the Commission to his paper. I have myself been struck with the want of vitality and staying power among our University men, both during the course as well as in after life. The causes of such feebleness of constitution deserve to be looked into and remedied, if as is contended they lie in the University system. Cramming, continuous hard work, multiplicity of subjects and of examinations, the conditions of living and struggle in life, are some of the causes which have conduced to that result. They are not all incident to University life, but such of them as may be remediable ought to be dealt with by the Commission.

The statistics given by the late Mr. Justice Ranade show that the percentage of deaths is higher in proportion as the number of examinations is larger. Thus the percentage for M.A., L.L.B.'s is 33, while that for M.A.'s is 16. The single degrees of L.C.E., L.L. & S.S. and B.A. show an average of 4 to 7 per cent. To mitigate the evils of the system the late Mr. Justice Ranade proposed two remedies: (1) a division of degree examinations into two classes—honours and passes; (2) examinations by compartments. The distinction between honours and passes has the sanction of the rule in vogue in European Universities. The pass examination should be a simpler test, adapted to the average requirements of the public service as well as the community in general. The honours examination should be a stiffer test, reserved to mark genuine scholarship. The
proposal of what has been described as "examinations by compartments" was discussed at several meetings of the Bombay & Senate and was formally adopted by that body with an overwhelming majority, but it eventually fell through for want of Government sanction. Examinations by compartments is not a correct description of the proposal. What is intended is that students who pass in some subjects at an examination and fail in others should be exempted from appearing in the first set at a fresh examination. Such a distribution of work may lighten the strain in some cases. Any safeguards of proficiency in the way of high percentage marks in the passed subjects may be insisted on, but the principle as such deserves careful consideration.

X.—The Registrar.—I would make the Registrar a full-time officer in view of the Teaching University.

XI.—The Board of Studies.—I would have these from the best men, and in each Faculty.

BHAALCHANDRA KRISHNA.
TO THE SECRETARY, INDIAN UNIVERSITIES' COMMISSION.

Sir,

As desired by the Commission I have endeavoured to form a comparative estimate of the subject of Mental and Moral Science as treated at Bombay, Calcutta and Madras. It is, however, very difficult to form a definite idea of the amount of work and standard expected from students in a speculative subject without actually teaching and examining it; and the difficulty is increased by the great differences in the ways in which the various curricula are formulated. Here we prescribed text-books, whilst at Calcutta and Madras the course is largely or almost wholly laid down in the form of a syllabus of subjects. In dealing with a syllabus teachers learn by experience (of examinations) what should or should not be expected in a way impossible to an outsider. However, I have looked through the courses prescribed and some specimens of papers, and have arrived at the general conclusion that on the whole, in spite of great superficial differences, probably in practice the results obtained are not very dissimilar in the three cases.

Taking the Calcutta B.A. Honour course, four papers are set; and so also in Bombay. The Calcutta course includes Psychology and History of Philosophy, which here belong to the M.A. course; but a certain amount of both enter indirectly into our B.A. course; and looking to the amount of reading and average difficulty involved I think our B.A. course is probably about on a par with that of Calcutta.

In the Calcutta M.A. course six papers are set, and so also here; and the two courses seem to me very fairly parallel.

In the Madras B.A. course six papers are set, as against four here, but the first of these (on Deductive Logic) belongs to our Intermediate course. Two more deal with Psychology and the History of Philosophy as at Calcutta; but probably on the whole the amount of work involved is much the same as with us.

Lastly, the Madras M.A. course involves ten papers and a dissertation as against five papers and an essay here. But three of these papers seem to be on single books, and perhaps involve no more work than one of our papers: three more are on Psychology, which is dealt with here in one paper; two more are on Ethics, also dealt with in one paper here. These eight papers therefore do not, I think, really cover more ground than three of ours. Then there are two papers on Logic, which is not included in our M.A. course: if these are considered equivalent to our fourth paper, Bombay is left with one paper to the good. As to the dissertation, I do not think an essay written at leisure on a subject chosen by the writer can be considered in itself so difficult as one written in the examination hall on a set subject: but of course I know nothing of the standard exacted in these dissertations. On the whole, therefore, though the number of papers is so much greater, I do not think the amount of work involved is greater than with us here, possibly even not so much.

I should like to add that when I stated in my evidence that I thought that making Logic and Moral Philosophy compulsory would prove fatal to many candidates, I was speaking of our present voluntary course, to which I understood the question to refer, and which is too long and too difficult for a general subject.

I have the honour to be,

Sir,

Your most obedient servant,

W. H. SHARP.
Statement presented by Mr. H. M. Masina, F.R.C.S., of the evidence given by
him before the Universities Commission on Monday the 3rd and Friday
the 7th March 1902.

Teaching University.—It is exceedingly desirable that the University of
Bombay should be a teaching body and not simply an examining body as at
present. To bring about this change would involve a very serious and most
difficult question of finances, which can however be simplified or minimized by
taking on the existing colleges and institutions in the Presidency as recognized
by the University whether absolutely conducted by Government or aided by
Government or managed by private enterprise as the basis or component parts
of the suggested teaching University without making any internal changes in
them. This suggestion has been made on the same lines as what was proposed
by the association for promoting the establishment of a teaching University of
London under the presidency of Lord Reay in 1884. If the University was
thus converted into a teaching and an examining body it would decidedly have
better influence over University education in general throughout the Presidency
than what it has now in its capacity as an examining body only. That the
existing professors, lecturers and teachers of the various recognized colleges and
institutions should be recognized as University professors, lecturers and teachers.
And as necessity arises of creating new professorships, lectureships or teacher-
ships, it should be done by this reformed or remodelled University. The above
suggestion will also help materially in forming a list of recognized professors,
lecturers and teachers, and candidates for degrees should be required to receive
instructions from these recognized teachers.

If it is impossible to remodel the University in making it a teaching body
in the wholesale way as suggested above, at all events, a beginning could
be made in two directions:

1. In establishing lectureships or teacherships for the subjects con-
   nected with the Matriculation or School Final Examination, as for
   instance the teaching of languages like Latin, Greek or German.
   At present the number of candidates who take up these languages
   is very limited and on that account there are some public schools
   which cannot afford to employ the services of a teacher especially
   for the purpose of teaching very few students. Such institutions
   can send their students to these University classes and give a
certain pecuniary contribution to them.

2. As already suggested by some of the gentlemen who have given
evidence previous to me, professorships could be created for teach-
   ing the subjects of higher or highest examinations, as for instance
   classes for M.A. students who take up Science or Physics. The
   colleges whose students attend such classes might similarly con-
   tribute towards the expenses of such professorships. The M.A.
   students, as I gather from the previous evidences, practically teach
   themselves, and I feel confident that they will readily take advan-
tage of the classes as suggested above.

3. The University might create Research professorships and so far as
   the Medical Faculty goes there is room for the creation of a chair
   in Pharmacology and Therapeutics, which I am sure will be
   greatly supported by those who advocate the use of Indian drugs
   for medicinal purposes.

Sphere of Influence.—The sphere of influence of the Bombay University
should only extend over the Bombay Presidency, and not beyond it, because in
the latter case, it becomes a very heavy order for the University which it can-
not efficiently carry out. As regards affiliation* of institution, there is no
necessity of putting down any local limit, and there should be no objection to
affiliating institutions beyond the Bombay Presidency, so long as these insti-
tutions fulfil the necessary requirements for affiliation, that is they are up to the
mark when admitted and that they have kept up to the mark after affiliation.

*The term affiliation is here used to imply recognition for examination purposes only.
This extensive sphere of affiliation if carried out in the proper way tends to increase the prestige of the University, and helps the financial condition by increasing its income if candidates from these distant affiliated Universities go up for our University examinationss.

Constitution of the Senate.—There is no doubt that the present Senate of the University has become too large or unwieldy and there is great deal of truth that Fellowships have been given merely by way of compliments and that only a small number of Fellows attend the meetings of the Senate. The present unwieldy condition of the Senate cannot be easily remedied either by a clean sweep or gradual transition. At the same time I am of opinion that it is not possible or feasible to limit its number. Neither is it necessary to do so, because it is not the quantity or the number of the Fellows which must be attended to, but it is the quality or qualifications of the Fellow to be selected which must be scrupulously tested or seen to.

One way of reducing the number of Fellows will be to disqualify a Fellow for gross misbehaviour, for insolvency, or if he is absent at 30 per cent. of the number of meetings of the Senate held in a year. But this last rule cannot be made universal, because it is not always possible for the Fellows of the University who reside far away from Bombay, for instance Kathiawar or Sind, to attend the meetings of the Senate regularly. Similarly Fellows proceeding on a long leave out of Bombay cannot possibly be made to vacate their Fellowships. Under such circumstances the absenting Fellows must satisfy the Senate regarding the cause or causes of their absence from the meetings, or must have previous permission or sanction of the Senate to absent themselves from the meetings of the Senate. Another way of limiting the number of Fellows will be to hold elections biennially or at the latest triennially and not annually. But the number of Fellows to be elected should be as small as possible, say from six to twelve. Out of these twelve, six should be elected by Government, four by the Senate and two by the graduates of ten years' standing. In this election all the different Faculties must be duly represented. Limiting the number or suspending the election for several years, say over three years, has some disadvantage; for instance, men of approved merits and abilities cannot be elected as Fellows with benefit to the University at a time when their services will be most usefully required by the Senate in their deliberations.

Gentlemen qualified to be Fellows of the University must be:

1. Professors, lecturers or teachers in a recognized college or institution.
2. Heads of leading high schools.
3. Distinguished graduates of the Bombay or any other University.
4. Special benefactors of the University, e.g., one who contributes towards the establishment of a professorship or gives a large donation for establishing a University laboratory or a similar department. This will further help in alleviating or minimizing the financial difficulty of making the University a teaching body.

The Syndicate.—The existing arrangement is good enough, but it would be decidedly to the interest of the University to make the following additions:

A. In case the head or principal of the following recognized colleges should at any time be not a member of the Syndicate, he must be appointed ex-officio Syndic:

1. Elphinstone College, Bombay.
2. Deccan College, Poona.
4. St. Xavieer's College, Bombay.
5. Fergusson College, Poona.
6. Dayaramam Jethmal Sind College.
7. Grant Medical College.
8. College of Science, Poona.

B. The Director of Public Instruction, if he is not on the Syndicate.

*See marginal note, page 1.
C. The Principal, Elphinstone High School. I.

D. A representative of the public high schools.

In electing Syndics for the various Faculties, or one of the two Syndics must be from the staff of the recognized colleges mentioned above.

Vice-Chancellor.—If we can succeed in fully remodelling the Senate of the University to our entire satisfaction, I would say that the time was there, when the Vice-Chancellor should be elected by the Senate and not by the Chancellor.

Faculties and Boards of Studies.—There is no necessity of the suggestion that the Faculties should be strengthened by advocating the rule that every Fellow must be assigned to a Faculty.

It would be decidedly an advantage to appoint Boards of Studies for each Faculty. The duties of these Boards should be mainly advisory and the Syndicate must consult them on text-books and other matters within their respective department.

University Teaching.—It has been stated that many students begin their University course without sufficient knowledge of English to profit by lectures they attend. There is great deal of truth in this statement and I am fully convinced that this is the result of the present Faulty arrangement of the curriculum and conduct of the Matriculation examination.

In former years, that is up to 1888, there was always a viva voce or oral examination in English, and though the test was applied in a very haphazard way candidates came better prepared in English, because the subject was taught in those days from a double point of view:—

(1st) to pass the written examination test;
(2nd) to pass the oral examination test,

and hence English was decidedly more thoroughly taught than it is done now. Then again up to a certain period Paraphrase was made compulsory and candidates came similarly better prepared for it. It will be seen that this is quite clear from the fact that very few candidates now-a-days try the passage for Paraphrase and the large majority go in for the easier portion of the paper, viz., translation of a passage from the vernacular language into English. From the above, it will therefore be seen that the real cause of the poor knowledge of English of the present students joining colleges is the absence of this wholesome test. The test is really a good one, but because it cannot be applied properly, there is no reason why it should have been condemned as a bad test and abolished. It is much more sensible that the same test should be revived and conducted in a better way, by giving more time to the examiners or by appointing a larger number of examiners in English. If this is not possible, the standard of the Matriculation English should be distinctly raised and brought up to the London Matriculation standard, and now that the Matriculation is held to be the Entrance Examination into colleges for higher studies, it is high time that our present Matriculation curriculum be thoroughly overhauled or re-formed and brought up to the requirements of the London Matriculation or similar examinations of other well-known Universities as suggested above. If these changes are brought about, there will be no cause of the said complaint of the deficient knowledge of English of students joining colleges. In support of the oral examination test being a good test I beg to bring to the notice of the Commission what holds good in admitting matriculated students into the Grant Medical College. I have intentionally mentioned above that there is good deal of truth and not every truth in the above complaint because I have found while teaching the students of Grant Medical College of all years that this difficulty of profiting by the lectures they attend gradually disappears in the majority of students as they advance in their studies; and the fault does not lie altogether at the door of the students. In some cases the professors, lecturers or teachers are at fault too, either from natural defects in delivery or from want of sufficient tact in putting facts before the students. And the truth in the latter statement or explanation will be admitted by those who have long experience in teaching, from the fact that every good student is not necessarily an equally good or successful teacher.
Further proof that this defective knowledge of English is due to the absence of
the oral test is quite clear from the fact that the complaint has arisen ever
since the abolition of the test.

The students who usually find difficulty in following the lectures in the
beginning of their career are generally from the Mofussil where they are very
little or not at all used to European pronunciations and delivery. This state­
ment of mine, no doubt, supports the view held by some that English should
be taught in the high schools and especially in the Matriculation class by
Englishmen, but it cannot be admitted as an absolute truth, for we have heads
of schools whose knowledge of English, whose delivery and pronunciation of the
language are in no way inferior to those of Englishmen, and so I am of
opinion that it is rather a sweeping assertion adduced by some whose
knowledge of the internal management and teaching of the existing public
schools must be very limited indeed.

Latin.—I am of opinion that it is not absolutely necessary from my own
experience and from the limited number of those who have graduated in
Medicine and taken Latin as their second language to make Latin compulsory.
But as it holds good in all European Universities, and as it has served useful
purposes in some ways, and as we want to remodel our University, I would
not oppose to have Latin made compulsory for our Matriculation. If Latin is
to be made compulsory, at least five years' previous notice must be given so as
to enable the heads of schools to make the necessary arrangements for its
teaching.

The only portion of knowledge of Latin which stood me in good stead was the
knowledge of Roots and Etymology of English words derived from Latin.

Here I might mention that whereas in former years one of the questions
at the written examinations in Matriculation was generally set to test the
knowledge of roots and derivations of English words, such is not the case at
present.

Were it not for the fact, as will be seen later, that I want our medical
curriculum to be re-modelled according to the London University requirements,
I would not support the making of Latin a compulsory second language, but
would prefer to see German to occupy its place and Latin to be included along
with French in the group of voluntary languages; and I was thoroughly con­
vinced of the greater utility of a knowledge of German and French for medical
studies than that of Latin during my last visit to Europe.

Examinations.—I shall confine my observation or evidence to the working
of the only Medical College in the Presidency, viz., the Grant Medical College
and the examinations in Medicine.

There are at present two degrees in Medicine, the degree of "L.M.
and S." and the "M.D." degree. From the very beginning I must lay before
the Commission my most emphatic protest that the designation L.M. and S. for
our first medical degree is altogether a misnomer. It is also a most illogical
and confusing nomenclature. It is also not dignifying to the prestige of a
University to give a degree which is not only looked upon as a license but also
called so. I don't know of any University outside India which confers a degree
in Medicine and calls it a License; the only exception that I find is the Uni­
versity of Dublin which, in addition to granting degrees, confers diplomas
in Medicine, Surgery and Midwifery, and to this latter they don't give the confus­
ing and illogical name of the degree of "L.M. and S."

It is only acknowledged as a degree within the four walls of this Univer­
sity, and even here all the members of the Senate do not look upon it as a
degree but hold it to be a license, and though they have not had the courage
to say so at public meetings, they have invariably looked upon it as such.
Even Government, Municipality and other public bodies also think very low of
it on account of its present designation. Another proof, and a most conclusive
one, is that the Royal College of Physicians of London and the Royal College
of Surgeons of England refuse to recognize it as a degree but look upon it only
as a license, and hence candidates from this University when they want to go
up for the examinations of these bodies do not get the same concession as is
allowed to candidates who possess a University degree, though the test for such
foreign degrees may be the same as that of L. M. and S.
Further evidence that the L.M. and S. is looked down upon could be adduced by what holds good in the appointment of medical men in connection with Plague departments; here gentlemen holding British University degrees and diplomas are given preference to those of our University, and very recently Government have issued a resolution sanctioning the admission of 26 medical men who were imported here on temporary plague service from Great Britain into the Indian Medical Service without any competitive test examination, and no such encouragement or reward has ever been offered to our own medical graduates, who have done equally efficient work judging from the favourable reports made about them. All these 26 men, I am prepared to say, do not hold University degrees, but some of them are only Licentiates or members of British Medical Corporations. Even our present Vice-Chancellor in one case did not accept the medical certificate of his own graduate in connection with a High Court law suit, but had the opinion of Government Medical Officer (Surgeon to the Coroner) taken in the matter. Even people holding the triple diploma of the licensing bodies of Edinburgh and Glasgow are given preference to our own men, and this I say from my own personal experience of the matter and from a letter from the Secretary to the Director General of Indian Medical Service, No. 365, and dated 15th January 1901, wherein he has offered a salary of Rs500 to a gentleman holding the triple diploma of Edinburgh, who had not been successful in passing the L.M. and S. Examination here.

Other similar instances of such injustice could be produced if required.

From the above it will be seen that in the interest of our own men and for the dignity of the University it is necessary to abolish this misnomer and convert it into M.B. When this change is to be effected, I would suggest that our M.B. degree must be placed on the same level as the M.B. degree of the London University, and in doing so it is absolutely necessary to make alterations and additions in our present Matriculation examination which is the standard of preliminary examination in general education required to be passed previous to registration as a medical student and the present medical curriculum.

The Standard of Preliminary Education.—Various attempts have been made for altering or revising the standard of preliminary education for admission to the medical studies. The minutes of all these proceedings are lying in the University files, and I would not waste the time of the Commission by going over that ground again. I would only say that the discussions on these occasions were carried to either extreme; one party wanted an unusually and unnecessarily high standard, the other wanted to let things practically remain where they were. If they had practised a wise or discreet middle course, the attempts would not have been futile; however, I for one am not the least sorry for the results because it has left the doors open for us now to bring about the desired changes in a better way.

Our present standard of preliminary education is Matriculation examination, the defects of which so far as English goes have been pointed out already, but so far as the requirements of the General Medical Council of the United Kingdom go it is a sufficient test. Even the Edinburgh University and the Royal Colleges of Physicians and Surgeons of the United Kingdom recognize our Matriculation test.

I for my part would not rest with this test, but suggest that our preliminary education test should be on the same lines or standard as the London Matriculation, which is decidedly a superior test of general education.

The only differences between it and our University Matriculation are that Latin is compulsory in London Matriculation and an optional language or elementary Science is required and in the conduct of the examination. If the Senate can see their way to bringing about this change in our Matriculation examination, there is no necessity of demanding a higher standard of admission to medical studies than this revised Matriculation standard, I am sure this suggestion of changing our present Matriculation and bringing it up to the level or lines of the London Matriculation would be acceptable to the heads of other colleges because their complaint about the poor knowledge of English of the present matriculated students is founded on the same grounds. It has been suggested by some that the standard of preliminary education must be the
But this means the addition of at least one year more to the already long medical curriculum, which is of five years.

Besides, I would prefer that, instead of spending one year for the previous examination with its present curriculum, the medical student should spend a year in post graduate study.

Medical Curriculum.—Along with the changes suggested for the standard of general or preliminary education, it is necessary to alter the present medical curriculum and bring it up to the requirements of the M.B. standard of the London University and to institute similar examinations. At present we have four examinations for the degree of L. M. & S. The first examination is known as the examination in Elementary Mechanics of Solids and Fluids for which a candidate appears within his first academic year. The next examination is known as the “First Examination in Medicine,” the subjects for which are Chemistry and Practical Chemistry, Botany and Materia Medica, and Pharmacy. The next examination is known as the “Second Examination in Medicine,” and the subjects of examination are Anatomy (descriptive and practical), Physiology, and Histology. The final or the last examination is known as the examination for the degree of L. M. & S. The subjects of this examination are:

(1) Principles and practice of Medicine including Pathology and Therapeutics.
(2) Principles and practice of Surgery including Surgical Anatomy and Ophthalmic Surgery.
(3) Midwifery, and Diseases of women and children.
(4) Medical jurisprudence including practical Toxicology and Hygiene.

The present arrangements for the Second and the Final Examination for the degree of L. M. & S. are satisfactory, except that a candidate submitting himself for the Final Examination here is not required to produce a certificate of two months’ attendance each on lunacy and infectious diseases and a certificate of having acquired proficiency in Vaccination. The arrangements for the examination in the Elementary Mechanics of Solids and Fluids and the First examination in Medicine require to be altogether changed. It is most surprising and even absurd to expect a candidate who has just commenced to attend lectures in Anatomy and Physiology, or at all events has a very poor knowledge of these subjects, to give the physiological action and therapeutical uses of various drugs, and it is just as much impossible for him to understand Organic Chemistry. Under the circumstances, I would suggest that the arrangements of these two examinations should be altered, and in their place an examination on the lines of the Preliminary Scientific Examination of the London University be instituted, and in that case the subjects of Materia Medica and Pharmaceutical and Organic Chemistry must be included in the group of subjects for the Second Examination in Medicine.

M.D. Examination.—At present the standard of preliminary education required for the M.D. degree is B.A. or B.Sc., and if the changes suggested for the Matriculation Examination are not carried out, it must remain the same; otherwise the revised matriculation standard will be good enough even for the M.D. It is quite desirable that, as we suggest to institute M.B. degree on the lines of the London University degrees, we might as well institute the degrees of B.S. and M.S. for those who want special qualifications in Surgery. One more degree that I would recommend is the degree in Sanitary Science. There could be no two words as to the importance of instituting a special degree in public health. It is rather surprising to see that, though the Grant Medical College has been founded over 50 years ago, this sad requirement of the Presidency has not been given the same attention it deserves.

If there is enough off material for teaching at the Grant Medical College up to the requirements of a Sanitary Science degree, I cannot understand why a special degree has not yet been instituted, and it is high time that the matter should be attended to without further delay by the authorities concerned.

Examiners.—The present system of appointment of examiners, so far as the medical faculty goes, has, own the whole, given satisfaction. The only point that I would suggest is that at least one of the two examiners in a subject must have
been an examiner in the same subject on a previous occasion. A renovation which I would like to suggest is that the Dean and the Syndics of the Medical Faculty be allowed to be visitors during the conduct of the examinations. This indirect system of supervision will be a better one than the appointment of Moderators. I for one am opposed to the appointment of Moderators, and I presume the system has come into existence since the appointment of young and inexperienced examiners. If a careful selection of examiners is made, there is not the least necessity of Moderators. I would go a step further and say that it is a slur on a good and experienced examiner to have a Moderator to criticize his work. The system of inviting applications for examinerships is a good one if it is utilized for the purpose of knowing different men who work in different subjects; but the examiners must not be selected wholly and solely from the applicants. If there are good men who have not applied, they must not be debarred from the appointments. I know of men who are experienced examiners, but have not applied to be examiners, but would have accepted the examinerships if offered to them. In order to induce good men to be examiners, better remuneration should be offered than at present. Wherever practicable, professors or teachers of the subject of examination must not examine in their own subjects or their own pupils or students, because by doing so an independent opinion cannot be formed of the teaching of that subject.

Stand ard of Marks.—The percentage of marks required to pass the First and Second examinations in medicine requires alteration. At present a candidate is required to get 33 per cent. of marks to pass in a subject and 45 per cent. of the total number of marks to pass the whole examination. This means a double standard, and leads to a certain amount of confusion. A candidate getting 33 per cent. in all the subjects is thought to possess a sufficient knowledge of the subjects, but when the question of total comes in, if he fails to get 45 per cent. of the total number of marks, the opinion of the examiners is changed, and his knowledge is therefore declared to be insufficient to pass the examination.

To avoid this confusion and anomaly, I would suggest that for the First Examination in Medicine a candidate must secure 35 per cent. of marks in each subject to pass the examination, and for the Second Examination in Medicine he must secure 40 per cent. of marks in each subject to pass the examination. This means that the standard of 45 per cent. must be abolished. Taking into consideration the great importance of practical work for the Final or Professional studies, the number of marks for the written and practical examinations ought to be the same.

Allotment of Grace Marks.—Some years ago, the University allowed grace marks to be given to deserving candidates at a meeting of the examiners before declaring the results. But this rule has recently been abolished possibly from its abuse, and on that account some deserving candidates have been plucked for the want of this system of giving grace marks. For instance, a candidate getting first class marks in medicine, surgery, and midwifery is plucked in the examination or fails to pass in the first class for not having secured the necessary amount of marks in Medical Jurisprudence—a subject of no great importance so far as his future career as a general practitioner goes. With this object, I think, it will be fair to deserving candidates if the system of grace marks was reintroduced and properly exercised.

Affiliated Colleges—Teaching Staff.—Sir Bhalsamdro Krishna in his evidence has done ample justice as regards the selection of the staff of the Grant Medical College in the Presidency, and hence I shall not take up the time of the Commission by going over the same ground again. But in order to emphasize all that he has said, I must repeat that the method of selecting the staff requires to be thoroughly overhauled, and the pernicious system of selection wholly and solely from the Indian Medical Service must be materially corrected. While mentioning about the selection from the Indian Medical Service, it must be stated without the slightest hesitation that the Medical Profession of this Presidency is under lifelong gratitude for its existence and its present efficiency to the first Principal of the College, the late Dr. Charles Morehead, and his successors. It is to be most devoutly wished that the most liberal and praiseworthy principles and policy adopted by the first Principal of the College should be most religiously adhered to so as to fully realize the aims and
objects of the first pioneers of Medical Education in this Presidency, the foremost among whom was Sir Robert Grant, whose name the College bears. I must also here bring to the notice of the Commission the most laudable, judicious, far-sighted, philanthropic, and exemplary policy of Lord Reay in connection with Medical Education and reform during his tenure of office as Governor of Bombay. I am sorry to say that some of the reforms which he has installed have practically come to nought, and his efforts have not practically borne the same fruit which was anticipated.

It was during the Government of Lord Reay that the system of full-time professors was instituted, and he made a beginning by appointing two full-time professors, one for Physiology and the other for Pathology, and there is no doubt that good and satisfactory results have been achieved as regards the teaching of Physiology at the Grant Medical College, but it will be still more satisfactory if some original or research work in Physiology could be done if time and facilities permit it. But the full-time Professorship of Pathology practically does not fulfil the original object of Lord Reay just as much as the full-time Professorship of Physiology. For when I had the honour of meeting Lord Reay in London in 1898, he was quite disappointed to know this state of affairs. This result has nothing to do with the incumbent of the present chair of Pathology, but is the outcome of the pernicious system of changing professors at the will of the Surgeon-General amid the exigencies of the Indian Medical Service. While on the subject of full-time professorship, I beg to suggest that, in addition to Physiology and Pathology, there must be a full-time professor for the very important subject of Pharmacology and Therapeutics. At present these subjects are supposed to be taught to the second year students of the College by the Professor of Materia Medica, who is also Resident Medical Officer of the St. George's Hospital, and within the last five years three different men have occupied the said chair in succession. Whatever cannot be taught by the Professor of Materia Medica is supplemented by the Professor of Medicine in his capacity and duties as First Physician of the Jamsetjee Jijibhoy Hospital and Professor of Medicine and Therapeutics. Thus there is no organized system of teaching Pharmacology and Therapeutics, subjects of vital importance in the practice of Medicine.

From this the Commission will be able to form its own opinion as to the efficiency of teaching of these said subjects.

This leads me at once to leave the subject of the teaching staff and come to the constitution of the governing body and rules of the institution. At present the College is under a sort of triple government: (1) the Director of Public Instruction; (2) the Surgeon-General with the Government of Bombay; (3) the Principal of the College. Sir Balchandra Krishna has already alluded to and deprecated this system, and I support his statement by what I have personally observed during my connection with the Grant Medical College and Jamsetjee Jijibhoy Hospital since 1882 both as a student and a teacher.

I am of opinion that the Principal of the Grant Medical College is the proper person to advise Government as regards the teaching and internal management of the institution, and the Director of Public Instruction, as the head of the Educational Department in the Presidency, must have the necessary control over the actions of the Principal, and not the Surgeon-General, who, on account of the requirements and exigencies of the Indian Medical Service, has to interfere with the arrangement of the staff of the College and Hospital. My experience, further, is that since 1882 those who have occupied the post of Surgeon-General with the Government of Bombay have never been Principals of the Grant Medical College, nor have they held appointments in the Grant Medical College other than Principalship for a sufficiently long time to qualify them to be the Medical Adviser to Government with reference to Medical Education at the Grant Medical College and the Jamsetjee Jijibhoy Hospital. Further, I have observed that, instead of these institutions benefiting at the advice of the Surgeon-General, they have, on the contrary, directly suffered. In support of this statement, I would allude to the frequent changes which take place in the College and the Hospital staff to the detriment of efficient teaching, the diminution in the number of unclaimed bodies for the purposes of post-mortem examinations and dissections by the abolition of the so-called "chronic
wards” of the Jamsetjee Jijibhoy Hospital, and during the last three years the adverse attitude toward the creation of new Professorships and Assistant Professorships at the Grant Medical College from its alumni as recommended by the last Principal, Colonel Hatch.

That the Director of Public Instruction, to quote almost his own words, said the other day that his duties were, so far as the Grant Medical College was concerned, more of the nature of a postal service between the Principal of the Grant Medical College, the Surgeon-General, and Government.

A portion of the teaching staff which requires to be enlarged and better paid is the tutorial staff of the College. Having been a tutor myself for some years and having seen the work done by other tutors, it must be said to the credit of the tutorial staff that their work is admirable, taking into consideration the poor remuneration they get. As a matter of encouragement, their proper designation should be “Demonstrators” or “Assistant Professors.” Further, it is this portion of the teaching staff which ought to be trained up to take up the duties of the Professors under emergencies, and not younger members of the Indian Medical Service as suggested by the present Principal of the Grant Medical College in his evidence the other day.

Teaching of different subjects.—This is a subject which requires to be treated in minute details, but I think it will be waste of the valuable time of the Commission to do so, and hence I shall bring to the notice of the Commission some salient features only.

With the exception of importing the most elementary knowledge of Zoology, there is no more of Zoology taught in the College. I don’t know what use was made of the two hundred rupees per month which was a scale of the pay of the incumbent of the post when it was in existence. The importance of Zoology in connection with Biology is self-evident. The Bombay University requires Comparative Anatomy for the M.D. Examination, but there is no provision whatsoever made for the candidate to learn this subject at the Grant Medical College; nor is there anything like a museum for the students to learn Zoology or Comparative Anatomy themselves.

The teaching of Physics requires to be attended too, as it is evident from the fact that practically all the students who go up for the examination of Elementary Mechanics of Solid, and Fluids have to take private tuition from teachers not connected with the College. From this it will be seen that the teaching in Physics and Biology is more theoretical than practical.

So far as teaching of Pharmacy goes, all that these students learn and the examiners exact from them is the making of a mixture or a pill or a powder. I have already alluded to the teaching of Pharmacology and Therapeutics.

At present there are no practical classes in Physiology, where the students themselves can do the practical work just on the same lines as it is done in Practical Chemistry.

Medicine and Surgery.—There must be distinct and regular lectures in Clinical Medicine and Surgery as laid down in the University curriculum, quite independently of the clinical work done in the mornings. The morning clinical work is done for the benefit of a limited number of the class, whereas clinical lectures are intended for the benefit of the whole class.

Midwifery and Gynaecology.—Since the resources of natural labour cases and even labour cases requiring operative interference have diminished within the past few years on account of special hospitals for women having come into existence under the management of lady doctors, and since the suggested reform in the medical curriculum will require a candidate to produce a certificate of having conducted twenty labour cases or at all events more than the present required number, I would suggest that the new midwifery institutions, if practicable, should be utilised for clinical instructions for female medical students. Besides this, provision must be made for the so-called external midwifery practice, which has worked most satisfactorily in British hospitals and more especially so at the Rotunda Hospital, Dublin. No doubt, the difficulties of carrying out this suggestion here are just as great as the facilities in carrying out the same in Great Britain, but the scheme fully deserves a patient trial.

Hygiene and Sanitary Science.—In addition to what is being taught now, the students should be taken on excursions and given a practical idea of the hygienic and sanitary arrangements and conditions of Bombay.
Bacteriology.—It is high time that some adequate provision and arrangement should be made for teaching Bacteriology, and, if facilities and finances would allow, special chairs be created for special subjects like Dentistry, Diseases of the Skin and Medical Electricity. There is no provision whatsoever for the clinical teaching of Infectious Diseases, Lunacy and Mental Diseases, and Vaccination. This has resulted in the removal of Infectious Diseases’ Wards from the Jamsetjee Jijibhoy Hospital, though it is quite correct to have removed these wards from the immediate vicinity of the General Hospital; there is no reason why, with all necessary precautions, some clinical lectures should not be given at the existing hospital for infectious diseases.

Whatever teachings the students now receive of Infectious Diseases consist only of class room lectures.

Pathological Laboratory.—There is at present no regular arrangement for the students to do any practical work themselves in Pathology, e.g., examination of blood or of morbid tissues.

Museum.—The Museum requires to be put on better footing for teaching purposes, because its present condition is far from satisfactory.

One department where the students can get opportunity for practical work is the Casualty Department of the Jamsetjee Jijibhoy Hospital.—The students must be put to do the same duties which are at present entrusted to or conducted by the Military Medical pupils, e.g., attending to accident cases, poison cases and even their presence at the admission of in-patients.

Post-Graduate Education.—Another direction in which improvement could be effected in producing better medical men or practitioners and to offer facilities to graduates intending to go up for the M.D. degree is to introduce the system of post-graduate courses which will not entail much additional expense because of the special fees which may be charged from graduates taking advantage of such courses. The Jamsetjee Jijibhoy Hospital can also afford similar opportunities if the present subordinate staff be gradually substituted by taking on graduates of the University who have had brilliant hospital career as House Surgeons, House Physicians, and Resident Medical Officers. This will be not only to the interest of the graduate and the public, but will relieve the Military Department of the services of some of their subordinates; I allude here to the work done at present by the House Surgeon and Assistant Surgeons derived from the Subordinate Medical Department.

Another suggestion I would make here towards remedying a complaint which is sometimes made of classes getting at present large and unwieldy. It has been admitted that it is impossible for one professor to manage such large classes. The remedy that I suggest is the creation of additional or joint professorships which can be filled up by electing distinguished graduates of our University to such posts, and, if there is overcrowding in teaching at the Jamsetjee Jijibhoy Hospital, there is no reason why the resources of the Gokuldas Hospital should not be utilized.

Residential quarters for students.—This point has also been alluded to by Sir Bhalchandra in his evidence, and, since the matter is under the active consideration of College authorities and co-operation of some of the members of the local medical profession, I need not take up the time of the Commission by dilating upon the matter, except to mention that, if it is no possible to build quarters for all the students within the compound or grounds of the Hospital and College, at all events provision must be made for the residence of senior students.

G. I. C. P. C.—No. 177 II. B.—30-3-1902.—30—P. M. F.
Mr. J. N. UNWALLA, M.A., Principal,
Samaldas College.

No. 18 of 1902.

Samaldas College,
Bhavnagar, 24th February 1902.

To

THE HON'BLE MR. JUSTICE N. G. CHANDAVARKAR,
Local Commissioner, Bombay,
Indian Universities' Commission.

Sir,

I have the honour to submit herewith suggestions on the points to be considered by the University Commission as laid down by the President.

One of my colleagues, Professor Sanjana, will represent our College before the Commission in Bombay, and will be able to give any further information connected with these suggestions, which have been adopted unanimously at meetings of the staff of this College.

I have the honour to be,
Sir,
Your most obedient Servant,

J. N. UNWALLA,
Principal, Samaldas College.

Information bearing on points of enquiry by the Commission and suggestions thereon from the Samaldas College staff.

[The numbers of the following paragraphs correspond to those of the printed Note of Points.]

3. It is expedient to enlarge the provisions of the Act of Incorporation of the Bombay University so as to make it clear that the University may be held competent to teach as well as to examine.

The possibility of providing for the appointment of University Professors and Lecturers depends mainly upon the funds at the disposal of the University.

It is possible to form a list of recognised teachers, though it is not clear what useful purpose such a list would serve at present.

It is thought that keeping terms at some recognised Institution is necessary for candidates for Degrees.

4. It is desirable that each University should have a sphere of influence of its own.

5. It is expedient to limit the number of Fellows by prescribing a maximum. It is desirable as well as expedient to prescribe qualifications of persons to be appointed Fellows.

It is desirable to provide that Fellowships shall be vacated by non-attendance at meetings for one whole year.

With the above provisions there is no necessity for making Fellowships terminable.

6. It is necessary to place the Syndicate on a statutory basis.
It is thought desirable to revert to the old number (10) of Syndics, the Deans being of this number; provided that Boards of Studies be appointed as consultative bodies to help them.

It is evident that Government have been adequately represented on the Syndicate for many years past, but the mofussil Colleges have had hardly any representation—a state of things requiring to be altered.

7. It is necessary to have Boards of Studies in the several subjects of each Faculty; these should be elected by each Faculty from among its own members as well as from distinguished specialists who are not members of the Senate.

8. It is desirable that a Register of Graduates should be formed and kept up to date with a view to the election of Fellows.

It is desirable to follow the Cambridge and Oxford usage in conferring Honorary Degrees on distinguished Professors or officials of the University coming from outside.

9. As a rule, we have preliminary tests before sending up candidates to the University Examinations.

10. If the University is recognized as a teaching body, a commencement might be made by providing for teaching in the subjects of the M.A. Degree.

It is thought inexpedient to make any provision for a school of Theology at present.

11. It is thought advisable to keep the B.A. course of the same length as at present, but the number of Examinations for the Degree should be two instead of three; that the number of necessary subjects at the Degree Examination be reduced and the number and scope of voluntary papers be in proportion increased; and that voluntary subjects might be introduced even at the Intermediate Examination.

It is thought advisable that the power of moderating be given to members of the Boards of Studies. With a view to secure an independent test, an interchange of Examiners should be made, where possible, between different Universities, or qualified persons who are not connected with affiliated Colleges be appointed Examiners. But in case Professors of Colleges concerned are appointed as Examiners, measures should be taken to make the test as impartial as possible.

The subjects of the Intermediate and B.A. Examinations should be arranged in groups; a minimum number of marks should be required for passing in each group, and not in each paper of that group. Also if second class marks are secured in any group, the candidate should be exempted from re-appearing in it at his next trial.

12. It is not thought necessary to have a whole-time Registrar for the Bombay University at present.

13. It is desirable that the affiliation rules should afford a guarantee that Colleges have efficient staffs.

Information wanted in paragraph 13.

(c) There is a special commodious building constructed at the expense of the Darbar.

(d) At one time there was a Governing Board of high officials; but at present the Divan Saheb, representing the Darbar, is the Controlling Officer.

(e) The fee receipts for the year ending 31st March 1901 are Rs. 4,080, and the total expenditure amounts to Rs. 27,824. The fee per term is Rs. 24 with Re. 1-8-0 extra per student for Gymkhana.

(f) Endowments: Fifteen Darbari scholarships of the aggregate value of Rs. 1,272 per annum. Two scholarships and one Gold Medal are awarded by private individuals of the total value of about Rs. 306.
The physical culture of students is specially encouraged by an annual grant of Rs. 100 by the Darbar. Expenses in connection with the inter-collegiate matches for the Lord Northcote Challenge Shield amount to nearly Rs. 200 per annum.

Last year a special grant of Rs. 200 was also awarded by the Darbar for the preparation of two special tennis-courts in addition to a cricket pitch connected with the College Gymkhana.

14. It is thought advisable that schools teaching the Matriculation standard should be in some way under the control of the University. There should also be a Register of recognized private tutors permitted to send up students for Matriculation.

J. N. UNWALLA,
Principal, Samaldas College.
Return of the Teaching Staff, Samaldas College, Bhavnagar, and the Law Class attached thereto.

[Information required in paragraph 13 (a.).]

<table>
<thead>
<tr>
<th>Name</th>
<th>Where educated</th>
<th>Degree with year</th>
<th>Special subjects</th>
<th>Other qualifications</th>
<th>Year of joining Educational Department</th>
<th>Subjects taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. J. N. Unwalla</td>
<td>Elphinstone College</td>
<td>M.A., 1868</td>
<td>English and Latin; Physics at B.A.</td>
<td>Fellow, Elphinstone College, 1866, and Fellow of the Bombay University.*</td>
<td>1867</td>
<td>English and Physics</td>
</tr>
<tr>
<td>B. A. Enti</td>
<td>Elphinstone College</td>
<td>B.A., 1877</td>
<td>Political Economy and Persian.</td>
<td>1877 History and Logic.</td>
<td>1877</td>
<td>History and Logic</td>
</tr>
<tr>
<td>K. J. Sanjana</td>
<td>Deccan College</td>
<td>M.A., 1879</td>
<td>Mathematics</td>
<td>Chancellor's Medalist and Fellow, Deccan College, 1877. Fellow, Bombay University, and Examiner at the Bombay University.</td>
<td>1879</td>
<td>Mathematics</td>
</tr>
<tr>
<td>S. M. Isfahani</td>
<td>Madrasah-Sadr in Isfahan (Persia).</td>
<td>......</td>
<td>Persian and Arabic</td>
<td>University Examiner since 1890</td>
<td>1886</td>
<td>Persian.</td>
</tr>
<tr>
<td>B. B. Bhatt</td>
<td>St. Xavier's College</td>
<td>B.A., 1893; LL.B., 1898.</td>
<td>Sanskrit and Law</td>
<td>Public Prosecutor, Bhavnagar Law Courts.</td>
<td>1900</td>
<td>Law at the First LL.B.</td>
</tr>
</tbody>
</table>

* Also Student of Comparative Philology and Languages, ancient and modern.

Bhavnagar, 24th February 1902.

J. N. UNWALLA,
Principal, Samaldas College.
Return of Students at the Samaldas College, Bhavnagar, established January 1886.

[Information required in paragraph 13 (b).]

<table>
<thead>
<tr>
<th>Number of Students on the 31st March 1901</th>
<th>Number of Students who went up for the various University Examinations last held and number passed in each.</th>
<th>Annual average cost of a student's education for the year ending 31st March 1901</th>
</tr>
</thead>
<tbody>
<tr>
<td>-------------</td>
<td>----------------</td>
<td>---------</td>
</tr>
<tr>
<td>Brahmans.</td>
<td>31</td>
<td>23</td>
</tr>
<tr>
<td>(2 in the 2nd class)</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Anual average cost of a student's education for the year ending 31st March 1901</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Cost exceptionally high on account of famine and plague.

Samaldas College, Bhavnagar, 24th February 1902.

J. N. UNWALLA,
Principal, Samaldas College.
THE HONOURABLE MR. P. M. MEHTA, M. A.

I. Teaching University:—

The 'Bombay University is in a sense a teaching University. The University prescribes the courses of instruction, requires from students certain attendance at a college and the various colleges that instruct students in those courses have to be recognized by the University. It is not practicable to make the University any more a teaching body than it is. But you can have, if funds can be made available, University Professors for a post-graduate course, the colleges teaching only up to the B. A. and the corresponding degrees in the other Faculties.

II. Senate:—

The Senate as at present constituted has on the whole worked very satisfactorily and no change is called for. It is vaguely said that the Senate is unwieldy, that it is incompetent, that it is obstructive, that it wants to lower the standard for degrees, that the European element is not sufficient, that it does not act upon proper advice, etc., but I have not yet seen any evidence adduced in support of these statements. The tables A to D hereto annexed show that,

1. there is a large majority of qualified University men in the Senate,
2. that the college Professors and others actually engaged in the work of education are fairly represented,
3. that Government are fairly represented, and
4. that the European community is strongly represented.

Out of a total of 207 Fellows, 210 are holding University degrees, 46 though not holding degrees are recognized men of learning and only 38 are persons of no special educational qualifications, comprising among them persons who have founded various endowments in connection with the University and people of eminent position. There are 88 who are actually employed in or are connected with the work of education. Table B shows that the 210 University men are of really high academic attainments. There are 110 Europeans, 87 Hindus, 79 Parsis, and 21 Mohammadans and 117 Fellows are at present in Government service and 22 are retired Government servants. The Senate has always respected and acted on the opinion of Professors except on two occasions when it may be said it went against such opinion:—

1. When the reforms suggested by the Examination Reform Committee, the principal among them being the enlargement of the Syndicate by making the Deans members thereof, came up for discussion. (2) When the late Mr. Justice Ranade proposed to divide every examination into groups and to allow the candidates to pass in all the groups at the same time or separately. On both these occasions I venture to think that the Senate was in the right and the Professors who opposed the proposals were in the wrong. With regard to the first the change has been very beneficial and the Professors have themselves come round to the same view. With regard to the second it is not quite accurate to say that the Senate acted wholly against the advice of the Professors. For most of the Indian professors were in favour of the change, and also two European Professors, Revd. Scott, the present Principal of the Wilson College, and the late Dr. Peterson of the Elphinstone College, had signed the report of the Committee recommending the change. That proposal which was strongly advocated by the late Mr. Justice Ranade whose intimate knowledge of the wants and requirements and difficulties of Indian students was unsurpassed, passed the Senate almost unanimously, only five Fellows, I believe, voting against it, but Government declined to sanction it on the advice I suppose of some of their educational officers. What took place on that occasion illustrates the fact that European Professors however sympathetic and actuated by the best of intentions, are not able fully to appreciate the requirements and difficulties of Indian students. There is no justification for supposing that the advice of European Professors and Members of the Senate who are absolutely disinterested in the matter of University education in as much as they do not educate their sons at the Indian Universities is disregarded through sheer obstinacy by the Indian Members of the Senate who are vitally concerned in the matter for it is mostly at the Indian Universities that they educate their sons and for whose real benefit such advice is given. Is it not more charitable and more in accordance with facts to say that the Indian Members of the Senate who have them-
selves been the products of the Indian Universities and have an intimate knowledge of the capabilities, requirements and difficulties of the Indian students are able sometimes to see objections to the acceptance of the advice of their European colleagues which they are unable fully to appreciate? On the merits of dividing examinations into groups I shall speak further later on.

The only change therefore that I would advocate would be to limit the number of Fellows to 200 exclusive of the ex-officio Fellows, as was proposed in the draft Act of Sir Raymond West, the reduction to be made in the following manner; only two-thirds of the vacancies occurring in every year should be filled till the number is reduced to 200 and after the reduction is effected no more nominations should be made than there are vacancies. One-half of the nominations to be made as above should be made by Government and the other half by election by graduates of not less than five years' standing. An electoral-roll of graduates should be kept by the University and a fee should be charged to persons wishing to have their names put on the roll. The right of election given to the graduates since 1893 has to my mind been very wisely exercised. I would not make Fellowships terminable but fellows not attending any meeting of the Senate for a period of two years should by the fact of such absence lose their Fellowships. I would not increase the number of ex-officio Fellows. At present there are ten ex-officio Fellows but out of them only three take interest in University affairs and they are all on the Syndicate. The rest hardly attend any Senate meeting and take no active interest in the University.

III. Syndicate:

I think the present number of the Bombay Syndicate (15 including the Vice-Chancellor) is a proper number and should be maintained. Government and the colleges are fairly represented in the Syndicate. Out of the 15 present members 8 are Government officers and the colleges are properly represented. See Table E. It has so far as I know never occurred, that any educational officer or Professor who took an interest in the matter and desired to be in the Syndicate was kept out. I think on the whole the present system of electing the Syndicate has worked very satisfactorily and I would keep it as it is. At present provision is made in the bye-laws about the constitution of the Syndicate and its powers and that system is elastic and I would not substitute for it a provision in the Act. For instance we in 1899 increased the strength of the Syndicate by adding the Deans thereto and gave the Syndicate power to appoint Moderators and we were able to effect the reform by an alteration in the bye-laws with the approval of Government, without resorting to the cumbersome procedure of moving the Indian legislature to amend the Act, which would have become necessary if the provisions about the Syndicate had been a part of the Act. There need be no apprehension about the Senate light-heartedly meddling with the constitution and powers of the Syndicate for Government have always the power of veto given to them. The present system has done very well and I would deprecate any change in it.

IV. Faculties and Boards of Studies:

The Faculties as at present constituted have worked well and I would not disturb them. There are no Board of Studies and the Syndicate from time to time consult Fellows competent to advise them on the matter. Boards of Studies elected by Faculties might however be usefully constituted.

V. Examinations:

I am afraid too much importance is given to examinations as a test of knowledge and culture. At best an examination is a very insufficient and sometimes deceptive test and it is difficult sometimes to prevent papers being set by which as Mr. Mathew Arnold says, "the examiner is led to shew his want of sense and the examinee his store of cram." The Syndicate and the Senate have tried their best by elaborate rules and instructions, and great care in selecting examiners, to make the examinations as faultless as possible, but the mistake lies to my mind from looking at examinations from a wrong point of view. The real aim should be to secure the going through properly laid down courses of instruction.
for a number of years under the inspiration of the best instructors, and examina­
tions should be subordinated to and used only as a means to secure such train­
ing. This can only be secured by insisting upon persons of the highest acade­
mic qualifications as Professors, the University being given greater powers of
supervision to see that the courses of instruction are properly gone through,
and by reducing the present number of examinations and modifying the present
system of determining the success or failure of candidates at examinations. The
frequency of examinations interferes with freedom and variety of teaching,
encourages cram, and puts unnecessary strain on students and gives them little
time to digest what they learn and think. Then, the present system which
requires a candidate to pass the whole of the examination at one time should be
altered. Each examination should be divided into two or at the most three
groups in some cases, and it should be at the option of the student to pass
in all groups at the same time or at different times. Such a proposal was adopted
by the Senate on the motion of the late Mr. Justice Ranade in 1898 but Gov­
ernment withheld their consent to the same. I think that proposal to be a very
good one and one which considerably discourages cram. The present system
under which a candidate failing in one subject but passing, sometimes creditably,
in all the other subjects at the examination, is compelled to waste a year and
again submit himself to examination in all the subjects is undesirable and un­
meaning. At Cambridge the Previous, the General Examination and the Final
B. A. are each divided in two parts and candidates for the pass degree are at
liberty to pass the two parts at different times. In Madras the B. A is similarly
divided into three parts.

VI. Affiliation rules

The recognition or affiliation of colleges should be left entirely to the
University. No authorisation on the part of Government as contemplated in
Section 12 of the Act should be required. In fact in Bombay that provision
had remained a dead letter ever since the establishment of the University till the
year 1899, and none of the institutions that sent up candidates for degrees were
ever authorised by Government. It is not pretended that anything went wrong
owing to the want of authorisation. It is instructive to see how when in 1899
Government began exercising the power of authorisation, they used such power.
The Government Law School at Bombay, the only institution recognised by the
University for the purposes of the LL. B. degree, was for many years in a very
satisfactory condition. Government themselves had acknowledged this and had
from time to time promised various reforms but nothing was done although lat­
terly they were actually making a profit out of the institution. Under these circum­
stances, certain gentlemen organised a scheme with a competent staff of Pro­
fessors to start a private college of law teaching up to the LL. B. degree and the
whole control of the proposed institution was placed in the hands of a strong
governing board with Mr. Justice Tyabji as President. Mr. Justice Chandavar­
kar was along with others a member of the Board. The Senate on the recom­
mendation of the Senate decided to recognise the college and applied to Gov­
ernment to authorise the same under Section 12. When that application reached
Government, they appointed a Committee to enquire into the condition of their
Law School and suggest improvements therein. The Committee in their report
made proposals involving considerable expenditure, and as Government were not
prepared to spend any moneys out of their revenues on the school, the only way
of effecting the much needed reform was to increase the fees and secure all the
students to the Government school in order to enable Government to meet from
the fees the increased expenditure. They accordingly after several months' cogitation replied to the application of the University refusing mainly on the
above ground the authorisation applied for. Thus in spite of the policy laid
down by the Government of India on the recommendation of the Education Com­
mision of 1882 that private enterprise in higher education should be systemati­
cally encouraged and fostered, the Government of Bombay by the use of their
power of authorisation under Section 12 prevented the starting of this college in
order to enable them to improve their own school without any expenditure, by
securing the monopoly of giving legal instruction.
# Table A.

**List of Fellows as appearing in the Calendar for 1901-1902.**

<table>
<thead>
<tr>
<th>Year of appointment</th>
<th>Number of Fellows holding University degrees</th>
<th>Number of Fellows not holding University degrees but learned in some branch of knowledge</th>
<th>Fellows with no special educational qualifications, comprising donors and people of eminent position</th>
<th>Total</th>
<th>Number of Fellows actually engaged in or connected with the work of education</th>
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<td>1901</td>
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<tr>
<td>Ex-officio, not gazetted</td>
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</tr>
</tbody>
</table>

| Total               | 210 | 46 | 38 | 207 | 88 |
TABLE B.

Fellows of the Bombay University holding University degrees.

<table>
<thead>
<tr>
<th>Degree or Degrees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M.A. ...</td>
<td>36</td>
</tr>
<tr>
<td>M.A., Ph. D.</td>
<td>1</td>
</tr>
<tr>
<td>M.A., D.D., LL.D.</td>
<td>1</td>
</tr>
<tr>
<td>M.A., D.D.</td>
<td>1</td>
</tr>
<tr>
<td>M.A., B.Sc.</td>
<td>3</td>
</tr>
<tr>
<td>M.A., D.Sc.</td>
<td>1</td>
</tr>
<tr>
<td>M.A., B.Sc., L.M.</td>
<td>1</td>
</tr>
<tr>
<td>M.A., L.C.E.</td>
<td>1</td>
</tr>
<tr>
<td>M.A., L.L.B.</td>
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</tr>
<tr>
<td>Ph. D. ...</td>
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<tr>
<td>M.D. ...</td>
<td>11</td>
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<tr>
<td>M.D., M.A., B.Sc.</td>
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<tr>
<td>M.D., B.A., B.Sc.</td>
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<td>M.D., B.Sc.</td>
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<tr>
<td>M.D., M.A.</td>
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<tr>
<td>B.A., LL.D.</td>
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<td>B.A., LL.M.</td>
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<tr>
<td>B.A., L.L.B.</td>
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<td>L.L.D. ...</td>
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<td>B.A. ...</td>
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<tr>
<td>L. M. &amp; S.</td>
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<tr>
<td>L.M., B.A.</td>
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</tr>
<tr>
<td>M.B., B.A.</td>
<td>1</td>
</tr>
<tr>
<td>M.B. ...</td>
<td>3</td>
</tr>
<tr>
<td>M.C.E., B.A.</td>
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<tr>
<td>L.C.E. ...</td>
<td>5</td>
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<tr>
<td>L.C.E., B.A.</td>
<td>4</td>
</tr>
<tr>
<td>D.Sc., C.E.</td>
<td>1</td>
</tr>
<tr>
<td>Ph. D., D.D., D.C.L</td>
<td>1</td>
</tr>
<tr>
<td>D.D., D.C.L</td>
<td>1</td>
</tr>
</tbody>
</table>
TABLE C.

Classification of the Bombay University Fellows according to communities.

<table>
<thead>
<tr>
<th>Europeans</th>
<th>Hindus</th>
<th>Parsis</th>
<th>Mahomedans</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>87</td>
<td>79</td>
<td>21</td>
<td>297</td>
</tr>
</tbody>
</table>

117 Fellows at present in Government Service.
22 Fellows in Government Service when nominated but since retired.
### TABLE D.

**Representation of Colleges in the Senate and the Syndicate, 1901-02.**

<table>
<thead>
<tr>
<th>College</th>
<th>Strength of the Staff</th>
<th>Members of the Senate</th>
<th>Members of the Syndicate</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elphinstone</td>
<td>7 Professors, 2 Lecturers</td>
<td>7</td>
<td>1</td>
<td>The Principal has on several occasions expressed his unwillingness to be elected a Syndic.</td>
</tr>
<tr>
<td>Deccan College</td>
<td>5 Professors, 2 Lecturers</td>
<td>5</td>
<td></td>
<td>Before Dr. Hatch went on leave he was also on the Syndicate, so there were two Syndics from this College.</td>
</tr>
<tr>
<td>Grant Medical College</td>
<td>10 Professors</td>
<td>9</td>
<td>1</td>
<td>For many years the Principal was on the Syndicate. The present Principal has declined to serve on the Syndicate.</td>
</tr>
<tr>
<td>Science College, Poona</td>
<td>6 Professors</td>
<td>3</td>
<td></td>
<td>The Professors are generally Junior Barristers.</td>
</tr>
<tr>
<td>Government Law School</td>
<td>6 Professors</td>
<td>2</td>
<td></td>
<td>Dr. Machichan, the Principal, ceased to be a Syndic only on his going on leave and will be elected again on his return to his duties.</td>
</tr>
<tr>
<td>Wilson College</td>
<td>8 Professors</td>
<td>6</td>
<td></td>
<td>Two of the Professors were very recently appointed.</td>
</tr>
<tr>
<td>St. Xavier’s College</td>
<td></td>
<td>12</td>
<td>7</td>
<td>With regard to some of the Mofussil Colleges there is the distance difficulty. Besides the professorial staff of some of them is not of the same quality as the First Class Colleges.</td>
</tr>
<tr>
<td>Fergusson College</td>
<td>9</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baroda College</td>
<td>9</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gujarat College</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samaldas College</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sind College</td>
<td>7</td>
<td>1</td>
<td></td>
<td>Teaches only up to the Intermediate examination.</td>
</tr>
<tr>
<td>Rajaram College</td>
<td>5</td>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**N.B.—The Director of Public Instruction is also a Member of the Syndicate.**

### TABLE E.

**Syndicate, 1901-02.**

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Total number of Syndics</th>
<th>Syndics actually engaged in educational work</th>
<th>Syndics not engaged in educational work</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>Till recently Dr. Machichan represented Science and so there were four Syndics engaged in educational work. Mr. Nangamval, who has taken Dr. Machichan’s place, was for many years a Professor at the Science College.</td>
</tr>
<tr>
<td>Law</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>In this Faculty the Syndics are appropriately drawn from High Court Judges and Barristers of standing; specially as the Professors at the Government Law School are generally Junior Barristers.</td>
</tr>
<tr>
<td>Medicine</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>Till Dr. Hatch went on leave there were two Professors of the Medical College as Syndics.</td>
</tr>
<tr>
<td>Engineering</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Formerly the Principal of the Science College, Poona, used to be on the Syndicate. The present Principal has shewed himself unwilling to join the Syndicate. One of the Syndics, Mr. Moon, was for many years a Professor at the Science College, Poona, and the other two Syndics are eminent Engineers.</td>
</tr>
</tbody>
</table>
(3). I do not consider it practicable to change the constitution of the Indian Universities so as to make them altogether teaching as well as examining bodies. I confine my remarks to the Bombay University.

The history of the origin of the different Colleges seems to me a difficulty, I may say, an insuperable obstacle, to such a change. In Bombay we have four large Colleges, some of which are public memorials, aided and controlled by Government, others are the educational results of religious societies and under sectarian control. To give power to the University to appoint the Professors and Lecturers of these Colleges would be impolitic, to say the least, while to expect the University as a teaching body to be satisfied with a mere recognition of any Teachers and Fellows that the governing bodies of the Colleges might appoint, would be going no further than the present powers of the University allow. It might be possible to concede that the Lecturers and Professors of subjects at the different Colleges might be termed University Lecturers, but there could be only one University Lecturer, or at the most, two where the course was a divided one.

Such distinction would be an honour and would have to be conferred with great discretion. Suppose, for instance, there were an University Professor of Sanscrit, I do not think it would be possible for the Colleges, say, of Baroda, Gujarat, and others, to participate in the benefits of his lectures if they were to be given at the Bombay University.

The University at present does exercise considerable influence on the staff of Colleges, for unless the Syndicate approve of the constitution, aims, and staff of a College, they can at least refuse to recognise it.

Section XII of the Act of Incorporation provides for all this and should be strictly adhered to.

At the same time I consider that the University ought to be able to exercise a direct educational effect and to have University Lecturers in special subjects who might be localized and travelling, the latter to give lectures in the higher branches of the subjects at the affiliated Colleges of the Mofussil, and attendance on such lectures might be enforced as part of the curriculum.

In this way a certain amount of unity in teaching could be ensured. The affiliation should be encouraged.

(4). The sphere of influence of an University should be limited by geographical expediency as far as possible, though, I suppose, under the provisions of the Act legislative considerations must weigh most. I refer to the Colleges of Sind, in this instance, which would be more conveniently within the influence of the Punjab University as far as geographical situation is concerned. There is, however, a fairly consistent method in the constitution of all the Universities which makes this point of less moment, and the predilections of a province or state and its legislative direction should be paramount. The spheres of influence of the University bodies of India corporate might be forwarded by annual conferences of representatives from different Colleges of India. The Arts Colleges, the Science and Medical Colleges of the different Universities might in this way exchange views and discuss questions of procedure, methods of examination and other important matters, to the greatest benefit of themselves, and higher learning in general, throughout the country.

(5). The constitution of the Senate of the Bombay University requires modification. All the Fellows should be active representatives of their different Faculties, and their present number reduced. The Colleges in Bombay should have a considerable share in the constitution of the Senate, and a number, if not all of them, should be Fellows of the University. In fact it seems to me that the Capital cannot be otherwise than the real centre of the University.

1920—1
It is probable that other Colleges will arise in time in Bombay itself. I do not think that the Arts Colleges should teach Science, and I think a Natural Science College, where the higher branches of Experimental Physics, Chemistry, Electricity and the cognate sciences may be taught, is eminently needed in Bombay.

The situation of the affiliated Colleges of the Mofussil is a difficulty, but I think it can be overcome by representation at the seat of the University.

They could elect their own representatives from amongst the graduates of a certain standing, eligible for election as Senators, and be members of one or more Faculties.

One of these might be nominated or elected for a term of years to serve on the Governing Committee.

A certain rotation should be followed in such a manner as to give each College, or group of Colleges, a voice in the government of the University in turn.

The Heads of all Mofussil Colleges should be ex-officio Fellows. A certain number of Fellows should be elected by the graduates in each Faculty: the proportion would have to be based on my preceding statements, and so apportioned as not to interfere with the principle of the government of the University being largely carried out by those actively engaged in the education of the candidates for degrees.

On the same basis a certain proportion of non-graduates should be appointed Fellows in consideration of their being benefactors of, or actively interested in, the cause of higher education.

For the proper government of the University I would change the constitution of the present Syndicate and make it a Governing Committee, presided over by the Vice-Chancellor, and composed, ex-officio, of the Heads of Colleges in Bombay, and one elected Fellow from each of the Faculties. The Director of Public Instruction should be also an ex-officio member of this committee. Members of the Syndicate should all be Deans of Faculties.

6. A series of permanent and occasional special Syndicates from amongst the Fellows of Faculties should be formed, as is done in the Cambridge University.

At present a number of questions have to be referred to sub-committees of the Syndicate which entails a great deal of delay in disposing of special questions, and there is much necessary reform and work which remains undone for want of a system capable of grappling with them.

These Syndicates would correspond to the Boards of Studies, etc., and they would be advisory to the Governing Committee.

The Senate would therefore be composed of—

The Lecturers and Teachers at the Colleges in Bombay.

The Heads of Mofussil Colleges.

Representatives of such Colleges.

Elected graduates of a certain standing in each Faculty.

Educational representatives nominated by the Chancellor or by Government.

The Syndicate or Governing Body could consist of—

The Vice-Chancellor.

The Director of Public Instruction.

Three Heads of Colleges.

Four elected Fellows.

One Mofussil College representative.
They would be assisted by the Special Syndicatates.

Each Special Syndicate or Board might be formmed of four Fellows and they need not necessarily belong to one Faculty where the subject was of general University importance. The scheme would oblige the Fellows to take an active and useful part in the work of the University. The Professors would be appointed by the Syndicate or Governing Committee, and Deans of Faculties would have to preside over local University Boards. Some of them might be formed at the Mofussil centres for the disposal of local University y business.

(8). A register of graduates should be kept. This is especially required for Medical Graduates.

A Medical registration, apart from the University, is however the greatest need, if it would be brought under regulations similar to those of the General Medical Council in England. Our graduates suffer great hardship in being obliged to compete amongst the native public on equal terms with Vaidas and Hakims, there being no legislation to prevent any of them setting up as a Medical Practitioner. There is no doubt that this has a deteriorating effect upon our graduates in their practice, and many of them become empiricists. I think that perhaps in time, when the general public are more educated, steps may be taken to modify this very great evil of unqualified practice.

(9). I think it would be a good plan to enforce test examinations in the Colleges for those about to appear for the different University examinations, and the Colleges might be empowered to prevent candidates appearing if they did not pass the test satisfactorily. A certain amount of interest in the general status and welfare of the students might be taken n by the University. For instance, wearing of academical dress, the institution of University clubs of all kinds, of debating, athletic, cricket, rowing and other social clubs, and of inter-College contests.

(10). In the matter of teaching, although the University is an examining one only, it can regulate the prescribed courses of study to a certain extent by the system of examination. So far as medical under-graduates are concerned, I am not satisfied that English is sufficiently well taught for the purposes of the study of medicine. It is particularly necessary that in exact subjects the student should be capable of understanding his teacher's language. This is often not the case with newly entered matriculated students, and we have held a preliminary test in English at the College for several years in order to safeguard this objection.

In the other Faculties the P. E. is required before registration as a student of a College: and the consequence is that the Grant College has had a considerable increase in the number of its students of late years whose education is of a lower standard than that of the other Faculties.

I consider it desirable to raise the standard of educational requirement to the P. E. for entrance into the Grant College.

The question of changing the medical degree from a License to a Bachelorate has always failed on this point. The Professors of the College have endeavoured to obtain a higher general education, and their schemes have always been thrown out by the influence of the Faculty in the Senate, the majority of which have wished to simply convert the present L.M. & S. into a degree.

I think if the P. E. were conceded the problem would be easily solved and the Bombay University could then convert the L.M. & S. into an M.B. degree.

I would not change the requirements of the M.M.D.

Retrospective effects could perhaps be overcome by some such arrangement as conferring the degree of M.B. on graduates of 20 years standing, by requiring an examination in the subjects of the final for those of 15 years standing, and an examination in Arts and the subjects of the Final for those of 10 years standing and over.

I am in favour of making Latin compulsory at the Matriculation Examination for the medical degree. I know that this is contrary to the recent action
of the Medical Faculty of the London University, who have recommended that Latin should no longer be compulsory. But this opinion is strongly condemned by the majority of the profession at home, so far as I can gather from the correspondence in the medical journals, and Latin is certainly the key to most medical terms.

(11). Variations in standard according to subject cannot be avoided, but some equalization of standard can be effected if all the examinations of a degree are well considered. For instance, for the medical degree. To pass the Matriculation a candidate has to obtain 33 per cent., to pass the 1st and 2nd Examinations in Medicine he has to obtain 45 per cent., and to pass the Final he must obtain 50 per cent., so that there is an ascending difficulty of passing, which throws out a good many students at each examination. This would be equalized by requiring the P. E. for entrance.

The standard for the medical diplomas is a high one, and the result is seen in the clever men who form the past and present graduates of the University, and the fact that a fair number of our students pass the higher examinations in England and a very considerable number after failure at the Bombay University obtain British diplomas.

(13). The Grant College is a Government one entirely, and the teaching staff is appointed by Government. There are eleven chairs—Medicine, Surgery, Midwifery, Physiology, Pathology, Chemistry, Ophthalmic Medicine and Surgery, Materia Medica, Botany, Anatomy. There have been very few changes in the last ten years.

The Professors of the technical subjects are practically full-time men. Certainly quite as much so as in English hospitals.

The Professors of the Professional subjects of Medicine, Surgery, Pathology, Midwifery and Ophthalmic Medicine and Surgery have charge of wards in the J. J. Hospital and the other allied hospitals.

They give clinical instruction in their respective wards in the subject which they teach, and the method of instruction is excellent and even superior to that which students obtain in the English schools, for personal attention is given in clinical methods to each student, such as English students could not hope to get.

I do not know of any medical school in England where such close personal attention is given by the Professors and Lecturers of the subjects taught.

The Professors are highly qualified men. The Physicians are graduates of Universities, and the Surgeons are Fellows of the Royal College of Science, England—identical qualifications that are required for the staff of a London or Provincial hospital of high standing. I think it would be a good plan to attach young members of the Indian Medical Service to the College and hospitals and train them in the different branches as a preparation for future needs of the school.

The Professors are assisted by 11 tutors, who are selected from the most distinguished junior graduates of the University and carry out practical instruction under the direction of the Professors. A certain number of them are also Honorary Surgeons and Physicians of the various hospitals where they continue the work of instruction.

There are additional Honorary Physicians and Surgeons of the hospital, who also assist in the clinical instruction, and a lecturership on diseases of the Ear, Throat and Nose has lately been established and to it one of our Pársi graduates, who holds the IF R.C.S., England, has been appointed. Two or three appointments of a similar kind in other subjects have been under contemplation of various Principals of the Colleges and have been made in instances, but have not been very successful. There are two or three subjects which might be tried in this way. These students are of all kinds of communities and from different parts of the Presidency of India. We have Europeans, Pársis, Mahomedans, Hindus, men and women students. They are as a rule very well behaved and
eager to learn, but the great difficulty is to get them to appreciate the practical part of the teaching. The Grant College and the Petit Laboratory are the two main buildings, and a new set of anatomical rooms is in course of building.

Schemes for further expansion of the school are being considered in other directions also.

There is a very fair list of scholarships and prizes—memorial and Government endowments in most cases.

There are a Gymkhana club, a cricket pitch, a gymnastic ground and three tennis courts, clinical and debating clubs, and the different classes of students mix freely in sports.

I am endeavouring to carry out a scheme of residential quarters for students which my distinguished predecessor Colonel Hatch inaugurated. I think the Bombay Colleges should make a more extensive move in this direction.

It would certainly develop the University system very greatly.

II. P. DIMMOCK, Lieut.-Colonel.
Major C. H. A. Meyer, M.D., I.M.S.

The evidence which I can offer relates chiefly to the Medical Curriculum of the University of Bombay.

The Preliminary Examination for the Medical Degree.

Matriculation is the preliminary examination in general knowledge which the University requires the intending medical student to pass before entering the Medical College. For all other degrees in this University at least the Previous Examination is now required. The consequent result of this state of things is that students who cannot pass the Previous Examination are driven into the medical profession, the only one open to them. This accounts for the falling off in the average standard of our students at the Grant Medical College and their greatly increased numbers during the past few years. I am, I believe, correct in saying that in no other University in India is as low an examination as Matriculation accepted as the preliminary educational test for a Medical degree.

The Bombay Matriculation on paper appears as excellent. As has frequently been said, its requirements are superior in many respects to those of the preliminary of the General Medical Council and in not far inferior to those of the London University Matriculation. A thirteen years' experience of the teaching of the junior students at the Grant Medical College, however, has convinced me (and in this I am supported by those of my colleagues at the Grant Medical College, who also have to teach junior students) that Matriculation does not equip a student with a sufficient knowledge of English and with a sufficient education generally to enable him to take up the study of Science. The student does not properly understand his European Professors, and this is chiefly due to an inadequate knowledge of English; also however not uncommonly to the fact that he has learnt his English with a native accent from a native schoolmaster. In the course of time, viz, a year or more, he will certainly learn to understand the English of an Englishman with a native accent from a native schoolmaster. In the course of time, viz, a year or more, he will certainly learn to understand the English of an Englishman, but this entails a great curtailment of the already too brief period (5 years) laid down for medical study. Few of our students indeed can finish their course in the 5 years. My contention above, therefore, is that Matriculation provides us with men who are not sufficiently educated and who are wanting in knowledge of English.

Remedies.

The remedies I would suggest for this state of affairs are as follows:

If Matriculation be retained as the preliminary, require the intending medical student (in fact I would include all Science students) to obtain a much higher percentage for pass in English at the Matriculation than at present; the result would be better, I think, if P.E. English were taken as it now is with its low standard for pass.

A Classical Oriental language (or some other subject and among these I should put Greek) should be compulsory.

Latin.

Latin, again, I think absolutely necessary for Science students and especially so for the medical student. It is the universal language for scientific nomenclature, and an ignorance of it will certainly add to the difficulties of a medical student in acquiring what he has to learn. Moreover, its study I contend is one of the best ways of learning English thoroughly.
If the above plan were followed out as regards Matriculation, the results would, I believe, be more satisfactory than if we adopted the P.E. of the University, as it is, as the preliminary for Medicine. A student who has only just passed the P.E. can be astonishingly ignorant of English and general knowledge. It would be still more satisfactory if the P.E. with the same modifications and additions, as I have suggested in the case of Matriculation, were taken as the preliminary. The Professor of the College of Science, Dr. Thomson, stated before you the other day that the raising of the standard of admission to his College from Matriculation to P.E. had been the greatest blessing they had ever had. Further as regards the Matriculation, I should reintroduce a vivâ voce examination in English.

The age of Matriculation.

A student should be at least 15 years old before being allowed to appear for Matriculation. Boys and girls of 14 years or less pass the examination now and enter as medical students. The nature of the studies they take up and the experiments they soon meet with in studying medicine are apt, I think, to be injurious and unsettling to the characters of those who are hardly more than children. Moreover, by entering at such an early age, a student may pass his final medical examination and be qualified to practice on the public at too young an age.

The present state of the Medical Regulations of the University.

Further, I wish to draw attention to the out-of-date character of the present medical regulations of the University. To be in keeping with the best Universities we should have the following scheme of studies and examinations:—

(1) A Preliminary Scientific course

(2) An Intermediate course

(3) A Final Professional course

Physics.

Biology.

Chemistry.

Anatomy.

Physiology, &c.

Medicine.

Surgery, &c.

Physics.

Biology.

required from the medical student is the passing of an examination in the Elementary Mechanics of fluids and solids. In order to comprehend modern Physiology (the subject I teach), a considerable knowledge of Physics (Electricity, Laws of Light, Sound, &c.,) is required, and this I have always had to teach them myself in my lectures.

Biology.

required of the medical student by the University, and a knowledge of it is of the greatest importance to the subsequent study of Anatomy and Physiology.

So greatly has the need for instruction in Physics and Biology been felt at the Grant Medical College, that in recent years tutorial classes in the two subjects have been instituted. As, however, there is no University Examination in them, it is difficult to get most of the students to take much trouble in learning what they know; they will not be examined in.

Teaching at the Grant Medical College.

It will be seen, therefore, that our teaching at the Grant Medical College in Physics and Biology (and I could instance the case of other subjects similarly) is beyond and above what the University of Bombay requires.

Botany.

The University requires too much Botany, I think, of the medical student, and therefore a great deal of his time is wasted in its study.
As at present arranged, the University course allows too little time (really only a year) for the study of Anatomy and Physiology. What the student learns of these subjects prior to passing his 'First Examination in Medicine' is very little. He requires at least 18 months to 2 years for these studies.

History.

During my connection with the Grant Medical College, we (i.e. the Principal and Professors of the College) have made at least three attempts to introduce reforms on the lines I have indicated in the medical curriculum of the University and to substitute M.B., &c., degrees in the place of the existing L.M. & S. Our efforts, however, have always been frustrated by the opposition met with in the Senate and in the Faculty of Medicine.

Text Books and Indian Students.

I am of opinion that we used to be very cautious in setting special text books, or parts of them, in Indian Universities. The Indian student has often a wonderful faculty for committing his text book to memory verbatim. What we want a student to know is his subject and not his text book. What he particularly requires, I think, is the stirring up of his powers of observation, originality, imagination and reasoning. It is especially important, too, I think, that study should always include as much practical work as possible; this is particularly necessary in the case of Science. An Indian student is naturally inclined to avoid that personal practical work which is so highly important always to members of my profession.

I would, therefore, avoid setting special text books whenever possible. This can be done with perfect fairness in the case of the medical subjects of study.

There are a few other points to which I should like to draw attention.

The Senate.

The present constitution of the Senate I think certainly calls for reform. The composition of the body is such that not infrequently voting is partly influenced by other considerations than the merits of the question at issue. Again the personal influence of one man is often too strong in the body as it now is and is apt to cause the carrying of his opinions.

Examinerships.

There is often keen competition and canvassing for examinerships. I think this rather unseemly and any reform which would put an end to it would be welcome. Some alteration in the monetary rewards to Examiners might effect a salutary change in this respect.

Meetings of Examiners.

Preliminary meetings of all the Examiners in one examination should be compulsory before final results are sent in to the Registrar. This would obviate often the hardship to a man failing to get a higher class by say one or two marks.

Biennial Examinations.

All medical examinations should be held twice a year, viz. at the end of the Winter and Summer Sessions. Certificates from the colleges are often granted too easily and it is not an uncommon thing for an Examiner to examine a student who obtains 10 per cent, or even less than this of full marks. Colleges could meet this by instituting test examinations prior to the University Examinations. Only on passing a satisfactory test would the student be granted his certificates.

C. H. L. MEYER, M.D., B.S., M.R.C.S.,
Major, I. M. S.,
Professor of Physiology, Histology and Hygiene,
Grant Medical College, Bombay.
PROFESSOR T. K. GIJJO

PART I.

SUGGESTIVE SCHEME FOR THE CONSTITUTION OF INDIAN UNIVERSITIES.

Preamble.

The preamble should state the objects of the charter to be—

The organisation and improvement of the higher education.
The better allocation and distribution of educational means.
The continuance of the work of the present universities and of the existing higher teaching institutions.
The promotion of research and the advancement of science and learning;
The diffusion of European science, as far as possible, through the medium of the vernaculars.
The improvement and extension of a vernacular literature generally.
The promotion of the enlightened study of the eastern classical languages and literature.
The promotion of the study of the English language and literature.
Instruction and examination, as far as possible, through the medium of the vernacular languages, and through the medium of English in all subjects which cannot, with an advantage, be taught in the vernacular.
The association of the learned and influential classes of the province with the officers of Government in the promotion and supervision of popular education.
To institute chairs and lectureships in Literature, Science and Arts in all their branches, inclusive of original discoveries, inventions and researches.
To provide suitable libraries, laboratories and museums, archaeological and other public collections, etc.
To take over from Government and other public bodies or private persons willing to transfer the same, any and all such libraries, laboratories, museums, collections, etc., whatever together with any endowments and other funds, properties and benefits belonging to such institution respectively, with the attendant obligations and engagements if any; and to enter into in this connection, into all such special arrangements as the university may approve of.
To have power, upon examinations, or such other test of competency as it may from time to time devise, to confer degrees upon persons whose preliminary qualifications to be admitted to such examinations or tests shall be determined by the bye-laws.
To have power to apply the funds to all objects which have for their aim the advancement or diffusion of learning—such as, making grants to extra-mural investigations, printing works of merit, opening university extension classes and divers others.

CONSTITUTION OF THE UNIVERSITY.

The Visitor.

The Viceroy will be the Visitor of the University.

The Chancellor.

The local Governor for the time being will be the Chancellor.
The Chancellor will be head of the University, and ex-officio a member of the Senate and of Convocation.

The Vice-Chancellor.

The Vice-Chancellor will be elected annually by the University Court out of its own body, and will be ex-officio a member of the Senate and of Convocation, a member of all Boards and Committees appointed by the University Court, and a member of the Academic Council.

The Vice-Chancellor will preside over all meetings of the University Court, and in the absence of the Chancellor, of the Senate; and will be Chairman ex-officio of all Boards and Committees appointed by the University Court and of the Academic Council.

Constituent Bodies of the University.

The constituent bodies of the University will be the University Court, the Academic Council, Faculties of Professors and Boards of Studies, the Senate and Faculties of Fellows, the Convocation.

The University Court.

The University Court will consist of 40 members appointed as follows:

By the Faculty of Professors.

4 by the Faculty of Philosophy.
2 " Science.
2 " Medicine.
2 " Law.
2 " Engineering.
2 " Technology and Agriculture.
1 " Commerce.
1 " Fine Arts and Music.

By the Faculties of Fellows of the Senate.
6 by the Faculty of Arts and Science.
3 " Medicine.
3 " Law.
4 " Engineering and Agriculture.
8 Members not being Teachers in the University to be nominated by the Court itself.

All members of the University Court will (except by special provision in the case of the first appointments) be appointed for a term of five years.

Powers.

The University Court will be the supreme governing body of the University and will have power from time to time to frame statutes to be submitted to the Viceroy in Council, for altering or adding to the constitution, powers or functions of the University.

The University Court will further have power to make, alter, or revoke bye-laws for regulating all matters concerning the University and to exercise all powers and do all things authorised to be exercised and done by the University, provided always—

(1) That any such bye-law be not repugnant to any provision of the statutes of the University.

Subject to this condition, the University Court will, in particular—

Control the affairs and property of the University, regulate the amount and determine the distribution of all fees, payable to the University; and appoint a Registrar and other officers necessary for conducting the business of the University.
Assign funds for the conduct and administration of the University, and after first inviting the opinion of the Academic Council, assign funds for the erection or extension of buildings, for the provision of teaching and equipment, and for the endowment and remuneration of University Professors, Readers, Lecturers, Demonstrators, or Assistants.

Make regulations regarding scholarships and other emoluments.

For good cause deprive the holder of any University office or emolument of such office or emolument.

Admit institutions or departments of institutions as Colleges of the University, visit such Colleges, and (subject to an appeal to the Governor in Council) remove any institution or department of an institution from being a College of the University.

Alter the number and distribution of the Faculties.

Appoint University Professors upon the report of Standing Boards appointed by it for the purpose.

Appoint University Readers, Lecturers, Demonstrators, and Assistants upon the report of Boards, whether Boards of Studies or otherwise.

Determine the duties of University Professors, Readers, Lecturers, Demonstrators, and Assistants.

Assign University Professors, Readers and Teachers to their respective Faculties.

Regulate the admission, and order the examinations of internal and external students.

Appoint a Standing Board to superintend, regulate and conduct the examinations for external students, and to advise external students in the prosecution of their studies.

Appoint Examiners of internal students upon the reports of the Boards of Studies transmitted through the Academic Council.

Appoint Examiners of external students, upon the nomination of the Board for external students.

Appoint a Standing Board to promote the extension of University teaching; and upon the report of the Academic Council recognise work done under the superintendence of the Boards as an equivalent for parts of the regular University Course.

Confer degrees, diplomas, and certificates.

Admit duly qualified graduates to the Register of Convocation, and for non-payment of fees, or for other good cause (subject to an appeal to the Chancellor) remove the name of any member from the Register.

Determine the manner of conducting the election of the representatives on the University Court, of the Faculties of Professors, of the Faculties of the Fellows of the Senate.

Elect the Vice-Chancellor out of its own body.

Ten members should form a quorum.

THE ACADEMIC COUNCIL.

The Academic Council will consist of the Vice-Chancellor, who shall preside, and of 16 members, elected by the Faculties as follows:

4 by the Faculty of Philosophy.
2 " " Science.
2 " " Medicine.
2 " " Law.
2 " " Engineering.
2 " " Technology and Agriculture.
1 " " Commerce.
1 " " Fine Arts and Music.
All representative members of the Academic Council will (except by special provision in the case of first appointments) be elected for a term of five years.

powers.

Subject to the statutes and bye-laws of the University the Academic Council will have power—

To recognise Teachers in any admitted College of the University as Teachers of the University, and to withdraw such recognition.

To assign such Teachers to their respective Faculties.

To assign, if they think fit, a place upon the Faculties to Demonstrators and Assistants appointed by the University.

To determine the number and composition of the Boards of Studies in each Faculty, and the mode of election and period of service of the members of the Boards.

To appoint such members as they think fit upon any Board of Studies, provided that the number so appointed shall not exceed one-fourth of the Board.

To delegate to any Board or Boards of Studies such functions as it may see fit, and to refer any matter for report to any Board or Boards of Studies.

To direct the Dean of any Faculty to summon a meeting of the Faculty for the consideration of a report of any Board of Studies belonging to the Faculty.

To determine curricula of study, and examination, to prescribe text books and reference works, after having had before them the opinion of the Board or Boards of Studies of the Faculty concerned.

To settle University Courses of Study to be pursued at any College of the University, after consultation with the authorities of the institution concerned.

To arrange for the holding of University examinations for internal students, in so far as separate from those for external students, and to fix the times and places at which they shall be held.

To advise the University Court upon various matters.

Six members should form a quorum.

Faculties of Professors

and

Boards of Studies.

The Faculties of Professors will be eight in number, viz., Philosophy, Science, Medicine, Law, Engineering, Technology, Agriculture, Commerce, Fine Arts and Music. But the number and distribution of the Faculties may be altered from time to time by by-law of the University Court.

The faculties of Professors, will consist of—

(1) University Professors, Readers and Lecturers.

(2) University Demonstrators and Assistants approved by the Academic Council.

(3) Teachers in the Colleges of the University recognised by the Academic Council.

University Professors, Readers and Lecturers will be assigned to their respective Faculties by the University Court.

University Demonstrators and Assistants, if approved for the purpose, and all recognised Teachers of the University will be assigned to their respective Faculties by the Academic Council.
Each Faculty of Professors will elect representatives upon the University Court in the manner prescribed by the University Court as follows:—

4 The Faculty of philosophy.
  2 ,, Science.
  2 ,, Medicine.
  2 ,, Law.
  2 ,, Engineering.
  2 ,, Technology and Agriculture.
  1 ,, Commerce.
  1 ,, Fine Arts and Music.

Each Faculty of Professors will elect representatives upon the Academic Council, in the manner prescribed by the University Court as follows:—

4 The Faculty of Philosophy.
  2 ,, Science.
  2 ,, Medicine.
  2 ,, Law.
  2 ,, Engineering.
  2 ,, Technology and Agriculture.
  1 ,, Commerce.
  1 ,, Fine Arts and Music.

The aim of each of these Faculties will be to organise the knowledge appertaining to its own branch of learning, to provide facilities of research, and to harmonise examinations with instruction.

Each Faculty will elect a Dean, to hold office for five years.

The Dean of each Faculty will summon a meeting of the Faculty when he sees occasion, or when directed by the Academic Council, or when requested by one-third of the members of the Faculty to do so.

In each faculty a Board or Boards of Studies will be constituted, in the way determined by the regulations of the Academic Council, and not less than three-fourths of the members of every such Board will be elected by the Faculty to which it belongs.

Each Faculty or Board of Studies will consider and report upon any matter referred to it by the University Court or the Academic Council, and may consider any matter concerning courses of study, examination, degrees, diplomas, certificates, and teaching in subjects within the province of the Faculty, and report to the Academic Council thereon.

Each Board of Studies will elect its own Chairman and conduct its own proceedings.

A Board of Studies may meet and act concurrently with another Board or Boards, and will, if so requested, deliberate in conjunction with the Academic Council or any Committee thereof.

Any Board of Studies may exercise administrative or executive functions expressly delegated to it by the University Court or the Academic Council.

**The Senate.**

The Senate shall consist of the Chancellor, one Vice-Chancellor, and such number of ex-officio and other Fellows as the Governor in Council hath already appointed, or shall, from time to time, by any order published in the Government Gazette, hereafter appoint in accordance with the provisions of this Act, and of such Fellows as in accordance with the said provisions and with the Bye-laws made under this Act shall be duly elected by the graduates of the University and others qualified in that behalf.

The office of Fellow of the University shall be vacated by the death or resignation of the office-holder or by his non-attendance at any meeting of the Senate or of a Faculty for a period of three years, except in the case of an
ex-officio Fellow, while filling the office in virtue whereof he is a Fellow of the University. Provided that in the case of Fellows who are such at the time when this Act comes into force the period of non-attendance causing a vacancy shall not be computed from any day prior to such time.

A Fellow who having been a public servant shall quit India on or after his ceasing to be a public servant shall be deemed to have resigned his office of Fellow unless he shall have previously intimated in writing to the University Court his desire to retain the same.

The Chief Justice of His Majesty’s High Court of Judicature, the Bishop of Bombay, the Members of the Council of Bombay, the Director or Acting Director of Public Instruction, the Principals and Acting Principals of Colleges recognised by the University as qualified to teach the complete course requisite for a degree, all for the time being, shall, while filling such offices be ex-officio fellows of the University. The number of the Fellows of the University shall be two hundred in addition to the ex-officio Fellows hereinbefore mentioned and such Fellows as may be elected for life under the provisions in that behalf hereinafter enacted. Provided that all Fellows who are such when this Act comes into operation shall continue to be Fellows subject to the rules herein provided. And until the number of the Fellows other than the ex-officio Fellows and life-Fellows above-mentioned is reduced to two hundred, no appointment shall be made to fill the third of every three vacancies in the office of Fellow arising from death or other cause, but two only of such three persons who may cease to be Fellows shall be replaced in the manner provided in this Act and in the bye-laws of the University.

At the beginning of each year the University Court shall forward to the Governor in Council a list of the Fellows of the University corrected to the 31st of December of the previous year, and omitting the names of those who through death or other cause have ceased to be Fellows. The names of the persons who have since the presentation of a previous list ceased to be Fellows shall at the same time be presented in a separate list together with the reasons whereby they have ceased to be Fellows. The Governor in Council having taken cognizance of the lists so presented, and having so informed himself in relation thereto as may seem expedient, and having caused them when erroneous to be corrected by the University Court, shall publish in the Bombay Government Gazette the list of Fellows which stood on the 31st December previous, and such list so published shall be conclusive as to the persons who on the date specified therein were or were not Fellows of the University.

When as aforesaid it appears that an appointment of Fellows is necessary under the provisions of this Act, the Governor in Council shall proceed to nominate one-half the requisite number or in the case of an uneven number of vacancies one-half of the next higher number, intimation whereof shall be conveyed to the University, and the remaining vacancies shall be filled by the election of the Convocation in the manner determined by the bye-laws.

Besides the Fellows hereinbefore provided for, the University Court may recommend to the Senate that any person be elected a life-Fellow on account of the eminent services or benefits conferred by him on the Bombay University and on such recommendation it shall be lawful for the Senate by its vote to elect such person a Fellow for life, and the person so elected shall have all the rights, capacities and privileges of a Fellow; but shall be exempt from the rules as to election and as to termination of his tenure of office by non-attendance or departure from India hereinbefore contained.

The election as a life-Fellow of an ordinary Fellow shall be deemed to create a vacancy in the body of Fellows to be filled in the manner and subject to the rules hereinbefore provided.

The Governor in Council may at the request of the Senate on a vote of not less than three-fourths of the members present at a meeting convened for the purpose remove a Fellow of the University from his office of Fellow; and as soon as such order is notified in the Government Gazette, the person so removed shall cease to be a Fellow.

The Senate will have power to elect the following representatives to the University Court and will have power to elect the member or members off
Legislative Council, Corporation, &c., and also to discuss University affairs, to appeal to the Government in case of any change in the University charter proposed by the Court.

6 by the Faculties of Arts and Science.
3 by the Faculty of Law.
3 by the Faculty of Medicine.
4 by the Faculty of Engineering and Agriculture.

The Convocation.

Convocation will consist of the Chancellor, the Vice-Chancellor and registered members as follows:

(1) Graduates of the existing University qualified to be members.
(2) Future graduates of three years' standing from the date of first graduation.
(3) Members of the Academic Council registered under bye-law.
(4) Subject to the assent of Convocation, persons admitted to a degree otherwise than by ordinary graduation.

Members of Convocation will be required to register and to pay fees according to the regulations of the University Court. In default of payment of fees, or for other good cause (subject to an appeal to the Chancellor), the names of members may be removed from the register by the University Court.

Convocation will elect its own Chairman, manage and record its own proceedings and appoint a clerk with such salary as the University Court may determine.

Convocation will be convened by the Chairman, once at least every year as provided by the University Court and at other times if directed by the University Court; the Chairman will at his discretion convene an extraordinary meeting for the dispatch of specified business, if so requested in writing by twenty members of Convocation, but no such extraordinary meeting will be held within three calendar months of the last foregoing extraordinary meeting.

Convocation when convened for ordinary purposes will have power to discuss any matter relating to the University and to declare to the University Court its opinion thereon.

For the decision of any question in convocation the numbers present should be not less than fifty.

Convocation will be entitled to express its views before the Viceroy in Council upon any alteration of the statutes proposed by the University Court.

Convocation will elect Fellows of the Senate as provided hereinbefore.

From the 15th to the 20th December inclusive the Registrar shall receive nominations of candidates for Fellowships. Each such nomination shall be of one person only, and it must be made in writing by five or more members of the Convocation who shall sign their nomination. Provided that the same group of five Fellows of any of them may take part in two or more nominations.

The persons to be nominated must be graduates of an Indian University or of a University of the United Kingdom of not less than five years' standing or Professors of not less than three years' standing in Colleges recognized by the University as qualified to teach the complete course requisite for a degree.

Colleges of the University.

A college of the University will be any institution, or department, or departments of an institution, admitted by the University Court to a place in the University, as a College at which University courses of instruction may be pursued.

In deciding the claim of any teaching institution to be admitted as a College of the University, the University Court will consider ((a) the character of the foundation; (b) whether the teaching and appliances are of University rank; (c) the average age of students; (d) the number of students proceeding to a
likely to proceed to University degrees; (e) financial position; (f) relation to any other University. But the claim of special institutions for research will be considered on the special merits of the case.

The following institutions will be admitted in whole or in part as Colleges of the University:

No institution will in the future be admitted which is not within the administrative limits.

Any institution or department of an institution which the University Court shall refuse to admit as a College of the University, will have a right of appeal to the Governor in Council.

Any Teacher in a College of the University who has been duly recognised by the Academic Council, will be a member of the Faculty or Faculties to which he is assigned by the Academic Council.

The courses of University study to be pursued at any College of the University, and the requirements of attendance will be regulated by the Academic Council, after first consulting the authorities of the institution.

Colleges of University will be open to the visitation of the University, and subject to the visitation of the University, and subject to the right of appeal to the Governor in Council any College may be removed by the University Court from being a College of the University.

Examinations and Degrees.

The University may, if it think fit, impose an Entrance or Matriculation test on all students of the University, and may accept in lieu of any such examination other examinations of equivalent standard.

The University will recognise students of two kinds, internal and external. Internal students will pursue regular courses of study, of not less than three Academic years' duration, under the regulations of the Academic Council, in a College or Colleges of the University. External students will proceed to a degree by way of examination without attendance, and three academic years must elapse between their first examination by the University and their final examination for the first degree.

The final examinations for the first degree, for Internal and External students respectively, will, if not the same, represent the same standard of knowledge, and will be identical so far as identity is consistent with the educational interests of both classes of students.

All candidates for degrees in Medicine will be required to go through regular courses, whether in Colleges of the University or in other schools recognised by the University.

The degrees should, as a rule, be of three orders only. The degree of doctor will be conferred only on those who have by study or research contributed to the advancement of learning or science.

In addition to ordinary graduation, degrees may be conferred without examination on University Professors; similar and equal degrees on graduates of other Universities who are recognised Teachers of the University; and honorary degrees, except in Medicine, on persons esteemed worthy of that distinction by the University Court.

Statutory Commission.

A Statutory Commission to be appointed with the following powers and duties:

1. To determine in what mode, and under what conditions, any property now held by the University should continue to be held by the University as reconstituted, regard being had to any trusts to which the same is now subject.

2. To receive the assents of the institutions to be admitted as Colleges in the University; and with reference thereto to determine, is the first instance, the following matters:

(a) Whether any institution is to be admitted as a whole to be a College in the University; and if not in respect of what Department or Departments it is to be admitted.
What Teachers in such Institutions are, in the first instance, to be recognised as Teachers in the University, and in which Faculties they are respectively to be placed.

To determine the time or times within which, and the mode, or modes in which, nominations are in the first instance to be made by the various nominating bodies (a) to the Academic Council; (b) to the University Court; (c) to the Senate; to determine (when necessary) the period of office of those first nominated upon the Academic Council, the University Court, and the Senate respectively, so as to secure a due rotation; and to receive and record, or appoint some persons to receive and record such first nominations.

To frame, in accordance with the recommendations now submitted to the Viceroy in Council, the statutes of the University; and therein to make such provision as they may deem necessary for preserving the rights and protecting the interests of any existing members or officers of the University.

To frame such bye-laws as they may deem necessary for the conduct of the business of the University in the first instance, such bye-laws to have the same effect and to be alterable in the same mode as if they had been made by the Senate acting under the statutes of the University.

To make such temporary provisions as they may deem necessary for better effecting the transition of the University from its present form and functions to the form and functions to be defined by the statutes, and to fix the date at which the present constitution of the University should cease to exist, and the new constitution come into operation, with power to direct that such new constitution shall come into operation although the University Court or any other part of the University may not be fully constituted and to fix the date of the first meeting of the University Court and the mode in which it is to be summoned.

On application by the governing body of any of the said institutions to repeal and abrogate in whole or in part any statute, deed, instrument, trust, or direction relating to such institution or the property thereof, and to make such provisions, and frame such charters in relation thereto as to them may seem fit, and as may be assented to by such governing body.

To make such order from time to time as may seem to them necessary for carrying into effect any of the matters aforesaid.

It should also be the duty of the said Commission to make such recommendations as they may see fit in respect to any grant of funds which the Government may provide for the endowment of the University, and for making an adequate provision for scientific research.

PART II.

SUGGESTIVE SCHEME FOR THE ORGANISATION OF INDIAN UNIVERSITIES.

ORGANISATION.

Faculties.

The University shall comprise the Following faculties with their departments

1. Faculty of Philosophy,
   Department of Arts.
   Department of Letters.
   Department of Philosophy.
   Department of Pedagogy.

2. Faculty of Science,

3. Faculty of Fine Arts and Music.
   Department of Fine Arts.
   Department of Music.

4. Faculty of Commerce.
5. Faculty of Law.
   Department of Law.
   Department of Politics.

6. Faculty of Engineering.
   Department of Civil Engineering.
   Department of Mechanical Engineering.
   Department of Mining Engineering.
   Department of Electrical Engineering.

7. Faculty of Agriculture and Technology.
   Department of Chemistry.
   Department of Biology.
   Department of Pharmacy.
   Department of Agriculture.
   Department of Veterinary.
   Department of Forestry.

8. Faculty of Medicine.

University and College Courses.

There shall be two divisions of the instruction in different Faculties corresponding to what are commonly known as graduate and Undergraduate courses. The first shall comprise Professorships for instruction in the higher branches of Literature, Science and the Arts which shall be increased according to the progress of discovery, to the wants of the community and financial means of the University. The second shall embrace what is usually deemed a full course of Classical, Philosophical, literary, scientific and professional instruction. The former shall constitute the proper University courses and the latter the College courses.

No graduate course shall be provided in the Faculties of Fine Arts and Music and also of Commerce until these new Faculties have been sufficiently developed in course of time.

Admission of Preparatory College Courses.

Students shall be admitted to the different preliminary College courses at the several Colleges established at some important High Schools with the recognition of the University on the following conditions.

They must produce the leaving certificate of having completed the High School course at a High School recognised by the University or show upon examination at any such High School the same degree of proficiency as those who have completed the course. If the applications for permission to follow any Preparatory College course exceed the maximum number admitted to that course, the candidates shall undergo competitive examination on subjects of the High School Course and by these results of this examination, the admission shall be determined.

1. Preliminary Arts Examination Course.
   1. English Language, Composition and Rhetoric Course.
   2. History.
   4. Physics.
   5. Botany.
   7. Indian Vernacular

2. Preliminary Letters Examination Course.
   1. English Language, Composition and Rhetoric.
   3. History.
   4. Physics and Botany.
   5. English Literature.
   7. Indian Vernacular and French or German.
3. Preliminary Philosophy Examination Course.
   1. English Language, Composition and Rhetoric.
   2. History.
   4. Physics.
   5. Botany.
   7. French or German.

4. Preliminary Science Examination Course.
   1. English Language, Composition and Rhetoric.
   2. History.
   4. Physics.
   5. Botany.
   6. French or German.
   7. Optional subjects.—Any two of the following:—Chemistry,
      Geology, Zoology, Physiology, Physical Geography, Astronomy.

5. Preliminary Arts and Music Examinations Course.
   These will include the subjects comprised in the Preliminary Arts Examination
   with the addition of special subjects.

6. Preliminary Commerce Examination Course—

   Subjects. ........................................ Hours per week.
   1. English ................................. 3
   2. French or German ..................... 3
   3. Indian Vernacular ..................... 2
   4. History .................................. 3
   5. Geography .............................. 3
   6. Book-keeping ........................ 3
   7. Arithmetic .............................. 3
   8. Mathematics (Algebra and Geometry) .... 4
   9. Natural Philosophy ................... 2
   10. Chemistry ................................ 2
   11. Commercial Law ....................... 2
   12. Political Economy ................... 2

   Total ....................................... 32

7. Preliminary Law Examination Course.
   The same course as that of the preliminary examination in Arts.

8. Preliminary Engineering Examination Course—
   1. English Language, Composition and Rhetoric.
   2. Mathematics (Algebra and Geometry) and Trigonometry.
   3. History.
   4. Physics.
   5. English Literature.
   6. French or German.
   7. Optional subjects. Any two of Chemistry, Geology, Zoology,
      Physiology, Physical Geography, and Astronomy.

9. Preliminary Technological and Agricultural Examinations Course.
   The same as that of the Preliminary Science Examination.

10. Preliminary Medical Examination Course—
    1. English Composition and Rhetoric.
    3. Physics.
    5. Physiology.
    6. History.
    7. Indian Vernacular.
Admission to Undergraduate Courses.

Unless admitted on diploma from an approved school, any student who desires to become a candidate for a degree must pass examination in some one of the Preliminary College courses described, the course being determined by the character of the work he intends to pursue and the degree he desires to take.

Admission on Diploma.

On request of the School Board in charge of any school, the Faculty will designate a Committee to visit the school and report upon its condition.

If the Faculty are satisfied from the report of their Committee that the school is taught by competent instructors and is furnishing a good preparation to meet the requirements for admission of candidates for any one or more of the degrees, then the diplomats from the approved preparatory course or courses will be admitted without further examination, and permitted to enter upon each undergraduate work as the preparatory studies contemplated. They must present certificates from the School Superintendent or Principal, stating that they have sustained their examinations in all the studies prescribed for admission as candidates for some of our degrees and are recommended for admission to the University. They will be required to appear at once in their places; otherwise they can be admitted only upon examination.

Admission to Advanced Standing.

Students who have completed at least one year's College work in an approved College and who bring explicit and official certificates describing their course of study and scholarship, and testifying to their good character, will be admitted to another College without examination except such as may be necessary in order to determine what credit they are to receive for work done in the College from which they have come and what courses of study they may profitably pursue in the College they are joining.

Admission of Students not candidates for a Degree.

Persons who desire to pursue studies in this department and do not desire to become candidates for a degree will be admitted on the following conditions:

1. All persons under twenty-one years of age must pass the Entrance Examinations required of candidates for some degree.
2. Persons over twenty-one years of age must show that they have a good knowledge of English and are otherwise prepared to pursue profitably the studies they may desire to take up.
3. Should a student who enters under preceding provision (2) subsequently become a candidate for graduation, he must pass all the examinations for admission required of such candidate at least one year previous to the time when he proposes to graduate; and in case he wishes to obtain credit for any work completed prior to his admission to the department, he must make previous application to the President and secure his credit at the time of passing his admission examinations.

General and Preliminary.

I and II.—Faculties of Philosophy and Science.

Art and science colleges.

Collegiate instruction.

In addition to the instruction provided for graduate students, the University shall make ample provision for collegiate instruction by taking under its direct academic control, the chief Government College and designating it as Univer-
sity College. The University Professors shall co-operate with the College Pro-
fessors in conducting collegiate classes.

Requirements for graduation.

The Bachelors' Degrees.

The degree of Bachelor of Arts, Bachelor of Letters, Bachelor of Philoso-
phy or Bachelor of Science may be earned on the credit system or on the Univer-
sity system in the respective groups as prescribed below:

The degree of Bachelor of Arts for—
1. Classical Language group.
4. Historical—Economical group.
5. Classical—Mathematical group.

The degree of Bachelor of Letters for—

The degree of Bachelor of Philosophy for—
3. Philosophical—Historical group.

The degree of Bachelor of Science for—
7. Physical—Chemical group.
8. Chemical—Geological group.
10. Chemical—Biological group.

Graduation on the credit system.

Under the credit system, the Faculty recommend for graduation students
who have secured one hundred and twenty hours of credit, according to the
requirements specified. An hour of credit is ordinarily given for the satisfactory
completion of work equivalent to one exercise a week during one term whether
in recitations, laboratory work or lectures. Lectures and recitations will be
usually one hour in length, but in courses of study that involve laboratory work,
drawing or other practical exercises, a longer attendance than one hour at an
exercise will be required to secure an hour of credit.

Graduation on the University system.

The privileges of the University system shall be open to undergraduates
who have completed their first year, or intermediate course, and have also
secured at least 30 hours of credit including all the prescribed work for some one
of the intermediate courses.

Nature of work.

Students who shall be working on the University system shall not be held
to the completion of a fixed number of hours of work, but shall be required to
pursue their distinct lines of study, one major study and two minor studies, and at
the close of the work to pass a special examination on these studies.

Supervision of the work.

The work of students carrying on their studies under the University system
is supervised by Committees of the Faculty. The members of the Committee in
each case consist of the Professors in charge of the student's work. The Pro-
fessor in charge of the major study being Chairman. On making his application
to the Registrar, each student will be directed to the proper Committee.

Bachelor's Degree.

Undergraduates who shall be enrolled as candidates under the University
system for at least four terms shall be admitted to a special examination for a Bachelor's degree. Before being recommended for any Bachelor's degree,
however, they must have completed all the course prescribed for that degree.
The examination will be Conducted by the regular Committees and such other
persons as they may ask to assist them.
Examinations.

1. All students of this department, whether candidates for a degree or not, if at work upon the credit system, are required to attend all the examinations in the course of study they pursue.

2. No student absent from any regular examination in any course of study that he may have pursued will be allowed to take such omitted examination before the next regular examination in that course. In cases of great urgency, however, the Faculty may grant students special permission to be examined at an earlier date.

3. No student whose examination in any course will be reported as "incomplete" will receive credit for that course until after the examination has been completed. In case, however, the examination be not completed within one year, the unfinished course will be regarded and treated as "not passed."

4. Any student reported as passed "conditionally" in any course must remove the condition within one year from the date of the examination in which it was incurred, otherwise the course passed conditionally will be regarded and treated as "not passed."

5. Any student reported as "not passed" in any course, will receive no credit for that course until he has again pursued it as a regular class exercise and has passed the regular examination in the same.

Degrees.

Regulation for higher degrees.

Each student shall choose three lines of study, a major study and two minor studies, which, after approval by the Council, he shall pursue under the immediate supervision of a special Committee, consisting of the Professors in charge of the studies chosen, the Professor in charge of the major study being Chairman. The nature of the work prescribed and of the Committee's oversight, will vary in different cases according to the subjects chosen, the degree sought, and the previous attainments of the student. The work may consist of attendance upon certain specified courses, or of reading to be done privately and reported upon, or of an original research to be carried on more or less independently. The essential features of this system are specialization of study, a final examination, and a thesis. A thesis shall always be required of a candidate for a doctor's degree; for a master's degree; the requirement may be waived at the discretion of the Committee in charge of the student's work. The final examination for a degree shall be conducted under the direction of the Committee, and the result of the examination shall be reported to the faculty of the department.

Degrees conferred.

The higher degrees conferred are those of Master of Arts, Master of Letters, Master of Philosophy, Master of Science, Doctor of Philosophy, Doctor of Science.

The Masters' Degrees.

The Masters' degrees shall be open to Bachelors of Arts, Letters, Philosophy, or Science a residence of at least two years at this University shall be required, except as stated below.

A student who has received a Bachelor's degree may be recommended for the corresponding Master's degree after completing the prescribed term of residence at this University, and passing an examination on his course of study as approved by the Administrative Council. A thesis may, or may not, be included in the requirements for the degree, as the Committee in charge of the student's work may determine.

A student properly qualified may be permitted to pursue at the time studies for a Master's degree, and studies in any of the professional schools, on condition that the term off study and residence in this department be extended to cover at least two years.
The Doctors Degrees.

1. The degree of Doctor of Philosophy shall be open to persons that have received the degree of Bachelor of Arts, or the Bachelor of Letters, Bachelor of Philosophy, the degree of Doctor of Science to persons that have received the degree of Bachelor of Science; but no student will be accepted as a candidate for the Doctor's degree who has not a knowledge of French and German sufficient for purposes of research.

2. It is not intended that the Doctor's degrees shall be won merely by faithful and industrious work for a prescribed time in some assigned course of study. As a rule, three years of graduate study will be necessary, the last two terms of which must be spent at the University. The period of three years, however, may be shortened in the case of students who, as under-graduates, have pursued special studies in the direction of their proposed graduate work.

3. A candidate for a Doctor's degree must make a major study that is substantially co-extensive with some one department of instruction in the University. He must also take two minor studies, one of which may be in the same department as the major, but involving a more thorough treatment of the same. Both minors must be cognate to the major, and all studies must be subject to the approval of the Council.

4. The Thesis.—The thesis is of great importance. It must exhibit creditable literary workmanship and a good command of the resources of expression, but it must depend for acceptance more upon its subject-matter than upon its formal or rhetorical qualities. It must be an original contribution to scholarship or scientific knowledge. The inquiry should be confined within narrow bounds. The treatment should be as concise as the nature of the matter permits, and show familiarity with the history of the problem treated, with the literature bearing upon it, and with the latest methods of research applicable to it. Every thesis should contain a clear introductory statement of what it is proposed to establish or to investigate, and likewise a final resume of results. It should also be accompanied by an index of contents and a bibliography of the subject. It is expected that the preparation of an acceptable thesis will usually require the greater part of one academic year.

Professional and Technological Degrees.

Bachelor of Arts, Letters, Philosophy and Science shall be recommended for a professional or technological degree with the regular students of those faculties after attendance and on a satisfactory examination in the technical subjects alone of the several courses. These subjects can be completed in two years. The culture imparted by classical or other liberal training will be found to have its uses for one engaged in professional or technological work, and the previous discipline of the faculties in exact research will enable the professional student to master more easily the requirements of the course. All the time the student can devote to general studies before taking up technical studies will be well spent.

Groups of Studies at Colleges.

After preliminary College Courses, the students are expected to follow one of the several parallel courses of instruction, known as groups, to which he is eligible as indicated below.

There will be ten groups in the Faculties of Philosophy and Science. Each will comprise (1) studies common to all the groups and required of all under-graduates, (2) studies peculiar to a group, (3) optional studies. The groups are all equally honourable and difficult and are intended to combine liberty of election on the part of the student with sufficient exercise of authority to prevent discursive and ill-considered work. Each group contains twelve courses. Eight of these are four-hour courses, each representing four hours of class-work weekly for a year. Of others, two—the course in English Rhetoric and Composition, English Literature and English Language—are three-hour courses. One is an elective of two hours in the third year, and one the course in Philosophy and Principles of Science occupies two hours weekly through the third year. English
Rhetoric, Literature and Language and Philosophy or Principles of Science form part of each group. A course in Economics and History is also included in each group. Each group contains at least one year of French and one year of German, and at least one year of attention to a scientific subject, including the performance of the work prescribed in the laboratory. The instruction in drawing and in vocal and physical culture is additional to these twelve courses.

I.—Classical Group.

First year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Classics</td>
<td>4</td>
</tr>
<tr>
<td>2. English—Rhetoric and Composition</td>
<td>3</td>
</tr>
<tr>
<td>3. Indian Vernacular</td>
<td>4</td>
</tr>
<tr>
<td>4. Laboratory Course (Chemistry, Physics or Biology)</td>
<td>4</td>
</tr>
</tbody>
</table>

Second year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Classics</td>
<td>4</td>
</tr>
<tr>
<td>2. English Literature</td>
<td>3</td>
</tr>
<tr>
<td>3. Indian Vernacular</td>
<td>4</td>
</tr>
<tr>
<td>4. French or German</td>
<td>4</td>
</tr>
</tbody>
</table>

Third year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. English</td>
<td>3</td>
</tr>
<tr>
<td>2. History and Economics</td>
<td>4</td>
</tr>
<tr>
<td>3. French or German</td>
<td>4</td>
</tr>
<tr>
<td>4. Comparative Philosophy</td>
<td>1</td>
</tr>
<tr>
<td>5. Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>6. Elective Course</td>
<td>2</td>
</tr>
</tbody>
</table>

The classical group affords a good basis for the subsequent study of classical languages and Philology at the University, and offers a good training to the mind in the classical style.

II.—Modern Language Group.

First year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. English Language and Literature</td>
<td>4</td>
</tr>
<tr>
<td>2. English—Rhetoric and Composition</td>
<td>3</td>
</tr>
<tr>
<td>3. Classics</td>
<td>4</td>
</tr>
<tr>
<td>4. Laboratory Course (Chemistry, Physics or Biology)</td>
<td>4</td>
</tr>
</tbody>
</table>

Second year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Indian Vernacular</td>
<td>4</td>
</tr>
<tr>
<td>2. German or French</td>
<td>4</td>
</tr>
<tr>
<td>3. History and Economics</td>
<td>4</td>
</tr>
<tr>
<td>4. Elective Course</td>
<td>3</td>
</tr>
</tbody>
</table>

Third year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. English Literature</td>
<td>4</td>
</tr>
<tr>
<td>2. Indian Vernacular</td>
<td>4</td>
</tr>
<tr>
<td>3. French or German</td>
<td>4</td>
</tr>
<tr>
<td>4. English Language</td>
<td>3</td>
</tr>
<tr>
<td>5. Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>6. Elective Course</td>
<td>3</td>
</tr>
</tbody>
</table>

The modern language group is designed for those who wish a literary training based upon modern rather than upon the classical languages.
### III.—PHILOSOPHICAL—HISTORICAL GROUP.

**First year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy</td>
<td>4</td>
</tr>
<tr>
<td>English—Rhetoric and Composition</td>
<td>3</td>
</tr>
<tr>
<td>Classics</td>
<td>4</td>
</tr>
<tr>
<td>Indian Vernacular or French or German</td>
<td>4</td>
</tr>
</tbody>
</table>

**Second year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy</td>
<td>4</td>
</tr>
<tr>
<td>Ancient History</td>
<td>4</td>
</tr>
<tr>
<td>English Literature</td>
<td>3</td>
</tr>
<tr>
<td>Indian Vernacular or French or German</td>
<td>4</td>
</tr>
</tbody>
</table>

**Third year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>History and Economics</td>
<td>4</td>
</tr>
<tr>
<td>English Language</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory Course (Chemistry, Physics or Biology)</td>
<td>4</td>
</tr>
<tr>
<td>Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>Elective Course</td>
<td>2</td>
</tr>
</tbody>
</table>

The Philosophical—Historical group affords a good basis for the subsequent study of Philosophy and religion at the University.

### IV.—HISTORICAL—ECONOMICAL GROUP.

**First year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancient History</td>
<td>4</td>
</tr>
<tr>
<td>English—Rhetoric and Composition</td>
<td>3</td>
</tr>
<tr>
<td>Classics</td>
<td>4</td>
</tr>
<tr>
<td>Indian Vernacular or French or German</td>
<td>4</td>
</tr>
</tbody>
</table>

**Second year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>4</td>
</tr>
<tr>
<td>Economics</td>
<td>4</td>
</tr>
<tr>
<td>English Literature</td>
<td>4</td>
</tr>
<tr>
<td>Indian Vernacular or French or German</td>
<td>3</td>
</tr>
</tbody>
</table>

**Third year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Politics</td>
<td>4</td>
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<tr>
<td>English Language</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory Course (Chemistry, Physics or Biology)</td>
<td>4</td>
</tr>
<tr>
<td>Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>Elective Course</td>
<td>2</td>
</tr>
</tbody>
</table>

The Historical—Economical group affords a good basis for the subsequent study of sociology—Law and Politics at the University.

### V.—CLASSICAL—MATHEMATICAL GROUP.

**First year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classics</td>
<td>4</td>
</tr>
<tr>
<td>English—Rhetoric and Composition</td>
<td>3</td>
</tr>
<tr>
<td>Indian Vernacular or French or German</td>
<td>4</td>
</tr>
<tr>
<td>Laboratory Course (Chemistry, Physics or Biology)</td>
<td>4</td>
</tr>
</tbody>
</table>

**Second year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classics</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>English Literature</td>
<td>3</td>
</tr>
<tr>
<td>Indian Vernacular or French or German</td>
<td>3</td>
</tr>
</tbody>
</table>
**Third year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>English Language</td>
<td>3</td>
</tr>
<tr>
<td>History and Economics</td>
<td>4</td>
</tr>
<tr>
<td>Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>Elective Course</td>
<td>2</td>
</tr>
</tbody>
</table>

The Classical—Mathematical group affords a good fundamental training combining classics and mathematics. It serves as a border-land—the link between the Faculties of Philosophy and Science.

**VI.—Mathematical—Physical.**

**First year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>English—Rhetoric and Composition</td>
<td>3</td>
</tr>
<tr>
<td>French or German</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry—Laboratory-work</td>
<td>5</td>
</tr>
</tbody>
</table>

**Second year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>Physics—Class work</td>
<td>4</td>
</tr>
<tr>
<td>Physics—Laboratory-work</td>
<td>5</td>
</tr>
<tr>
<td>French or German</td>
<td>4</td>
</tr>
<tr>
<td>English—Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

**Third year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Physics—Laboratory-work</td>
<td>5</td>
</tr>
<tr>
<td>English Language</td>
<td>3</td>
</tr>
<tr>
<td>History and Economics</td>
<td>4</td>
</tr>
<tr>
<td>Principles of Science</td>
<td>2</td>
</tr>
<tr>
<td>Elective Course</td>
<td>2</td>
</tr>
</tbody>
</table>

The Mathematical—Physical group affords a good basis for the subsequent study at the University of Electricity, Engineering, Astronomy and other subjects largely dependent on the Sciences of Mathematics.

**VII.—Physical—Chemical Group.**

**First year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Physics—Laboratory-work</td>
<td>5</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>English—Rhetoric and Composition</td>
<td>3</td>
</tr>
<tr>
<td>French or German</td>
<td>4</td>
</tr>
</tbody>
</table>

**Second year.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Physics—Laboratory-work</td>
<td>5</td>
</tr>
<tr>
<td>Chemistry—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry—Laboratory-work</td>
<td>5</td>
</tr>
<tr>
<td>French or German</td>
<td>4</td>
</tr>
<tr>
<td>English Literature</td>
<td>3</td>
</tr>
</tbody>
</table>
Third year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chemistry—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry—Laboratory-work</td>
<td></td>
</tr>
<tr>
<td>2. English Language</td>
<td>5</td>
</tr>
<tr>
<td>3. History and Economics</td>
<td>4</td>
</tr>
<tr>
<td>4. Principles of Science</td>
<td>2</td>
</tr>
<tr>
<td>5. Elective Course</td>
<td>2</td>
</tr>
</tbody>
</table>

The Physical—Chemical group affords a good basis for the subsequent prosecution of higher and original research work in Chemistry, Physics and especially in Physical Chemistry.

VIII.—CHEMICAL—GEOLOGICAL GROUP.

First year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chemistry—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry—Laboratory-work</td>
<td></td>
</tr>
<tr>
<td>2. Physics—Class-work</td>
<td>5</td>
</tr>
<tr>
<td>Physics—Laboratory-work</td>
<td></td>
</tr>
<tr>
<td>3. English—Rhetoric and Composition</td>
<td>4</td>
</tr>
<tr>
<td>4. French or German</td>
<td>3</td>
</tr>
</tbody>
</table>

Second year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Geology—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Geology—Laboratory-work</td>
<td></td>
</tr>
<tr>
<td>2. History and Economics</td>
<td>5</td>
</tr>
<tr>
<td>3. Principles of Science</td>
<td>2</td>
</tr>
<tr>
<td>4. Elective Course</td>
<td>2</td>
</tr>
</tbody>
</table>

Third year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Geology—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Geology—Laboratory-work</td>
<td></td>
</tr>
<tr>
<td>2. English Language</td>
<td>5</td>
</tr>
<tr>
<td>3. History and Economics</td>
<td>3</td>
</tr>
<tr>
<td>4. Principles of Science</td>
<td>2</td>
</tr>
<tr>
<td>5. Elective Course</td>
<td>2</td>
</tr>
</tbody>
</table>

The Chemical—Geological group affords an excellent basis for the subsequent studies in Agriculture at the University.

IX.—GEOLOGICAL—BIOLOGICAL GROUP.

First year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chemistry—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry—Laboratory-work</td>
<td></td>
</tr>
<tr>
<td>2. Physics—Class-work</td>
<td>5</td>
</tr>
<tr>
<td>Physics—Laboratory-work</td>
<td></td>
</tr>
<tr>
<td>3. English—Rhetoric and Composition</td>
<td>4</td>
</tr>
<tr>
<td>4. French or German</td>
<td>3</td>
</tr>
</tbody>
</table>

Second year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Geology—Class-work</td>
<td>4</td>
</tr>
<tr>
<td>Geology—Laboratory-work</td>
<td></td>
</tr>
<tr>
<td>2. Biology—Class-work</td>
<td>5</td>
</tr>
<tr>
<td>Biology—Laboratory-work</td>
<td></td>
</tr>
<tr>
<td>3. English Literature</td>
<td>3</td>
</tr>
<tr>
<td>4. French or German</td>
<td>4</td>
</tr>
</tbody>
</table>
The Geological—Biological group affords a good fundamental training in the general sciences and to pursue higher work in Geology at the University.

X.—Chemical—Biological Group.

First year.

1. Chemistry—Class-work
   Physics—Class-work
   English—Rhetoric and Composition
   French or German

Second year.

1. Chemistry—Class-work
   Physics—Class-work
   English Literature
   French or German

Third year.

1. Biology—Class-work
   English Language
   History and Economics
   Principles of Science
   Elective Course

The Biological—Chemical group fits the student to enter at once upon the studies of Medicine in the University and is also a good preparation for the professional studies of Natural History.

UNIVERSITY.

Faculties of Philosophy and Science.

Graduate Courses.

Greek—Philology and Literature.
Latin—Philology and Literature.
Sanskrit and Aryan Languages.
Semitic Languages.
Anglo-Saxon and English Philology.
Teutonic Languages.
Romantic Languages.
Indian Vernaculars.
History of Philosophy.
Mental and Moral Philosophies.
Psychology.
Pedagogies.
History—Ancient, Medivial and Modern.
Economic Science.
Comparative Politics.
Anthropology and Ethnology.
Mathematics (Pure).
Calculus and Geometry.
Astronomy.
Logic.
Mathematics (Applied).
Geometry and Calculus.
Physics (Mathematical).
Physics (Experimental).
Electricity.
Chemistry (Theoretical and Analytical).
Meteorology.
Mineralogy.
Geology.
Paleontology.
Botany.
Zoology.
Biology.
Anatomy.
Physiology.

Facilities for Instruction.

General Library.
Scientific Library.

Laboratories.

Physical.
Chemical.
Geological.
Botanical.

Museums.

Ethnology and History.

Astronomical Observatory.

The Department of Pedagogy is intended to give higher training in the Science and the Art of Teaching to persons who may have to devote themselves to teaching as their calling. The aims of the University in providing this instruction are—

(1) To fit graduate students for the higher positions in the public service.

It is a natural function of the University, as the head of our system of public instruction, to supply the demand made upon it for furnishing the large public schools with headmasters, principals, superintendents and assistants. Till now the training given to graduates has been almost purely literary; it has lacked the professional character that alone gives special fitness for the successful management of schools and school systems.

(2) To promote the study of educational Science.

The establishment of a chair of teaching is a recognition of the truth that the Art of Education has its correlative science, and that the process of the school
room can become rational only by developing and teaching the principles that
underlie these processes. Systems of public instruction are everywhere on trial,
and the final criteria by which they are to stand or face must be found in a philo­
sophical study of the educating art.

(3) To teach the history of education and of educational systems and
doctrines.

The supreme right of the school is to grow; and much hurtful interference
might be avoided by ascertaining the direction of educational progress and the
history of educational thought.

(4) To secure to teaching the rights, prerogatives and advantages of a
profession.

(5) To give a more perfect unity to our Government educational system by
bringing the High Schools into closer relation with the Universities.

THE TEACHER'S DIPLOMA.

The Teacher's diploma shall be given to the student at the time of receiv­
ing a Bachelor's degree, provided he has completed three courses of study in the
Science and Art of Teaching and at least one of the Teacher's courses, and by
special examination has shown such marked proficiency in the course chosen as
will qualify him to give instruction. The diploma shall also be given to a
graduate student at the time of receiving a Master's or a Doctor's degree, pro­
vided he has pursued teaching as a major or a minor study and has also taken
a Teacher's course in some other department.

DEGREE.

The degree of Master of Pedagogy will be conferred upon graduates on the
completion of any four courses, three of which must be major courses.

The degree of Doctor of Pedagogy will be conferred upon a graduate student
who has been credited with attendance upon the required lectures and Seminary
work; who has successfully completed the five major and five of the minor
courses (the minor courses marked with an asterisk are elective and the student
shall be required to choose any of these in making up his list of minor courses);
who has prosecuted the prescribed thesis as defined hereafter and has received
approval of the same; and who has presented, upon entering the department, a
certificate showing two years' successful experience in school room work.

Graduate Courses of Instruction.

The courses 1, 2, 3, 4 and 12 are major and the courses 5, 6, 7, 8, 9, 10 and
11 minor courses, 5, 7 and 8 being elective—

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. History of Education</td>
<td>4</td>
</tr>
<tr>
<td>2. Experimental and Physiological Psychology</td>
<td>4</td>
</tr>
<tr>
<td>3. Descriptive Psychology</td>
<td>4</td>
</tr>
<tr>
<td>4. Institutes of Pedagogies</td>
<td>4</td>
</tr>
<tr>
<td>*5. Comparative Systems of Education</td>
<td>1</td>
</tr>
<tr>
<td>6. Physiological Pedagogies</td>
<td>2</td>
</tr>
<tr>
<td>*7. Aesthetics in relation to Education</td>
<td>1</td>
</tr>
<tr>
<td>*8. School Law and Principles underlying it</td>
<td>1</td>
</tr>
<tr>
<td>9. History of Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>10. Ethics</td>
<td>1</td>
</tr>
<tr>
<td>11. Original Investigation leading to refined thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

Facilities.

Pedagogical Library.
Psychological Laboratory.
III.—FACULTY OF FINE ARTS AND MUSIC.

I.—DEPARTMENT OF FINE ARTS.

Organization and Course of Study.

The department shall aim to provide thorough technical instruction in the arts of design, architecture and copper-plate etching, and to afford a knowledge of such branches of learning as related to the Philosophy, History and Criticism of Art. As a professional school of art, the aim shall be to furnish a course of study in practice of the studies; and as a department of the University to provide instruction in fine arts as a constituent part of a scheme of general culture. These departments of practice and criticism may be regarded as distinct or correlative.

The theoretical course will include the following course:

(1) Archaeology, History of Art, Criticism of Art, Paleography, Fumismatics.

(2) The technical course—

The technical instruction for professional students shall be based upon methods well-adapted to discipline and ground the pupil in the elements and fundamental principles which constitute the Grammar of Art as a foundation for all forms of special application.

Certificate and Degree.

Certificates are awarded to pupils remaining in the school through the regular course of three years.

The degree of the Bachelor of Fine Arts is conferred by the University upon those students who have fulfilled the requirements of the prescribed course of advanced studies in the several departments of instruction, and have submitted an approved original composition in painting, sculpture or architecture and a satisfactory thesis on some topic relating to the Fine Arts.

Courses of Instruction.

Principles and Means of Art.
Drawing from the Antique.
Drawing from the Living Model.
Principles of Decoration.
Anatomy of Artists.
Perspective.
Painting.
Modelling and Sculpture.
Architecture.
Copper-plate etching.

The regular prescribed course of study for professional students shall cover a period of three years, but pupils shall be encouraged to remain in the school and pursue advanced studies after the expiration of the prescribed term.

Facilities.

Fine Arts Library.
Archæology and Fine Arts Collections.

II.—DEPARTMENT OF MUSIC.

The department of music shall aim to provide a definite instruction for those who intend to become musicians by profession, either as teachers or composers and to afford a course of study to such as intend to devote themselves to musical criticism and the literature of music.

The work in the department shall be divided into theoretical and practical courses of study. The department shall be open to under-graduates and
graduates; also to special students. No student shall be admitted to any practical course unless he shall already have been admitted to one or more of the theoretical courses.

Certificate and Degree.

At the close of the academic year, students, who shall have completed course, may become candidates for a certificate of proficiency in the theory of music and in the structure of song and sonation forms, an unprepared analysis of classical works will be required in addition.

The advanced courses shall be open to students who are able to pass the examination required for the certificate of proficiency in theory. These students, at the end of two years' work, may become candidates for the degree of Bachelor of Music.

The examination will include one classical and one modern language in addition to the courses in the theory of music.

Courses of Instruction.

The theoretical courses shall be subdivided into elementary and advanced. The elementary courses are—

1. Harmony.
2. Counterpoint.

The advanced courses are—

4. Strict Composition.
5. Instrumentation.
6. Free Composition.

Practical Music.

The courses in practical music shall consist of instruction in playing the pianoforte, the organ, the violin, different Indian musical instruments.

Facilities.

Musical Library.
Collection of Musical Instruments, Oriental and European.

IV.—FACULTY OF COMMERCE.

The aim of all technical education is the study of Arts and Sciences with a view to their application to Industry and Commerce. It is to supply the latter view that the Faculty of Commerce undertakes. Its object is to give to the Society thoroughly and systematically trained agents, managers, etc. The course extends over three years in the beginning.

COLLEGE OF COMMERCE.

First year.

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bureau or Mercantile Office</td>
<td>3</td>
</tr>
<tr>
<td>2. Description of Mercantile Articles and Products</td>
<td>2</td>
</tr>
<tr>
<td>3. Political Economy and Statistics</td>
<td>2</td>
</tr>
<tr>
<td>4. Commercial and Industrial Geography</td>
<td>3</td>
</tr>
<tr>
<td>5. Law—General Principles</td>
<td>1</td>
</tr>
<tr>
<td>6. English (Lower Section)</td>
<td>3</td>
</tr>
<tr>
<td>7. German or French (Lower Section)</td>
<td>3</td>
</tr>
<tr>
<td>8. Indian Vernaculars (Lower Section)</td>
<td>3</td>
</tr>
<tr>
<td>9. One of the remaining Modern Languages</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 23
Second year.

1. Bureau or Mercantile Office
2. Description of Mercantile Articles and Products...
3. General History of Commerce and Industry
4. Commercial and Maritime Legislation, compared Principles of International Law
5. Customs Legislation
6. Ship Buildings and fitting out
7. Commercial and Industrial Geography...
8. Political Economy and Statistics
9. English (Higher Section)
10. German or French (Higher Section)
11. Indian Vernaculars (Higher Section)
12. One of the remaining Modern Languages

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Group</td>
<td>3</td>
</tr>
<tr>
<td>2nd Group</td>
<td>2</td>
</tr>
<tr>
<td>3rd Group</td>
<td>2</td>
</tr>
</tbody>
</table>

Third year.

1. Accountancy and Banking
2. Constitutional Law
3. Administrative Law
4. Commercial and Maritime Legislation, compared Principles of International Law
5. Rights of People
6. Consular Service
7. Rights and Prerogative of Councils
8. Political Economy
9. Industrial and Commercial Geography
10. Industrial Statistics
11. Industrial Technology
12. Transport
13. Interior Navigation
14. Modern Languages (Russian)

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Group</td>
<td>3</td>
</tr>
<tr>
<td>2nd Group</td>
<td>2</td>
</tr>
<tr>
<td>3rd Group</td>
<td>2</td>
</tr>
</tbody>
</table>

Facilities for Instruction.

Commercial and Statistical Library.
Special Periodicals and Reports, etc.

Degrees.

The degree of Bachelor of Commerce will be conferred on those who have passed necessary examinations.

V.—FACULTY OF LAW.

The Faculty of Law comprises two departments of Law and Politics.

As large a number of Law students as is practicable should be induced to familiarize themselves through a University training with higher aspect of the subject, and all unnecessary duplication of means of instruction and multiplication of examinations should be avoided.

The students of this Faculty shall take up one of the following groups of the Faculty of Philosophy:

- Classical Language Group.
- Modern Language Group.
- Philosophical—Historical Group.
- Historical—Economical Group.
- Classical—Mathematical Group.
And side by side with the general studies comprised in any one of these groups they will pursue the following studies in Law or Politics:—

**DEGREES.**

**Collegiate or Lower.**

The degrees of Bachelor of Laws and Bachelor of Politics shall be conferred on such students as pursue the full course of three years in either of the departments, and who have already obtained the degrees of Bachelor of Arts or Letters or Philosophy.

**University or Higher.**

The degrees of Master of Law or Politics or Doctor of Laws or Politics shall be conferred on those students who have already obtained the degrees of Bachelor of Laws or Politics and who have gone through a regular course of one year and two years respectively. The other requirements are the same as those detailed under the heading of Degrees in the Faculties of Philosophy and Science.

**Courses of Instruction.**

There shall be two courses in Law College—(1) Law and (2) Politics.

(1) **Law.**

*First year.*

- Civil Law.
- Criminal Law.
- Roman Law.
- Constitutional History.
- Comparative History of Legal Institutions.
- English Law.
- Hindu Law.
- Muhammaadan Law.

*Second year.*

- Civil Law.
- Criminal Law.
- Code of Civil Procedure.
- Code of Criminal Procedure.
- Administrative Law.
- Public International Law.
- History of Legal Institutions.
- English Law.
- Hindu Law.
- Muhammaadan Law.

*Third year.*

- Civil Law.
- Commercial Law.
- Private International Law.
- Administrative Law.
- Jurisprudence.
- English Law.
- Hindu Law.
- Muhammaadan Law.
(2) Politics.

First year.

Constitutional History.
Public Law.
Comparative History of Legal Institutions.
Political Economy.
Civil Law.
Criminal Law.

Second year.

Economics.
History of Economies.
Statistics.
Administrative Law.
Politics.
History of Politics.
History of Legal Institutions.
Public International Law.
Civil Law.

Third year.

Economics.
Finance.
Administrative Law.
Private International Law.
Civil Law.
Criminal Law.
Jurisprudence.

University.

Graduate Courses.

The Organization and Working of Human Society.
General Jurisprudence and Ancient Law.
Comparative Jurisprudence and Government.
English and Indian Constitutional History.
Indian Jurisprudence and Legislation.
International Law and Diplomacy.

Facilities for Instructions.

Legal Library.
Records, Reports, etc., of Legal and Political Statistics.

VI.—Faculty of Engineering.

The University shall offer to persons who wish to become professional engineers thorough courses of study extending over about four years. In these courses of study the aim of the University shall be to lay a foundation of sound theory, sufficiently broad and deep, to enable its graduates to enter understandingly on further investigation of the several specialities of the profession; and at the same time to impart such a knowledge of the usual professional practice as shall make its students useful in any position to which they may be called. While the adaptation of theory to practice can be thoroughly learned only by experience, there are many matters in which the routine work of an engineering
field party, office or drafting room can be carried out on a greater or less scale in a training school.

In Civil Engineering all the technical branches shall be under the direct care of those who have had professional experience as well as a full scientific training, and in all particulars the course shall embody as close an imitation of the requirements of active labor as the instructors who have the several branches in charge can devise.

In Mechanical Engineering the course of study shall include a wide range of special studies. Prominence shall be given to the study of steam engineering, and in this branch a large amount of practical work shall be done. The instruction shall be arranged to accommodate those who wish to devote their time principally to Mechanical Engineering proper, to steam engineering or to marine engineering and naval architecture.

In Mining Engineering and Metallurgy the course of instruction shall be intended to cover about four years of study will include a part of that provided for students in Civil and in Mechanical Engineering, though more especial attention is paid in the latter part of the course of mineralogy, geology and chemistry. The instruction in the technical branches shall be arranged so as to meet the wants both of those whose purpose it is to confine their professional work more closely to metallurgy and of those who intend to engage in the practice of mining and metallurgy combined.

In Electrical Engineering the first three years of the course shall be nearly the same as in Mechanical Engineering. Besides the preliminary work in mathematics, language, drawing and physics, instruction shall be given in pattern-making, metal-work, forging and foundry-work; and enough of the study of steam engines and other prime movers shall be included to meet the needs of the professional electrical engineer.

Requirements for Graduation in Engineering.

To earn the degree of Bachelor in Engineering the students must secure one hundred and twenty-five hours of credit in a prescribed course of study, as given below, and must present a satisfactory thesis. The diploma given should indicate the line of study pursued.

The requirements are as follows:

I.—In Civil Engineering.

To obtain the recommendation of the Faculty for the degree of Bachelor in Civil Engineering the student must secure one hundred and twenty-five hours of credit. The prescribed portion includes courses in the following subjects:

- English.
- French or German.
- Mathematics.
- Physics.
- Chemistry.
- Mineralogy.
- Astronomy.
- Drawing.
- Surveying.
- Civil Engineering.
- Mechanical Engineering.

From the other courses offered the student must choose and complete enough to secure in all one hundred and twenty-five hours of credit. He must also prepare a satisfactory thesis.

II.—In Mechanical Engineering.

To obtain the recommendation of the Faculty for the degree of Bachelor of Mechanical Engineering the student must secure one hundred and twenty-five
hours of credit. The prescribed portion includes courses in the following subjects:

- English.
- French or German.
- Mathematics.
- Physics.
- Chemistry.
- Drawing.
- Surveying.
- Civil Engineering.
- Mechanical Engineering.
- Metallurgy.

From the other courses offered the student must choose and complete enough to secure in all one hundred and twenty-five hours of credit. He must also prepare a satisfactory thesis.

**III. In Mining Engineering.**

To obtain the recommendation of the Faculty for the degree of Bachelor of Mining Engineering the student must complete one of the two following sets of requirements:

1. **Mining.**

   - English.
   - French or German.
   - Mathematics.
   - Physics.
   - General Chemistry.
   - Analytical Chemistry.
   - Mineralogy.
   - Geology.
   - Drawing.
   - Surveying.
   - Civil Engineering.
   - Mechanical Engineering.
   - Mining Engineering.
   - Metallurgy.

   From the other courses offered the student must choose and complete enough to secure in all one hundred and twenty-five hours of credit. He must also prepare a satisfactory thesis.

2. **Metallurgy.**

   - English.
   - French or German.
   - Mathematics.
   - Physics.
   - General Chemistry.
   - Analytical Chemistry.
   - Mineralogy.
   - Geology.
   - Drawing.
   - Mechanical Engineering.
   - Mining Engineering.
   - Metallurgy.
From the other courses offered the student must choose and complete enough to secure in all one hundred and twenty-five hours of credit. He must also prepare a satisfactory thesis.

IV.—In Electrical Engineering.

To obtain the recommendation of the Faculty for the degree of Bachelor of Electrical Engineering the student must secure one hundred and twenty-five hours of credit. The prescribed portion includes courses in the following subjects:

- English.
- French or German.
- Mathematics.
- Physics.
- General Chemistry.
- Drawing.
- Civil Engineering.
- Mechanical Engineering.

From the other courses offered the student must choose and complete enough to secure in all one hundred and twenty-five hours of credit. He must also prepare a satisfactory thesis.

Requirements for Masters of Engineering.

The degrees of Masters in Engineering may be conferred upon respective Bachelor in Engineering, if they furnish satisfactory evidence that they have pursued further technical studies for at least two years and in addition have been engaged in professional work, in positions of responsibility, for another year. The first of the above requirements may be satisfied by pursuing at the University under the direction of the Faculty, a prescribed course of study for an amount of time not necessarily consecutive, equivalent to a college year. If the candidate does not reside at the university, his course of study must be approved in advance by the Professor of Civil Engineering, and he must prepare a satisfactory thesis on some engineering topic to be presented, together with a detailed account of his professional work, one month at least, before the date of the annual commencement at which he expects to receive the degree.

Facilities for Instruction.

Engineering Library.
Laboratories—
- Engineering.
- Metallurgical.
Museum of Engineering Collections.

VII.—Faculty of Technology and Agriculture.

This Faculty shall include the departments of—

1. Chemistry.
2. Biology.
3. Pharmacy.
4. Agriculture; and
5. Forestry.

Department of Chemistry.

A College course shall be arranged with Chemistry as a principal subject, giving preparation for a pursuit in Chemical Science or in the Chemical Arts, and leading to a special degree. Studies can be so elected in this course as to prepare for any desired service in Chemistry, whether for teaching and research, for some branch of technology and the related investigations, or for duty as an analyst at large. For higher chemical teaching and research it is more especially
needful that graduate studies should be taken in addition to those required for the Bachelor's degree.

The obligatory studies shall be so apportioned with those under limited election as to insure to all graduates from this College course the studies indispensable to every chemist, together with an extent of chemical training sufficient for independent action, while not unduly restricting chemical specialities. The time remaining for unlimited election of studies shall enable the student either to take up other branches of learning, or to strengthen some portion of the principal subject.

After the first College year, devoted in good part to the modern languages and mathematics, the student shall enter at once upon laboratory studies. These shall continue through the remaining College time, together with class-work in every study, and stated use of chemical literature in the library. Something in the way of initial investigation shall be also a requirement.

Requirements for Graduation.

To obtain the recommendation of the Faculty for the degree of Bachelor of Science in Chemistry the student must secure one hundred and thirty hours of credit. The prescribed portion includes courses in the following subjects:

Courses of Instruction.

- English
- French or German
- Mathematics
- Drawing
- Geology
- Physics
- General Chemistry
- Analytical and Organic Chemistry
- Mineralogy
- Chemistry (Special)

From the other courses offered the student must choose and complete enough to secure in all one hundred and thirty hours of credit.

Department of Biology.

A course of study shall be provided for students who wish to devote their time largely to biological work, either as a preparation for the study of medicine, or with a view to teaching or engaging in biological research. The course shall lead to the degree of Bachelor of Biology.

In the first year modern languages and mathematics and in the second year elementary physics and chemistry shall be required, as being absolutely essential to the successful prosecution of an extended course in science, zoology, botany and physiology are the most prominent subjects of the course, but full opportunity shall be given for extended work in physics, chemistry, palaeontology and other sciences. The laboratories of the University shall be provided with the necessary facilities, not only for ordinary biological work, but for somewhat extended research, and every encouragement is given to qualified students to devote themselves to original investigations.

Requirements for Graduation.

To obtain the recommendation of the Faculty for the degree of Bachelor of Biology the student must secure one hundred and thirty hours of credit. The prescribed portion includes courses in the following subjects:

- English
- French or German
- Philosophy
- Mathematics
- Physics
- General Chemistry
- General Biology
From the other courses offered the student must choose and complete enough to secure in all one hundred and thirty hours of credit.

Candidates for the degree of Bachelor of Biology shall be strongly recommended to devote as much time as practicable in the early part of their course to the modern languages, mathematics and the physical sciences. It is expected that they should arrange their work, not only in biology, but in other subjects, in accordance with a definite plan fixed after conference with the instructors in charge.

**UNIVERSITY DEGREES.**

The degree of Master of Technology will be given to both Bachelors of Chemistry and Biology of at least two years' standing; and who satisfy the conditions laid down under the heading of degrees in the Faculties of Philosophy and Science.

**Courses of Instruction.**

**Subjects.**

I. — General Plant, Apparatus and Machinery.
II. — Fuel, Gas and Light.
III. — Destructive Distillation, Tar Products, Petroleum.
IV. — Colouring Matters and Dyestuffs.
V. — Preparing, Bleaching, Dyeing, Printing and Finishing Textiles, Yarns and Fibres.
VI. — Colouring Wood Paper, Leather, etc.
VII. — Acids, Alkalis and Salts and Non-Metallic Elements.
VIII. — Glass, Pottery and Enamels.
IX. — Building Materials, Clays, Mortars and Cements.
X. — Metallurgy.
XI. — Electro-Chemistry and Electro-Metallurgy.
XII. — Fats, Fatty Oils and Soaps.
XIII. — Pigments and Paints, Resins, Varnishes, etc., India-rubber, etc.
XIV. — Tanning, Leather, Glue, Size, Bone and Horn, Ivory and Substitutes.
XV. — Manures, etc.
XVI. — Sugars, Starch, Gum, etc.
XVII. — Brewing, Wines, Spirits, etc.
XVIII. — Foods, Sanitation, Water Purification and Disinfectants.
XIX. — Paper, Pasteboard, Cellulose, Celluloid, etc.
XX. — Fine Chemicals, Alkaloids, Essences and Extracts.
XXI. — Photography.
XXII. — Explosives, Matches, etc.
XXIII. — Analytical Chemistry.
XXIV. — Scientific and Technical Notes.

**DEPARTMENT OF PHARMACY.**

The department of pharmacy shall give training for all branches of pharmacy and for various chemical pursuits of the present time. It shall make a well grounded preparation for service as a manufacturing chemist or as an analyst. The graduate shall be assured a thorough qualification for the prescription table and for the most responsible positions in pharmacy. He shall be fitted to act as the chemist of the medical profession. In respect to the discipline of both the intellectual and the executive powers, the work of the department shall offer decided advantages in the steady requirement of severe studies, and of exact operations on the part of each student.
DEGREES.

Requirements for graduation.

To obtain the recommendation of the Faculty for the degree of Bachelor of Pharmacy the student must secure one hundred and thirty-hours of credit.

Courses of Instruction.

Pharmacy,
General Chemistry and Physics,
Botany and Microscopy,
Pharmacognosy,
Analytative Chemical Analysis,
Pharmacopoeial Preparations,
Materia Medica,
Practical Pharmacognosy,
Pharmacology and Therapeutics (Elective),
Crystallography,
Organic Chemistry,
Quantitative Chemical Analysis,
Organic Analysis,
Pharmacy,
Analysis of Urine (Elective).

UNIVERSITY.

Degrees.

The degree of Master of Pharmacy will be given to Bachelors of Pharmacy of at least two years' standing, and who satisfy the conditions laid down under the heading of degrees in the Faculties of Philosophy and Science.

Graduate Courses of Instruction.

Quantitative Analysis,
Organic Analysis,
Purification of Chemicals,
Industrial Chemistry,
Experimental Research.

DEPARTMENT OF AGRICULTURE.

The conviction is forced upon us that if our agriculturists are to compete upon anything like equal terms with those of foreign countries, they must enjoy similar educational advantages. To an agricultural country such a conviction is obvious and to fulfil that object is the work of this department of agriculture. To place the native system of agriculture on a European and scientific basis, so that India may bear on with some share of enjoyment in the ever-increasing struggle for agricultural supremacy is the main aim of this department.

DEGREES.

To obtain the recommendation of the Faculty for the degree of Bachelor of Agriculture the student must secure one hundred and thirty hours of credit.

Courses of Instruction.

First year.

(i) Trigonometry and Physics.
(ii) Natural Sciences—
    1. Inorganic Chemistry.
2. Botany—
   (a) Morphology of Plants.
   (b) Physiology of Plants.

(iii) Agriculture—
   (a) Soil.
   (b) Manures.
   (c) Implements and Machine.

Second year.

(i) Organic Chemistry and Mensuration.
(ii) Botany.
(iii) Veterinary—
   (a) Exterior Anatomy.
   (b) Interior Anatomy or Physiology.
(iv) Agriculture—
   (a) Crops—Preparation, Rotation, etc.
   (b) Culture Fruit: Garden Crops.
   (c) Irrigation.

Third year.

(i) Natural Science—
   (a) Geology.
   (b) Botany.
(ii) Chemistry of Agriculture—
   (a) The Soil.
   (b) Manures.
   (c) The Plant.
   (d) Agricultural Animals.
   (e) The Dairy.
(iii) Surveying and Levelling.
(iv) Veterinary—
   (a) Hygiene.
   (b) Obstetrics.
   (c) Medicine and Surgery.
(v) Agriculture.

University.

Degrees.

The degree of Master of Agriculture will be given to Bachelors of Agriculture of at least two years' standing, and who satisfy the conditions laid down under the heading of degrees in the Faculties of Philosophy and Science.

Graduate courses of instruction.

Agricultural Chemistry.
Dairy Chemistry.
Veterinary Medicine.

Department of Forestry.

Degrees.

Collegiate or Lower.

The degree of Bachelor of Forestry shall be conferred on such students who have gone through the full course of three years and passed the necessary examinations.
University or higher.

The degree of Master of Forestry shall be conferred on those students who have already obtained the degree of Bachelor of Forestry, who have gone through the regular course of two years, and who satisfy all rules and regulations for higher degrees detailed under the heading of degrees in the Faculties of Philosophy or Science.

Courses of Instruction.

First year.

English.
German or French.
Mathematics,
Physics.
Chemistry.
Drawing.

Second year.

Surveying.
Mapping.
Outline of Forestry.
Mineralogy.
Economics.
German or French.
English Composition.
Strength of Material.
Mathematics.
Political Science.
Astronomy.
Botany of Flowering Plants.

Third year.

Meteorology.
Physical Geology.
Zoology.
Forest Measurements.
General Morphology of Plants.
Silviculture.
Forest Botany.
French or German.
Petrology.
Origin and Nature of Soils.
Forest Physiography.
Meteorology.
State and National Forestry.
Forest Hydrography.
Field-work—Thesis.

Graduate Courses.

Silviculture.
Forest Botany.
Forest Protection and Entomology.
Forest Technology.
Forest Hydrography.
Facilities for Instruction.

Technological Library.
Agricultural Library.
Pharmaceutical Library.
Indian Exhibition.
Museum for Chemical Technology.
Pharmacognosy.
Forestry.

Laboratories—
   Technological.
   Agricultural.
   Pharmaceutical.
   Botanical.
   Wood-testing.
   Herbarium.
   Botanical Garden.

VIII.—FACULTY OF MEDICINE.

Degrees.

Collegiate or Lower.

Requirements for graduation—To be admitted to the degree of Bachelor of Medicine a student must be twenty-one years of age and possess a good moral character. He must have completed the required courses in laboratory-work and have passed satisfactory examinations on all the required studies included in the full course of instruction. He must have been engaged in the study of medicine for the period of four years. If admitted to advanced standing, he must have at least attended three full courses of medical lectures, the last two of which must be in this department and have passed the required examinations.

University or Higher.

Degrees of Doctor of Medicine will be awarded to the Bachelors of Medicine after two years of his passing the final examination for the degree of the Bachelor of Medicine.

The requirements shall be the same as those detailed under the heading of degrees (Higher in the Faculties of Philosophy and Science).

Courses of Instruction.

First Year.

Lectures and Recitations in the first term.

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osteology and Descriptive</td>
<td>5</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Bacteriology</td>
<td>4</td>
</tr>
</tbody>
</table>

Lectures and Recitations in second term.

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>Physics</td>
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<td>Organic Chemistry</td>
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<td>Histology</td>
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LABORATORY WORK IN THE FIRST YEAR.

Subjects. Time required.
Anatomy ... Every day for twelve weeks.
Chemistry ... " " " " " "
Bacteriology ... " " " " " "

Second year.
Lectures and Recitations in first term.

Subjects. Hours per week.
Anatomy ... ... ... ... 5
Physiology ... ... ... ... 5
Hygiene ... ... ... ... 3
Emberrology ... ... ... ... 2

Lectures and Recitations in second year.

Subjects. Hours per week.
Anatomy ... ... ... ... 5
Physiology ... ... ... ... 5
Physiological Chemistry ... ... ... ... 3
Hygiene ... ... ... ... 2

LABORATORY WORK IN THE SECOND YEAR

Subjects. Time required.
Anatomy, Every day for twelve weeks.
Physiological Chemistry. " " " " " "
Histology " " " six "
Electro-therapeutics " " " " " "

Third year.
Lectures and Recitations in first and second terms.

Subjects. Hours per week.
Theory and Practice ... ... ... ... 2
Surgery ... ... ... ... 3
Obstetrics and Gynaecology ... ... ... ... 3
Materia Medica and Therapeutics ... ... ... ... 5
Pathological Histology ... ... ... ... 2
Nervous Diseases ... ... ... ... 1

LABORATORY WORK IN THE THIRD YEAR

Subjects. Time required.
Practical Pathology Elementary Every day for four weeks.
Course, first term.
Practical Pathology Advanced " " six "
Course, second term (optional).
Physiology (Optional), " " five "

DEMONSTRATION COURSES IN THE THIRD YEAR.

Subjects. Time required.
Clinical Medicine ... Every day for five weeks.
Nervous Diseases ... " " " " " "
Operative and Minor Surgery ... " " " " " "
Obstetrics and Gynaecology ... " " " " " "
Ophthalmology, Otology and Laryngology " " " " "
Clinical Courses in the Third Year.

Subjects.                                                                 Hours per week.
Internal Medicine                                ...  ...  ...  ...  ...  2
Surgery                                           ...  ...  ...  ...  ...  2
Gynaecology                                      ...  ...  ...  ...  ...  2
Ophthalmology                                    ...  ...  ...  ...  ...  2
Nervous Diseases                                 ...  ...  ...  ...  ...  1

Fourth year.
Lectures and Recitations in the fourth year.

Subjects.                                                                 Hours per week.
Theory and Practice                               ...  ...  ...  ...  ...  3
Surgery                                           ...  ...  ...  ...  ...  3
Obstetrics and Gynaecology                       ...  ...  ...  ...  ...  3
Diseases of Nervous System                       ...  ...  ...  ...  ...  2
Dermatology and Syphilography                    ...  ...  ...  ...  ...  2
Ophthalmology, Otology, Laryngology              ...  ...  ...  ...  ...  1
Pathology                                        ...  ...  ...  ...  ...  2

Clinical Courses in the Fourth Year.

Subjects.                                                                 Hours per week.
Internal Medicine                                ...  ...  ...  ...  ...  2
Surgery                                           ...  ...  ...  ...  ...  2
Obstetrics and Gynaecology                       ...  ...  ...  ...  ...  2
Dermatology and Syphilography                    ...  ...  ...  ...  ...  2
Ophthalmology, Otology and Laryngology           ...  ...  ...  ...  ...  1
Diseases of Nervous System                       ...  ...  ...  ...  ...  1

Bed sides and dispensary instruction.—Student in the fourth year shall be given charge of patients, required to make diagnosis, prescribe, dress wounds and make minor operations under the direction of the Professor in charge. A lying in ward shall furnish obstetrical cases which shall be attended by senior students in rotation.

University Graduate Courses.

Graduates of this department of the University or other medical schools shall be admitted to any one or more of the regular courses of the curriculum on giving evidence of their ability to profit by the instruction given. Advanced courses beyond the regular curriculum shall also be arranged in several of the subjects taught. The courses of instruction are given in the following subjects:

- Anatomy.
- Physiology.
- Pathology.
- Pharmacology.
- Medicine.
- Surgery.
- Midwifery.
- Forreusie Medicine.
- Mental Disease.

Department of Hygiene.

The department of hygiene shall give training for all branches of sanitary science and for various chemical and biological methods of the present time.

1.—Admission.

Graduates of medicine and graduates of science will be admitted to this department.
2.—Degrees.

The degree of Master of Hygiene shall be conferred upon completion of the courses of required study and presentation of a satisfactory thesis embodying the results of research by the student under the direction of the Faculty. The student will be allowed to elect such laboratory courses and other studies as will be most helpful to him in responsibilities for which he desires to be qualified. Additional study in the department of science may be elected if the department find such elective work advisory.

3.—Courses of Instruction.

(1) Hygiene and methods of hygiene. Analysis of water, air, soil, milk, butter, etc., etc.—
   Lectures ... ... 3 hours.
   Laboratory-work ... ... 5 hours for two terms.

(2) Bacteriology—
   Lectures ... ... 3 hours.
   Laboratory-work ... ... 5 hours for two terms.

(3) Physiological chemistry, including analysis of urine—
   Lectures ... ... 3 hours.
   Laboratory-work ... ... 5 hours for two terms.

(4) Original work on the causation and prevention of disease—
   Laboratory-work and reading ... 5 hours for two terms.

(5) Foods, sanitation, water purification and disinfectants—
   Laboratory-work and reading ... 7 hours for two terms.

Facilities for Instruction.

Medica Library.
Laboratories—
   Anatomical.
   Physiological.
   Histological.
   Pathological.
   Bacteriological.
   Electro-therapeutical.
Museums of Natural History and Anatomy.
University Hospital.
Training school for nurses.
Teaching Universities

To transform the University of Bombay into a Teaching University is a highly desirable object, but there are two difficulties in carrying out such object, namely, (1) it is impossible to procure the necessary funds, and (2) no feasible scheme can be devised to arrange the transformation successfully.

(1) Any such scheme must necessarily involve an enormous expenditure, both initial and annual, as a Teaching University implies that all the affiliated Colleges should be in the same city or town and that all the students should be in residence, and the initial outlay for acquiring the necessary lands and buildings and all other accessories will be very heavy. Again, the employment of the necessary staff of Professors and lecturers will require a heavy annual expenditure, and neither Government nor the public will contribute anything like the requisite initial outlay, nor undertake to pay or subscribe towards the annual expenditure.

(2) Some of the affiliated Colleges are "aided Colleges" and they may not be inclined to submit to their independence of action being interfered with. The students of the mofussil affiliated Colleges may not be able to leave their homes and reside at the seat of the proposed University. There will be difficulties in diverting funds entrusted to the University for establishing prizes and scholarships.

Although we cannot, therefore, have a Teaching University at present, we must console ourselves by the fact that our University has at present and does exercise considerable amount of control over the affiliated Colleges by prescribing the courses of studies and the standards of marks, and the affiliated Colleges constitute the teaching portion of our University, entrusted with their own management, but subject to the indirect control and the guiding influence of the University.

Sphere of Influence

The University of Bombay should have for its sphere of influence the whole of the Presidency including Sind, so long as Sind forms a portion of our Presidency.

Constitution—The Senate

The Senate of our University has become rather large, and the number of Fellows ought to be reduced to about two hundred; this can easily be done by Government not appointing additional Fellows for a few years. The appointment of new Fellows should not be limited to persons connected with the work of imparting higher education. Outside persons of culture and education and persons eminent in other walks of life should also be appointed as has hitherto been the practice, so that we may also have the advantage of outside culture, opinion and experience, and the deliberations of the Senate may be healthy and liberal.

The Syndicate.

The Syndicate is the Executive Committee of the University elected under the By-laws. It is true there is no mention in the Act of Incorporation of any Executive Committee, but no case has been made out for legislative interference in the matter. The various Faculties have usually elected the most suitable Syndics and Deans, and have always been anxious to return to the Syndicate such of their members as have to do with imparting higher education in the affiliated Colleges, and there should be no ex-officio members of the Syndicate. It is a healthy thing and essential to enlightened progress that
members of the Syndicate should be elected. The number of the Syndics, at present fourteen, should be raised to twenty, so as to make the Syndicate large enough to form Committees for proper discussion of matters of administrative detail, the additional number being also obtained by election in the same manner as hitherto, and rules being made for bringing questions, where necessary, before the full body for decision.

(5) Faculties and Boards of Studies.

The Syndicate should have power to assign, or not to assign, a Fellow to a Faculty as it may deem proper. It should also have power to refer any matters, if it thinks desirable, to experts, although such experts may not be members of any Faculty or of the Senate. Boards of Studies may be nominated by the several Faculties from time to time under the supervision of the Syndicate, and members of such Boards need not be Fellows. There should be Boards of Studies, as this is very important from the point of view of the affiliated Colleges. These Boards will choose text books, select examiners, supervise examinations, and do other similar work. Members of these Boards should not be members of the Syndicate. They should only advise and report to the Syndicate.

(6) Graduates.

It is desirable that a Register of Graduates should be kept, with provisions for keeping it up to date.

The University may be empowered to confer the M.A. or other suitable degree on recognized teachers who come from other Universities. This should be done by the Senate on the recommendation of the Syndicate.

(7) Students of the University.

The University has no control over the granting of certificates by the affiliated Colleges to their students presenting themselves for examination, and cannot look after the moral and physical welfare of the students, nor can it take steps to foster a genuine University life in the great towns by establishing societies to bring men of different Colleges together. It is the duty of the Educational Department to look after the above matters with the assistance of the affiliated Colleges.

(8) University Teaching.

Many students begin their University course without sufficient knowledge of English to profit by the lectures they attend. Every boy should begin his education with learning his vernacular. English is a foreign language in India and can only be learnt through the vernacular. Those boys who know their respective vernaculars well, also learn English well. Every student must know his vernacular well. The vernacular should be made compulsory at the Matriculation and the test to pass in it must be made a strict one. The student, before he starts in his University course, should be thoroughly conversant with his own vernacular. Indeed, I would go so far as to recommend that unless a candidate for Matriculation obtains 40 per cent. in his papers in the vernacular and English languages, he ought not to be allowed to pass.

As to Greek and Latin, they are not necessary in India. Our classical language, so to speak, is the English language. It must be remembered we must learn our vernacular first, then English, and then one of our own classical languages such as Sanskrit and Arabic, and we cannot learn Greek and Latin in addition to the above things.

The suggestion that there should be a school of Theology ought not to be taken up. It may lead to undesirable results.

(9) Examinations.

The Matriculation Examination should be divided into two parts, the first part comprising the English and the vernacular only. The standard to pass the first part ought to be a strict one, say, 40 per cent. in each language. No grace marks should be allowed. No books are prescribed at present and no books should be prescribed in future. Until and unless a candidate has passed in the first part, he ought not to be allowed to appear for the other part.

I am a Bachelor of Arts of 1878, and a Licentiate in Teaching of 1892 of the University of Madras. I have been a teacher for the past 24 years and have served in High Schools, an Arts College, a University Training College, and in Commercial Schools. I have been connected with the organization and working of commercial schools for the past 16 years, and am now the Principal of the Byramjee Jeejeebhoy College of Commerce, Bombay. I was appointed a Fellow of the University of Madras in 1899, and a Fellow of the University of Bombay in 1901. I have been a member of the Incorporated Society of Accountants and Auditors, London, for the past 12 years.

UNIVERSITY COLLEGES AND PROFESSORS.

2. It is desirable to make the colleges an integral portion of our Universities, and to increase the stringency of the rules of affiliation. Colleges would become even more efficient than they are at present, if each college confined its attention to the teaching of a few selected subjects. To carry out this object, professors and lecturers must be individually recognised as such by the University. The University must demand from candidates certificates of having attended courses of lectures delivered by recognised professors. Candidates for a degree must be made to study each subject under a professor who has been recognised as competent to teach that subject. A certificate of having attended an affiliated college is not enough, as, in certain subjects, the professors of the college may not be up to the mark. The present regulations do not permit a student to study certain subjects in one college, and the other subjects in another college. It would then be unnecessary to have three or four professors for the same subject in the same town. It would then become practicable to secure the services of eminent professors and to get museums and laboratories fitted up on a large scale.

3. It must gradually become practicable for the University to appoint its own professors in certain subjects. When it is decided to make Bombay a Teaching University, and when it becomes known that funds are required for the appointment of University professors, this University may confidently hope to receive a number of donations for the purpose. The scholarship and prize funds connected with this University amount to more than ten lakhs of rupees. The founding of a scholarship or a prize has, till now, been the only way of making a donation to the University. In Madras, however, it would be much more difficult for the University to get funds for the appointment of University professors. The University of Birmingham provides that every donor of 1,000 or more to the University chest shall become a life member of the Court of Governors of the University. Some such regulation may with advantage be made when the Indian University Acts are amended; the amount of the donation may be fixed at Rs. 15,000 for Madras, and at Rs. 25,000 for Bombay. Gentlemen who have founded University prizes and scholarships may when they have the power, be prevailed upon to allow the original donation to be utilized for general purposes or for the creation of a University Chair. A scholarship founded for the encouragement of a backward class or a neglected branch of study ceases to be useful when the object for which it was founded has been achieved, and may be willingly diverted by the donor to other University purposes. This system of appointing University professors and recognising professors of private colleges prevails in the re-constituted University of London, in the recently formed University of Birmingham, as well as in American Universities.

4. The regulations at present in force about the affiliation of colleges must be made more stringent when colleges are recognized as an integral portion of the University. Every college must have its own Boarding House for undergraduate students, with a resident Professor-Superintendent; and students not in the Boarding House must leave either with their guardians or in Licensed Boarding Houses. This will entail heavy expenditure, especially in a city like Bombay. But, if the rule about Boarding Houses be not rigorously enforced
at the beginning, it would cause no hardship, and colleges would gradually provide themselves with Boarding Houses. If ours is to be a Teaching University, residential colleges are indispensable. In Bombay, the College Department has in every case been entirely separated from the School Department, whereas in Madras the School and College Departments are nearly in every instance located in the same building and are under the supervision of one and the same Principal. The Bombay system clearly seems to be better than the Madras system in this respect.

THE CONSTITUTION OF THE UNIVERSITY.

5. One weakness that I would venture to point out in the constitution of the University of Bombay is that the members of the Syndicate are over-worked, and that the members of the Senate are under-worked. Besides the Senate and the Syndicate, we have in Bombay only one other board, viz., the Board of Accounts. The members of the Syndicate practically do the whole of the work connected with this University, there being no mechanism for utilizing the services of other members of the Senate. The most respected members of our Senate are our Syndics; it has, however, to be remembered that they are our busiest citizens. The constitution must be so altered as to secure a greater division of labour and to entrust different kinds of University work to different committees, composed of members specially selected for the purpose. In Bombay, when the Senate does not agree with a scheme brought up by the Syndicate, the whole question is generally sent back to the over-worked Syndicate for re-consideration and re-submission. When the Senate and the Syndicate disagree, the natural course would be to refer the question to a committee specially selected for the purpose; work would then be turned out much more quickly than at present. In Bombay, meetings of a Faculty are rarely held, except for electing Syndics and Deans. However competent a senator or a syndic may be, he cannot be equally fit for discussing and settling the details of every kind of educational curriculum. The constitution of Standing Committees of the Senate and the definite distribution of work among such committees are reforms which must prove highly beneficial. I beg leave to propose that the Fellows of our Universities constitute the University Court with limited powers, that Selected Fellows constitute the Senate, that the Experts of the Senate constitute the Academic Council, and that a few members of the Council constitute the Syndicate.

THE UNIVERSITY COURT.

6. According to Statutes of the re-constituted University of London, the existing Fellows retain their Fellowships for life, but cease, as such, to be members of the Senate; and the Senate, consisting of 54 members, is made the supreme governing body of the University. In Birmingham, the supreme governing body is the Court of Governors, whose powers are limited by Statutes to administrative questions. Here, in India, the Fellows may constitute the University Court and may continue to be the supreme governing body, their powers being made purely administrative. It may be provided that questions relating to courses of studies and examinations are not to be submitted to the University Court. If the discussion of purely educational questions is taken out of the hands of the governing body of Fellows that constitute the University Court, it seems unnecessary to make the Fellowships terminable. Capacity for educational work has not hitherto been, and cannot hereafter be, the sole qualification for a Fellowship, I mean, for a membership of the University Court. But if the University Court is to be the sanctioning authority even on purely educational questions, Fellowships must be terminable. In any case, non-attendance must entail forfeiture of membership. European Professors occasionally leave India on furlough for a year or two; the interests of the University will suffer if their names are removed from the list of Fellows on account of enforced absence for 12 or 18 months; I would submit that a Fellow failing to attend University meetings, say, for two consecutive years, might be made to forfeit his Fellowship.
7. A Fellowship conferred on distinguished students of colleges in Oxford and Cambridge differs widely from a Fellowship of an Indian University. The Cambridge Fellowship does not, I believe, give the Fellow a voice in the administration of the University of Cambridge. The Dakshina Fellowships of Bombay do not give such Fellows a voice in our University administration. The University Court must count among its members, i.e., among the University Fellows, (1) gentlemen known for their scholarship and learning, (2) gentlemen of wide educational experience in India and elsewhere, and (3) gentlemen known for their administrative and business capacity, I do not therefore concur in the view that none but graduates should be made University Fellows. It must be open to Government to appoint such as may deserve a Fellowship, irrespective of their being graduates or not. It must not be made impossible for the Local Government to appoint a cultured Banker or Merchant to the Senate.

8. The Members of the University Court will then be of the following classes:

(a) Life Fellows appointed from among donors of a specified sum of money to the University Funds.

(b) Ex-officio Fellows.

(c) Fellows appointed by Government on account of their scholarship, culture, educational experience, or business capacity.

(d) Fellows elected by graduates of 15 years' standing and approved by Government.

It may be laid down that none but graduates of 20 years' standing be elected as Fellows, and that in the case of holders of a Master's Degree, they be eligible for election as Fellows 10 years after the date of their taking the first degree.

9. The rule that every Fellow of the University must be a member of some one Faculty should, in my humble opinion, be abrogated. It must be open to Government to appoint a gentleman a Fellow of the University without making him a member of any Faculty. When appointing a Fellow, Government must announce whether he is to be member of any Faculty, and, if so, of which Faculty. Such Fellows of the University as are also members of a Faculty should constitute the Senate. No Fellow should, as a rule, be assigned to more than one Faculty. A.B.A., L.L. B., must, as a rule, be made a member of the Faculty of Law and of that Faculty alone. He must be assigned to the Faculty of Arts also, only when it is considered that, on account of special scholarship, he will prove a valuable member of the Faculty of Arts. The Arts Faculty will then become a Faculty of Experts, as much as the Law and Medical Faculties. According to the 62nd Statute of the London University, no member of a Faculty is permitted to vote at an election in more than one Faculty. It is best to make a membership of the Senate terminable. This can be done by appointing gentlemen members of a Faculty, (that is, of the Senate) for a period of 5 years. First appointments to the Faculties and therefore to the Senate must remain in the hands of Government; but the re-appointment of members of the Senate must be partly by election. If 30 members of a Faculty retire at the end of 5 years, it must be open to members of that Faculty or to the members of the Senate to re-elect about 15 of them, while the re-appointment of the remaining 15 members may be left to the discretion of Government. The members of the Faculty and of the Senate are the gentlemen most competent to judge whether, in the interests of the University, the retiring members must be re-elected. If the Senate should fail to re-elect really valuable members, it would be open to Government to re-appoint such gentlemen.

10. The members of various Faculties constituting the Senate may elect about 30 Senators to the Academic Council. The Academic Council may be
made the real working council of the University, the initiative being taken in nearly every instance by this Council. The resolutions of the Council on educational questions must be confirmed by the Senate, while their resolutions on administrative questions must be confirmed by the Senate and by the University Court. The heads of the leading recognized colleges must be made ex-officio members of the Academic Council. The members of each Faculty of the Senate must elect a certain number of themselves as members of the Council. The members of the University Court may be permitted to elect two members of the Senate as members of the Academic Council.

The Syndicate.

11. The Syndicate must consist of not more than nine members and must be no more than an executive committee. A council of 30 is too large for making appointments and attending to current University work. While the resolutions of the Academic Council must be confirmed by the Senate, they must be carried out by the Syndicate. The Vice-Chancellor appointed by Government will preside over the deliberations of the Syndicate; one Syndic may be elected by the University Court from among the life members of that Court, that is, from among the benefactors; the remaining Syndics must be elected by the members of the Academic Council. Election to the Council must be on account of scholarship, while election to the Syndicate must be on account of business capacity.

The Faculties.

12. The services of the members of a Faculty ought to be utilized more than at present, special committees of a Faculty being occasionally appointed for discussing and reporting on new schemes connected with courses of studies and examinations. I have not as yet heard of the Madras of the Bombay University referring questions connected with the Matriculation Examination to a Committee composed of such Heads of High Schools as happen to be Fellows of the University. They would seem to be the men most fitted to discuss such questions and submit a report. They might take a narrow view, but, then, theirs will only be a report, and the final decision will rest with the Senate. We have at present only four Faculties, viz., Arts, Law, Medicine, and Engineering. It is now time to consider whether the number of Faculties should not be increased, as has recently been done in London. In the reconstituted University of London, there are eight Faculties in London, as well as in Birmingham, they have a Faculty of Science, distinct from the faculty of Arts, recognized Professors of Science being members of this Faculty. In Bombay, as well as in Calcutta, we have Degrees in Science; we have, however, no separate Faculty of Science in the Indian Universities. Till recently, there was no separate Faculty of Engineering in London, while in the Universities of Birmingham and Pennsylvanias, Engineering is included under Science. In India, however, Engineering has always constituted a separate Faculty. In Bombay this Faculty is known as the Faculty of Civil Engineering, while in the other Universities it is known as the Faculty of Engineering. It will be necessary to consider whether provision ought not to be made for Mechanical and for Electrical Engineering.

13. One of the two new Faculties instituted by the University of London Act of 1898, is the Faculty of Economics and Political Science including Commerce and Industry. The University of Birmingham has instituted a Faculty of Commerce on the same lines as the London Faculty of Economics. The Universities of California, Chicago, South Dakota, New York, and Toronto have instituted Faculties of Commerce and Economics; the University of Pennsylvania has a similar Faculty and awards the Degree of Bachelor of Science in (a) Economics or (b) Commerce and Industry or (c) Civil Engineering or (d) Electrical Engineering or (e) Biology. I venture to submit that the time has arrived for deciding whether our Universities should not begin to follow in the wake of these English and American Universities, and especially of the University of London which has been our model. Mr. Chamberlain, Chancellor of the
University of Birmingham, recently defined a University to be a place where knowledge is (1) taught, (2) tested, (3) increased, and (4) applied. He was of opinion that no student, desirous of instruction, should be turned hungry away from the doors of a University. It seems to me that the Colonial Secretary's definition of the functions of a University is one that ought to be borne in mind by our University Authorities. In this connection, I beg leave to submit to the Commissioners a leaflet on University Degrees in Commerce recently published by Mr. Rustumjee Byramjee Jeejebhoy, the grandson of the Founder of my Institution; it contains a concise summary of what has been done by English and American Universities, for the promotion of the study of Economic and Commercial Sciences.

UNIVERSITY TEACHING.

14. I beg to submit that College students must be made to rely more upon their own private reading than on the Professors' lectures and notes; they must make a greater use of the College Library than at present. Professors may, with advantage, reduce the number of lectures they deliver on a subject, and entirely give up dictating notes and abstracts of Standard Works. The Professors' lectures may indicate the sources of information and give references to Standard Works; and students may be made to read such works under the supervision of the College Tutors. It is the student and not the Professor that must write out abstracts of the portions to be read. If Professors and Examiners cease to be anxious about securing a high percentage of passes, the percentage of passes will soon begin to rise. It is this anxiety for a large percentage of passes that makes the Professor dictate carefully prepared notes, with the result that students rely less and less upon their own reading and that they memorize more than it is desirable. The student must be trained to think, and must be merely told how and where to search for facts; he must not expect his Professor to solve every little difficulty for him. We have too much of lecturing and too much of teaching, which proves prejudicial to the development of the natural powers of our College students.

THE TEACHING OF ECONOMICS, HISTORY, AND GEOGRAPHY.

15. As regards Political Economy, I venture to submit that the teaching of this subject is not carried here to a sufficiently high standard and that the knowledge of Economics acquired by a Bachelor of Arts is meagre and superficial. It has not been recognized that Banking and Currency form an integral portion of Economics. Graduates who have passed in Political Economy have often been found to have very hazy notions even about the A. B. C. of Foreign Exchanges and to know much less about Currency. I believe that the creation of a Faculty of Economics will greatly stimulate the study of Economics, Economic History, Banking, Currency and allied subjects. The reconstituted University of London has, on its list of recognized teachers, teachers of such subjects as Banking, Economic History, Economic Theory, Economic Geography, Public Finance, Railway Economics, and Statistics.

16. It has recently been pointed out that Economic study occupies a more prominent position in the University of Cambridge than in the University of Oxford, and that the University of Oxford must assign a more prominent position to this subject than is at present the case. It has been said that the position assigned to Economics at Oxford is not commensurate either with the place which Economics is now taken in the world outside or with its own intrinsic interest and value. The importance attached to Economic studies by the Indian Universities is much less than what it is at Oxford. It can therefore be neither unreasonable nor premature to request our University Authorities to provide greater facilities for Economic studies.

17. As regards Geography, it has so far not been recognized in India as a suitable University subject. Economic and Commercial Geography has been recognized as a University subject by the Universities of London and Birmingham and the Universities of the United States and Canada. In London there are
Professors who have been recognized by the University as teachers of Geography in the Faculty of Arts as well as in the Faculty of Economics. In Oxford a school of geography has recently been started, admission to this school being confined to graduates; a Diploma in Geography is awarded to the students of this school at the end of the year. That English Graduates think it worth their while to go to a school of geography for a year and take a Diploma in geography at the end of their course will, it is hoped, draw the attention of our University Authorities to the fact that Geography deserves to be recognized as a University subject. Geography is at present one of the subjects prescribed for the Matriculation Examination; it happens, however, to be one of the worst taught subjects in the High Schools of Bombay and Madras. Geography is so taught that it only develops in our students a dislike for the subject. Though our examination papers are partly to blame for this state of things, it is the teachers of High Schools that must be said to be primarily responsible for this neglect of Geography. But if the teachers of to-day had been taught Geography as a University subject in their College course, they would have been able to handle the subject in the class-room with greater effect and to greater purpose.

BOARDS OF STUDIES.

18. We, in Bombay, have no Boards of Studies though they have such Boards in Madras and Calcutta. It is certainly desirable to get such Boards formed in Bombay from among the members of each Faculty. These Boards must be sub-committees of experts in special subjects and must be advisory bodies. Their recommendations about courses of study, text-books, and the selection of examiners must prove helpful to the Academic Council and the Syndicate. In London they have 33 Boards of Studies as against 10 in Calcutta and 14 in Madras. In London, they have a Board for History, a Board for Economics, and a third Board for Geography, as against one Board in India for all three subjects. The London University has a Board of Studies for the theory, practice, and history of education, while we have none such in Bombay and Calcutta.

BOARDS OF EXAMINERS.

19. In Bombay a separate examiner is appointed for each subject and for each examination. The practice is different in Madras. To me it seems preferable to appoint a Board of Examiners to examine in a group of allied subjects and to make the appointment for a term of years; this will secure a greater uniformity of standard than at present. The Board must consist of Professors and a few External Examiners. College Professors must be allowed to be the most competent men available for examining in the subjects which they teach. Even when this is granted, it is sometimes said that the examinations ought to be conducted by External Examiners—a view to which I demur. When the University of London was formed in 1836, the business of teaching was confined to the Colleges, whilst the duty of examining and conferring degrees was entrusted to an entirely separate and independent body. This compromise has not been found to give satisfaction, and the recently framed Statutes therefore provide that in each subject of examination the Senate shall, if practicable, appoint at least one examiner who is not a teacher at the University. The Statutes of the Birmingham University provide that the Examiners of the University shall be selected from among the Professors and Lecturers, that in every subject at least one External Examiner shall be appointed, and that the examination shall be conducted jointly by the Professor-Examiners and the External Examiners. The London Regulations are also to the same effect. A Professor is recognized as such by the University, only when the University Authorities form a high opinion of his scholarship as well as of his character. The association of an External Examiner is solely for the purpose of preventing the tendency of the Professor-Examiner to move in a narrow groove. The higher University examinations are really for the purpose of testing the student's work at College and not for the purpose of testing the qualifications of the Professor.
UNIVERSITY DEGREES.

20. In the older Universities of India, Degrees should be awarded not only in Arts, Law, Medicine, and Engineering, but also in (1) Science, (2) Agriculture, (3) Economics and Commerce, and (4) Teaching. In Madras they have a Degree in Teaching, but no Degree in Science, while the Universities of Bombay and Calcutta have instituted Degrees in Science, but none in Teaching. The University of London awards Diplomas in the theory, practice, and history of Education, while in Birmingham Education is one of the voluntary subjects for the B. Sc. Degree. In Bombay, Departmental Examinations have recently been instituted in the theory and practice of Teaching, and the honours' course of this examination corresponds to the L. T. Degree Course of Madras. The examination in Teaching would gain considerably in prestige, if instituted by the University. Though Departmental Examinations in Teaching have been held in Madras for nearly 30 years, it was still considered advisable to get that University to institute the L. T. Degree. After having been a teacher for about 9 years and after having all the while ridiculed the utility of a Teachers' Certificate Examination, I appeared for, and passed, the Madras Departmental Teachers' Certificate Examination, mainly with a view to secure a higher government grant for the school of which I was Head Master. Preparation for that examination changed my views, as I began to notice a perceptible improvement in my methods of teaching. Later on, I was made an Assistant in the Government Teachers' College, Madras; there I caught the enthusiasm of the Principal of that College, Mr. Hall, and, without any kind of official pressure, prepared for, and passed, the L. T. Degree Examination after 14 years' experience as a teacher. I feel that I have benefited by my L. T. studies and by my 5 years' stay in the Teachers' College. The quality of the teaching in High Schools must materially improve if the teachers are required to pass examinations in the Science and Art of Education.

21. In the words of Sir Phillip Magnus, "the function of a University is to liberalize all kinds of professional studies, Medicine, Law, Engineering, Commerce, and Education itself, and to suggest courses of study leading to a University Degree in the branches of knowledge cognate to different professional careers, and to encourage learning and original investigation in any of the subjects of study included in such courses." I do not concur with those who hold that, in matters connected with University Education, we ought to be conservative and not progressive. Our Universities are practically the only Corporations that have to legislate solely for the needs of Educated India, and it is our Universities that can afford to be most progressive. In political and social matters which concern the literate and the illiterate, the educated and the uneducated, progress must necessarily be slower, and our leaders may have to be more cautious. It is in the matter of University Reform that Indians can most afford to profit by the example of England and America, where University Reform is the order of the day.

22. I am not in favour of a Local University conferring an Honourary Master's Degree on graduates of other Universities that come out as Professors. On the first Degree-day of the Birmingham University, Honourary Degrees were conferred on Professors of the University; the University Authorities did not, however, offer their Degrees to eminent graduates of other Universities for fear of such Degrees not being accepted. Graduates of English Universities may not take it as a compliment if offered a Master's Degree by an Indian University. The abilities of such foreign graduates are best recognized and utilised by their being appointed Fellows of our Universities. Though our Universities have been empowered to confer the Honourary Degree of L.L.D. on distinguished and eminent persons, our University Authorities have been exceedingly sparing in the granting of this Degree. The Madras University has not hitherto found more than one distinguished educationist deserving of this honour, and neither Madras nor Bombay has hitherto been able to find a single Indian graduate deserving this Honourary Degree. One would expect the Indian Universities to do themselves the honour of conferring the L.L.D. Degree on educationists who have been considered worthy of the L.I. D. Degree by British Universities. Unless there is a change of feeling and policy in this matter, little use
will be made by our University Authorities of any power of conferring Honourary Degrees that they may be granted. A more liberal use of this power will stimulate the younger generation to greater literary activity. Our Universities ought not to imagine that they have a higher dignity to maintain than their British models. University honours ought to be distributed so as to stimulate scholarship and research. I, therefore, hold that our Universities do not require any additional powers in the matter of conferring Honourary Degrees and that they have only to use more liberally the power they already possess of conferring the LL.D. Degree.

23. There is not much to choose between the Bombay Matriculate and the Madras Matriculate; still the Madras University does not recognize the Bombay Matriculate, and does not permit him to join a Madras College. Our Universities ought to unbend a little and to recognize one another more readily than at present. The Matriculates and the Graduates of an Indian University ought to be recognized by every other Indian University and to be permitted to continue their studies in the Colleges of any Indian University. In the case of the Previous, Intermediate, and First in Arts Examinations, the standards differ, and our Universities are justified in refusing to recognize some of these intermediate certificates.

24. Candidates for the Bombay Bachelor’s Degree have to pass in all the prescribed subjects at one and the same examination, while the Madras candidates for the B. A. Degree are permitted to pass the examination in three different years. Formerly candidates for the Madras B. A. Examination had to pass in all the subjects at one and the same examination. I am of opinion that the present Bombay system, which is the same as the old Madras system, is preferable to the present Madras system. The standard of an examination is lowered when the candidate is permitted to pass it in compartments. Specialising in a particular subject ought to begin after the B.A., as it only then that it can be carried to a sufficiently high standard.

THE MATRICULATION EXAMINATION.

25. There is a general complaint in Madras and Bombay that the knowledge of English possessed by the Matriculate is so poor that he is not able to follow the Professor’s lectures at College. Various remedies have been suggested from time to time, and some of these have been tried and found wanting. During the 24 years that I have been a teacher, the matriculation curriculum has so often been altered in Madras, and the length of the school course has been increased. None of these remedies have, however, been able to produce a better matriculate than before. Formerly text-books were prescribed in English for the Madras Matriculation Examination, and this led to the cramming of annotations, and then to the abolition of text-books. The complaint now is that there is as much cramming as before, though of a different sort. The school course was lengthened by a year in Madras in the hope that the Matriculate’s knowledge of English would be increased. These reforms have not proved efficacious, as Examiners continue to set questions on Grammar that can be answered from memory. I am of opinion that the English paper must consist solely of questions on Paraphrasing Poetry, Translation into English, Composition and Transformation of Sentences; the paper ought to contain no questions on Grammar or even on Idioms. Students may also be asked to write out the substance of one or more prose passages; the exercise in Composition ought to be made more a test of the candidate’s power of writing good English than of his ability to think out the facts or the arguments required for the essay set. The Examiner ought to supply the candidates with the principal facts and arguments, and the candidates ought to be asked to expand the outlines given into an essay. The teacher ought to be left to his own resources as to the selection of the means by which he can best improve the style and composition of his students.

26. I am not in favour of a minimum age-limit being laid down by our Universities for admission to the Matriculation Examination. The school course has gradually been extended in Madras from 8 to 10 years; the present-day Matriculate is not, however, much better than the Matriculate of 20 years ago.
The school course in Bombay is 11 years, i.e., one year longer than in Madras; the Bombay Matriculate is, however, no better than his Madras brother. If a boy is sent to school in his seventh year, he cannot pass the Bombay Matriculation before his 18th year, and cannot take his Bachelor's Degree before he is 22 years old, unless the rules are evaded, and the boy frequently receives double promotions. Students that desire to compete for the Indian Civil Service or the Provincial Civil Service will be placed at a great disadvantage if a minimum age-limit is prescribed for passing the Matriculation Examination. The real remedy is to improve the quality of the teaching and to increase the stringency of the regulations for the recognition of schools; the length of the school course may then, with advantage and without prejudice to the true interests of education, be reduced to 8 years.

27. Under Statute 117 of the re-constituted University of London, the Senate of that University is permitted to make provision for holding separate Matriculation Examinations for different classes of students, having regard to the courses of study which the students propose to follow. The regulations of the Senate of that University at present require matriculation candidates to be examined in 4 compulsory subjects and in one voluntary subject to be selected from a list of 10 voluntary subjects. I beg to submit that our matriculation curriculum may, with advantage, be modified on somewhat similar lines. Passing in a particular voluntary subject may be made a condition of admission into a particular professional college.

28. The control exercised by the Bombay University over secondary schools is very slight. The University recognizes a High School without endeavouring to satisfy itself as to the efficiency of its staff and without insisting on the school being provided with the necessary apparatus, furniture, and library. Private candidates are allowed to appear for the matriculation without any restriction. If, of two brothers, one joins a recognized matriculation class and the other studies at home, and if the former is not permitted by the Head of his School to appear for the examination, his application is not accepted by the University, while the brother that stayed at home is at liberty to appear for the examination. This is an anomaly. There is only one object that the University can have in recognizing High Schools; and that is, that no candidate should be permitted to appear for the University Entrance Examination unless it is shown that he has been efficiently taught by qualified teachers that may be presumed to have endeavoured to form the character of their students. This object can be achieved only by recognizing really well-conducted schools and by permitting none but students of such schools to appear for the examination.

29. The written permission of the Head of a High School is required before a student appears for the matriculation; still a large percentage of those permitted to appear fail at the examination. About three months before the University Examination, Head Masters of High Schools hold a Preliminary Examination on the same lines as the Matriculation, and make their selection on the results of this Preliminary Examination. If Head Masters granted the necessary permission only to such as passed in every subject at this Preliminary Examination, the percentage of failures would be greatly reduced. As a rule, Head Masters are not so strict in making their selection, as it sometimes happens that students failing in the Head Master's Preliminary Examination pass the University Examination. It may be added that strictness in promotions will largely tend to reduce the percentage of failures.

30. The percentage of passes at the matriculation examination is 33 in Bombay as against 20 in Madras. 47 per cent. of the candidates sent up by Bombay High Schools pass, while, of the private candidates, only 12 per cent. pass. It strikes me that Head Masters of Bombay High Schools are, as a rule, a better class of men than Head Masters of Madras High Schools, where a good Head Master soon becomes a College Assistant. The tendency to convert a good High School into a weak College is more marked in Madras than in Bombay.
The Hon'ble Mr. E. Giles, Director of Public Instruction, Bombay.

The colleges affiliated to the Bombay University are not numerous, and are separate and fairly complete institutions, not excrescences growing out of high schools. In only one instance, that of the Rajaram College, Kolhapur, the full course for a degree is not taught. All the colleges have special buildings, and almost all have hostels attached to them, though the accommodation for resident students is not generally adequate. All the colleges but two (Fergusson and Bhavnagar) are under European Principals.

The colleges are grouped at Bombay where there are 55 (including the Law School), and at Poona where there are 3. The rest are all isolated and are situated at Karachi, Ahmedabad, Baroda, Bhavnagar, Junagadh and Kolhapur.

The colleges, which practically constitute the University, are thus very scattered, and, consequently, while it is desirable that the University should have the power of appointing Professors or Lecturers, it is obvious that outlying colleges cannot materially benefit by such appointments. It would be hardly possible for a special Professor to give a course of lectures in Bombay and then to repeat them at Poona and elsewhere. Consequently, under present circumstances, University Professors would probably have to confine their teaching to those who were going through a post graduate course of study. This might be of great advantage, for, in the majority of the colleges, the existing staff have little time to spare for those who are reading for a course higher than the degree. Graduates might be attracted to Bombay if special post graduate instruction was provided for them by the University. I think at all events that the power to create a teaching University should be taken. I do not think it probable that the power could be largely exercised until conditions have widely changed.

2. A system of combined lectures might be possible where colleges are grouped, but, there even, only in special subjects, and where the number of students from each college is limited. In ordinary subjects the classes in each college are so large that combination becomes impossible. No one can lecture to more than a certain number of men, perhaps 80 as a maximum, and do justice to all. But where students are few, as in the case of the Science degree, I think that colleges in one locality might mutually benefit by a combination of instruction.

3. I am of opinion that the present Senate in Bombay is far too large. The maximum number of Fellows should not exceed 120, and I would reduce that number to 100 rather than raise it to 150. If a new constitution is given to the University, existing Fellows who are still resident in the Presidency might be placed on a list of Honorary Fellows (without powers). The present number of elected Fellows is not large and those Fellows might be replaced on the new list, while Government might nominate from the old list such men as seemed by their attainments and their interest in education to be likely to take an earnest and intelligent part in the management of University affairs.

All Fellowships should in future be tenable for 5 years. Fellows vacating under this rule should be eligible for renomination. Similarly, elected Fellows should be eligible for re-election. Any Fellow who failed to attend a meeting of the Senate for a period of 2 years should vacate his Fellowship unless his absence was due to special circumstances which he could not control.

The present system of election of Fellows by graduates of 10 years' standing might perhaps continue, but the number of elected Fellows should be strictly limited and should not be more than 4th of the whole. Elections should take place from each Faculty in turns in the following proportions:

Faculty of Arts, 2.
Other Faculties, 1.
If a Faculty of Science is created it might perhaps be merged with that of Engineering. The Faculties would thus be 4 in number as at present.

Fellows nominated or elected should be assigned to one Faculty only. At present many belong to the Faculties of Arts and Law and thus exercise a double influence. Men should be selected as Fellows on account of their distinction in a certain direction and should be allotted to the corresponding Faculty.

I am of opinion that if reform took place on these lines the Senate would be a body fit to deal sensibly and intelligently with educational questions. At present our Senate is overloaded with persons who have neither special knowledge of education nor special distinction as educated men. They attend meetings and vote, not always because they grasp the matter under discussion, but because they follow a leader to whom they have given their allegiance. The educational result is occasionally very disappointing to those who understand education and have the best interest of the University at heart.

4. The Syndicate of the Bombay University is a body which has no statutory existence. It exists under the By-laws as an Executive Council or Committee of the Senate, and is not even mentioned in the Act of Incorporation. I am of opinion that, if legislation is resorted to, the Syndicate should have its status defined and legalized.

It at present consists of 15 members. The Vice-Chancellor, the 4 Deans of the Faculties and 10 Syndics, of whom 4 are in Arts (one representing Science), 2 in Law, 2 in Medicine and 2 in Engineering. It meets once a month and transacts all the business of the University, subject to such control or revision by the Senate as is provided for in the By-laws. This control is practically unlimited.

The Syndicate is fairly constituted, and my experience of its working during the last 3 years is that it is a reasonably good working body, and that the members elected to serve on it are generally capable and ready to devote time and trouble to the interests of the University. But there are in my opinion some deficiencies in its constitution. Thus—

1. It is almost invariably composed of residents of Bombay, to the exclusion of capable men connected with colleges in the mofussil. A remedy for this might be found in the payment of travelling allowances to any member coming from a distance to attend the meetings.

2. The members are elected in Bombay by the Bombay resident Fellows only. This might be corrected, with a reduced Senate, by allowing voting papers to be sent in by all Fellows of the University.

3. The monthly meeting is a great tax upon the Syndicate and, as I have pointed out, non-residents of Bombay are practically excluded. This difficulty might be met by the delegation to a small executive body of powers to deal with current work. The meetings of the Syndicate might then be held once a quarter and on fixed dates, so that members living out of Bombay could arrange to attend. All important educational business involving a change of curriculum or University procedure should be reserved for such meetings.

4. The election of members of the Syndicate by the Faculties does not afford a guarantee that men who are engaged in the work of education are elected. It appears desirable that men holding a certain educational position should be ex-officio members of the Syndicate, e.g., Principals of colleges, or at least a certain percentage of Principals who might succeed to the Syndicate by rotation.

5. If the Syndicate was reinforced by ex-officio members the number elected by the Faculties might be reduced to—

In Arts, a Dean and two Syndics;
Medicine, a Dean and one Syndic;
Law, a Dean and one Syndic;
Science and Engineering, a Dean and one Syndic.
This would give 9 elected members. If the Director of Public Instruction, the Educational Inspector, Central Division, and 6 Principals of Colleges were *ex-officio* members, the total number of the Syndicate would be, with the Vice-Chancellor, 18 or 3 more than at present. This would not be too large a number with quarterly meetings. The inner Executive Board could consist of the Vice-Chancellor, 3 *ex-officio* members and 3 members elected by the Faculties. The whole body of the Syndicate should have power to elect the Executive Board from their own body. The election to the Syndicate should be made by the Faculties as at present.

(6) Each Syndicate should, I think, be constituted for 2 years instead of one as at present. Now, when a Syndicate has begun to get a grasp of University matters, and when the members have begun to work together, it is dissolved, and a possibly entirely new body may be brought into existence. This is not at all desirable and 2 years seems to be a more suitable life for such a body.

(7) If the Syndicate meets 4 times a year, the Senate also should ordinarily meet 4 times. Dates for the meetings of both bodies should be fixed, so that non-resident members would know when they might be called on to attend meetings and arrange accordingly. Power should of course be taken to convene special meetings if urgently required.

5. With regard to the University Act I presume that if legislation is resorted to, care will be taken to provide for the due alteration of Section XII which is at present vitiated by a decision of the High Court.

6. As regards the affiliation of colleges to the University, I think that certain fixed rules should be drawn up, as in Calcutta, and that colleges should only be affiliated when they could show that they conformed to those rules to the satisfaction of the Syndicate and Senate and of the Local Government. In Bombay we had not long ago 3 mushroom institutions which in no way deserved the name of colleges and which would not have obtained affiliation had a strict test been applied to them. These 3 colleges have, I am glad to say, disappeared. The application of rules would not, I think, lead to the disaffiliation of any college in the Presidency, but the rules should exist, and their application to existing institutions should be at any time possible.

7. I am in favour of Boards of studies. In Bombay the appointment of Moderators is provided for, and questions as to curricula are referred to the Faculties, but the Boards would render the opinion of experienced experts available, and would tend to maintain a level standard of work and of examination.

8. I do not think that our curricula generally are bad, but I consider that in many directions there is room for reform, and I believe that if the question of revising the curricula generally was taken up, after other constitutional reforms were completed, there would be a considerable amount of expert opinion available which would be gladly preferred for the benefit of the students and the University, but which is now withheld because proposals for change, however excellent, are liable to be swamped by the vote of an assembly which cannot always grasp their significance.

Our curricula are, however, not shallow or superficial generally and I consider that they afford, in almost all subjects, a fair test of what a man is worth, and have a distinctly high educational value. Given good examiners, and consequently sensible papers and sensible marking, and I think that the curricula are generally as advanced and as complete as is desirable under present conditions.

9. I should be in favour of an Honours Course for the degrees, separate from the pass course. I do not consider that our present ' Honours,' which are won by a higher percentage of marks, are satisfactory. The Honours man should be put to a severer and greater test than the pass man. I may add here
that possibly groups of colleges might combine their lectures for Honours men with advantage.

10 I am strongly of opinion that the present Matriculation Examination should be abolished and replaced by a general School Final Examination which might, under certain conditions, be accepted by the University as an entrance test. Such an examination should consist of certain obligatory subjects, common to all candidates, thus—

1. English;
2. Vernacular;
3. Arithmetic;
4. History and Geography of England and India.

Other subjects should then be grouped together and one group of two subjects taken up by each candidate at his option. The boy who wished for a commercial career might take commerce and a kindred subject, while the boy who wished to join a college would naturally take languages. The scheme could easily be worked out: the relief to the schools and to the pupils would be great, and the University would not lose, as it could charge a fee for registration of name in the University books and would have no expenses or responsibility for the examination which should be conducted by the Educational Department.

11. Finally, I wish to place on record my opinion that, while there is great room for reform in connection with this University, the University has done and is doing good and valuable work and is producing men who are not only occasionally brilliant scholars, but who are, on the whole, fairly well educated, well mannered and well conducted. My experience after 29 years is that our graduates are generally men who are fit to be public servants, and to take their proper place in the various walks of life, that the tendency in the colleges and in the students is towards improvement and that the University of Bombay is not behind any other University in India either in the efficiency of its management, or in the sufficiency of its results.

E. GILES,

Director of Public Instruction

Bombay, 22nd February 1902.
UNIVERSITY OF ALLAHABAD.
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MR. A. VENIS,

Principal of the Queen's College, Benares.

The study of philosophy in our Indian Colleges might be improved, it seems to me, if the Universities required a candidate in this branch to offer a philosophical work in the original Arabic, Persian or Sanskrit; and, at the same time, allowed him to write answers in his vernacular to some, if not to all, of the questions set in the various papers.

Universities in this country expect a candidate in Philosophy to answer questions on the Republic and the Ethics and the Critique of Pure Reason, and in fact on almost everything that can be brought within the two covers of a Manual of the modern type. They expect him to write with familiar ease about such conceptions, for example, as those of Evolution and Organic Unity, and so forth. But they do not demand any attempt on his part to know and to understand that intellectual and moral past of which he is himself a product. If an Indian student were set to an oriental text, to translate not of course the mere words of it, but the ideas and their inter-connexions in the past and present life of his own people—if, in this way among others, he were induced to enter for himself into the old, he might more readily and thoroughly assimilate the new. May this commonplace be permitted here as a plea in some sort for the majority of our men with whom, it must be said, philosophy begins and ends by being a matter chiefly of ear and lip knowledge.

Then, as to the more extended use of the Indian Vernaculars as a medium of examination, the suggestion is doubtless not without its difficulties. And yet the question remains whether it is theoretically correct to gauge the whole mind of a candidate by applying, to the extent that obtains in the Universities of India, a test so limited in character as the ability to write a foreign language, and that too under the pressure of examination. As a matter of experience, most of us teachers and examiners in this country would have to admit that this test sadly fails in a large number of cases to discriminate the widest and best developed mental capacity.

As regards Examinations, the Universities might lay more stress on drill in Grammar and Composition and on translation of Unseen Passages.

The Vernacular should be employed. At present a candidate has to translate his Sanskrit books into English—a very difficult matter—and he does his best to get round the difficulty by learning off a crib, the English of which often refuses to construe at all.

Some of the courses of study prescribed might be less pretentious; and so too some of the questions asked. Why throw in as a part merely of a Question paper a long and difficult passage of English Prose for translation into Sanskrit? And why require men who don't know Latin and Greek to offer Comparative Philology?
I desire to touch briefly on Sanskrit as a part of the school curriculum. A Hindu boy should learn enough Sanskrit during his five or six years in Middle and Upper School to translate an easy passage at sight. He is far better placed in regard to the vocabulary of Sanskrit than is his European counterpart in regard to that of Greek and Latin. He should be taught Sanskrit Grammar on the frame-work of Latin Grammar, as indeed he is now taught English Grammar on the Latin model. [The purely Indian or Paninean System of Grammar might be studied with advantage at a much later stage.] But I don't know that anything exists in Sanskrit corresponding, e.g., to the Greek Series by Tuerthoff off Westminster, that is to say, a good Sanskrit Grammar, supplemented by a large number of exercises on Accidence and Syntax and a scholarly Reader—and all well printed and moderately priced.

Complaints have frequently been made in these Provinces against the great fluctuations in the percentage of candidates passed through our various examinations from year to year. The evil is obvious. It might be remedied to some extent, if the University were to trust more to the matter actually provided by the Examinees in their answer books, and less to the accidental methods of arithmetic, i.e., the assigning of numerical values to Questions and Answers. Ultimately it is the best teaching that furnishes, or should furnish, the standard. And the best teaching might receive concrete form every year in a model Answer paper to be compiled by the Examiners from the best answers written by the candidates in any given subject of examination. [The compilation is not so tedious as would at first sight appear.] A model Paper of this kind about which there could be only small differences of opinion would determine the real meaning or value of the Pass Standard. And with the standard thus determined on its inner side, the measuring of it numerically would become less important and less erratic.

Perhaps this or some better idea is already present to University Examiners. It may, however, be worth restating as against the popular belief that the mechanism of number in itself is somehow able to create or organize a standard of examination.

1. No Indian University requires a candidate in Philosophy to offer a philosophical writer in the original Arabic, Persian or Sanskrit. Though Calcutta and Lahore require him to have read (for the M. A. Degree) an English translation of parts of a Sanskrit philosophical work.

2. **M. A. Examination.**—Madras demands a dissertation (20 pages 8 vo.) as "evidence of original research and independent thought." Allahabad holds an oral, as well as a written examination. Allahabad prescribes books: the other Universities define by a syllabus and recommend certain books. Madras sets ten question papers: Allahabad five: the others set six.

**B. A. Examination.**—Except for the A or Literary Course at Calcutta, Philosophy is an optional subject: except at Allahabad, Inductive Logic is an integral part of the Philosophy course: Question Papers—six at Madras, four at Bombay and Calcutta (Honours), two at Lahore and Allahabad.
Intermediate Examination.—Deductive Logic is required by Calcutta, Bombay and Lahore (the last named University prescribes a Primer on Psychology in addition): It is optional at Allahabad and does not appear at Madras.

M. A. Examination.—At Bombay Sanskrit cannot be taken without English Literature (Chaucer, Shakespeare, Wordsworth, Carlyle &c.):

Question Papers—Madras sets ten (and a Dissertation), Lahore and Calcutta six, Allahabad five (and a viva voce examination), Bombay four:

Calcutta and Allahabad permit fewer optionals than the rest: Allahabad does not prescribe Dharmasastra.

B. A. Examination.—Calcutta has a Pass and an Honours Course in Sanskrit: The Honours Course comprises two additional books and a book on the Paninean System of Grammar: At Bombay voluntary Sanskrit includes a part of a philosophical work and of the History of Sanskrit Literature:

Question Papers—two at all the Universities.
W. KNOX JOHNSON, B.A. (Oxon),
Barrister-at-Law,
Professor, Government College, Benares.

NOTE ON THE STANDARD IN ENGLISH AT MATRICULATION.

The English test at admission seems, in a number of cases, to fail of its object. Lectures on some subjects seem ineffectual, so far as Colleges in these Provinces are concerned. The principal reason is that the English language is not sufficiently familiar to some students to serve as a medium of instruction, more especially when English literature is the study. These students also distrust their power of expressing themselves in English in the Examination room. They, therefore, commit to memory fragments of their lectures and text-books, instead of reading and assimilating. The shortest possible summaries are copied out, to be reproduced almost word for word in the examination papers. Such "notes" are mere arrangements of words, little connected with meaning of any kind, still less with knowledge. Successful or unsuccessful, such students leave our hands uneducated men.

The low standard in English at the Entrance or Matriculation Examination,—when the circumstances and its object are considered, seems one of the chief causes of this condition of College classes. The English test is the most important test in the Entrance Examination. The following table shows the requirements of Indian Universities in this subject, from candidates whose mother tongue is not English—

**English at Matriculation.**

<table>
<thead>
<tr>
<th>University</th>
<th>Proportion of marks assigned to English</th>
<th>Nature of Test</th>
<th>Pass marks</th>
<th>Percentage of successful candidates according to last published results (in English only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madras</td>
<td>29-41 p. c.</td>
<td>Three papers:—</td>
<td>40 p. c.</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1st paper—3 hours, &quot;Grammar, structure and idiom,&quot; 70 marks.</td>
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<tr>
<td></td>
<td></td>
<td>2nd paper—2 hours, Paraphrase and composition, 50 marks.</td>
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<tr>
<td></td>
<td></td>
<td>3rd paper—1 hour, Translation, 30 marks.</td>
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<td></td>
</tr>
<tr>
<td>Calcutta</td>
<td>33-3 p. c.</td>
<td>Candidates are recommended to study grammar and composition &quot;more with a view to write plain English correctly than with a view to learn the philology of the English tongue.&quot;</td>
<td>33 p. c.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Two papers:—</td>
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<tr>
<td></td>
<td></td>
<td>1st paper—3 hours, Questions on text-book and on grammar arising therefrom, 120 marks.</td>
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<tr>
<td></td>
<td></td>
<td>2nd paper—3 hours, Translation (1 hour), 54 marks, together with questions on English composition (2 hours), 54 marks, total 80 marks.</td>
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</tr>
<tr>
<td>Bombay</td>
<td>28-07 p. c.</td>
<td>A portion of &quot;Group I. Languages&quot; in which 2 papers are set, one in English, 3 hours, containing: — Paraphrase or translation into a vernacular (35 marks), Grammar and composition. Total 150 marks.</td>
<td></td>
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</tbody>
</table>
English at Matriculation—(concluded).

<table>
<thead>
<tr>
<th>Proportion of marks assigned to English</th>
<th>Nature of Test</th>
<th>Pass marks</th>
<th>Percentage of successful candidates according to last published results (in English only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab ... 27.1 p. c.</td>
<td>Two papers, and an oral examination: 1st paper—3 hours, Grammar, 30 marks, translation into vernacular, 30 marks. 2nd paper—3 hours, Composition and composition questions, 40 marks, Translation from vernacular, 40 marks. Oral examination (confined to English reading), 10 marks.</td>
<td>33 p. c.</td>
<td>Not published, and variable at the discretion of the Syndicate (Previous to 1901 33 p. c).</td>
</tr>
<tr>
<td>Allahabad ... 33.3 p. c.</td>
<td>Three papers (new regulations): 1st paper—Text-books (prose) with grammatical questions on passages set (50 marks under present regulations). 2nd paper—Text-books (poetry) with unseen prose passages and grammatical questions on passages set (50 marks). The Grammatical questions are set &quot;with the object of testing the candidate's practical knowledge of the subject, as in Parsing and Analysis, and shall not consist of mere rules and technicalities.&quot; 3rd paper—Translation from Vernacular, 50 marks.</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

In addition to this examination in English properly so called, the papers in History and Geography, at all Universities, and at some Universities in elementary science, presuppose some power of expression. It is, however, doubtful whether the answers to these questions can be taken as evidence of any real facility in writing English, especially as questions set in the Entrance history papers of Indian Universities seem frequently of a difficult nature. Translation from English into the second language, and from that language into English, is set at all Universities as part of the examination in the second language, except at the Punjab University, where translation is from the classical language into a Vernacular and vice versa.

Examination papers.—As between the different Universities the papers do not appear to vary much in difficulty. The standard however, would depend chiefly on the marking. The English selections prescribed at Calcutta are intended to be "such as can be well and easily appreciated by an Indian youth of 15 or 16 years of age." The average age at Madras is much higher than this. The directions for the Calcutta examination seem designed to obviate such English tests as some of those in the London University Matriculation, tests with which some of the Examiners at the London University are themselves dissatisfied. Those of the Syndicate at Allahabad indicate a distrust of rules and grammatical forms, regarded as evidence of an Indian student's knowledge of the language. In general, the doubt may be expressed whether some of the questions set in these examinations, on the supplying of punctuation marks and capital letters, lists of various kinds, different senses and uses of words, essays on a necessarily limited range of subjects (e.g., "school life" occurs twice in the five sets of papers last published), and paraphrases of poetry, are really reliable tests at all. Questions on analysis and parsing on the other hand, and on the explanation of idioms seem well adapted to the purpose of view.
Text-books.—Text-books are prescribed at Calcutta and Allahabad. If a course or text-book be prescribed, it seems that it should be relatively long and easy rather than short and difficult. Of the text-books at Allahabad it may be observed (1) the criticism that text-books lead to cramming is certainly applicable when short poems such as "The Deserted Village" are set year after year. Examination passages can be more or less anticipated, especially when several papers have been already set. (2) They have been too open to the objections which Mr. Herbert Spencer* brought against questions in the Calcutta Matriculation thirty years ago, that they contain English which is obsolete, or technical, or removed from ordinary use.

Translation.—The Punjab University prescribes translation from English into a Vernacular, as well as translation from a Vernacular into English, as a part of the English examination. This is a desirable test. Translation from a Vernacular can at Bombay be evaded altogether.

Marking.—Marking differs considerably in the various Universities. At Calcutta 120 marks out of 200 are given for the first paper, on the "Selections" prescribed, and pass marks are therefore obtainable in this paper alone. In the paper printed in the last calendar there is one question on grammar, one on quotation from memory, three on explanation of passages or phrases, and the remaining four are in the nature of abstracts or summaries of contents. The following are the approximate proportions of marks assigned to Grammar and Translation respectively.

Percentages of marks for English assigned to:—

<table>
<thead>
<tr>
<th>University</th>
<th>Grammar</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madras</td>
<td>46</td>
<td>20</td>
</tr>
<tr>
<td>Calcutta</td>
<td>25</td>
<td>13</td>
</tr>
<tr>
<td>Bombay</td>
<td>33</td>
<td>23</td>
</tr>
<tr>
<td>Allahabad</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Punjab (2 kinds)</td>
<td>20</td>
<td>46</td>
</tr>
</tbody>
</table>

Pass marks.—At Calcutta and Lahore a candidate is required to obtain one-third of the total marks. The effect of resolutions of the Allahabad Syndicate is that a candidate may be declared to have passed, who obtains fewer still. According to figures in the last Calendar of the University of Allahabad, fifty per cent. passed the English test at Matriculation. Some, however, of those who were successful in English failed in other parts of the examination, leaving thirty-five per cent. of the total number of examinees who passed in all subjects. From the figures of former years it is evident that of these boys now considered fit to pursue their university studies, fifty per cent. must fail in the subject of English, at the end of two years' work in College, in the Intermediate examination, when two-thirds of those who proceed will fail in the examination as a whole. The question suggests itself whether the present pass standard or minimum in English at the Allahabad Entrance Examination is not unduly low. A relative disparity of standard seems to exist generally, as between the Matriculation and Intermediate stages. The English test at the Intermediate is certainly not too severe, for it appears the common experience of College tutors that

*The Study of Sociology, p. 97.
the teaching of the B. A. classes is impeded by the presence of students who do not know sufficient English to pursue the B. A. course with advantage to themselves, or indeed without serious disadvantage to others.

A boy who has been fairly well taught should be able in a simple English test to obtain 45 per cent. of the marks. If he cannot, it would be better to pronounce him, at this stage, incompetent to pursue his studies in a University, where English must be the medium of instruction. It is no doubt well that the influence of the Colleges should be widely felt, but it would be felt more effectively were their intellectual standard raised, and were the culture they afforded somewhat less extensive and more intensive. There is something demoralising in the element of unreality which at present is intermingled in our curricula. If the teaching in our Colleges is to some extent a failure, if we are unable to impart the education we profess to give to our pupils, this failure is to a great extent due to their ignorance of the language we address to them.

The ignorance of the medium of instruction within the university is partly due to the regulations of the university itself, to depression of its standard in this medium at the Entrance Examination.

Viva voce.—The Punjab University is the only one which holds an oral examination in English. It is confined to English reading and carries only ten marks. A viva voce test would make a Matriculation Examination more adequate to its purpose. It might be held on some prepared book. No doubt where numbers are very large, as at Madras, oral examination presents unusual difficulties. But I am not aware of any conclusive reason against viva voce examination at the Allahabad centres. A candidate's pronunciation and general fitness could be sufficiently tested, for this purpose, in ten or fifteen minutes, and some indication would be afforded of what is important to ascertain in an Indian matriculation, that is, whether a boy can understand spoken English.

The standard of English at matriculation might be raised in two ways, (1) by an improved test, (2) by raising the minimum of marks to be obtained. I would suggest that the test in English at Allahabad should include the following:

1. Translation from a Vernacular into English...about 45 p. c. of total marks.
2. Translation from English into a vernacular...about 20 p. c. of total marks.
3. A prescribed book or books (chiefly prose), together with questions on grammar (parsing, analysis, etc.). The Examination to be partly written and partly viva voce...about 35 per cent. of total marks.

A candidate to be required to obtain 40 or 45 per cent.
SUGGESTIONS
ON THE
POINTS RAISED BY THE UNIVERSITY COMMISSION
SUBMITTED ON BEHALF OF
THE NÅGARI PRACHĀRINĪ SABHĀ

SÉVĀRIS

BY

GOVINDA DÅSA,

Vice-President.
The objects of a University are (1) advancement of knowledge in its widest sense and (2) popularization of knowledge. In order to realize both these objects a University must be a teaching as well as an examining body. The Indian Universities are in one sense both teaching and examining bodies inasmuch as they require every student who goes up for their examinations to study in an affiliated institution which was not the case with the London University when it was an examining body only. The principal difference then between the Indian Universities and those of Oxford and Cambridge is that here the Colleges are scattered all over the land while there they are centred within the limits of particular cities. But there are insurmountable difficulties in the way of making the Indian Universities teaching ones, as well, in that sense. The only way to do that fully is either to raise all the existing Colleges to the standard of separate Universities with their own Senates, Syndicates, and Fellows, or to shift the Colleges at present scattered throughout the length and breadth of India to the University centres. Neither of these proposals seems possible, for a teaching university means the same body combining in itself the functions of a teacher, an examiner and the degree-conferrer as well as a residential University as is the case with the existing Medical and Engineering Colleges.

But in spite of all these difficulties no University deserves that name unless it becomes a teaching body in the complete sense. We are therefore of opinion that the Universities should be as they are, so far as Bachelors' degrees are concerned, merely examining bodies. Its own teaching functions should begin after these examinations i.e. for the M. A., D. Sc., D. Lit., and L. L. D., degrees. It would be advisable to have recognized professors for post-graduate courses.
Universities should also institute certain scholarships for post-graduate studies in Science and Literature, as is now being done by the Bengal Government for the Calcutta University. These scholarship-holders may also be required to give a series of popular lectures similar to the practice in Calcutta, in Vernacular, on Scientific and Literary subjects on the lines of the University extension system in England.

Besides this, the Sabha would suggest that eminent professors from Europe should be invited for six months every year to the University centres at, say, £1,000 for the term, to give a series of lectures on post-graduate studies. India cannot offer sufficient attractions to induce scholars, like Professor Ramsay, Lord Kelvin and others, to remain here for some years, but to induce them to come here for a few months will not be difficult. Let every University invite one professor each, and let the arrangements be made that each of them may give a series of lectures for one month at each of the university centres. Some such arrangements will probably not be difficult to make, and with it, it is hoped, stimulate the students to look to a higher ideal and the permanent staff to a greater efficiency. Further it would be better if some of the continental languages, such as French or German, be prescribed for post-graduate studies, as many of the most important works bearing on such subjects are in these languages.

In order to realize to some extent the advantages of University life, all students, who have no accredited guardians in the College-towns, should be compelled to live in the Boarding Houses attached to the particular college in which they study.

With regard to the degree examinations in Arts, we would submit that it is not at all necessary to raise the standard of these examinations. They are already sufficiently stiff and high for all practical purposes of life. The Government does not want specialists for the ordinary public offices. The examinations should be easy enough for the majority of
students and every facility should be given
to undergo and pass them. For those,
and they would naturally be few, who have
the time, the money and the inclination to
acquire wider and deeper knowledge in any
subject or subjects, higher examinations
should be instituted, such as D. Sc., D. Lit.,
In Bengal, the Premchand Roychand Schol-
arship appears to supply this want partially.
The Sabha would, therefore, advocate the in-
stitution of these higher degrees, with a
course of lectures in such of the universities
as have not already got them.

For the ordinary F. A., and B. A.,
examinations it should not be compulsory for
all candidates to attend a course of lectures
in any affiliated college and to produce a
temporary certificate before they can be admitted
to the examination. But the Madras
University Rule (Pp. 48 and 54, Pt. I
of the Calendar for 1901-02.) may be adopted
as regards such.

In the Madras University, every can-
didate is required to take up three subjects for
his examination and he has further the op-
tion to appear for examination in any one
subject or in any two subjects or in all the
three subjects in any one year. If he passes
in any of these subjects, he is not required
to present himself again for examination in
that subject in the following years.

Then the examination fee is also charged
separately for each subject, e.g. English
Rs. 1/2, second language Rs. 6, science
Rs 11/8, etc. These are very salutary rules and
the Sabha strongly recommends their adop-
tion in all the universities, as tending to
produce far better graduates than are at
present being turned out, inasmuch as they
will have an opportunity to study thorough-
ly all the subjects of their examination. This
system, if adopted, will not make the gradu-
ates any way inferior to those who are
now annually turned out by the university,
as the extra period given to the study of
different subjects is in itself a compensation
for any possible defect. Education should.
apart from its monetary value, be given for the sake of education only, for its enlightening and widening effects, and its progress should under no circumstances be handicapped, and it is not desirable that the B. A. standard should be made more difficult than what it is at present and every facility should be held out to candidates for the degree of Bachelor of Arts.

LAW.

When attempts have not been made to centralize the Art and Science Examinations it does not seem advisable to have a Central College for Law only. First grade colleges, provided they can make efficient arrangements for the study of law, should be freely affiliated for the B. L., or L. L. B., degree, as is now done in the Calcutta University.

We would further suggest that term-a-certificate should not be required from practising pleaders, provided they fulfill other conditions regarding qualification, etc., as they get a far better training than any college could give.

We would further like the higher study of law properly encouraged. L. L. D's, should have some more privilege in practising in courts and in getting higher judicial appointments than L. L. B's. Persons holding the L. L. D. degree of any university should be allowed to practise in the high courts of the various provinces and the same privilege should be extended to the L. L. B. degree holders, subject to their passing a local law examination specially provided for the purpose in each province. This is actually being done for the Allahabad High Court Vakils and L. L. B's who wish to practise in Oudh. They should also be required to study Hindu or Mahommedan law in the original Sanskrit or Arabic works. It often happens that cases dealing with complicated points of Hindu or Mahommedan law come up before the courts and it is not perhaps too much to ask the L. L. D. students to study those laws in the original.
ENGINEERING.

It is iniquitous to make provincial and racial distinctions in admissions, and the giving of scholarships and posts to students in technical colleges, as for instance in Roorkee. The usefulness of such institutions is seriously marred when such restrictions are made.

They should be brought under the rules of the universities and admission into them should be under such rules as would be applicable to all. We do not see any reason why restrictions of race, class and creed should be put upon persons seeking admission to these colleges. The Roorkee Engineering College is affiliated to the university of Allahabad and there is also a Faculty of Engineering in this university. But we do not quite understand what this affiliation and the institution of the faculty mean when the university has no hand in prescribing the syllabus for examination, in holding the examination, and has no degrees to confer.

The position of the Roorkee Engineering College seems anomalous in the Allahabad university calendar. It is a separate university in itself, but still affiliated to the university of Allahabad, although the university is impotent to move in any matter connected with that College.

We would strongly recommend that the Roorkee College examinations be brought directly under the control of the university alike to other Arts and Science Examinations, in conformity with the universities of Madras, Bombay and Calcutta, where the universities prescribe the courses and confer the degrees. The present diversity in the titles conferred by the different universities for their Engineering degrees should be done away with and one uniform nomenclature be introduced all over India. For instance the B. C. E. and M. C. E. of Bombay University, C. E. (1st Exam.) of Punjab, B. E. of Madras and B. E. and M. E. of Calcutta should be all amalgamated into two degrees of B.E. and M. E. We would in addition suggest that the system of appointing from suh
close body as the Royal Engineers should be done away with and the staff selected from amongst experts in the various branches.

MEDICINE.

As regards the medical examinations, we would recommend the establishment of a Medical College in the United Provinces under the control of the Provincial University, conferring the M.B. and M.D. degrees, as is the case in several other universities. This could be easily done by raising the Agra medical school to that standard and affiliating it to the local university. The appointments on the staffs of the Medical Colleges are mostly made from the Indian medical service, and the same objection to making selections from a limited class applies to this branch of study as to that of the Engineering. The system becomes pernicious when the Professors are shifted from chair to chair and from professorships to the medical charge of stations. The Commission can well see how unsuited this arrangement is for professorial work.

In all the medical colleges, there should be a separate department for the study of the Ayurvedic and Unani systems, which being indigenous to the country are suited to the temperament and purse of the people, and are more sought after by the non-educated public than the English system of medicine. Recognition of these systems and their scientific study would be productive of much good and save the Indian people from the hands of the quacks who are a danger to society and a pest to the country and whose number is unfortunately on the increase. Such classes, we would suggest, should be held in the vernaculars and such subjects as anatomy, surgery etc., should also be included in the study of these classes. This will tend to make Ayurvedic and Unani students competent Vaidyas and Hakims and thus remove a want very keenly felt by the Indian public. We would further suggest that the University should provide the students of this Department with a separate system of examinations and degrees.
AGRICULTURE.

India being principally an agricultural country, the need of a systematic and scientific training in that department is very keenly and generally felt and no system of University Education could be complete without the providing of a diploma for that branch as is done in the Bombay University. A nucleus already exists in the Cawnpore Agricultural School. It could easily be raised to the standard of a college and connected with the university as has been proposed above in regard to the Medical and Engineering Colleges.

TEACHERS.

There should also be examinations held by the universities in teaching. There is a training college at Allahabad which combines in itself the three functions of a teacher, an examiner and the degree-conferror and is directly under the control of the Education Department. We would like to see its examinations held under the control of the University as is done in Madras and as is proposed to be done at Calcutta.

SPHERES OF INFLUENCE.

We do not see any necessity for limiting the spheres of influence of the universities, first, because there are no universities in some provinces, and secondly, the standards of the different universities differ, as also the monetary value of their degrees. Even if the standard were made uniform which it would be advisable to do for more than one reason, it is but reasonable that the different universities should evince greater interest in particular branches of study as is the case with the Oxford and Cambridge Universities. Under these circumstances every college should be free to get itself affiliated to any one or more universities provided it fulfill the conditions of affiliation imposed by them.
CONSTITUTION.

Senate.

It is true that in some universities the senates have become too large and unwieldy. The senate of the Allahabad university is as it should be in regard to its numerical strength. There is not the least doubt that some of the fellowships have been conferred as mere compliments. The senate in almost all the universities has shown greater discretion in electing Fellows than the Government has done in nominating them. Some Government nominees are merely figureheads knowing not a word of English and having not the least insight into educational questions. Such nominations should be discontinued.

We would propose that the number of fellows in the different universities be limited to any number between 125 and 150.

With regard to the qualifications of the fellows, we would suggest that all persons engaged in educational, literary, and research work and taking some active part and interest in educational problems should be eligible for fellowships, which should be vacated by non-attendance, at four consecutive meetings, or for 2 years continuously. But those persons who leave India for good or for more than 2 years, should cease to be fellows from the date of their departure from India. With regard to the tenure of a fellowship the Sabha would urge that neither a very short term nor a permanent appointment would be conducive to the welfare of the university. The former is likely to lead to a great deal of undesirable canvassing besides preventing the fellows from having sufficient time to master their duties; thoroughly and the latter will have the undesirable effect of keeping old and effete members and preventing the infusion of fresher blood.

In the opinion of the Sabha 10 years would to a fair and reasonable length of time. This of course does not preclude their being
re-elected. All vacancies should be filled as they occur in their respective spheres, i.e., by the Government, or the senate or the graduates as the case may be.

We would propose the fellowships to be thus distributed—Chancellor, Director of Public Instruction, Inspectors of schools and Principals of all first and second grade colleges and of all technical and professional colleges, to be ex-officio fellows. The remaining fellowships to be equally divided between the Government, the senates and the graduates of 5 years standing, except in the case of those who take the higher degrees such as the M. A., D. Lit., D. Sc etc. They need not be required to wait for 5 years in order to acquire the privilege of voting.

SYNDICATE.

With regard to the syndicate we see no objection to its being placed on a statutory basis; provided the senate has always full control over it, and its by-laws are framed by the Senate.

The Syndicate of the Madras University consisting of only 9 syndics is much too small. That of Allahabad consisting of 19 syndics comes nearer the proper standard.

We would suggest that it should consist of 2211 syndics as is the case in the Punjab. This would facilitate work by allowing the meretricious routine work to be done by its subcommittees. The election to be thus made.

W. Vice-chancellor
D. Director of Public Instruction
Ex-officio.

5 nominees of the Principals of Colleges.
41 nominees of the Faculty of Arts.
3 Science.
3 Law.
2 Medicine.
2 Engineering.

A Member of the syndicate not attending three of its meetings consecutively should
cease to be a syndic and a fresh election should then be made. The selection of syndics should not be restricted to any one town as is the case in Calcutta and Madras. The syndics to be elected for 2 years. There is great diversity of practice at present about this.

Non-Government Colleges are not adequately represented on the Syndicate. But the system we propose will remove this defect.

FACULTIES.

In our opinion every fellow must belong to one of the faculties. It is no use electing a fellow if he is not competent to belong to one of the faculties. There can be no harm if the different faculties and boards of studies consult selected teachers and graduates in the selection of text-books etc. But the election to fellowship need not be by the faculties. The Government, the senate and the graduates should make the required number of nominations from amongst competent candidates. The faculties must meet at least once a year if not twice.

GRADUATES.

We would suggest that for the purposes of the election of fellows by the graduates and for their consultation by the faculties as suggested above, a 'convocation of graduates' on the lines proposed by Dr. H. Wilson in 1883 in Madras be formed. A Bill was drafted by the senate of the Madras university for the formation of such a convocation. This would keep the graduates after they had finished their university career in close touch with university life and produce a healthy effect by stimulating their literary and educational life.

We are strongly of opinion that each University should keep a Directory of its graduates.
We would further suggest that the calendar of the university should be broken up and published in parts thus, as is done in Madras.

(1) Part I to contain Acts, Rules, By-laws, scholarships and list of affiliated colleges etc.

(2) Part II to contain question Papers.

(3) Part III, list of successful candidates and graduates authorized to vote on questions connected with the university.

The calendar should besides have a complete Index of subjects, fellows, graduates and prizeholders etc., and should contain the dates of the senate and syndicate meetings.

Universities may be empowered to confer only *ad Eundem* degrees on application from persons engaged in teaching in affiliated colleges.

**UNIVERSITY STUDENTS.**

The small percentage of passes is rather due to the varying standard of the examinations from year to year than to any laxity in granting certificates by the principals of colleges. We believe that any interference would only be harmful. We do not see how the University as a body could interest itself in the moral and physical welfare of the students. The matter should be left entirely in the hands of the heads of the colleges especially as under the scheme suggested all of them will be fellows and many even syndics.

Proper attention is paid at present to societies and common pursuits so as to bring the different institutions into closer touch with one another and thus foster a genuine university life. It would be advisable that athletic, literary and scientific societies should be established in the different centres of education in which the Professors and the students could take a lively interest. Such societies if formed under the fostering care of
the different colleges will bring the teachers and the taught nearer to each other and create an atmosphere conducive to the further prosecution of studies and a high standard of public life.

We are decidedly against the fixing of any age-limit for the Entrance Examination. We see no reason for reviving a system which after a fairly long trial was found to be prejudicial to the interests of education and was given up by the Calcutta University as also by the London University from which it was copied. We would here suggest that the school final examination should not act as a bar to any students, who wish to continue their studies in the College classes. This effectually prevents many from going up for that examination. School final being a harder test than the entrance examination, it is only reasonable that the successful candidates should get all the advantages of the entrance passed students.

UNIVERSITY TEACHING.

We have already said that universities are not to be teaching bodies so far as the B.A., B.Sc., B.Lit. and L.L.B. examinations are concerned. That function should only begin after these examinations i.e. for the degrees of M.A., D.Sc., D.Lit., etc.

The statement that many boys begin their college studies without sufficient knowledge of English is true and this is mostly due to an injudicious selection of text-books for the school classes and a bad system of examinations which is ever on the lookout for tripping up the poor examinees on some nice point of grammar or a recondite allusion and never cares to test the amount of colloquial English acquired by the student and chiefly, too bad teaching which is inevitable as long as the pay and prospects of the school teachers are not bettered. Another contributing cause is the very large number of boys he is required to teach. No teacher of languages in the lower school classes can effectively teach more than fifteen to twenty boys in an hour.
The teacher not only requires good knowledge and sound methods of teaching to enable him to do his work well but also a great deal of interest in his work. To secure this end it would be desirable to improve the pay and prospects of the lower-grade teachers as also to secure them a reasonable retiring pension.

The selection of text-books for the school classes is solely in the hands of the Provincial Text-book committee in which the educated public has no voice. The selection of text-books for school classes is a matter of primary importance inasmuch as it forms the basis of higher education and in our opinion our universities are lamentably wanting in the amount of consideration which should be bestowed on the subject. The matter should not be left merely in the hands of a provincial committee whose selection of the text-books have not impressed us with their judiciousness. The greatness of the task and the difficulty of doing it properly is evident from the fact that occasionally even the selection of text-books made by the university is not all that it should be.

With regard to the study of Greek and Latin we are of opinion that there is no necessity whatsoever for including these languages in the curriculum of the Indian universities.

(1) We are firmly of opinion that for acquiring a fluent and correct knowledge of colloquial English it is mere waste of time spending it in the acquisition of a merely nominal knowledge of the two classical languages of the West. What is really helpful is a pretty wide reading of Victorian authors.

(2) The study of the classical languages is being given up in Germany and other European countries and modern schools are being formed without them and are working satisfactorily.

The classical languages of the East, however, deserve a place in the University curriculum. The training in Sanskrit is bad
and defective. There are no good books for beginners. Besides this we are of opinion that the Sanskrit language must as a matter of course be written in the Devanagari character. No local or provincial variation should be allowed in this, as is the case in the Calcutta University.

In connection with the study of Sanskrit, we cannot refrain from deploring the prevalent system of teaching the language in Oriental Colleges, like the Sanskrit College of Benares. The bifurcation of studies commences as soon as the student has learnt the alphabet and without having gained any knowledge of his mother-tongue. Cramming is encouraged to the utmost and Sutra after Sutra in Grammar and philosophy is committed to memory without a real grasp of its bearing. The ability to express intelligently what they have got up is at a minimum. The inevitable result of this teaching is that students are turned out year after year who become the so-called specialists in one or two subjects but who are unable to write a sentence correctly in Sanskrit and whose knowledge of the vernacular is almost nil. This is a deplorable state of things. We would propose that these Sanskrit colleges be brought under the control of the university and bifurcation of studies should only be allowed after the students have attained a fair mastery of not only a vernacular but also of Sanskrit.

The Indian vernaculars are wholly ignored by the Universities, and there are not many graduates who could express their thoughts on paper about some scientific or philosophical subject with accuracy, elegance and ease. To diminish this admitted evil we would propose that in the Intermediate Examination, English should have four papers (1) Prose (2) Poetry (3) Translation from Vernacular into English and (4) an essay in the vernacular. No books in the vernacular need be prescribed for the examination.

Similarly in the B.A. examination there ought to be four papers in English (1) Prose (2) Poetry (3) essay in English (4) essay in vernacular or any particular period of that language.
In the school classes text-books in the vernacular and not a syllabus should be prescribed. There, the students require a thorough grounding in that language.

In this connection, we would further suggest that each university should be required to recognise all the Indian vernaculars which have printed literatures. The Allahabad university is very backward with regard to this matter.

Coming to mathematics, we see no necessity for its being stiffened year after year and to be compulsory even for those who take up the literary courses, for to the majority of the students a knowledge of the Binomial Theorem, Logarithms, Parabola, Sineses and Cosines will be of no use in after life. It is a useless tax on the memory of the students and it leads to no practical results. We would, therefore, recommend that it be an optional subject for the F.A. It would be far more useful to teach Economics, Logic and Ethics which prepare men for the struggle of life.

We may here incidentally mention that the Mathematics Course for the lower school classes is simply crushing. The absurdity of the course is so patent that it needs only to be pointed out to be admitted. For instance the full course of Arithmetic required for the Entrance Examination has to be mastered in the vernacular by the time the young boy of about 10 has got through the fourth class!

THEOLOGY.

We do not think it possible in the present state of things to provide chairs for comparative theology. It would cause endless difficulties and troubles and produce no tangible results. Religious instruction should be left in the hands of the different institutions. The Government should studiously avoid interfering in this matter.
EXAMINATIONS.

Too many public examinations are the curse of the Indian Educational System. We would be glad to see all departmental examinations replaced by school examinations. This would naturally throw more burden and responsibility on the individual Head Masters which would be a move in the right direction. Similarly we would deplore the holding of more than one examination between the entrance and the B. A., as is done by the Bombay University. One of the two might be abolished with advantage. This would bring that university in line with the others. Also the variations in the law Examinations, some having a first L. L. B., others an Honour's Course: after the L. L. B., still others stopping short at the L. L. B., might be reduced to two: Examinations i.e. the L. L. B., and the L. L. D.

In short we would advocate the adoption of a uniform standard for the University Examinations all over India as also the bestowal of the same titles for the same examinations.

EXAMINERS.

A university is the highest educational body in a province and its acts must be above suspicion. With regard to the suppression of the names of Examiners we would strongly repel that the old practice of making them public be reverted to. It serves no useful purpose to suppress their names; besides they are really never kept secret but mostly become known to the students.

Further some of the subjects have been monopolized by particular professors in the United provinces. For example we would mention the English Transl.ation paper (Vernacular into English). The worst of the whole thing is that the Vernacular pieces set for translation are invariably un-grammatical, un-idiomatic and ill-constucted. We do not see any reason why, persons whose mother-tongue the Vernaculars are
not, should only be considered competent for these examinerships. In our opinion there should be as many different persons to set the papers as there are recognised languages. This is not only the case in the translation examinerships but also in most other subjects. We would request the commission to get a statement from the Education Department showing the names of the examiners (with their present posts) of the Middle Examination for the last ten years. From an examination of this it will appear that persons of very indifferent abilities have been appointed in many cases to be Examiners. The information on this head will enable the Commission to get an insight into the way in which matters are managed by the Education Department. We would further suggest that examiners should be largely imported from other provinces to avoid all complaints and to remove much heartburning.

We would also suggest that in cases recommended by the Head of the college or the school, the answer-books ought to be re-examined on the payment of certain prescribed fees.

The marks obtained by examinees, especially the failures should always be communicated to the Head of the college or the school concerned, to enable the teachers interested, to detect the weak points of their students and to try to make up their deficiency.

There should not be one centre, only for the Degree Examinations. For the Allahabad University we would like to see Allahabad, Lucknow and Agra recognised as centres for Degree Examinations. Similarly for these other Universities.

We would further suggest that in all the subjects there should be a number of optional questions in order to have a thorough test of the knowledge acquired by the student. This will greatly prevent cram. Further to guard against the vagaries of the different examiners, the old system of printing in the margin of the question papers the marks assigned to each question should be revived.
Regarding the appointment of examiners, we would suggest that they should be made by the Boards of Studies, and Principalals of colleges should be requested to recommend competent teachers and professors for the said appointments. Examinerships should not be the monopolies of one or two colleges only. In the Allahabad University the Registrar fixes a date within which all applications for examinerships must reach him, but this date is never printed in the Calendar with the natural consequence that a good many applications reach him too late. This needs immediate rectification.

Here we would request that the Examination dates should be carefully reconsidered in the interest of the students. The different universities have been experimenting with the dates for a long time past and it is quite time now that they should arrive at a satisfactory and permanent conclusion. The six months of the cold weather should not be interfered with for examination or vacation purposes.

REGISTRAR AND STAFF.

In our opinion, each university should have a full-time Registrar with a competent staff to carry on the work of his office promptly and efficiently. The pay of the Registrar is too high. A graduate of some European University is not a matter of necessity for the post of a registrar whose duties are mostly clerical, and Indians could easily be found who are quite competent for the post. Rs. 300 to Rs. 400 will, we think, be ample salary. In our opinion some of the universities have not always used wisely their power of appointing full-timed Registrars. It goes without saying that the duties of a registrar require a man of active and alert habits and it is not advisable to appoint persons who have served their full term in the Government service. The 55 years retiring rule might with great advantage be enforced.
AFFILIATED COLLEGES.

The discipline of all Government and aided colleges is not only looked after by the Principals but also by the Directors of Public Instruction and a staff of highly paid Inspectors. Besides, as all of these will be fellows, under the scheme suggested above, and a good many among these even syndies the University will have secured efficient control over the discipline and the teaching, and this latter will also be fairly and fully tested by the results of a freely conducted Public Examination. In our opinion the rules regulating the affiliation of Colleges to the University are unusually unnecessary strict. It is highly desirable that they should be relaxed.

INSPECTORSHIPS.

Although this question has not been raised by the Commission, we think it imperative to record our views on it, for in our opinion it has not only a direct bearing on college education, but also on school education.

No Professor should ever be appointed to be an Inspector, (1) because he is a specialist and not an all-round man, (2) he has no experience of executive work, (3) his knowledge of the Vernaculars is worse than elementary. It is scarcely fair to expect a specialist to waste his time acquiring a mere smattering of an Indian Vernacular. A Headmaster would have all these qualities, (1) the daily necessity of supervising the work of a score of teachers of different subjects is sure to make him an all-round man, (2) he will have plenty of experience of executive work, (3) his knowledge of the Vernaculars is sure to be deeper and more accurate than that of a Professor.

FEES.

We would earnestly request the Commission to move the different government with a view to reconsider their decision as to
the levying of high fees. The policy of ex-
trremely harmful in the interests of the Indian
public. Unfortunately in India, there is a
large class of people who have both the
willingness to receive higher education but they are hampered in their efforts by the high scale of fees which they can ill afford. It has always been the practice of the Hindu and Mussalman governments not only to supply free education, but also free board and lodging. The present idea of making the students contribute towards their education is entirely opposed to the traditions of the country. From this it will appear that all the modern cry of cheap education and underselling is the cry of an interested class. Even now in those Colleges where either no fees or nominal fees are charged it is a mistake to suppose that the education is cheap because the direct recipient has not to pay for it. Many it not be safely questioned, if the money value of the thing is always commensurate with its intrinsic value? Did the Government when it charged smaller fees provide in any way "cheap" education? The same Professor with the same salary taught as much as and as well when the learner paid less for it. The quality of education now given cannot be said to have changed for the better, because of the enhanced rate of fees. It has only succeeding in placing a premium on wealth at the expense of brains. It is sad that such ideas should be given currency, for it is distinctly not cheap to the friends and sympathisers who by their voluntary subscriptions keep up such institutions, annu and to the staff who at great personal sacrifice work on merely subsistence allowances.

The Sabha would strongly recommend, that unpaid managing committees, in charge of Educational institutions should be allowed a freer hand in their management, specially in the matter of those schools not receiving any Government aid; such bodies should be left completely unhampered by the departmental rules as regards their choice.
of text-books, courses of study, examinations &c. It will give the minority of earnest educationalists, a chance to carry out their own views, and thus succeed in providing an objecct-lesson of the correctness, or otherwise, of their educational theories which, if successful, could be adopted later on in the Government institutions.

In conclusion, the Sabha would earnestly implore the Government not to check the growing interest felt by Indians in the education of the youth of the country, by imposing on the island a rigid and cast-iron scheme which does not take into account the immense variety of needs existing in this great continent. The traditions of India disjoin, rather than coconjoin, wealth and learning. The learned man in India has generally been poor. The lacs who are most likely to grow up into stable supporters of learning, into loyal peaceful citizens, into useful servants of the Government, come from the old, but poor, families in which high intelligence seems to be hereditary and poverty the prevailing characteristic. These are being more and more shut out from western education.

The Sabha therefore urges that while the Government insists on efficiency in the teaching staffs of all Colleges, it shall leave free as to their interval arrangements unaided Colleges which are governed by local responsible bodies, and shall allow private munificence to supply the funds needed for the support of these "low fee" Colleges.

The Sabha feels that a too rigid system however well meant, will seriously impair the efficiency of education and it prays the Government to become the fostering parent of all thoughtful efforts to help the educational movement, rather than be their opponent. Thus will the Indians, grateful for a policy that recognises their needs and their traditions, become ever more closely welded into the great Empire of which by Divine Providence, they form a part.

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T. P. Works, Benares.
SUGGESTIONS IN REGARD TO THE ARTS' COURSE OF THE UNIVERSITY OF AAIALLAHABAD.

The following suggestions aim at providing for a plain and unambitious but searching B.A. Examination at the end of three years, without any Intermediate Examinations; and for an Honour's Examination, to be rewarded with the M.A. Degree, at the end of two more years.

I.

1. In India the Schools neither do, nor can provide, such teaching as in England is given in the highest forms of the great Schools: and the clever youths that in England might remain at school till 19 in order to compete successfully for a College Scholarship at Oxford or Cambridge, in India invariably leave School as soon as they are able to pass the Matriculation Examination, i.e., about 16. The material for an Honours' Course is, therefore, not supplied in India, as it is in England, by the Schools to the Colleges. Similarly, while in Oxford or Cambridge few Honours' men get their degree under 22, in India the clever men under a Four Years' Honours' scheme would have College under 21. But, surely, a graduate in Honours aged 21, whose mother tongue is not English, is a spectacle ill-calculated to increase the prestige of our Universities. For these reasons, and because even the best of our College students must of necessity devote a great deal of time and labour to gaining a good practical control over English, so as to be able to read with ease and understanding, I am not in favour of any student commencing an Honours' Course until he has received the three years' training at College and passed the general degree examination.*

2. After three years in a B.A. College, clever students in Arts might be permitted to read Honour's (Courses corresponding roughly to the Honour Schools of Literature, Modern History at Oxford) without the University being liable to the charge of encouraging pretentious sham.

3. The same period—three years—is also, in my opinion, as much as we should require as a minimum for any student. I hope I may not appear to overlook or undervalue the sustained zeal and energy of the College Professors, when I urge that the disadvantages of the present Four Years' Course outweigh those of advantage. The bondage of

* In the B.A. Examination of 1900, of 131 students who passed 4 were placed in the First Division, i.e., gained 60% all round, and only 2 got Honours, i.e., gained more than 75% in any subject. For 1901 the corresponding figures were 175, 6, 6. This does not look as though there were now many students deserving of Honours in 4 years.
daily attendance at 3 or 4 lectures under penalty of a fine, is a system that, if prolonged into manhood, is unfavorable to the development of self-reliance, sense of responsibility, and initiative. Again, in the contracted sphere of a single Indian College it is surely possible in three years to impart to a youth all that he can get from his College as an undergraduate. It is true that at present migration (which I promise to abolish or greatly restrict) affords to the student opportunities of widening his experience, but at the expense of discipline and Collegiate esprit de corps.

But the chief reason for reducing the minimum period of study for the B. A. is that with a minimum of Four Years, i. e. in, probably, the majority of cases an undergraduate period of Five Years, a further course of training, whether literary or professional, cannot be interposed without great hardship between the degree and practical life in a country, where men age more rapidly and incur family responsibilities sooner than in England.

I do not at all urge this reduction on account of the age-limit or any possible addition to the Entrance Course, nor on account of the poverty of the parents. As to the last plea, the Colleges would have to arrange their fees so as to get about as much in three years as now in four from each student; and the University would have to raise the B. A. Fee to get compensation for the loss of the Intermediate, which, though cumbersome and wasteful of the student's time, is a substantial source of income to the University.

4. Under a Three Years' system there would be no room for an Intermediate. The amount of work got through in a First Year Class of students, necessarily very imperfectly acquainted with English is not worth a University Certificate. The existing machinery of the First Year Examination in the various Colleges may be made to work sufficiently well to keep back weak and unfit students, and to stimulate human nature, which in youth is apt to regard with equanimity what may happen after three years. The University should rule that no session should be deemed to have been regularly kept before that session at the end of which the student had, on examination, been declared by the Principal of his College to have made such progress as to be likely to pass the B. A. Examination after two more sessions. The Colleges should be required to submit annual lists of the students appearing in, and of those passing, the College Examination; and be warned that marked and continued failure in the B. A. Examination would result in disaffiliation.

5. At the same time, the B. A. Colleges should be strengthened by migration, being either abolished or allowed only in special cases by permission of the Syndicate. In this way, a student, having once chosen his College, would ordinarily have no means of escaping from its rules. Further, the Colleges would receive substantial compensation for the reduction in the minimum period of B. A. study. Each would be practically sure of its men for three years at least; whereas, at present, migration is common after the Intermediate, and not rare between Entrance and Intermediate, Intermediate and B. A.
II.

1. For the Three Years' Course in Arts, I suggest the following scheme:—

I. — Compulsory English:—

(a) A written examination comprising
one paper in Essay and Unseens,
one " in Translation or as an alternative, for those
whose mother tongue is English, a second essay,
two papers in set books,
one paper in General Modern History 1837-1901,
and (b) a colloquial in one of a number of prescribed prose books.
Candidates would be required to pass separately in (a) and (b).

II. — A Classical Language.

As Classical Languages I would recognise Latin, Sanskrit, Arabic,
Persian. In all, the examination would comprise
one paper in composition,
one in translation of unseen passages,
two in prescribed books and grammar,
one in history with, as an alternative in the case of
Persian, the Elements of Arabic.

III. — One and not more of the following subjects:—

History and Political Economy (open to all candidates).
Logic with Psychology and Ethics (open to all candidates).
Elements of Latin (not open to those who already offer Latin or
who matriculated in Latin).
(?) Elements of Greek (not open to those who matriculated in Greek).
Mathematics.
In each of these subjects the examination would comprise two papers.
The examination in the Elements of Latin or Greek would comprise
one paper in set books and easy unseens,
and one paper in grammar and sentences to be translated into the
language.

2. I have included in Compulsory English a paper on the reign of
Victoria (perhaps the subject should begin further back) in the hope of
dispelling that dense ignorance of the modern world, which now prevents
our students deriving full benefit from modern Literature, and to me, at
least, seems fraught with the gravest dangers. I do not contemplate
anything elaborate; but our students ought to have some faint idea of
the rise and fall of Napoleon III; of the present German Empire; of
colonial development, and the like topics.

I have ventured to replace Persian on an equality with Sanskrit
and Arabic. I am quite ignorant of the language, but no reason urged
against it appears to me to counterbalance the disadvantages of mixing up
the University in the Urdu-Hindi controversy, by so framing its course as
virtually to prohibit Hindus studying Persian and thereby to make them give up Urdu, and so change the present balance of the languages. Moreover, it is the only classical language that in this country unites Sanskrit or Arabic, unlike Latin and Greek in England, divide. The substitution of Sanskrit and Arabic for Persian means throughout our Schools and Colleges that Hindus will sit apart with the Pandit and Muhammadans with the Maulvi, instead of combining in the common study of Persian. I have proposed to strengthen all the classical languages by adding a history paper.

Hebrew, which no one has ever offered here, I have struck out. Neither it nor Greek seems fit to be taken as the sole classical language.

To gain more homogeneity in our Arts Course, I have suggested that the classical language should be made compulsory on all Arts students.

3. In Group III I have added the Elements of Latin as useful to all students of English, and especially to those who wish to go on to England. At present, our students are in great difficulties when they go to Oxford, where two classical languages are required of which only one may be Oriental (Skr., Ar., or Pali). A case may also be made out for including the Elements of Greek in the interest of European candidates, and of native Christians preparing for a subsequent training in Theology. The subject would also go well with Sanskrit, Arabic, or Persian as a preparation for philosophical (with Sanskrit, also for philosophical) studies in the Honours’ School of Classics. It may seem an objection to these Elements of Classical Languages that languages may become unduly prominent. But both English and the main Classical Language would, under the scheme advanced, include some history.

I should be glad to see also in Group III the branches of Natural Science that are permitted in the final pass School at Oxford. But the matter must be left to the experts.

4. In each part of the written examination, i.e., in English, Classics, and the subject from Group III, one-third of full marks should be required for a pass: and I would recommend that a candidate should not be re-examined in any part of the written examination in which he had once passed.

5. To secure as good practical knowledge of English as a spoken language, I propose that it should be necessary to pass separately in the colloquial; and to compel the candidate to keep up his colloquial English right through, also to gain time for a real colloquial by reducing the number to be examined, I suggest that only those candidates be admitted to the colloquial who have already been declared to have passed in every part of the written examination. This involves a considerable interval of time between the two, and the holding of the written examination at the Colleges.

I suggest that the Session for the purposes of the B. A. begin on March 1st, that the Matriculation be held in December to terminate just before Christmas; the written examination in the second week of January.
at appointed centres; and the colloquial in March, and November, at Allahabad. The student would, under this arrangement, join on March 1st, have his written examination in the January after entering College, and if he passed at once, be able to take his colloquial, the last part of the examination, at the beginning of his fourth March as an undergraduate.

The times suggested would suit the European Schools, and would enable the Boards presently to be described to do their work early in March, when the Principals and Professors ordinarily assemble in Allahabad for University business.

In fixing the amount of the courses it should be assumed that a student will attend on an average three lectures daily and not more; that half the time will go to English, one-third to Classics; and the remainder to the third subject. Attention should also be paid to the proportion ordinarily observed in Europe between the time allowed for a paper and the subjects included in it: e.g., not more poetry than the equivalent of 3 or at the most 4 plays of Shakespeare should be included in a three hours' paper. The general standard should be determined by considering what may be reasonably expected of an intelligent youth of 20 who has had to learn English as a foreign tongue.

Candidates whose mother tongue is English might reasonably be expected to pass in 4 subjects, English, Latin, Elements of Greek, and Mathematics, or any other subject in Group III: or English, Latin, Mathematics and any other subject in Group III. To this Group III might perhaps be added for European candidates a modern European language.

III.

In regard to the machinery of examination for the B. A. I submit for consideration the following draft.

1. The B. A. examination shall be conducted through Boards of Examiners appointed by the Syndicate.

There shall be three members of each Board, who shall be appointed in such wise that from each Board one member shall retire each session.

No person may be elected in the same session to serve on more than one Board of Examiners; and no person may be re-elected to a Board before the next Annual Meeting, but one of the Syndicate from the time when he ceased to be a member of the Board in question; provided that in the event of a seat on a Board becoming vacant before the completion of a member's term of three years, any person may be elected to the vacancy for the remainder of the term. The Syndicate shall ordinarily elect to the Boards at its Annual Meeting.

2. The Boards shall set the Question papers for the B. A. Examination in accordance with the regulations in the subjects in reference to which they shall have been appointed. The papers shall be marked by Examiners appointed by the Syndicate. The answers and marks shall be
submitted to the Board that set the questions; and the Board's decision shall be final.

The Syndicate may appoint Assessors to assist any Board in any part of its work in any one year. The names of Assessors and the name of any person correcting a paper set by a Board of which he is not a member, shall be printed in the Calendar under the style:

Associated with the Examining Board in———: A. B.

The papers set by the Boards shall be reprinted in the Calendar as they were laid before the candidates.

3. There shall always be a special Board for English. The colloquial examination in English shall be personally conducted by this Board, with Assessors at the discretion of the Syndicate.

4. The members of the Boards shall receive such pay and allowances as the Syndicate may assign.

These same Boards might be also charged with similar duties in respect to the Matriculation examination.

Each Board should hold a preliminary meeting at which the members should divide the work of setting questions among themselves. Each member should bring up to the Board at its next meeting a larger number of questions than is needed, e.g., three subjects for an essay, if one is necessary, so that the Board may have some room for choice. The final form of each paper should be decided by a majority of the Board.

IV.

An M. A. Degree in Honours following on the B. A. Course just described would, I hope, prove attractive to the better students, who would, with the present age-limit, obtain the B. A. degree easily at 20 or 21, and the Honours or M. A. degree at the age of 22 or 23, i.e., about the same age as is usual at Oxford.

After the B. A. scheme described, the appropriate M. A. Honours' Courses would be two:

An Honour School of Literæ Humaniores (to use the Oxford phraseology),

and An Honour School of Modern History.

The former should always include

1. Latin with Greek, or Sanskrit, or Arabic, or Persian with Arabic;

2. The appropriate history to be studied as far as possible in the original authors;

3. Philosophy with special reference to philosophical texts in the classical language;

4. At least one special subject, and not more than two; e.g., philosophy, history, archaeology, or linguistic science.
The latter should always include

1. English and Indian History;
2. General History during some period selected by the candidate from periods to be named from time to time by the Syndicate;
3. Political Science and Political Economy;
4. A special portion of History or a special Historical subject, carefully studied with reference to original authorities; or a subject or period of English Literature.*

2. Under this scheme the subject of English Literature, now the favorite of our candidates, would become an optional, subordinate to History. It is hardly an exaggeration that no satisfactory method of treating English Literature as an examination-subject has yet been devised, either in England or in India. Nor can it be an intellectually profitable study to men ignorant of Latin and Greek, of modern European languages other than English and of European theology. Philosophy, again, has failed to justify the prominence given to it in Indian Universities, and I suggest that it be, as at Oxford, conjoined with Classics.

3. For Honour Courses bearing even a remote resemblance to the Oxford Courses from which I have borrowed the names, the existing Colleges are, it may be objected, too weak in point of staff. The force of the objection must be admitted, and it is necessary to consider what remedies are feasible.

It has been suggested that M.A. and all postgraduate studies should be undertaken by the University and centralised in one place. But in these Provinces the idea is hardly practicable. The laboratory at Lucknow cannot be transferred to Allahabad, nor is it probable that Oudh would view the transfer of the higher work of the Canning College to Allahabad with satisfaction. The Muhammadan Anglo-Oriental College could hardly do its work at Allahabad as well as at Aligarh. Sanskrit, again, if it is ever to flourish in the University, must be cultivated at Benares, where the learned Pandits congregate. Moreover, if the Colleges did join in such a scheme, they would have to send their more highly qualified men to the central institution, and so become themselves dangerously weak.

I should rather endeavour to gain the end in view, viz., to make the Colleges supplement one another, by encouraging, within reasonable bounds, the migration of M.A. students. To do this, two charges should be introduced.

(1) For the purposes of the M.A. Examination there should be two sessions (Semester) in the year, viz., one beginning on August 1st (the B.A. Examination being in January and March, as proposed on p. 3) and ending on December 23, and one beginning on January 2 and continuing till the commencement of the hot weather vacation, so that there should be four sessions in the M.A. Course of Two Years. Then I propose that a student should be allowed, after his first session, subject to the consent

* I owe an apology to the Historians for this scheme; it is only intended to illustrate the proposed subordination of English Literature to History.
of his Principal, to spend one out of every two subsequent sessions at
another College or Colleges.

In this way, a student who wished to offer a special subject on
which his own College provided no lectures, would be able to go else­
where for the necessary instruction and thus the M. A. Colleges would
be encouraged to supplement one another as (to compare small things
with great) the various Universities do in Germany.

2. To facilitate this scholastic pilgrimage, the M. A. Colleges
should be required to send into the Syndicate lists of the lectures contemplated
in the ensuing session, and the Syndicate should circulate all the
lists in February and November among the B. A. Colleges.

4. But no M. A. College should be allowed to exist which did not
guarantee regular teaching by at least two competent lecturers in any and
every Honour's Course taught at the College. With this regulation,
and the alterations now proposed, the University would get rid of the
present unitary method of one whole subject to one teacher, who too
often, has only one pupil.

5. As the machinery of the examinations, I suggest for History
and for Classics respectively, Boards of Five Members each, appointed in
such wise that two should retire one year, two in the following, and one
in the third year: and that, ordinarily, retiring members should not be
immediately re-elected. These Boards should conduct the examinations,
with Assessors, if necessary, in the manner suggested for the B.A. Exa­
mination. The members should receive an annual fee of not less than
150 rupees each. The examinations should be held, as soon as the num­
ber of candidates justified the change, twice a year, viz., in August and
January.

6. To these Masters I suggest that the University should restrict
the licentiam legendi, disputendi et cetera omnia faciendi quae ad
statum Magistri in faculitate Artium pertinent in such wise that it
should in future be unlawful for any person to be appointed to teach in
a B.A. or M.A. College other than a Master in Arts of Allahabad or
one holding an equivalent degree in Honours of another University:
provided that for Sanskrit, Arabic and Persian the Acarya-examination
of the Government Sanskrit College, Benares, and other qualifications of
like merit should be deemed equivalent.

7. No person whatever should be admitted to the examination until
he had regularly attended lectures for two years (or four sessions) after
taking the B.A. Degree: except bona fide teachers being Bachelors of
Arts of not less than five years' standing.

1. For original work India presents unlimited material, work of a
kind that, for the most part, is now being done under great difficulties by
a few Europeans outside of India, or not done at all, but that natives of
the country could carry on excellently if (1) properly trained and then
(2) properly directed.

2. For the encouragement of research, the idea might be worth
considering that there should be above the M. A. degree the degree of
Doctor of Letters (Doc. Litt.) which should be the reward of original effort. The conditions of the degree should be:

1. The candidate should be required to be a Master in Arts of the University of Allahabad of not less than one year's standing, or a person deemed by the Syndicate to possess equivalent qualifications;

2. He should be required to submit the results of his research in a dissertation which should be examined by persons appointed by the Syndicate. These persons should be empowered to reject the candidate or to summon him to appear before them to be examined publicly in the subject of such dissertation;

3. In the event of the Examiners' certifying that the candidate's work was of a high degree of merit and such as to qualify him for the degree of Doctor of Letters, he should be required to publish the dissertation, or such portion of it as the Examiners might direct, in the form of a pamphlet in which should be included the names of the Examiners and a brief outline of the candidate's life; and to present 50 copies of the pamphlet to the University. After which he should be granted the degree.

The publication of the thesis is an indispensable guarantee of the worth of the degree. I was informed in Germany that the degrees of the different Universities had only come to be of equal value since the published dissertation was everywhere required. It is true that there is not in India the same body of competent and interested critics as in Germany: still, even here, an examining board is likely to be more cautious and less compassionate, when it is to be publicly responsible for the merits of the examinee.

3. But research is impossible without proper preparation, and this can only be received from men who have the ability, the will, the means and the leisure to do original work themselves.
APPENDIX.

Extract from the Address of Sir A. P. MacDonnell at the Convocation of the University of Allahabad, March 8th, 1899 (Minutes, 1898-99, p. 157).

Gentlemen of the Senate, the last matter I have to notice is, in my own opinion, the most important. As I understand the case, the Regulations in Arts make examination in a classical language compulsory only at the Entrance and Intermediate Examinations. It is optional and not compulsory with candidates to take a classical language for the Degree Examination. But there is a large body of opinion—especially of intelligent native opinion—in favour of the view that the Regulations attach an insufficient degree of importance to the study of the Oriental languages, Sanskrit and Arabic. Some would include Persian with Sanskrit and Arabic; but that raises a disputed point on which I do not desire to comment on the present occasion. I would beg to suggest, for the serious consideration of the Syndicate, whether one of the classical languages should not be made compulsory at the Examination for the Degree on all students who do not take up the Science course.
PART II.
SUGGESTIONS FOR A GENERAL MATRICULATION EXAMINATION IN THE UNIVERSITY OF ALLAHABAD AND FOR A SCHOOL OF COMMERCE.

The following suggestions aim at providing for a Matriculation Course that may serve as an introduction to study in an Arts or Science College, or in a School of Commerce.

I.

Of recent changes in our regulations the introduction of an age-limit is, perhaps, by far the most beneficial. It has given a standard for our courses, and we know now that in settling our Matriculation we have to consider what may reasonably be demanded of a clever boy of 16, whose mother tongue is not English. Again, the younger boys are saved from premature and futile examination, and may now afford a little time for fresh air and exercise. But the rule needs, I think, to be both supplemented and re-adjusted.

The supplement, necessary to end the present mixture of young and old at School, is a superior limit beyond which the affiliated Schools should not retain pupils. Further, the present rule reckons by the day on which the examination begins. This is, however, liable to variations and the rule, therefore is uncertain in its application. If, for instance, in August last the Syndicate had postponed the Entrance, as it did the higher examinations, all those boys would have become admissible, who reached 16 between the old and the new dates of the examination. It would, therefore, be better to reckon by a fixed date.

2. In fixing this date regard should be paid to the age up to which any candidate might be detained merely because his birthday fell just after the appointed term. This matter is the more important in India, because, for reason of climate, it is undesirable (at least, in these provinces) to subject boys to the ordeal of an examination between the setting in of the heats and the end of the change to the cold weather, i.e., between the beginning of April and the end of October, or rather of November since the unhealthy season in September and October is unsuited to be a time of preparation for an examination. Our Matriculation can, therefore, be held only once a year, instead of twice like the London Matriculation. Consequently, a candidate kept back by want of age must be detained a full year, and with the present rule of 16 at the commencement of the examination a boy may be detained till he is nearly 17 before he can be examined, and till he is over 17 before he can enter a College. But this difficulty may be much reduced by taking as a term a day about midway between two examinations. Under the following form of the rule no boy could sit for his examination under 15-7 or be detained for age beyond 16-7: the lowest age for entering College would be 15-9 and no boy would be kept back from College by the rule beyond 16-9.
3. I, therefore, suggest that, the Matriculation Examination being held about the middle of December, and the College Session beginning on March 1st, the rule run:

(i) No person shall be admitted to the Examination who shall not be of such an age as to have completed his 16th year on May 24th next following.

(ii) No person shall be admitted to the Examination as a School candidate, who shall be of such an age as to have completed his 20th year on May 24th next following;

(iii) No person shall be admitted to the Examination as a private candidate who shall not be of such an age as to have completed his 20th year on May 24th next following, except by the special permission of the Syndicate.

With these modifications I believe the age-limit would be found to work smoothly; and to promote School discipline by removing all temptation to overrapid promotion into the highest class and by riding the Schools of persons past the School age.

4. In the wording of the rule I have assumed December to be the month of examination. As I have already pointed out, we are limited here to the months of December, January, February and March: some might add the first half of April. From this time we have to strike out January and February, since if the examination is in those months, there is not time enough for the answers to be corrected and the results brought out with due care and deliberation by the end of February; and work cannot be resumed, either by the successful or unsuccessful candidates, till after the hot weather vacation. We are left then with December on the one hand, and March-April on the other.

Against the latter time is the circumstance that Boards of Examiners or revising boards cannot be got together in Allahabad except just before or just after the meetings of the Senate. Most Principals and Professors go to Allahabad for the meeting at the commencement of March; and consequently, boards can be got together in Allahabad in the last week of February to revise and bring out the results. This is impossible towards the end of April.

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1. To qualify for admission into an Arts or Science College or a School of Commerce (see IV) I suggest that every candidate be required to pass a Matriculation Examination, i.e., to obtain ¾rd of the marks in each of the following subjects: provided that the Syndicate be empowered by an act of grace to grant a Matriculation Certificate to any candidate having shown himself otherwise proficient, who may have failed by not more than five marks in a single subject other than English (a) or (b) or Arithmetic: such failure to be noted in the candidate's certificate.

* This date suggests itself as being nearly midway between two examinations, and as being the birthday of His Late Most Gracious Majesty, under whose auspices the University was founded.
Compulsory Subjects:

I.—English.

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Hours</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Translation into English</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>(ii) Dictation</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>(b) Set books and repetition</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>(ii) Unseens and grammar</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>(c) History</td>
<td>3</td>
<td>40</td>
</tr>
<tr>
<td>(d) Commercial Geography</td>
<td>3</td>
<td>40</td>
</tr>
</tbody>
</table>

Candidates must pass in (a), (b), (c), and (d) separately.

II.—Mathematics.

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Hours</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Commercial Arithmetic including the metric system</td>
<td>3</td>
<td>40</td>
</tr>
<tr>
<td>(b) Algebra Part A (including quadratic equations with one unknown quantity)</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>(c) Euclid Part A (I. and II. with easy deductions)</td>
<td>3</td>
<td>30</td>
</tr>
</tbody>
</table>

Candidates must pass in (a), (b), and (c) separately.

III.—A classical language, i.e., Sanskrit or Arabic or Persian.

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Hours</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Set books and repetition</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>(ii) Unseens and grammar</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>(iii) Composition</td>
<td>2</td>
<td>30</td>
</tr>
</tbody>
</table>

IV.—Part A in one only of the following groups:

1. A. Theoretical Chemistry, B. Practical Chemistry, or Botany, or Natural History.

2. A. Trigonometry, B. Mechanics;

3. A. Mensuration, B. Drawing;


2. The Translation paper in English (a) (i) shall comprise three passages in Urdu with as an alternative three in Hindi; and each passage shall be marked by a distinct Examiner or group of Examiners.

The prose prescribed for English (b) (i) shall be the whole or part of the prescribed books in History and Geography. The poetry prescribed shall be of a simple character and shall be the equivalent in length of about 800 lines of blank verse. Candidates will be expected to be able to write down any portions of the prescribed poetry from memory.

In English (b) (i) one-half of the marks (15) shall be assigned to repetition. In (b) (ii) one-third of the marks (10) shall be assigned to grammar.

The examination in set books and unseens shall be conducted through the medium of Urdu or Hindi.

The examination in the remaining parts of the Matriculation shall be conducted through the medium of English; except in Sanskrit, for which the medium shall be Hindi; and in Arabic and Persian, for which the medium shall be Urdu.
There shall be one paper in Algebra, and one in Euclid, each of three hours duration and carrying 40 marks. Each shall be divided into two parts, A and B, 20 marks being assigned to each part. Part A shall be collected at the end of two hours.

In Algebra Part B questions shall be set on Algebra up to the binomial theorem with positive integral exponents, inclusive.

In Euclid Part B questions shall be set on Books III, IV, and VI, with easy deductions.

In Classics (i), one-half of the marks (15) shall be assigned to repetition: candidates will be expected to be able to write down accurately any portions selected by the examiners out of the equivalent of 800 hexameters or 500 slokas.

In Classics (ii) one-third of the marks (10) will be assigned to Persian grammar, but one-half to the grammar of Latin, Sanskrit or Arabic.

Two hours shall be allotted to the examination in each part, A or B, of each group under IV; 15 marks shall be added to the total of every candidate passing in A; and 30 to the total of every candidate passing in both parts, A and B, of a group. No candidate shall be allowed to offer subjects from more than one group. Under IV (1) B, the subject Botany shall include the description in botanical terms of common Indian plants; and the subject Natural History shall include the external characters, general structure, and life-history, of the commoner Indian animals. Special weight shall be attached by the Examiners to such parts of the answers in these subjects as seem to be clearly the result of personal observations on the part of the candidates.*

Under IV (2) B, the knowledge of Mechanics expected shall be such as may be acquired from an experimental treatment of the subject.

Under IV (4) A, Vernacular, candidates offering Arabic or Persian as the classical language shall be required to translate into Urdu passages of a prescribed Hindi prose text, such as Lachhman Singh's prose version of Sakuntala, and to translate from Urdu into Hindi (Nagari character). A similar examination shall be held for candidates offering Sanskrit, with Urdu (Persian character) in the place of Hindi, and Hindi in the place of Urdu.

3. There shall, in addition, be a voluntary test in gymnastics: for which 10 marks shall be added to the total of the successful candidates.

4. The Syndicate may entrust the setting of the papers and the final revision of the marks of Boards of Examiners.

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* These subjects are my imperfect adaptations of the following in the Oxford and Cambridge Higher Certificate Examination:—

(a) The Botany of the Vascular Plants of the British Flora, including the determination of the species, their distribution, their special adaptations to the particular conditions of their life, and the description, in botanical terms, of actual specimens.

(b) Natural history of British animals, including the external characters, general structure, and life-history, of the commoner British animals, Vertebrate and Invertebrate, including their habits, metamorphosis, distribution, and adaptation to external conditions.

The paper in Natural History has the note:—In awarding marks to answers to the following questions, the Examiners will be much influenced by such parts of the answers as seem to them to be clearly the result of personal observations on the part of the writers.

In the Certificate Examination three hours are assigned to these papers.
For candidates who wish to offer Latin, the examination may be thus modified:

Instead of English (a) (translation and dictation) Essay, dictation, repetition, grammar;

Instead of English (b) French or German or Italian or Urdu (Persian character).

As a classical language, Latin only.

In compulsory, Euclid include Book III (as required by the General Medical Council).

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III.

I proceed to comment on the chief changes involved in this scheme.

1. At present candidates have merely to get one-fourth of the marks in History and Geography taken together; and in Arithmetic, Algebra, Euclid (I—IV) and Mensuration taken together: i.e., the University appears to demand a great deal, but is, in reality, content with a little general ignorance. Under this scheme candidates are required to pass separately in each.

By way of compensation, the books prescribed in History and Geography are also to furnish the prose texts prescribed under English (b) (i) for translation into vernacular, whereby I hope also to make the boys read the History prescribed and not a crambook. Further, the compulsory Algebra and Geometry* have been considerably reduced, and Mensuration relegated to IV (3) A.

2. English, taken as language, has been divided into two parts and candidates must pass in each separately. The first or practical part (translation and dictation), being the most important part of the whole examination, receives comparatively high marks: and I think that even if we had this alone, we should secure a better knowledge of English than at present, when grammar and notes compensate for poor translation.

3. In English (b) I propose to test the boy's power of understanding English by requiring them to translate into their own language. At present, they explain English through English, the unknown through the unknown; and many a candidate passes in books of which he would be found to have, but little understanding, if he were set down to translate their simplest passages into his mother tongue. After three years in College the University may reasonably require the students to explain Goldsmith in English; but the demand is unreasonable at the Matriculation stage.

The introduction of vernacular as the medium of examination in the Oriental classical languages should greatly facilitate their study. It is too much to require an Indian boy to put Sanskrit into English.

* The proposals now put forward are based on regulations of the Cambridge Junior Local Examinations.
By thus connecting the vernacular in the schools with the study of English and the classics, we are, I think, more likely to stimulate our students to care for the vernacular than by awarding University certificates (e.g.) of excellence in Urdu to persons ignorant of Persian—whereat I fear lest native society may smile, not unreasonably.

4. This scheme recognises as vernaculars only Urdu and Hindi. Perhaps for 'Hindi' we should substitute 'Hindi or a cognate dialect,' though it is hard to see why, at least for residents of Hindustan, the Local University should recognise the dialects of other provinces.

The subject 'Vernacular' under IV (4) has been framed with a view to encouraging boys to learn both Urdu and Hindi. It seems unnecessary for the University to make special arrangements to present students of Persian with certificates for Urdu, or students of Sanskrit with certificates for Hindi or Bengali.

5. Under both English and the classical language, I have proposed to require boys to get a certain amount by heart, as there is no better method of gaining a sound knowledge of a language, and of strengthening the memory and rendering it exact—a truth recognised in both East and West. The fault of the present system is not that the memory is overdeveloped, but that it is trained to habitual inaccuracy.

Another advantage I anticipate from the introduction of repetition accompanied with a shortening of the text-books is relief to the eyes, a gain of great importance (see Appendix II).

6. To demand a classical language of every boy may seem retrograde, but it should be noted that I include Persian. Some acquaintance with this language is necessary for that thorough knowledge of Urdu without which an Indian can do little in most departments of practical life in this province. Moreover a course for Indians which does not include Sanskrit or Arabic or Persian does not, I should venture to say, afford a liberal education in native opinion, which we ought not entirely to disregard, unless we are satisfied with our present position as suppliers of qualifications for Government service.

7. The addition of IV is intended to encourage the study of Natural Science at School, without rendering it compulsory. The new subjects, Botany and Natural History, are not, perhaps, as yet practicable; but they appear to me to be well adapted to make the boys take an intelligent interest in the world of nature around them.

8. I have added gymnastics as an optional subject to emphasize the importance of health. Hitherto, we seem to have been less successful in developing the mind than in weakening the eyesight,—a process which must continue so long as we value ourselves chiefly on the number of pages we prescribe.

IV.

1. The scheme just explained would, I trust, be found adequate as a preparation for the Degree Courses in Arts and Science and for training
in the Engineering and Agricultural Colleges. But it would also, I hope, serve as the introduction to another branch of education to which, as yet, little public recognition has been granted, and for which little provision has been made,—I mean, higher commercial training. Indian trade and business cannot develop unless the country can supply men fitted by systematic training for something more than the most elementary clerical work: and a sound training in commercial science should be valuable both intellectually and pecuniarily. I, therefore, venture to suggest that the foundation of a School of Commerce is a matter that might well engage the attention of the University. At least, the University might do something to organise the examinations.

2. Under the Matriculation scheme I have proposed, a boy could leave school knowing the elements of English, History, Commercial Geography, Mathematics, Persian, Hindi and Book-keeping, i.e., possessed of the rudiments of a commercial training. Beyond these, he would want in the first place a further course in English (conversation, reading aloud, dictation; copying M. S., letter-writing and use of commercial terms) and in Arithmetic and Accounts. Short-hand, type-writing, Mahájani, Kaithi, Gujarati, Bengali, the machinery of business, the elements of Political Economy, banking and currency (including native methods of banking), commercial and industrial law, elements of civil procedure, industrial products, such are only some of the subjects in which a School of Commerce should provide instruction.

Such a School would be useless without a staff of trained teachers who had themselves personal experience of business; and, therefore, would be, probably, too costly for private enterprise. But if the co-operation could be obtained of the banks, railways, big business firms and chambers of commerce, it ought not to be impossible to start at least one in the province.

If it were successful, the University might in due time add to itself a Faculty of Commerce. At the beginning, however, a course of two years for under-graduates (which might be reduced to one for graduates) followed by a diploma would, no doubt, be sufficient.

I add in the Appendix the senior curriculum now prescribed by the London Chamber of Commerce.

* The following branches have been suggested to me:—Stamp Act, Negotiable Instruments’ Act, Succession Acts, Contracts, Transfer of Property.
APPENDIX I.

"The senior curriculum now consists of six obligatory subjects—English, two foreign languages (candidate's choice of French, German, Spanish, Portuguese, Italian and Russian), mathematics, geography, commercial history, and the elements of political economy. Appended to these are seventeen optional subjects, of which any two may be selected by the candidate, namely, mathematics (advanced), Latin, machinery of business, banking and currency, commercial and industrial law, book-keeping, chemistry, physics, geology, mineralogy, metallurgy, botany, and zoology, microscopic manipulation, drawing, photography, short-hand and type-writing."

(Commercial education in the City by W. R. Lawson, Bankers' Magazine, February, 1902, p. 219).

"A workable scheme of commercial science will have to emanate from the commercial classes themselves. Pedagogic theorists, however clever, cannot contribute much to it, and the less the better. It is a science that can be learned only by practice, and its teachers taught, as a rule, to be actual men of business." (ibid p. 223.)

"We may be still a long way from the realisation of a commercial University, but as a stepping-stone toward it, a demand for a separate faculty of commerce might very reasonably be made on the existing academic system." (ibid p. 222.)
APPENDIX II.

Mr. Ramasawmy Iyengar, Oculist to the Mysore Government, has been prosecuting his important inquiries into the influence of the Educational system upon the eyesight of students, and the results are published in a recent report. The conclusions Mr. Iyengar draws from his visits to schools and colleges all over India, embracing the examination of students differing widely in mental and physical qualifications, merit careful consideration. They confirm the impression conveyed by his earlier investigations, that a hot-house system of education exists, and is exerting appreciably evil effects upon the advanced students in college departments. Statistics carefully compiled from a variety of educational institutions all over India, afford strong presumptive evidence that the vision of children is constantly deteriorating during the school period, and that the eye of the student is unequal to the task constantly expected of it. The use of vision for near objects is becoming constant, and that for distant objects occasional. The long continuance of close work with an imperfect light and in a stooping posture, within many cases brain and body fatigued, leads to the same end. Dark and dingy schoolrooms, which are to be found in many parts of India, and night work with the aid of cheap ill-placed lamps, are also important contributory factors. The percentage of abnormal vision increases with advancing years and lengthening hours of study, and unless we are prepared to see future generations of educated Indians become increasingly myopic, some remedy must be found for the serious developments to which attention has now been drawn.

It is not easy to see in what direction improvement lies. Mr. Iyengar suggests the abolition of home-work, at any rate for children below ten, and the more judicious employment of artificial light. Whilst the ambition of present day Orientals to pass examinations is unimpaired, and a sedentary life is preferred, little reduction would probably be made in the amount of home-work even if the classes were re-arranged. Neither is it easy to induce any boy to take such care of his sight as to always adjust the light at the scientific angle. The most hopeful remedy would seem to be a gradual improvement in the environment of the student, and the increasing popularity of athletic exercises to counteract the mischief wrought by poring too long over books.—Times of India.
PART III.

SUGGESTIONS RELATING TO THE CONSTITUTION OF THE UNIVERSITY OF ALLAHABAD.

Suggestions relating to the constitution and powers of the Senate, the constitution of the Syndicate, and the institution of University Professorships.

I.

I beg to submit for consideration the following alterations in the Allahabad University Act.

A. In place of the present section 5. Follows:—

5. Fellows.

(1) The number of Fellowships in the University, exclusive of Honorary Fellowships, shall not be less than seventy-five, nor greater than one hundred.

(2) Thirty-five Fellowships shall be reserved to the patronage of the Chancellor of the University.

Of these not more than twenty may be attached by the Chancellor to such official posts under Government as may from time to time be specified in this behalf by the Chancellor by notification in the official Gazette. To such of the thirty-five Fellowships as shall not be so attached, the Chancellor may appoint persons by nomination. Every person so nominated shall vacate his Fellowship at the expiration of seven years from the date of his nomination, unless he shall have been previously re-nominated by the Chancellor.

(3) Not less than forty and not more than fifty Fellowships shall be filled by persons elected by the Senate at an Annual Meeting and approved by the Chancellor from the Professors of the University, Principals and Lecturers of affiliated Colleges, Inspector of Schools and Heads of recognised High Schools. Every Fellow elected under this clause shall vacate his Fellowship at the expiration of seven years from the date of his election, unless he shall have been previously again elected and approved: provided always that any such Fellow, if he shall cease to hold any position constituting a qualification under this clause, shall thereupon vacate his Fellowship.

(4) Not less than ten, and not more than fifteen Fellowships shall be filled by persons elected by the Senate at an Annual Meeting as being persons of merit and fit to be Fellows of the University, and approved by the Chancellor. Of these Fellowships every third at the least shall be filled by a graduate of this University of not more than ten years standing from the date of his Matriculation and holding a degree of this University superior to the Baccalaureate in Arts or Science. Every
Fellow elected under this clause shall vacate his Fellowship at the expiration of five years from the date of his election, unless, not being disqualified under this clause, he shall have been previously again elected and approved.

(5) The periods of seven and five years under clauses (3) and (4) shall be held not to include the Annual Meeting at which a Fellow shall have been elected, and to include the seventh or fifth Annual Meeting respectively after the Annual Meeting at which he shall have been elected.

B. In place of the present section 11. Proceedings at meetings of the Senate:

(1) All matters which come before the Senate, including elections to Fellowships, shall be decided by a simple majority of the votes of the Fellows present and voting, provided always that no resolution requiring to be confirmed by the Local Government and sanctioned by the Governor-General in Council, under section 17 (Power to make rules) of this Act, shall be deemed to have been carried, unless it shall have received the votes of twenty Fellows present and two-thirds of the votes of all Fellows present and voting.

(2) During the discussion at any meeting of the Senate of any resolution for the election or re-election of any Fellow to any Fellowship, such Fellow shall not be present, nor shall he vote on such resolution.

(3) and (4). As at present.

Under the proposed section 5, there should be yearly

(a) two or three Seven Years’ Fellowships at the disposal of the Chancellor;

(b) six or seven Seven Years’ Fellowships, and two or three Five Years’ Fellowships at the disposal of the Senate.

There would, probably, be little change in the occupants of the Senate’s Seven Years’ Fellowships; but at least one in three of the Five Years’ Fellowships must be filled by a new man.

II.

I beg to submit for consideration the following alterations in the Rules of the University relating to the Syndicate:

A. In section 45. (The Syndicate shall consist &c.) to add after the words

‘Five other Fellows of the University, to be elected to the Syndicate by the Senate’

the words

‘of whom not more than two may be members simultaneously of the staff of the same affiliated College, and not more than two may be residents of Allahabad.’

B. Instead of the present first sentence of section 47 to read
'The term of an elected member of the Syndicate shall be five years and he shall not be eligible for re-election before the second Annual Meeting of the Senate after the date when he ceased to be a member of the Syndicate.'

III.

If it be deemed desirable to institute University Professorships, I beg to suggest that

(1) Each Professor be required to deliver at least 4 free public lectures annually on matters connected with the subject of his Professorship; to print and publish these lectures; and to present at least 10 printed copies to the University, which shall pay the cost of the printing and publication up to Rs. 300: the lectures to remain the property of the Professor;

(2) A Professor accepting an invitation from the University to deliver his lectures outside his town of residence, shall become entitled to receive travelling allowances;

(3) Otherwise, the Professor shall receive no pay for the present; but

(4) The title 'Professor' shall be withdrawn from the College Lecturers and reserved to the Professors of the University.
Science Teaching.

The teaching of Science in the Colleges and Medical Schools would be improved if teachers and professors gave up the use of published note books of questions and answers, and discouraged their use by their students.

Their use might be largely checked if examination questions were set in such a way that they could not be answered by students who have only learnt these note books by heart.

The teacher should be more carefully chosen, he should be a man who has a genuine love for Science, he should teach what he knows not out of books (the latter being used for reference only).

In a Science course, such as the B. Sc., one subject should be made the principal one, (as is done in Germany). The usefulness of the course would be increased if students were allowed to specialize. As at present arranged, a student has to divide his time between Mathematics, Physics, Chemistry and English, with the result that when he graduates, he is ignorant of even the most elementary processes of quantitative analysis.

Comparative Religion might be studied in a post graduate course, provided the students taking it had a thorough knowledge of their own religion to start with. The main difficulty would apparently lie in finding a teacher who, whilst free from sectarian bias, would respect all religions equally.

The objects of the Central Hindu College are:

1. The teaching of religion and morality on Hindu lines;
2. The uniting of all that is best in the education given in the East and West;
3. The compulsory study of Sanskrit;
4. Low fees which can be paid by the class of well born, intelligent, and poor Hindus,—the class most likely to prove useful to the State;
5. To advance Physical Education;
6. To promote a closer and more friendly communication between teachers and pupils.
As the regulations at present stand, every candidate for a degree has to study for a period of four academical years from the date of his passing the Entrance Examination.

Judging from—

(1) the attainments of those who pass the Entrance Examination as shown by the answers recorded in their papers and conversation with them;

(2) the attainments of those who win a degree.

Similarly judged;

(3) what Professors tell me

The course is not one day too long.

There are very few, I am told on what is competent authority, who can follow a lecture until they have been at least a year in College classes. Our schools at present are fully occupied in teaching—there is no time for education at school, and very little education is given at home. The youth is simply receiving whatever is put into his mind. His masters are in no sense his companions, and at any rate in these provinces there exist at present no appliances for drawing out what is in him. There is no such thing as school public opinion; no sixth form,—no debating society. No general knowledge class—and he has developed no faculty for grasping the salient points of what he sees or hears, for winnowing wheat from chaff.

The time may come when the youth who enters the University doors is better equipped mentally. Till then the four-year course seems to be a necessity.

There would be less exception taken to the four-year course perhaps if the Intermediate examinations were altered. The fact that out of every hundred who are pronounced mentally fit to enter upon a College course, from fifty to sixty, when tested two years later, are either rejected or kept back, sufficiently indicates that there is a mistake somewhere. It extends the four-year course in a large number of cases by at least one year. It is for experts to speak positively. I cannot help feeling that it would be more satisfactory to require excellence in English plus a classical language or English plus Mathematics as necessary for a pass, and be content with less than we now require in the other subjects. Myself I can never see that anything is gained by keeping a student at that age working on in a subject for which he may have little inclination or capacity; but in this I may be wrong. If we adhere to the present course I would put the Intermediate at one year after Entrance, and let the student specialize for three years.

The only ideas that present itself to my mind in this connection is that the University of Allahabad take up in real earnest the duties of a teaching University.
There are certain Departments, if I may so term it, of University Education in which the apparatus and equipment is of so costly a nature that for each individual college to attempt to procure and maintain it at a proper standard of excellence is impossible.

The Science and the Law Departments are instances, and I would be inclined to add the instruction, for the degree of Master of Arts.

The University by Government aid, by contributions from colleges and benefactions can best undertake this work. I would give it to no one college as a college. To do so would be to cripple other colleges.

The teaching thus given would have to be at one centre and here would come the opportunity for outlying colleges to still retain their identity. Let each such College devote part of its funds to the maintenance of a separate or combined hostels or inns with scholarships tenable by preference by men from the mother college, and with tutors separate or combined. These hostels or inns clustering round the Teaching University of and at Allahabad would carry on each its own traditions, but all would share in the Common Teaching of the University, to which all had contributed and on which all could feel they had a claim. The Wardens of these hostels or the tutors would constitute a very powerful element in the Senate and Syndicate. They would be in constant touch with the colleges which they represented. Even here there might be room for further economy in teaching.

Each hostel or group of combined hostels might take up one or more special subjects to which the hostel tutors would devote themselves and provide for inter-communal tuition, apart from the teaching imparted by the University Chairs.

The outlying Colleges at Agra, Benares, Lucknow, Nagpur, &c., would still retain their separate life, and probably a more powerful one. They would be the centres at which the Arts and Science students would still remain, until they were qualified to pass on to the college hostels at Allahabad. In time when the necessity for a University at Nagpur, or at Agra had arisen they would be the living centre of that University, and if they then saw fit could recall to themselves the college, &c., at Allahabad. But that future may be left to take care of itself.

My remarks on economy of power in collegiate teaching have covered much of the ground.

I need not dwell upon the necessity for and advantages of, hostel or residential college life. Presumably few, if any, would advocate the continuance of the system which now prevails.

The Agra College Boarding-houses—the similar institution at St. John's College, the Muhammadan Anglo-Oriental College by the individuality which they impart to their alumni—the finish they put upon them—have proved, if necessity existed for proof, the advantages of collegiate residential life.

Residence out of a hostel should be the marked exception and residence in a licensed hostel should be practically compulsory. But it will
be asked, are hostels to be set apart for separate classes or creeds of students. Most emphatically I answer, no.

The object of our University life should surely be (1) the creation of good citizens, men who can take their proper part in social life, and (2) the bringing closer to each other men of all kinds.

I prefer the idea as I have already said, of hostels existing in the first instance, for men of the particular college which founded them, but with doors open wide for men of any place and any creed.

No doubt the Muhammadan Anglo-Oriental College, if it had a hostel at Allahabad, would attract to itself Muhammadan students from all parts of these United Provinces and be a distinctively Muhammadan hostel; but if it is to have real influence, its influence will be in proportion to the readiness with which it can assimilate others who from any cause are attracted to its walls.

These hostels, if attached to a local college, would be purely college hostels. At Allahabad they should be University hostels, i.e., subject to the control of the University, and not to that of any Allahabad College.

Much, very much will depend upon the fitness of the Warden, and all nominations of Warden should therefore be subject to confirmation by the University.
I believe the establishment of hostels or residential colleges is very necessary. The so-called boarding-houses now existing and attached to the various colleges afford accommodation to only a comparatively small number of students and are generally mere lodging-houses. The boarding-houses already attached to the Government colleges should be enlarged and improved, and a system of grant-in-aid for the establishment and maintenance of such institutions by the public generally, or by the members of any particular sect or denomination of the public, should be inaugurated on lines similar to those laid down for the support of aided colleges and schools. The students attending an affiliated college, who are not living with their parents, relatives or friends selected by guardians, should, so long as room be available, be required to live in Government or the denominational boarding-house appertaining to the community to which they may belong. They may, if they like, live in any other hostel approved by the University. Besides providing a healthy place of residence for the students, the boarding-houses should also make provision for efficient supervision and control over the boys, and for their physical and religious training. This can be best done by placing them under the control of a committee composed of the Principal of the College and some of the leading residents of the community, to which the denominational boarding-house appertains. It should be made the duty of the Principal and Professors of the Colleges to visit these institutions regularly. For the establishment and growth of such institutions substantial aid from the Government is absolutely necessary at present. The work cannot be left entirely to the public, nor is it desirable to permit them to be run on purely commercial lines.

The Senates of some of the Indian Universities have no doubt become too large, chiefly by reason of the fellowships having been given in many cases merely by way of compliment. This however cannot be said of the Senate of the Allahabad University, which at present consists of

(a) 17 fellows ex-officio;
(b) 10 fellows appointed under section 6(2) of Act XVIII of 1887;
(c) 43 fellows appointed under section 5(1), clause (b) of Act 1887;
(d) 43 fellows elected under section 5, sub-section (1), clause (c) of Act 1887;

The Senate can elect as many fellows as the Government may appoint under section 5 (1), clause (b) of the Act. Thus the total number of fellows is 113.

It is not desirable to fix a hard and fast numerical limit for all the Universities. An ideal Senate according to my conception should have

(1) official and non-official fellows in about equal proportions;
(2) a fairly representative number of fellows from each part of the country from which candidates come for the University examinations;
(3) a sufficient number of Specialists in Arts, Science, Medicine, Engineering and Law to constitute the various faculties.

I think the number of fellows qualified in each of these departments of learning in the Senate should be at least about double the number requisite to constitute each of the faculties to admit some going out by rotation every year, and others being elected to fill up the vacancies. Fellowships should be given for life as at present, subject to being vacated for absence at three consecutive meetings except in the case of fellows appointed ex-officio. As at Allahabad, the Senate might be empowered to elect fellows equal in number to the fellows appointed by the Chancellor. The rule has worked well at Allahabad. I would, however, abolish the system of voting by proxy, as it always leads to undesirable canvassing.

The Indian Universities are already to a certain extent teaching universities in the sense that they regulate the teaching in the colleges affiliated to them. The control which they thus exercise might be made more efficient by making stricter rules for affiliation and by inaugurating a system of periodical revision of the list of affiliated institutions. Scattered as the colleges affiliated to the Allahabad University are throughout several provinces under the British Government and Native States, it would be impossible to transfer all of them to Allahabad, and it would be more difficult still to induce the students attending the various colleges to go to the common centre. In my opinion the Indian Universities might for the present be allowed to continue as they are, at least for some time to come. The present system of affiliating colleges up to the B.A., or B.Sc. standards which varies in the various towns within the sphere of the work of each University, might be allowed to stand. All colleges which have got a suitable staff for instruction for the Degree of M.A. in any particular subject or subjects might be allowed, as at present, to send up candidates for the degree in that subject; but with the object of concentrating the instruction for the Degree of M.A. and D.Sc. to the University centres the State Colleges at such places should be considerably strengthened—and arrangement for post-graduate studies should also be made there.

The formation of such a list as well as the institution of an examination for a teacher's certificate is desirable, more in the interest of schools than in that of the colleges. In the Government colleges the higher appointments are filled by recruitment in England and the lower from the ranks of distinguished Indian graduates, generally appointed on the recommendation of the Principal of the College, where they have been educated. The private institutions try to secure the best man they can get for the pay. I, however, do not expect that much benefit would result from this scheme until the prospects of the teachers in matters of pay, promotion and pension are made more favourable. The salary of the teachers in the schools kept up by the District Boards in their respective districts is small, and it is smaller still in aided and private schools. These appointments are not pensionable. The Native
Professors now in the Government Colleges generally secure a salary of Rs. 200 rising to Rs. 300. The result is that Professors who have grown gray in the service continue to draw the small salaries allowed to them, while their compatriots in other departments of Public service are drawing twice or even thrice the amount. Neither the examinations for teachers, certificates, nor the opening of register of teachers is likely to secure for our schools and colleges the desired class of teachers, unless these appointments are made more remunerative and pensionable. The prospects of our teachers in schools are considered worse even than that of the clerks in the Government offices, and the Educational Department in the United Provinces generally fails to attract the best men, or to retain their services for a long time. I think that in the matter of rank, position and emoluments, the Indian Professors in the Government Colleges should be placed in the same position as their fellow countrymen in the subordinate, judicial, and executive services of the Government.

The sphere of influence of each university should be defined for the purposes of the affiliation of the colleges within the limits of each university: but students should be permitted to join any university they like, and they should be permitted to pursue their studies at a college affiliated to the university chosen by them, though they may be natives of places outside local limits of the university. The Punjab University holds examinations for Oriental degrees, &c. It should be permitted to affiliate colleges outside the Punjab for the purposes of those examinations. I see no objection to institutions like the Muhammadan Anglo-Oriental College at Aligarh or the Central Hindu College at Benares being also affiliated to universities other than the one at Allahabad, if they can maintain the necessary staff.

The fixing of a minimum age limit for candidates for the Entrance or Matriculation Examinations seems to be unnecessary. Under the rules now in force in these Provinces in the Government and aided schools, and in fact in all recognised schools, it is hardly possible for a student to finish the school course before attaining the age of 15 or 16 years. If an age limit is to be prescribed, I think the age of 15 would be a less objectionable limit. With the four-years college course from the matriculation to the degree examinations a student cannot join any profession before completing the age of 22 or 23 years. He cannot join the profession of law before that age in these provinces, whereas he can be called to the Bar in England on completing 21 years of his age. In view of the social conditions prevailing in this country, the students in our Indian colleges are burdened with the responsibilities of a family man much sooner than in England, and in my opinion, the present rule will prevent many a young man from continuing his studies so long as he can do now at a college. If the age limit of 16 years for admission to the matriculation be maintained, the Matriculation Examination should be of a standard higher than the present Entrance Examination: and the course from the matriculation for the degree examination should be a three-years course. I have no objection to requiring another year of attendance at a college for those who wish to go up for Honours in the B.A. and B.Sc.
Examinations, but would at the same time suggest that the candidates who passed with Honours should be permitted to go up for the M.A. examination after one year only. At present many students begin their studies for a profession after passing the M.A. examination. With the 16 years minimum age limit for the Matriculation Examination, the number of such persons will become very small in future, and I apprehend fewer candidates will be able to go up for the degree of M.A.

I think that certificates for permission to present themselves for examination are by no means easily granted to the candidates by the Principals of the Colleges. The small percentage of passes is due to the difficulties of the examination in which the candidates have to answer the questions in a foreign tongue.

It will be perhaps better to place the Syndicates of all Indian Universities upon a uniform statutory basis. In the Allahabad University the colleges and the Government are, by no means, inadequately represented. Out of 20 members which go to make up the Syndicate, the Director of Public Instruction, an Inspector of Schools in the United Provinces of Agra and Oudh and a member of the Indian Educational Service, Central Provinces, must always be a member. In addition to them, there must be seven Principals of Colleges affiliated to the University in the Syndicate, three of which belong to Government Colleges and three to the Canning and Muhammadan Anglo-Oriental Colleges and the College at Agra, which are in a manner also under the Government control. The two fellows representing the faculty of engineering are Secretaries of the Local Government. Thus there are always at least eight officers in the service of the Government in the Syndicate. In practice, however, with the exception of the four fellows representing the faculties of Law and Engineering, the rest always consist of teachers of the various colleges and the members of the Educational Department of the Government. Besides the Principal of one of the aided colleges, and one or both members representing the Faculty of Law, all the remaining members of the Syndicate are in Government service, serving in colleges under the supreme control of the Government. The Vice-Chancellor generally is an officer in the service of the Government. I think that non-official members of the Senate should be more largely represented on the Syndicate than they are at present here: that in providing a uniform statutory constitution for the Syndicate of all Indian Universities, an adequate representation of non-official members should be secured.

The machinery now existing for imparting education in law is utterly inadequate. The establishment of an efficient Law College of the University is urgently needed. A thorough knowledge of the principles of law should be required than at present. The study of Hindu and Muhammadan Laws from the original sources should be encouraged and for this purpose Professors of Hindu and Muhammadan Laws, who should be able to teach from original works should be appointed. Candidates going up for Honours in law should be allowed to take up Honours:—say in three subjects out of a number of them that may be prescribed. Those taking up Hindu and Muhammadan Law should be required to possess a competent knowledge of Sanskrit or Arabic and Persian. The institutions
should be on the lines of the Law College at Madras, and although the Government may in the beginning have to spend a large sum in maintaining it for a few years, the institution I expect will, as in Madras, soon become self-supporting. The recent measures for strengthening of the law classes attached to the Muir Central College for which we are indebted to Government in this direction are, I am afraid, inadequate.

In the Allahabad University every member of the Syndicate is not a member of one or other of the faculties. The number of fellows constituting each faculty is limited, and except in the case of Principals of Colleges who become fellows ex-officio in the Faculty of Arts, the other fellows are elected at the annual meeting of the Senate. I think the election to the faculties should be by the Senate. The faculties as at present constituted in the University of Allahabad are, in my opinion fully equal to the duties assigned to them.

Where more than one college has been established in the same town, the University should encourage the Principals of the Colleges concerned to arrange for a system of combined lectures. But I do not think that such arrangements will be frequently made. As a rule two colleges at the same place are not of equal strength, and the classes in both will most probably be overcrowded. Where the classes are not too large to prevent the Professors from devoting their attention to the students personally, it would benefit the students more to attend such a class than to attend the lectures delivered to a large combined class. The University should leave the initiative to the Principals of the Colleges Concerned.
I.—GENERAL REMARKS.

A.—A Teaching versus an Examining University.

There can be no doubt, in my opinion, that the Educational product of a Teaching University is, in every way, superior to that of an University which is merely an Examining body. It is, however, too late in the day to start University education de novo in India. If certain Educational centres in the United Provinces of Agra and Oudh were closed in order to centralize in Allahabad, and convert it into a University City on European lines, the cause of Higher Education in these Provinces would be rather retarded than advanced. Any gain in intensity would be at the cost of extensity, as the necessary expenses of travelling and boarding would be so great as to deter many students who, as day-scholars, now attend colleges in their native cities, from indulging in the luxury of University education. Higher education has not yet laid such a hold upon these Provinces as to justify any experiments likely to weaken its popularity and hinder its diffusion.

The only other alternative seems to be to endeavour to overcome the geographical disabilities, by establishing small universities in the chief cities. For example, in Allahabad, Lucknow, and Agra, so as to utilize and still further expand the Collegiate institutions and Educational Agencies already in existence in these cities. By a system of Inter-Collegiate lectures in such cities some economy might be effected and a closer supervision might be exercised; but it may be doubted whether Higher education under such conditions would be any great advance on the present system. The Educational environment would be too narrow, and too local for true University life.

If such a policy were contemplated, I might here point out that the City of Agra already possesses many qualifications for becoming a University centre. There are three colleges, five high schools [including one for Christian girls], a medical school, a municipal school, a vernacular normal school, besides numerous elementary mission schools for boys and girls. The neighbouring colleges of Gwalior, Jeypore, Ajmer, Ujjain and Indore might also be incorporated until such time as further separation and new grouping became desirable.

All such proposals, however, whether in the direction of centralization in Allahabad, or of multiplying small universities seem at present unnecessary. The former is impracticable, and the latter premature.

The wiser plan is to endeavour to improve the present system, as found in the University of Allahabad—(1) by reforming present abuses, and (2) by a wise reconstruction on lines which seem justified by Indian experience, and on a uniform basis with other Indian universities.

B.—Discipline.

I think that a good deal might be done in establishing a stricter supervision of the private lives of students, so as to ensure, to some
extent, the formation of good moral habits. I should like to see all students attending affiliated colleges, living under residential conditions, approved and regulated by the University. It should not be difficult to ensure that all students during their college career, should live (1) either with their parents, or (2) in licensed lodgings, or (3), best of all in licensed Boarding-houses attached to the different colleges. Under sympathetic and effective superintendence, and the influence of a corporate life, the Boarding-house system would result in healthy morals, better mental habits, and a more manly type of character. If, however, the supervision was lax, I can well conceive how such Boarding-houses might become hot-beds of impurity, and increase the very evils they were intended to remedy.

II.—UNIVERSITY REFORM.

A.—The Senate.

The Senate at present consists of 131 members. Of these, possibly 50, on an average, attend the Senate meetings in March and November. Nearly two-thirds of the members [Deputy Magistrates, Subordinate Judges, &c., &c.] are not engaged in education at all, and take little or no interest in the well-being of the University. In my opinion these “complimentary” Fellowships should be awarded much more sparingly; and it should be understood that the privilege of fellowship carries with it an obligation to take an active interest in University affairs.

Care should be taken too, in any reconstructive scheme, that purely educational questions shall never be endangered by an adverse non-educational vote.

C.—The Syndicate.

The constitution of the Syndicate seems to have been drawn up on a broad and representative basis. It consists of 19 memberships, of which 8 are ex-officio and 11 are elective. The system of ex-officio memberships is not in itself objectionable, provided that the privilege is not the monopoly of a few favoured colleges, but is open to all leading colleges which have qualified for the privilege by affiliation to the M. A. Degree, and a high standard of efficiency.

Of the elective memberships six are “close,” that is, are held in virtue of certain defined qualifications, and five are nominally “open” to the whole Senate. If, however, we study the history of the Syndicate, and examine its memberships at the present time, we see that the original intention of a representative constitution has never been realized. In actual working, these five “open” memberships, instead of being held by members of the Senate representing the interests of Private Institutions (or educational interests other than those of State and aided education already provided for) as apparently was the original intention, have always been held by Professors of the Muir Central College, Allahabad. The constitution of the Syndicate, under these circumstances, becomes open to the following objections:
(i). State Education is over-represented.

This branch of education is represented in the University of Allahabad by three colleges only. Its interests are provided for by the "ex-officio" memberships allotted to the Director of Public Instruction, an Inspector of Schools, and the Principals of the three Government Colleges. When, however, the representation of State Education is augmented by five Professors of the Muir Central College, occupying the "open" memberships, it is apparent that State education is over-represented, as it can then command a voting majority in the Syndicate. It is also undesirable that any one college in the University should possess six votes, when no other college possesses more than one, and several colleges of B. A. standing have no representation at all. The preponderating influence of this college becomes still further apparent, when we note that in the year 1899-1900, the average attendance at Syndicate Meetings never exceeded 10, and in 1900-1901, never exceeded 11. Human nature being what it is, it is inevitable, under these conditions, that University legislation, in the long run, should tend rather to the interests of a particular college than to the good of the University as a whole.

(ii). An important branch of education, namely, unaided or Private Institutions, is entirely unrepresented on the governing body of the University.

In the University of Allahabad there are 18 unaided colleges (chiefly Missionary, and four Native State Colleges). Of these, two are of M. A. standing; five of B. A. standing, and the rest of F. A. standing,—yet they have no voice in the deliberations and decisions of the Executive Committee of the University. In the United Provinces of Agra and Oudh in 1900 there were 6,271 Private Institutions with a roll of 81,853 students. As it has become a tradition of the University that the five "open" memberships shall be held by Professors of the local College of Allahabad, it follows that the interests of this large body of students are entirely unrepresented; and the great assistance given to the cause of education by English and American Missionary Societies remains unrecognised, as entitling them to a voice on the governing body.

(iii). It is too official.

At the present time the number of non-official members is six, namely, the three Principals of Aided Colleges at Aligarh, Lucknow and Agra, the Hon’ble Mr. T. Conlan, the Reverend G. H. Westcott and Pandit Sundar Lal. After excluding the notes of three Government officials who never attend a meeting except under a mandate from His Honor the Chancellor, there is still an official voting majority. Under such a constitution, a University is apt to be considered a department of Government rather than an independent constitutional body, in which all educational interests, official and non-official, should be fully and fairly represented.

(iv). It is too European.

I consider it a great misfortune to education in these Provinces that in the governing body of an Indian University the proportion of
European to Indian should be that of 16 to 3. Under the constitution of the Allahabad University, it might easily happen that all the seats should be held by Europeans. In consequence of this disproportion the system of education is apt to become more Anglican than Indian; and in this fact lies a good deal of the weakness of Higher education. It should not be difficult to find well-educated representative Indian gentlemen, who are competent to advise as to how best to adapt English educational principles to Indian conditions.

C.—Examinerships.

I am of opinion there is very considerable room for reform in the way examinations are conducted in the University of Allahabad. Certain evils, readily recognised and carefully guarded against in other Indian Universities, flourish unblushingly at Allahabad. The following are some of them:

(i). The Syndicate as the appointing body either appoint themselves, or members of the staffs of the colleges to which they belong.

In the Punjab University all examiners must be outsiders, that is they must not be engaged in teaching in any affiliated institution of the University. In Allahabad the members of the Syndicate seem to appoint themselves as examiners in the subjects which carry the highest pecuniary remunerations. Nor are they satisfied with being examiners in one subject only: some hold examinerships in the M.A., B.A., F.A. and Entrance Examinations; others in the D.Sc., B.Sc., B.A., and F.A. Examinations, in one and the same year. There seems no occasion for thus loading themselves with such a burden of work which must be detrimental to their more legitimate work as College Professors. There are plenty of competent Professors in other colleges ready to co-operate: and if the system of appointing Professors engaged in teaching in affiliated colleges can be justified at all—examinerships should, at any rate, be distributed fairly amongst all colleges of B.A. standing.

Examinerships were thus distributed in 1901:

* To Muir Central College ... 8
* Queen's College, Benares ... 8
* Canning College, Lucknow ... 5
* Agra College ... 6
* Muhammadan Anglo-Oriental College, Aligarh.
  St. John's College, Agra ... 0
  Christ Church College, Cawnpore ... 1

To Bareilly College ... 1

Meerut College ... 0

Reid Christian College, Lucknow ... 0

Native State Colleges ... 0

(ii). It is undesirable that students should be encouraged to migrate to those colleges in which Professors have been appointed as Examiners in certain subjects.

The names of the Examiners are supposed to be only known to the Syndicate; but students generally contrive to acquire this information at
an early date; and they flock to certain colleges, not to benefit by honest teaching, so much as to acquire the special notes which may be dictated by the appointed examiner. Thus the present system encourages cram and slipshod work. A study of the University “Minutes” reveals the fact that the examinerships for all the higher examinations have gradually become the monopoly of the Muir Central College, and evidently a bid is thus being made for the exclusive right to teach all M.A., B.A., and B.Sc. students of the United Provinces of Agra and Oudh, to the great detriment of other colleges. Students have said to me: “The expenses in Allahabad are higher, but the chance of passing is greater.”

(iii). A study of the University “Minutes” also reveals, with mathematical invariability, that the proportion of students who fail in given subjects is always least in those years when their own Professors are the Examiners.

I select the following two cases as examples:—

**Agra College.**

*English Paper* [Intermediate].

<table>
<thead>
<tr>
<th>Year</th>
<th>Students entered</th>
<th>Failures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1897</td>
<td>...</td>
<td>59</td>
<td>30—i.e. 50 per cent.</td>
</tr>
<tr>
<td>1899</td>
<td>...</td>
<td>42</td>
<td>20—i.e. 48</td>
</tr>
<tr>
<td>1899</td>
<td>...</td>
<td>43</td>
<td>10—i.e. 37</td>
</tr>
<tr>
<td>1901</td>
<td>...</td>
<td>61</td>
<td>23—i.e. 37</td>
</tr>
</tbody>
</table>

*Additional Mathematics* [Intermediate].

1899 ... 29 3—i.e. 17 per cent.  
1897 ... 29 12—i.e. 41  
1900 ... 28 15—i.e. 53

**Canning College.**

Examples of a different kind in 1901:—

**Muir Central College** [Intermediate].

*No failures* in Physics, Chemistry, and 2nd Course of Mathematics; but failures in these three subjects in all other colleges.

*Muhammadan Anglo-Oriental College.*

*[Political Economy—B.A. Examination].

*No failures* in Aligarh, and only four failures in the whole University.

Interesting mathematical revelations of this kind could easily be extended. In fact a study of all examinations in all subjects for the last ten years, from the figures supplied from the University “Minutes,” would probably reveal a condition of things in connection with Examinerships which would startle the educational world, and show how great is the need for radical reform.
(iv). Again, in the Allahabad University the appointed Examiners consciously or unconsciously reveal the questions which are actually set by them in the University Examinations.

This is either done by the Professors laying stress on particular notes dictated in class, [which notes are afterwards widely circulated throughout the Provinces], or, as last year, in a glaring case, by questions set in a Test Examination. This year, at the present moment, certain questions supplied about a month ago in a Test Examination in the same college, are receiving special attention from students in Agra!

In January this year, the Entrance Examination had to be postponed, because an anonymous correspondent was honest enough to reveal the fact that the questions in some subjects were already known to some of the candidates. Personally, I am of opinion that this "leakage" has frequently taken place in other years, though the University authorities have been unaware of the fact. My own B. A. students have sometimes asked permission to go to Allahabad a day or two ahead of the appointed time, in order that they might be placed on an equality with other students by learning what the subject of the essay was to be!

(v). The system of Moderatorships and Boards of Examiners should be abolished.

Inasmuch as by the present system the questions to be set on any subject are known to Professors in three different colleges, and, consciously or unconsciously, such knowledge is bound to affect the teaching in such a manner as to give to those colleges an advantage not possessed by other colleges.

Remedy.—I recommend that the present system be totally abandoned, and that, as in the Punjab University, all Examiners be selected from Colleges of other Indian Universities; or, at any rate, that question papers be never set by those who are engaged in teaching in any affiliated College of Allahabad University.

D.—Affiliations.

I have recently had occasion to apply for affiliation to the B. Sc. standard. Two Professors from colleges, directly interested in the prosperity of their own Science Classes, were deputed by the Syndicate to inspect and report as to the efficiency of the St. John's College Laboratories. In this case I should not for one moment think of doubting the integrity of the Inspectors; but I am of opinion that competent outside Inspectors could be found, and I think this would be a much more satisfactory arrangement.

In conclusion, I think these points embrace most of the directions in which reform is desirable. It may be thought that my criticisms have been more destructive than constructive. Many interesting questions have been agitating the Allahabad University during the past two years: e.g., the desirability of an uniform Entrance standard, and the A. and B. A. Examinations of equivalent value in all Indian Universities, so as to permit of students freely interchanging, when necessary, shall a
College course be one of three years or of four; shall there be an Honour’s Course; shall subjects be taught from text-books or by syllabus; on these and similar questions opinions have been formed and could be expressed. But sufficient has been already stated for a preliminary memorandum.

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THE UNIVERSITY OF ALLAHABAD AND THE PRESENT CONSTITUTION OF THE SYNDICATE.

It will generally be granted that the Senate of a University should be composed of members who represent the various educational interests of the provincial area over which the University extends; and similarly that the Syndicate of a University, being the executive body of the Senate, should be representative of the various sections of which the Senate is formed.

If we apply these general principles to the University of Allahabad it may be said that the Senate is now fairly representative—although there are several affiliated colleges in Native States still practically unrepresented,—but with regard to the constitution of the Syndicate, there seems to be considerable ground for dissatisfaction, and a clear case for reform.

The dissatisfaction arises from two causes, viz., (1) the present constitution is too official, and (2) as a necessary corollary, it is not representative, either of the Senate, or of the educational interests of the whole University.

The Senate of the Allahabad University may be broadly classified under five heads, viz:—

1. The Director of Public Instruction, and Inspectors of Schools.
2. Principals and Professors of Colleges, in
   (a) Government Colleges.
   (b) Aided
   (c) Unaided, or Private Colleges.
3. Members of the Legal Profession.
5. " " Medical "

The Syndicate, as at present constituted, consists of 19 members, (including the Vice-Chancellor), who are distributed in the following manner—

1. By two members, viz:—
   The Director of Public Instruction, and one Inspector of Schools.
2. (a) By two Principals, and five Professors.
   (b) By four Principals.
   (c) By no representative.
3. By three members, viz., one Judge, one Barrister, and one Pleader.
4. By one Principal and two Secretaries to Government, in P. W. D. Buildings and Roads, and Irrigation Departments.*

5. By no representative, but as the Faculty of Medicine has not yet been constituted, there seems no present necessity for the representation of this section.

Of the 119 Memberships in the Syndicate only five are such as can be described as being "open" to the whole body of the Senate,—the other six elective memberships being held in virtue of certain defined qualifications.

It might be supposed that these five "open" memberships would be carefully conserved by the Senate, so as to represent such educational interests as have not already been provided for in the "ex-officio," and "closed" elective memberships.

As a matter of fact, these "open" memberships have always been held by Professors of the Muir Central College, i.e., by representatives of State Education, the interests of which have already been secured in the appointment of the Director of Public Instruction, an Inspector of Schools, and three Principals of Government Colleges.

It follows that whilst State Education is thus unduly represented, inducing a spirit of "officialism" which cannot but be detrimental to the best interests of a public and liberal institution like a University,—that special branch of education which the Government of India has pledged itself again and again, to foster and encourage, and which is represented in the University of Allahabad by thirteen Unaided, or Private Colleges, maintained at an annual cost of Rs. 3,77,736 (vide p. 14 of the Government Educational Report, United Provinces of Agra and Oudh, 1900) remains without any representation whatsoever, upon the Executive Committee of the University.

Again, in the United Provinces of Agra and Oudh in 1900, out of 13,954 educational institutions, 6,271 were returned as "Private."

If we take the 14 members of the Syndicate, who represent Government and Aided Education, as, directly or indirectly, representing the educational interests of the 7,683 "Public Institutions" in the Provinces, it follows that the interests of 6,271 "Private Institutions," with their 81,853 students, are entirely neglected by the Governing body of the Allahabad University, since no provision is made for the representation of so important a branch of education.

Or again, if the matter be considered from a less general standpoint, that of one of the many missionary societies which are doing so much for the cause of education in these Provinces, some representation for "Private Institutions" on the Syndicate seems necessary and equitable.

*Why are there two Secretaries to Government on the Syndicate? In the University Calendar, p. 60, last para., it reads one or the other. The Schedule of the University Act also only provides one "Ex officio" Secretary to Government as a member of Senate, vide p. 50.

Vide Resolution of the Government of India, dated November 4th, 1899, para. 7: "These figures show that the principles laid down for the final and full acceptance of Local Government's in para. 30 of Home Department Resolution No. 10, dated October 23rd, 1884, are not receiving due care and attention. It was laid down that for all kinds of advanced education, private effort should be increasingly and mainly relied on, and that every form of private effort should be systematically encouraged in such ways as these: (a) by clearly showing that, whilst existing State institutions must be maintained in complete efficiency where necessary, "the improvement and extension of institutions under private management will be the principal care of the Department," (b) &c."

(8)
The Church Missionary Society provides an unaided first grade college at Agra. To this college are affiliated Church Mission High Schools in Agra, Meerut, Lucknow, Benares, Basti, Jaunpur, Azamgarh and Jubbulpore, (and a second grade college at Gorakhpur) to each of which Anglo-Vernacular or Vernacular Branch Schools are attached. The educational work of this Society, though so widely spread, and in the aggregate, reaching some 6,000 students, is in no way recognized on the Syndicate, as being entitled to a voice in its deliberations and decisions.

In conclusion, as there are five vacancies in the Syndicate of which four are to be filled by election, at the Annual Meeting of the Senate, on March 4th, an opportunity will then be given of recognizing the principle that the Syndicate of a University should be representative of all sections of the educational body, which is to be found in the Senate, and in the University, by returning at least one member to represent the interests, and the work of Private Institutions.

AGRA:

John P. Haythornthwaite,

The 25th February 1902.

Member of Senate.
SUPPLEMENT.

I am of opinion that a Teaching University might be feasible in each of the following centres: Allahabad, Lucknow, Agra, Aligarh, and Jubbulpore, within the sphere of the University of Allahabad. In each centre a separate University Building consisting of a Senate Hall, Registrar's Office, etc., would be necessary. All present Colleges—each of which is a University in embryo, since it provides professors for all subjects in the curriculum—would form the basis for the new constitution of the University, the form of which should be determined by the Indian Universities Commission and be the same for all Universities, and drawn up on broad and representative principles. To this University Body might be affiliated residential Halls, or Boarding Houses, which might be called Colleges, as at Oxford and Cambridge, and each might be called upon to supply one or more competent Lecturer, as a condition of affiliation. All students would be required to reside in an affiliated and licensed hall, or hostel, and to live a disciplined life, regulated by conditions drawn up by the University. In this way there would be formed a Teaching University with University Professors, College Lecturers, etc., on very similar lines to those which prevail at Oxford and Cambridge.

The real difficulty, however, is the religious one.

In Oxford and Cambridge only one religion is professed, and consequently compulsory attendance, under a conscience clause, can be enforced.

Sir Anthony McDonnell and others have thought this difficulty could be met in India, by the various halls or Colleges being Sectarian, or caste institutions, in each of which an appropriate religious instructor might be appointed. In my opinion, so simple a solution betrays an utter ignorance of the complexity of the religious difficulty. A Hindu of a given caste may be an atheist, or polythiest, or panthiest, or Arya Samajist, or a Unitarian. Mohammedans are similarly divided into sects and subdivisions, and thus, to compel religious attendance would be impossible, as also to supply religious teachers of so many divergent schools of thought.

Applications, too, are frequently made by Hindu and Mahommadan parents for their sons to be allowed to reside in Christian hostels, so as to become more habituated to European ways, and to be better taught Christian morals.

It would thus be necessary that in addition to caste-hostels, there should be a certain number, which should be open to all who would choose to attend, i.e., "Catholic" as distinct from Sectarian; and that in all such Hostels, attendance at the religious services should be voluntary.

The great point to be observed in all these hostels of colleges, is that life shall be lined under healthy condition, and that there should be a system of moral discipline, to which all students would be obliged to conform. Students may be taught punctuality, obedience, courtesy, truthfulness, honours and duty by the personal example and efficient supervision of a Superintendent of high character and the requisite natural gifts. Hostels without discipline, or effective control, tend to foster and multiply the very evils they ought to remedy.
I propose to note a few points that have occurred to me as important.

The fact that three of the colleges in the Central Provinces are affiliated to the Calcutta and one to the Allahabad University is a great disadvantage. It involves the existence of two different standards, and it is hardly necessary to enlarge on the inconvenience caused by this. Thus, in the matter of the award of scholarships given annually on the results of the Matriculation, F. A. and B. A. examinations, it is extremely difficult, with a double standard, to award them. So, also, as regards admission to the various grades of Government service, it is not an easy matter to decide between the claims of, say, an F. A. of Allahabad and an F. A. of Calcutta. I think that the colleges should be affiliated to one University and preferably to Allahabad. One solution of the difficulty suggests itself, viz., the creation of a separate University for, say, the Central Provinces, the Berars, and Central India. There are four colleges and about sixteen high schools in the Central Provinces. There are two colleges at Indore and another at Gwalior, and there are several high schools in the Berars, Central India and Bhopal. This seems to me to be sufficient material to justify the establishment of a separate university. A university, if it is to be adapted to the needs and requirements of its affiliated colleges, should, I think, be in close touch with the people themselves. A university situated at a long distance from its colleges, and governed by officials who have no knowledge of the language, habits and customs of the people concerned, is apt to become a mere abstraction, not a living and working reality. It is not calculated to inspire the feelings of reverence due to an Aima Mater, nor does it concern itself with the moral improvement of its alumni by inquiring under what conditions they live. It cannot well do so, seeing that they are practically foreigners to it. It is only fitted to set and test examination papers. It is a mere examining machine. This is largely the feeling in these Provinces as regards the Calcutta University. It is less so as regards Allahabad; but even here it is natural and perhaps inevitable that the interests of the United Provinces should be considered before those of these Provinces, even should we be more adequately represented in the University than we are at present. In connection with this question, I may mention what is being done in these Provinces in the matter of the proposed Victoria Technical Institute, in which provision is being made for physical and chemical laboratories. The object of this is twofold. Firstly, to provide the necessary instruction in chemistry for the students of the Agricultural Class and the necessary facilities for experiments in agricultural chemistry. Secondly, to provide for instruction in science, with facilities for practical work in connection with the three local colleges. It is admitted that it is almost impossible for these colleges to provide and maintain separate laboratories and instruments sufficient to make the teaching of physics and chemistry at all valuable, and it would be absurd for Government to fritter away money by making grants to provide and support inferior and rival laboratories. It has, therefore, been proposed that as part of the Victoria Technical Institute, laboratories should be provided which will be open to the students of the local colleges. This scheme seems to tend in the direction of a teaching university, if ever we are to have a university.

2. A matter which I consider of supreme importance is the hostel question, and I think that the universities should take more active an interest in it than has hitherto been the case. There can be no doubt of the risks which youths incur when separated from their parents and exposed to the temptations incident to large cities. I took the opportunity, when I was acting Director in Madras, of visiting some of the lodging-houses in which the students lived. In point of overcrowding, dirt and lack of ordinary sanitary arrangements, it would be
difficult to exaggerate the condition of these houses. Many of them were, I found, kept by ex-dancing girls. In these Provinces, the Government has recently introduced an order directing that no student, whose parents are not residents of the place in which the institution to which he seeks admission is located, shall be admitted to any college or school unless he lives either—

1. with guardians approved by the head of the institution; or
2. in a lodging-house licensed as such by the Director of Public Instruction; or
3. in a regular hostel.

I think that some such rules might, with advantage, be adopted by the universities. In the larger cities there might be, as in Oxford and Cambridge, Boards whose duty it should be to inspect students' lodging-houses.

3. Attention has frequently been directed to the ignorance and unpreparedness of students who join our colleges from the various high schools. I attribute this to the fact that the High School course (two years) is too short. The students cannot get through the course in the time. I think that it should be increased to three years.

4. Mr. Herbert Spencer, when he visited India some 22 years ago, wrote a letter to the papers commenting on the various examination papers set for the Calcutta University. He remarked on the extreme difficulty of the history and philosophy papers, adding that he himself could hardly answer a single question in any of them. He especially ridiculed the papers in English literature, in which there were questions on lowland Scotch colloquialisms from Scott's novels, which even a Scotchman himself could hardly answer. He strongly advocated greater simplicity in the papers. I am disposed to share this view. I think the curriculum in English literature should contain only good books of modern English not earlier than, say, the 17th century. I would exclude Anglo-Saxon altogether, except, perhaps, for the M. A. degree, and I would veto such books as Ruskin's "For Faris Clavigra", "Sesame and Lilies", Arnold's "Essays on Criticism" as being beyound the capacity of the ordinary native student. Good modern novels might be selected, but I would place such authors as George Meredith on the Index Exspurgatorius. The style is difficulty for an English, but quite incomprehensible to an Indian, student.

5. I think that the Government of India should reserve to itself the right of vetoing any of the books sanctioned by a University that they consider objectionable.
1. Speaking generally, I am of opinion that the University system of education in India has worked well. It is impossible for one who has been in India, and in close contact with its people, for more than thirty years, as I have been, not to see that education has produced wide and far-reaching results, both in the character and life of those that have come under its influence, and that this influence has, on the whole, been for good. Education has not, indeed, accomplished everything that was expected of it; but it has done much; and, in one respect at least, it has more than fulfilled the most sanguine hopes of its founders—I mean, in respect of its popularity. A system of education, like a system of government, must be adapted to the wants and wishes of those for whom it is intended. If it is not appreciated, it will be a practical failure, even if it were theoretically perfect. Let the present system of education be tried by this test, and the wisdom of its founders will be abundantly vindicated. I have thought it necessary to emphasise this point, because many of our critics seem to think that the popularity of our Colleges is an argument against them. It may be true, or it may not, that there are too many B. A’s; but if it is true, it only shows that our system of education is thoroughly adapted to the character and circumstances of the people.

2. But, it will be asked, what do mere numbers avail when the men whose destinies you are shaping by your educational system turn out mere imitators, instead of original thinkers, men who are quick to imbibe a vast amount of book knowledge and store it up in their capacious memories, but cannot see its practical bearings, and apply it to the greatest purposes of life? I am inclined to think there is a good deal of exaggeration in this way of putting things, and that there is more of real assimilation going on in the minds of our educated men than many suppose. But even if it were otherwise, have we fully considered the importance of the element of time in a question of this kind? The introduction of the inductive system of philosophy in Europe three hundred years ago was a greater innovation on previously existing systems than was the introduction of an University system, little more than fifty years ago, in India. How did the Baconian system fare in Europe? Did it not slowly and gradually win its way, first into the understanding and then into the lives of men, till in the nineteenth century it blossomed out into all those discoveries and inventions that are the glory of our Victorian era? And how do we know that, time being given, similar results will not follow the introduction of western ideas and modes of thought into this ancient and conservative country of India?

3. If education is to produce its natural and legitimate results, much will of course, depend on the mode in which it is conducted. Here the question of text-books naturally comes in. Should text-books be used, or should we follow the time-honoured example that has been set us in the West, of lecturing? The system of lecturing has much to recommend it. It keeps students on the alert, compels them to exercise their minds, and gets them out of that condition of mere receptivity which is fostered by the constant use of a text-book. On the other hand, we must not forget that the medium of instruction in this country is not the student's vernacular, but a foreign tongue, with which he is often imperfectly acquainted, and which is itself one of the subjects in his curriculum. If we do nothing more than lecture, a few of the more intelligent students will benefit, but the bulk of the class will go to sleep. Under these circumstances it seems to me that a judicious blending of the two methods is what is best suited to India. Let text-books be prescribed, but let them be explained, and expanded, and supplemented, by the living voice of the teacher.

4. It is often said that our whole system of education is vitiated and made practically useless by what is popularly known as "cram"; and it has been suggested that the best way to get rid of this is to abolish text-books. It seems to me, on the contrary, from what I have already said, that this drastic remedy
as more likely to increase the disease. "Cram" is an evil too deeply rooted in human nature to be got rid of by any short and easy method, to say nothing of the fact that it is not always possible to distinguish between it and knowledge legitimately acquired. There are many ways in which "cram" is accomplished, but they may, perhaps, be gathered under two heads—one is, the accumulation in the mind of facts and principles which are not understood, and the other is, the storing up in the mind of matter that is well enough understood, but is retained only for a temporary purpose, viz., the passing of examinations. Now, as regards the latter, I am not sure that there is more of it in India than in England; and, if there were, I do not know that Universities can do much to get rid of it. As to the former, which is, perhaps, "cram" properly so called, and which is, undoubtedly, a great evil in this country, the remedy seems to me to lie more in the hands of the teacher than of the University. I do not say that the University can do nothing, but I do say, that in spite of all the University can do, there will be "cram" so long as the teacher does not make it his business to see that the intellect and heart are cultivated as well as the memory.

5. The great end of education is, however, after all, not so much intellectual development as moral growth. The formation of character is more important for all the great purposes of life than the quickening of intellect. Mere head-knowledge, however admirable and even necessary, is a poor equipment for the battle of life. Any system of education, therefore, that is worthy of the name, must keep this in view, and find means, if possible, to attain this aim. Will the end be accomplished by the use of what is called "a moral text-book"? I hardly think so. I have the same objection to moral text-books as a means of teaching morality that I have to theological text-books as a means of teaching religion. As I would teach religion in the way the Bible does it, not by elaborate presentations of abstract theology, but incidentally as it were, by history, biography, poetry, proverb, drama, and many other ways, so I would teach morality incidentally, and I would use for this purpose the inexhaustible resources of our English literature. Let the Universities give us well-chosen text-books in English literature and the need of a moral text-book will not be felt. I have taught English for thirty years, and I do not think a day has passed in which I had not abundant opportunity to inculcate moral truth, if I chose to avail myself of it. In this connection I think, too, that field games, such as football and cricket, are of great value. Some of the ordinary social virtues can be better taught in this way than in any other. Only a few weeks ago I was present at a football match on a piece of ground that has been generously placed at our disposal by our Chief Commissioner; and when I saw a Muhammadan throw his arms round a Christian's neck and congratulate him on having scored a goal, I felt that I had seen something beyond the reach of any moral text-book.

6. To come to local affairs, the most difficult question we have to deal with at the present time is the question of affiliation. The Colleges and High Schools of Nagpur, together with the High School of Chanda, are affiliated to Calcutta, while the Government College at Jubbulpore and most of the other High Schools in the Provinces, are affiliated to Allahabad. This arrangement can hardly be considered satisfactory, more especially as the Provinces are under the same local administration. Now there are three ways in which we may try to meet this difficulty—

(1) By having all the Colleges and High Schools affiliated to Calcutta.
(2) By having all affiliated to Allahabad.
(3) By creating a new University for the Central Provinces, to which all the Colleges and High Schools would naturally affiliate.

As regards affiliation to Calcutta I would like to say that, while I have no fault to find with the way in which educational matters are managed by this University, and so far, I see no reason why all our educational institutions should not be affiliated to Calcutta, I have always felt that it is a distinct disadvantage to have no representative either in the Syndicate or the Senate, and that, owing to distance, it is impossible to have any that will not be purely nominal.
As to affiliation to Allahabad, the feeling in Nagpur is distinctly unfavourable and is not likely to change, unless the University give us an assurance that they will grant us the same facilities, in regard to the holding of examinations, as we now enjoy at the hands of the University of Calcutta. All the University examinations—Entrance, F.A., B.A., and B.L.—are held in Nagpur, and we are naturally unwilling to forfeit this privilege. Besides this, however, there is a feeling in Nagpur that our destinies as educational institutions are safer in the hands of a moderately progressive body like the University of Calcutta than they would be were we joined to a University that seems to favour experiments.

Under these circumstances, may we not ask whether the time has not come to consider the question of a University for the Central Provinces? I do not mean, of course, that this difficulty about affiliation, serious as it is, would be, in itself, a sufficient ground to ask for a new University. It is an important element in the case; but I hope to show that my proposal can be argued on its own merits. There are, at present, in the Central Provinces, 4 Colleges—the Morris, Hislop, and St. Francis de Sales in Nagpur, and the Government College at Jubbulpore. There are also 15 or 16 High Schools. If a University for the Central Provinces were established, I think it likely that the High Schools in Berar, which borders on the Central Provinces, would affiliate to the new University, as many of their students, even now, come to Nagpur to continue their studies. Further, might not the Colleges in Central India, Holkar’s College, and the Canadian Mission College, which, at present, are affiliated to Calcutta affiliate to the Central Provinces University? I think we have, therefore, as far, as numbers are concerned, a sufficient basis on which to erect our superstructure.

Then, I have no doubt that, within the area I have indicated, men could be found who are capable of doing all the work involved in such an undertaking. If it should be thought desirable in some branches of science, chemistry for example, to have candidates for honours tested in practical work, as is the case in Calcutta, the new laboratory that is to form part of the Victoria Technical Institute, and is to cost Rs. 30,000, would be admirably suited to the purpose. All that would be required in the way of buildings would be readily furnished by the liberality of the people, as the movement would be immensely popular throughout the Provinces. The University would, of course, be comparatively small at first, but it would grow, and, I believe, rapidly. The progress education has made in the Provinces during the last quarter of a century is very remarkable. Twenty-five years ago, not more than 50 candidates presented themselves for the Entrance Examination at the Nagpur centre. This year, the number is 314. It is difficult now to find accommodation for them, and more difficult to supervise them. I do not think there would be any risk of the standard being lowered. I think, on the contrary, that a University of our own, of which all the Colleges would feel themselves to be a part, and in which they would take a living interest, would lift the standard of education higher, and rally round it, in ever-increasing numbers, an enthusiastic and grateful people.
I.—The Constitution of the Senate.

According to Act II of 1857, the Senate of the Calcutta University consists of the Chancellor, Vice-Chancellor and the fellows. At present there are 187 fellows in the list. Of these 70 are Europeans, 21 Muhammadans, and the remaining 96 are Hindus and of other creeds. From the numbers and also from the positions and attainments of many of the European fellows, it appears to me that the European element is quite strong and fairly represented in the University. Considering the number of the Muhammadan students going up every year for the University examinations and receiving instructions in the different colleges, I think the number of the Muhammadan fellows is not at all small. As there are 77 Arts Colleges, one Association for the cultivation of Science, one Engineering College, and one Medical College, making a total of 80 institutions, I think the number of fellows in the University is not very large and the Senate is not an unwieldy body. Although there are 77 Arts Colleges affiliated to the Calcutta University, there are only about 30 fellows out of the total number of 187 who are professors actually engaged in teaching up students for the University examinations. In English Universities the professors of the colleges have a larger share in the management of the University affairs; but from the very smallness of the number of the professor fellows in the Calcutta University, it appears that the professors have much less share in the management of the University than what they should have. I do not mean to say that the non-professorial fellows are inefficient and mismanaging the University; but on the contrary many of them are gentlemen of very high attainments and eminent in their own lines, and notwithstanding their small leisure they are taking a good deal of interest in the University, for which all the professors should be thankful to them. But still I believe that the management of the University is capable of improvement. If more professors be allowed seats in the Senate and the Syndicate, I believe they will be able to assist the two learned bodies in their deliberations on many important points, by their long experience in training up students who go up for the University examinations. His Excellency the Chancellor remarks in his convocation address of the 17th February 1900: “We teach you in your Indian Colleges and we examine you in the Indian Universities.” In this remark His Excellency very rightly speaks as the representative of the teacher and the examiners both, and by putting the word “teach” first, he attaches a considerable amount of importance to the teaching of the students and to those who perform that important function. I therefore beg to suggest that in the Senate the proportion of the teaching element, the professors, should be much larger.

There are 45 1st grade Arts Colleges affiliated to the Calcutta University. Of these, 15 are in Calcutta; 7 colleges outside Calcutta have
each other on different educational points, and wherever possible by actual co-operation and also teaching, examining and conferring degrees, would constitute the composite body, one large organism, the University. With this easy change effected, His Excellency's significant remark, “We teach you in your Indian Colleges and we examine you in the Indian Universities” may be realized in no time.

IV.—MULTIPlicity OF Subjects IN THE LOWER Classes.

His Excellency the Viceroy in one of his brilliant speeches remarked that the life of an Indian student is a series of endless examinations. That His Excellency’s remarks are most appropriate and true will be evident from the following list of text-books and subjects for the 6th class of a grant-in-aid H. C. E. School in Bengal, where the unnecessary subjects have been introduced only recently according to the directions of the Educational Department:


The subjects and the books are more numerous than what are prescribed for the Entrance examination. The boys who generally read in the 6th class are between 8 and 10 years of age. The guardians have been consequently very anxious and alarmed by this change. I cannot understand how boys of such tender years will master geometry, mensuration, geology and physics, although they are written in Bengali.

I am sure this multiplicity of subjects will come in the way of obtaining efficiency in language, and will foster cramming.

In the lower classes of the schools of the Central Provinces, the subjects are not so numerous; but still the teachers complain of the multiplicity the subjects and consequent inattention to language. I have often marked that the boys in the school departments are not strong in English. The members of the Universities Commission, the Hon’ble Justice Doctor Banerjee and the Reverend Doctor Mackichan, also noticed this.

This deficiency in language can be attributed to two causes—(1) the multiplicity of the subjects, and (2) the shorter term for studying English.

While attempts are being made to stop cramming as much as possible, it is very unfortunate that in Bengal subject have been introduced in the lower classes which will make cramming inevitable, and will tend to create a distaste for learning. “The endless examinations” which a student has to pass have become more difficult, tedious and burdensome. I beg to draw most respectfully the attention of the most learned members of the Commission to this point. Although it may not be directly within their province, still I hope that any system which affects the welfare of the boys of so tender age now, and who will come into our University after some years, should not escape the notice of the learned body now assembled.
in the Senate and the Senate in the managing council of the college. This, I believe, would make the whole University a composite body and would be a right move towards making the different colleges parts and parcels of the University.

In the case of fellows of very distant colleges like those of Kandy and Colombo, the attendance of the fellows may be excused and their opinions and views may be asked for.

During the convocation week, the fellows from the different colleges may meet to discuss many educational problems and to interchange their views concerning the actual teaching of the students, and thus may help each other. These meetings may be held under the auspices of the Faculty of Arts. This Faculty meets about four times a year, and it may meet once or twice during the week before or after the convocation.

The collegiate fellow may be elected every two years by the professors of the respective colleges. As to the fellows nominated by the Government there need not be at present any limitation as to their period of fellowship.

The above suggestions seem to me quite feasible without revolutionising the present system, and they are quite essential to the improvement of the teaching function of the University, which although it does not possess by law, but which has spontaneously evolved out of the steady growth of the University.

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II.—The Constitution of the Syndicate.

This executive body of the Calcutta University owes its existence to a bye-law made by the Senate empowered by Act II of 1837. For the last so many years the Syndicate has so satisfactorily done its work and has proved its usefulness, that its worth and importance are recognised by the entire public. But still I hold its functions may be enlarged, and it is capable of much improvement. It is at present composed of the Vice-Chancellor and ten fellows. Of these latter 5 are elected by the Faculty of Arts, 2 by the Faculty of Law, 2 by the Faculty of Medicine, and 1 by the Faculty of Engineering. The following list will show the number of candidates who appeared at the different examinations in the year 1899:

<table>
<thead>
<tr>
<th>Course</th>
<th>Entrance</th>
<th>Graduates</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance</td>
<td>5,975</td>
<td></td>
<td>11,101</td>
</tr>
<tr>
<td>Arts</td>
<td>5,126</td>
<td></td>
<td>5,126</td>
</tr>
<tr>
<td>Law</td>
<td></td>
<td>483</td>
<td>483</td>
</tr>
<tr>
<td>Medicine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre. Sic. Ex.</td>
<td>334</td>
<td>93</td>
<td>427</td>
</tr>
<tr>
<td>First Ex.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Ex.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re. Ex.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>72</td>
<td></td>
<td>72</td>
</tr>
</tbody>
</table>
The following list will show the number of colleges and schools in
the different branches:

<table>
<thead>
<tr>
<th>Branch</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Colleges, 1st grade</td>
<td>45</td>
</tr>
<tr>
<td>Art Colleges, 2nd grade</td>
<td>32</td>
</tr>
<tr>
<td>Recognised schools</td>
<td>680</td>
</tr>
<tr>
<td>Law</td>
<td>21</td>
</tr>
<tr>
<td>Medical College</td>
<td>1</td>
</tr>
<tr>
<td>Engineering College</td>
<td>1</td>
</tr>
</tbody>
</table>

Although Roorkee is in the list, still its examinations are not conducted by the Calcutta University.

The above two lists will show at once that the number of students who appear at the Arts Examinations is much larger than the candidates for the other examinations. The number of Schools and Colleges in the Arts Department is also considerable. So I think that it is necessary that there should be more members in the Syndicate from the Faculty of Arts than there are at present.

In the Syndicate of the year 1901-1902 it is found that there are only five members from the Faculty of Arts, of whom only one is a Professor (the Rev. Father E. Lafont) actually engaged in the teaching of the college classes. Thus while the number of students and candidates in Arts Department is so very large, there is only one professor in the Syndicate representing the Faculty of Arts. This is not a particular case of one year. But the same thing will be found in the constitution of the Syndicate for the last many years.

<table>
<thead>
<tr>
<th>No. of Professor members in the Syndicate</th>
<th>Calendar for</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1890</td>
</tr>
<tr>
<td>1</td>
<td>1891</td>
</tr>
<tr>
<td>1</td>
<td>1892</td>
</tr>
<tr>
<td>0</td>
<td>1893</td>
</tr>
<tr>
<td>1</td>
<td>1894</td>
</tr>
<tr>
<td>1</td>
<td>1895</td>
</tr>
<tr>
<td>0</td>
<td>1896</td>
</tr>
<tr>
<td>1</td>
<td>1897</td>
</tr>
<tr>
<td>1</td>
<td>1898</td>
</tr>
<tr>
<td>1</td>
<td>1899</td>
</tr>
<tr>
<td>0</td>
<td>1900</td>
</tr>
<tr>
<td>1</td>
<td>1901</td>
</tr>
</tbody>
</table>

It will be found in the above list for 12 years that the number of professor members in the Syndicate is very inadequate and there are years when there is not a single member in the Syndicate.

Thus it appears that there should be more professors in the Syndicate actually in charge of the college classes. If the number of the members of the Syndicate be increased from 10 to 15 (of which the Faculty of Arts may elect 10, of whom 5 must be professors), I think that would be a fair representation, and the Syndicate will receive much assistance.
from the Professors having the experience of teaching the different subjects.

There is nothing in the bye-laws which authorises the principal or the professor of a college to correspond with the Syndicate on University matters,—as to point out any irregularity in the University questions, or to draw the attention of the Syndicate to the necessity of changing a textbook or syllabus, and such other things. I think that there should be a clause to that effect. At present the Syndicate is not sufficiently in touch with the colleges. I think more communication is necessary. The collegiate fellow may be allowed to keep up such correspondence.

To effect these desirable changes and to recognize and develop the teaching function of the University, I think legislation will be necessary. But the number of the fellows of the Senate or the members of the Syndicate should not be fixed by legislation, nor the preponderance of any class or nationality should be effected by legislation. Our University should be above all such petty distinctions.

III.—The University to be a Teaching Body.

When the Calcutta University was brought into existence by Act II of 1857 it was an examining body with the power of conferring degrees; it is literally continuing to be so since that time. But its functions have developed steadily, and in many points it is partially a teaching body even now. According to the rules of the University a candidate has to attend a certain percentage of the lectures before he is allowed to appear at any examination. Thus a certain amount of training in the college is enforced. The professors of the colleges have actually to teach the students up to the standard of the examinations. Thus it is evident that the University has indirectly assumed the function of teaching; and this function is capable of development. But if it is urged that, in order to be a teaching body, all the colleges of the University are to be concentrated in one town and to be under the direct management of the Senate, and that there should be only one teaching staff maintained by the University and the whole army of students to be congested in one place, I must admit in that case that the idea is quite impracticable.

But still I hold that without this congestion of students and colleges in one place, the Universities may be recognized by law as teaching bodies. In order to be a teaching body as well as an examining body, the teaching agencies of the University, the different colleges, should form parts and parcels of the whole University. At present the University only comprises the Senate, and the colleges are affiliated to it; but if it develops to a teaching body, it should comprise the colleges also, which must be represented in the Senate by their fellows. Thus, the two functions of teaching and examining can be easily combined and vested in the University by law. In this manner the different colleges and the Senate, connected with each other through the fellows and communicating with
each other on different educational points, and wherever possible y actual co-operation and also teaching, examining and conferring deg rs, would constitute the composite body, one large organism, the Unive cy. With this easy change effected, His Excellency's significant re rks, "We teach you in your Indian Colleges and we examine you i the Indian Universities" may be realized in no time.

IV.—MULTIPICITY OF SUBJECTS IN THE LOWER CLASSES.

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The subjects and the books are more numerous than what are prescribed for the Entrance examination. The boys who generally read in the 6th class are between 8 and 10 years of age. The guardians have consequently very anxious and alarmed by this change. I cannot understand how boys of such tender years will master geometry, mensuration, geology and physics, although they are written in Bengali. It will foster cramming. I am sure this multiplicity of subjects will come in the way of obtaining efficiency in language, and will foster cramming.

In the lower classes of the schools of the Central Provinces, the subjects are not so numerous; but still the teachers complain of the multiplicity the subjects and consequent inattention to language. I have often marked that the boys in the school departments are not strong in English. The members of the Universities Commission, the Hon'ble Justice Doctor Banerjee and the Reverend Doctor Mackiehan, also noticed this. This deficiency in language can be attributed to two causes—(1) the multiplicity of the subjects, and (2) the shorter term for studying English.

While attempts are being made to stop cramming as much as possible, it is very unfortunate that in Bengal subject have been introduced in the lower classes which will make cramming inevitable, and will tend to create a distaste for learning. "The endless examinations" which a student has to pass have become more difficult, tedious and burdensome. I beg to draw most respectfully the attention of the most learned members of the Commission to this point. Although it may not be directly within their province, still I hope that any system which affects the welfare of the boys of so tender age now, and who will come into our University after some years, should not escape the notice of the learned body now assembled.
V.—Suggested Changes in the Examinations.

(a) For the B. A. Science course a full and complete syllabus of practical work to be done by the candidate should be prepared beforehand. Before the candidate sends his application for appearing at the examination, the certificate of the professor teaching the subject to the effect that the student has satisfactorily done the whole of the practical work, would be required. With that certificate the candidate would be accepted. Moreover, practical work in the laboratory would create a good deal of interest. The volume of the text-book may be much reduced and the questions would be such as to test whether the candidate has an intelligent grasp of the general principles. The questions should not be very minute. The examination may be held by compartments.

(b) In M. A. Science the attainments of the candidate shall be more thorough and deep and the standard should be raised. As this is the highest examination of the University, the standard should be very high. Our attainments should be on a level with the Cambridge Tripos examinations both in mathematical and practical portions. To master these subjects thoroughly the candidate may require more time, so the period between the B. A. and the M. A. degree may be increased. During the whole of this period the candidate should be in a college receiving systematic training. The examination may be held by parts at shorter intervals, which would test whether the student has a thorough grasp of the subject. Regular work in the laboratory and the class would form the chief criterion of being qualified as an M. A. If this change be introduced it is to be introduced slowly.

(c) The subjects for the M. A. Sanskrit are too many to enable the student to have a deep knowledge in any. They may form entirely different groups, of which I beg to mention the following:—


VI.—University Laboratory.

Attached to the University there should be a splendid laboratory where professors and distinguished graduates may make experiments and researches. Every professor of the University should have easy access to this laboratory to carry on his own experiments.

VII.—Astronomical Observatory.

There should be a well-equipped observatory in connection with the University.

VIII.—The Library.

The necessity of a rich library in connection with the University cannot be too much insisted upon.
IX.—University Fund.

For all these and other purposes not less important, Universities should be endowed with very rich funds. If the Government invite donors to richly endow the Universities, I believe many will come forward to help the Government in this noble object. I think municipalities and like other bodies should make some contributions, proportional to their income, towards the University. As those bodies are the institution of the people, I think it quite legitimate that they should pay something for the high education, in its truest sense, of the country.

Our University are purely of English origin; and although we have been deriving much good from them, we have not been as yet able to assimilate them completely to our own national and social systems. So the fostering care of the Government for the improvement of the Universities and the advancement of learning among the Indians is considered of supreme importance and necessity.

X.—Guardianship of the Students.

I think the time has come when the University should think seriously about the guardianship of the youths who read in schools and colleges. I believe in this respect the University will receive active sympathy from the public and the Government. Students should live in boarding-houses, or with recognised guardians. In large towns where there are many private clubs of students, it is extremely desirable that those clubs should be under the strict supervision of teachers and of some very respectable gentlemen of the locality. The sanitary condition and moral surroundings of the clubs should be examined by competent authorities. The Central Provinces Government have recently issued a notification somewhat to that very effect, and I hope that every educational institution will completely agree with it. One point, in the boarding-house system at present existing, I want to touch upon, and which, I think, is capable of improvement. At present in every room in a boarding-house generally there is accommodation for four students. I don't think the arrangement to be very convenient. Every student should have one compartment (which he can close against any disturbance) for his study.

For advanced students this is very necessary.

XI.—Religious Instruction Necessary.

One great deficiency in our educational system is that there is no arrangement for religious instruction, without which, I think, no amount of intellectual training is sufficient. For reasons which are very strong Government cannot interfere with the religious education of our young men. But I do not see why the University will not take it up. Being a Hindu myself, I can speak on behalf of Hindu students. But I think these remarks may be equally applicable to students of other creeds. The first thing, which is of greatest importance, is that students should have reverence for their own religion. If they find their own professors
and teachers observing their own religious rites with sincere regards, and making their worship with devotion, it is quite natural that the students will profit by the examples of their teacher. Professors and teachers, quite competent on account of their social positions and learning, may at times expound texts from religious books and thus may try to infuse religious tendency into the young hearts of the pupils. If, directly or indirectly due to the present system of education, the young men lose faith in, and reverence for, their own religion, it is no wonder that disrespectfulness and irreverence will be their prominent characteristics. The teachers, by their own practice, can mend matters and can improve the religious and moral condition of the students. I think the University may encourage the professors and teachers to do so. In Hindu hostels, if there be provision made for performing pujas and the boys finds that their superiors are performing pujas themselves, I think that very example will produce most wholesome effect. Our social system is such that we cannot hope to rise by casting off our faith in our own religion. In my opinion there is nothing in the text-books and the subjects taught in the schools and colleges which is antagonistic to the main principles of our religion. The religious education of our students should no longer be neglected.

XII.—Professors.

I quite agree with the Honourable Mr. Mehta “that the European professors, however sympathetic and actuated by the best of intentions, are not able fully to appreciate the requirements and difficulties of the Indian students.” From the very creditable results of many colleges managed entirely by Indian professors, it appears that so far as the training up of students for the highest University examinations is concerned, the Indian professors are as good and efficient as the English professors; but the former have the advantage of appreciating more quickly the difficulties of these students than the latter; moreover, the Indian professors in a position to influence for the better the moral and religious development of the students; while the European professors, on account of their foreign manners and customs, are not so. Even an Indian professor of English literature can appreciate more fully the difficulties of his students than an English professor. But still I hold that in central standard Government colleges there should be a large number of European professors who must be distinguished graduates of the Cambridge, the Oxford, or the Dublin Universities. Professors like Messrs. Eliot and Booth are always most welcome in any standard college. Apart from college professors, the University may create some chairs for original researches and also for lecturing on particular subjects. These chairs may be filled temporarily by experts, as is the case with the Tagore Law Lectures.

XIII.—Appointment of Professors.

In Government colleges the professors are appointed by the Government; in Mission colleges by the Missionary bodies, and in colleges under private management by the managing councils. In the colleges
of these three descriptions the professors are paid by the corresponding authorities. I do not see how the University can claim the right of appointing professors for whom it is not going to pay either in whole or in part. In many cases local appointments are far better and convenient. I need not mention the difficulties which the professors and the managing body of a college under private management have to encounter, when all on a sudden the whole of the Government grant is withdrawn and the college has to struggle for its very existence. In such cases the interference of the University, which is not going to pay anything for the professors, may do more harm than good.

XIV.—Indian Vernaculars.

The culture of vernaculars is very necessary; they may be made second languages in connection with examination for the corresponding classics. It is not desirable that our young men should learn something of English and nothing of their own vernaculars.

XV.—Cost of Education.

I believe that on no account University education should be made more costly. Already the cost is high enough for the guardians to meet without considerable difficulty. The best students of the University generally come from families which are not very rich. If the high education be made very costly, the University is sure to lose its best students. Education was always very cheap and even profitable in India; it should not be made very costly now.

XVI.—The Necessity for a New University for the Central Provinces.

From my many years' experience of Nagpur and its students I have been able to form a very correct idea of the average merits of those who receive high education. They are intelligent, hard-working, always anxious to learn, and have a ready grasp of the more difficult subjects. The average students are in no way inferior to those of Bengal where the high education was first introduced and where the people have utilised it to their best advantage and have proved true the almost prophetic remarks in Lord Macaulay's celebrated educational minute. This equality in intellect and love of learning seems to me to be quite natural. In both these provinces the highest classes of the society, who have a natural tendency towards intellectual pursuits and culture, appreciated the value of high education and the excellence of the European science and were the first to welcome them. It is no wonder, therefore, that in the Central Provinces students from families ever engaged with the intricacies of Panini and the subtleties and sublimities of Sanskrit philosophy and metaphysics, find pleasure in working out problems of European mathematic and science. The merits of students may be compared to a certain extent by
their results in the highest examinations. The Nagpur students have twice beaten their friends of Calcutta in the Honours and in the M. A. examination in Sanskrit. Twice again they have beaten Bengal in the B. L. examination. Only in the last M. A. examination one first class man came out of one of the Nagpur Colleges in Physical Science. I take pleasure in noting that this is the first time that a college under private management had such a good result in so difficult a subject. It is very rare that the standard Government colleges outside Calcutta show such results. We have no Premchand Roychand student as yet from these provinces; but we have ample compensation for this deficiency. One Nagpur graduate, educated in one of its colleges, passed very creditably the Mathematical Tripos of Cambridge and stood bracketed with one of the distinguished Cama brothers. The same student had to try for the Indian Civil Service examination and consequently his attention was divided; otherwise he would have done far better. But still I am proud to note that his career in Cambridge was more brilliant than that of the Premchand Roychand scholar of 1869. Thus in Cambridge, the central seat of the highest mathematical learning of the world, Nagpur yields only to Poona and to no other town of India, however advantageously placed.

These brilliant results, in our own University and in England, will prove the correctness of my estimate of the merits of the Central Provinces students. They prove also that the people of these provinces have appreciated high education and have profited by its instructions. There results have inspired them with confidence in their students and have prompted them to take measures for the furtherance of the high education and higher training. Thus, in order to perpetuate the memory of the glorious Queen-Empress, the loyal subjects of Her Majesty are going to establish at Nagpur a splendid physical and chemical laboratory which will afford ample opportunities for performing advanced experiments. The endowments to the different schools and colleges of the Central Provinces show how anxious the people are for high education. Although they have it to a good extent, still they are not satisfied; they are desirous of having more. They are conscious of what materials they have got in their student; they are aware of the advantages of the Bengal and Bombay Presidencies due to their seniority in education; they are, therefore, all the more anxious to have a central seat of learning in these provinces. With a new University in these provinces the people hope to make up their deficiency, and by keeping up a high standard in their own University they aspire to be on a par with the sister provinces. Being under the same rule, the same system of Government and education, and similarly circumstanced in many ways, the people here do not see why they will ever remain more backward than the others. I quite believe that their wants and aspirations are reasonable and justified by facts, and thus I venture to lay them before the learned Commission and hope they will meet with the kindest consideration. I have every reason to hope that with a new University in these provinces, in the next quarter of a century we shall be able to make as good a progress as has been done in Calcutta and in Bombay.
Notwithstanding the ravaging effects of famine of the past several years the number of candidates going up for the different examinations has not much fallen, and in the last Entrance examination of the Calcutta University, so many candidates appeared at the Hislop College centre that it was difficult to find accommodation for all of them. Within a few years it is quite probable that a separate examination hall will be necessary for these candidates, although all the High Schools do not send up candidates for the Entrance examination of the Calcutta University. I may mention also the case of one school of Nagpur. In the Neill City School in August 1901, there were 975 students on the roll, of whom 178 were in the Entrance class. The Mission School is also equally large. These facts tend to show that education is rapidly progressing in these provinces, and the demand for a separate University is getting stronger.

Already we have four Arts Colleges and one Raj-Kumar College in the Central Provinces, teaching more than 300 students a year. There are 18 High Schools teaching about 900 students in the highest two classes. There are 70 Middle English Schools teaching more than 6,000 students every year. There are Law Classes in the Morris College and in the Jubbulpore College. From the former alone 14 students passed the B. L. examination held in November last. I conclude from these numbers that there will be no lack of students in the new University, the foundation of which will give a new impetus and will necessarily raise many of the Middle English schools to the Entrance standard and some of the High Schools to 2nd grade colleges. A new college may be opened at Amraoti, the chief town of the Berars, and the two colleges of Indore are most likely to join the new University. The Agricultural School of Nagpur and the Engineering School of Jubbulpore may be united and developed to a Technical College with a branch of Forestry attached to it. Besides we shall have the splendid laboratory very soon. It is well-known that Nagpur is a seat of Sanskrit learning; the proposed new University may take advantage of this and may have a highly efficient Oriental Department in connection with one of its colleges. These will form a good nucleus of the new University, which, when brought into existence by the most benign power of the Supreme Government, will improve very rapidly and justify its own existence by promoting the high education in these provinces and always aiming at the high standard of learning in the oldest English and Indian University. We need not be discouraged at the comparative smallness of our number if we compare the following lists of the successful candidates of the Central Provinces with those of the whole Calcutta University in its earlier days, when its career commenced with 10 Arts Colleges in Bengal:

<table>
<thead>
<tr>
<th></th>
<th>1899-1900</th>
<th>1898-1899</th>
</tr>
</thead>
<tbody>
<tr>
<td>M. A.</td>
<td>4</td>
<td>...</td>
</tr>
<tr>
<td>B. A.</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>B. Sc.</td>
<td>1</td>
<td>...</td>
</tr>
<tr>
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<tr>
<td>LL.B.</td>
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<td>10</td>
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</table>
Considering the vastness of the Calcutta University and the population of the rich provinces of Bengal, we may think that the progress in number of the candidates in the proposed University may not be equally fast; but I hope its deficiency in quantity will be made up by its proficiency in quality. When in the Punjab an University was started with five Colleges only, I do not see why we cannot have a new University here with a large number of institutions. The necessity of a separate University here seems to me to be most pressing.

As far as funds are concerned, I fully believe from my experience here that the rich gentlemen of the Central Provinces are never backward in their liberality in any good cause. I have every hope, therefore, that the rich gentry will come forward and co-operate with the Government in establishing this University, and most liberally endow it in the beginning of its career. In this last and most important point, I have tried to show that there are excellent materials in the Central Provinces for the new University to work upon. It is asked for as a boon by the people appreciative of the rare merits of the high education. From the rapid progress in education which the provinces have made in such a short time, it is clear that they fully deserve to have a new University as the centre of learning in the Central Provinces. And from the philanthropic spirit of our rich men, I believe the Government will receive much help from the people in starting this University. If the origin of the new University can be traced to the sittings of this most learned body, then the appointment of the University Commission will be the most memorable event in the history of the Central Provinces.

APPENDIX.

Statistics of the successful candidates of the Madras University, 1857-65.

<table>
<thead>
<tr>
<th>Year</th>
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Statistics of the successful candidates of the Bombay University, 1859-65.

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<th>M. A.</th>
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<td>1864-65</td>
<td>...</td>
<td>109</td>
<td>15</td>
<td>12</td>
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Note of Evidence to be given before the University Commission.

One of the questions raised by the Indian Universities Commission is whether steps should be taken to impart to the existing Universities the character of teaching Universities.

Now the actual Indian Universities evidently are already teaching Universities in a certain sense; for they affiliate to themselves Colleges which undertake to impart instruction in those courses of study for proficiency in which the University bestows degrees. I therefore can interpret the above question only as prompted by the conviction or feeling that the instruction given in our Colleges is not sufficiently high and thorough to be called University teaching in the true sense of the word, i.e., the sense attached to the term in the leading western countries.

That the idea of Indian University teaching not coming up to the standard of the older learned institutions of the world is by no means without justification I myself feel convinced, and I know that this conviction is shared by many persons acquainted with the aims and working of our present Universities. This holds good, more or less, I suppose with regard to all Indian Universities; in what follows, I shall however confine myself mainly to a consideration of that University with which I am best acquainted—I mean the University of Allahabad.

That the teaching given in the Colleges of the United Provinces in preparation for the B. A. degree is hardly to be called University teaching in the proper sense of the term admits of no doubt. It may be somewhat difficult to assign its proper comparative rank to the teaching of the English language and Literature as carried on in our Colleges; the position these subjects hold in the Indian curricula is peculiar and can hardly be profitably compared with the study of languages in western countries. But in all other branches of study—notably the classical languages, History, Mathematics, Physical Science,—our present B. A. and B. Sc. courses are not higher than the courses of study in the best higher Schools in Europe—England or the leading Continental countries—which prepare for a University career. The study of Philosophy as carried on in our B. A. Classes is an exception to this rule; but there are many who think, I myself among the rest, that the introduction of Philosophy into our B. A. stage is a decided mistake.

An opportunity for continuing the different lines of study beyond the B. A. stage is no doubt offered by the M. A. courses which the University appoints and in which it offers to examine. But, as a look at the University Calendar will show, the University of Allahabad has achieved remarkably little in those higher fields of learning. The number of M. A.'s is small and the only branch of study, which is steadily represented in the M. A. lists by numbers of candidates not altogether negligible, is 'English literature.' A beginning has of late years been made in Physical Science also; but so far there is no ground for full confidence that this beginning will be steadily maintained and expanded. Apart from Science (with the restrictions just
mentioned) and 'English literature,' there practically is no higher study worth mentioning in any of the great departments of knowledge recognised all the world over.

Nor is this state of things difficult to account for. The people of these provinces have accustomed themselves to look upon that amount of knowledge which is represented by the B. A. degree as sufficient for all practical purposes. The B. A. degree is the door to all posts under Government, and any study beyond it therefore is looked upon as a kind of luxury. Nor can these Colleges, as they are, do much to rouse higher ambitions. In almost all institutions of that class, the small staff of Professors is fully occupied with the instruction of the Intermediate and B. A. classes, and, moreover, only a limited section of the Professors possesses the qualifications required for lecturing with any degree of authority on the highest branches of the various disciplines. The circumstance that a fair number of candidates from several Colleges appear and manage to pass every year in the M. A. Examination in English literature neither proves that the state possesses any very high qualifications, nor can it be urged—as is sometimes done—to prove that there is a real demand for higher instruction in that subject only. There is a real demand for higher teaching in History, the Classics, and Philosophy; but the students take up English Literature because their Colleges do not offer instruction in anything else. And while nobody will deny the importance of a study of English Literature, and while we admit that really excellent teaching in that branch of knowledge presupposes high ability and scholarship on the part of the Professors, we must acknowledge that there is something dilettantic and superficial about most (I do not say all) the M.A. studies in English in our Colleges. The great majority of the students reach nothing like real proficiency in that subject, and the teaching is undertaken, not always without success, by gentlemen not possessing any very deep going knowledge of any subject, but relying for the performance of their task, on the undeniable advantage of English being their mother tongue, and their possessing a fair general knowledge of English literature. It is mainly this almost exclusive limitation on the non-scientific side to the study of English literature which has thrown discredit on the entire 'humaniora' side of our Colleges. And whatever the case of English literature may be, the fact remains that we send forth from our Colleges no men or hardly any men possessing what according to the standard of European Universities would be called a scholarly knowledge of any of the main other branches of learning. The few passes which our University allows in studies, such as Philosophy, History, the Classical languages, are often nothing more than "compassionate" passes granted with a view not to discourage higher studies altogether.

I do not think that this is a satisfactory state of things. The question then arises how an improvement may be effected.

Our Colleges, as at present constituted, clearly cannot be expected to do much to further any higher developments. To fit them for this, the staff everywhere would have to be strengthened very considerably, and there appears no likelihood of this being done. The only effective plan to ensure a decided and permanent impetus being given to the higher studies in these Provinces, appears to me the establishment of a special institution—which may be called
a teaching University—making it its special task to supply all that higher instruction which our present Colleges fail to impart. What particular departments of knowledge should be cultivated by such a University, need not be detailed here—there certainly ought to be room for Science, Mathematics, History, Literature, Classical languages, Philosophy, Economics. And what should be the higher branches to be especially made over to a teaching University, is of course obvious in the case of several subjects, as e.g. Mathematics and Physical Science. In the case of other disciplines, however, I wish to point out that a true Indian teaching University, as contemplated by me, should proceed on partly new lines. All the present Indian Universities and the courses of the instructions given under their auspices exhibit to my mind one grave defect—they fail adequately to recognise that higher instruction in all those branches of knowledge which are not, like the principles of Mathematics and Physical Science, absolutely untouched by national differences, should be for India of a type somewhat different from that of higher instruction in other countries. I may shortly illustrate my meaning by a reference to the study of Philosophy, which, as we know, has considerable attractions for the Indian mind. India possesses an important ancient philosophic literature of its own which continues to exercise a marked influence on modern Hindu thought, and in all probability will continue to do so for a long time. No teaching of Philosophy in this country can be truly fruitful unless it recognises this fact, and attempts, somehow or other, to effect a co-ordination of Hindu and western thought. A certain guidance at any rate in this Department ought not to be withheld from the Indian student—how much this is needed is shown by the not infrequent crude relapses on the part of Indian youths who have received a western education into entirely Oriental modes of thought. No teaching of this kind advocated by me has ever been attempted in our Colleges, but it would be a task most worthy of, and in fact, not on any account to be declined by, a true Indian teaching University. Teaching of that kind would, of course, have to be entrusted to Professors of high and special qualifications.

Another discipline in which a teaching University would be called upon to impart instruction of a kind essentially different from and superior to any given at present is History, more specially Indian History. Hardly anything of what modern research has accomplished and continues to accomplish in the latter Department—and I here take History in its widest sense, including the History of institutions, religions, literature, science, &c.—becomes known to our students; while, on the other hand, every young man, who has passed the B. A. Examination (with or without History) is considered quite equal to the task of teaching Indian History to Entrance Classes. The absence of opportunities for acquiring competent knowledge is perhaps more striking and regrettable in this subject than in any other.

It would be easy to extend these remarks too such sciences as Philology, economics, &c., but what I have said probably suffices to show in what sense I would assign to an Indian teaching University aims somewhat different from those our Colleges at present propose to themselves. But even if such a University aimed at nothing more than an extension of higher teaching on the present lines, the advantages of an institution of the kind being
established, appear to me altogether undeniable. For I presume that in any case the Professors appointed to posts in such a University would be men specially fitted and selected for lecturing on definite departments of knowledge, possessing that authority which belongs to men themselves taking part in the research on which the life and progress of knowledge depend, and allowed that amount of leisure which participation in research and the duty of preparing advanced lectures demand. If a body, not necessarily large in the beginning, of such men were congregated somewhere in these Provinces, and if all students, who evince the desire and the capability of proceeding beyond the B. A. stage were placed in their charge, the cause of true culture and learning in this part of India would, I feel confident, receive a most marked and beneficent stimulus. Professors of that type should, of course, be allowed great liberty in teaching, they would settle their own courses unfettered by any prescribed Syllabus, and they would arrange for the examinations of their own pupils with the co-operation, if deemed necessary, of Professors in similar institutions in other parts of India. The advantages, which would accrue to our most advanced students from not being scattered as now in isolated units or small groups, all over the Province, but coming into social and intellectual contact with one another, are obvious, and need not be dwelled on at length.

As an alternative to the scheme of a central teaching University for these Provinces, claiming for itself all the work roughly answering to the present M. A. and D. Sc. teaching, there is advocated in some quarters the plan of the several leading Colleges specialising in different higher branches of study. This has in fact been talked about for years; but no practical result has come of it. The so-called specialisation has everywhere resolved itself into small M. A. classes for English literature. Nor is any such plan likely to succeed in the future. The different Colleges evidently cannot afford to maintain Professorships for special lines of higher study, and without special appointments of the kind there is no hope for any continued effort being maintained on definite lines. And even, if specialisation of studies in different localities were actually accomplished, this would, in no way, be equal in value to a central institution with its larger number of Professors, its wider opportunities for study and reading, and its greater power to stimulate the intellect and to rouse ambition of an elevated kind.

It may appear premature to make proposals as to how the establishment in these Provinces of a Central teaching institution of the kind described might best be accomplished. But as I have definite views on this point, I may perhaps be allowed shortly to state them. No institution of the kind could be started or maintain itself for the present without Government initiative and support. We have one College in these Provinces—the Muir Central College—which already possesses five Professorships held by Europeans. If the number of Professorships in this College were raised to, let us say, eight to ten, with a small staff of Assistants in those branches where such are required, we should have the nucleus of a teaching University; with the stated
number of Professorships, it would, at any rate, be possible to provide for the representation of the more important branches of knowledge—important in themselves and with special reference to this country. A transition to the new state of things might be effected by the Muir Central College at once discontining its Intermediate classes, and its B. A. classes later on, i. e., as soon as other Colleges at Allahabad would be ready and fit to undertake the local B. A. work. The College thus gradually transformed into a teaching University would, in no way, interfere with the B. A. work carried on by the other Colleges in the United Provinces; nor also with the realization of any of the schemes at present discussed in various quarters, as to the different Colleges situated in one place combining towards a more effective discharge of their duties. Nor also would it be in the way of institutions of a similar type possibly being developed in other places in these Provinces, as e. g., Aligarh. On the contrary, the establishment of an institution of higher position and claims at any one place, let us say, Allahabad, would probably tend to rouse the ambitions and stimulate the efforts of other places. There is no reason why a territory as large as that of the United Provinces should not before long possess several centres in which instruction of the highest type would be imparted.

Apart from the Muir Central College with its present Professoriate seeming to form the natural nucleus for the development of a teaching University, we also have to remember the existence of the fine new physical and chemical Laboratories here which can be fully and adequately utilized only in connection with the development of advanced teaching of Science on a large scale. And it also would have to be taken into account that Allahabad already is the seat of a Law College, and of a training College for teachers in higher Schools: the alumni of both these institutions might obviously derive various important benefits from the existence in the same place of a Teaching University.

G. THIBAUT.
Note of evidence to be given before the University Commission.

1. **European Models.**—At present a University education does not exist in India except perhaps for the few students who read in a College for the M. A. degree. The B. A. in Mathematics of an Indian University knows less than an English School boy who enters Cambridge, intending to go up for the Mathematical tripos. Yet, Mathematics is generally considered in India the hardest subject. Our Colleges are really Schools. Unless it is intended to raise their level, it would be better that they should be called Schools, for, by giving the name of a University education to what is only a School education, the absence of a genuine University education is concealed. If, however, true Universities are to be established, there is need, not of a reform of the present system, but of a fresh start. Our models must be sought in the older European Universities. Now Oxford and Cambridge are independent of the Government and do not receive from it any financial assistance. In Germany, on the other hand, the Professors draw their pay from the Government and are subordinate to the Minister of education (cultus Minister). Higher education in India depends on the Government for pecuniary support, and must therefore be under the general control of the Government. In this respect the circumstances in India are the same as in Germany. Moreover, the German Universities obtain far better results than the English in proportion to the amount they cost. It seems then that in reorganising Indian Universities, the German Universities should be taken as models rather than Oxford and Cambridge.

2. **Relations between Government and Colleges.**—While Professors must be subordinate to Government, there is no reason why they should be subordinate rather to the local than to the Imperial Government. The local Government consists of the members of the Indian Civil Service. Now the examination for the Indian Civil Service requires a good general knowledge of several subjects, but does not require scholarship in any one subject. comparatively few members of that service have distinguished themselves at Oxford or Cambridge. And some, like Sir Auckland Colvin, have not studied at any University. Moreover, the work of an Indian Civil servant allows him little leisure for further study after he has passed his examination. From want of knowledge of University education, the tendency of a local Government is to judge the efficiency of a College by the percentage of passes. This naturally leads to the belief that to procure passes is the chief object of teaching. Further, money has been unnecessarily spent on mere architecture, while the practical convenience of a College for teaching purposes has been disregarded. This, the Commission will see for themselves, has been the case at the Muir College. Such a result might have been expected when the expenditure of money was under the control of men who had no personal knowledge of what was required. The most important consideration is, however, the effect of the present system on the recruitment of Professors. If genuine Universities are to be established in India, it will be necessary to obtain for the staff the ablest men who can be induced to come to the country. Now, men of the highest eminence, such as Kelvin, Stokes or Maxwell, would not come under any circumstances. It would be
possible, however, with a better system to obtain men such as the College lecturers at Cambridge or the Professors of the Modern English Universities. At present, such men will most come. When men, who can obtain College lectureships, will not even enter the Civil Service, it is not likely that they will consent to accept a position subordinate to Indian Civil Servants. The question is not so much of pay as of independence. While, on the one hand, Professors ought to be liable to reprimand or dismissal if they neglect their duties or engage in political agitation, they ought, on the other hand, to have complete freedom in all matters relating to their scientific work. The Professors in Germany and the lecturers at Oxford and Cambridge have this freedom. Here, the Principal of a College is not trusted to spend Rs. 500 a year on books for the College Library. For every book he buys, he has to obtain the permission of the local Government, that is to say, of members of the Indian Civil Service. This is not a mere formality, for the permission is sometimes withheld. Yet a man who is by profession a student, might be expected to know more about books than men who are occupied with details of administration. Further, Professors are expected to vote on the Syndicate and the Senate in accordance with the orders of the local Government. Another point is that no continuity of policy is to be expected from the local administration. Sir Alfred Lyall hoped to create a teaching University at Allahabad, and this would perhaps by now have been effected, but his policy was reversed by his successor, Sir Auckland Colvin. It seems then desirable that the control of University education should be in the hands of the Imperial Government. The Viceroy should be Chancellor of all the Indian Universities. The control of the Schools might still be left to the local Governments. The Inspectors of Schools and Director of Public Instruction would be officials of the local Government and have nothing to do with the Colleges. Even, as it is, the Director of Public Instruction is chiefly concerned with the Schools, and is for this reason chosen from among the Inspectors of Schools. He cannot then be so well acquainted with the needs of the Colleges as the men who are actually working in them. Yet he is a member of the Syndicate and the Faculties, and takes part in the discussion of the courses for the B.A. and M.A. degrees. As the Professors are his subordinates, it is difficult for them to speak on these subjects with the perfect freedom that ought to exist in all scientific discussions. Supposing, for instance, the Director of Public Instruction is a Botanist, the Professor of Botany, if he takes a different view from the Director, as to the manner in which Botany should be taught, must either sacrifice his scientific conscience or run the chance of injuring his future prospects. But the chief evil is that the Professors are drawn away from the Colleges to become Inspectors of Schools in the hope of rising to the highest position in the Department. Even, if such a man, as Lord Kelvin, had, by any chance, come to India, he could have done nothing to raise the level of scientific knowledge. His merits would have been judged by his percentage of passes. But, apart from this, he would soon have become an Inspector of Schools, and his special talents and knowledge would have been unutilised. It is useless to spend large sums on a Physical Laboratory as has recently been done at the Muir College unless able men are induced to accept and retain the appointment of Professor of Physics.

3. Appointment of Fellows.—Only men of some academic distinction should be appointed. When Englishmen are appointed, they should, as a rule,
be men who have taken an Honours degree at Oxford or Cambridge. When Indians are appointed, they should have at least taken an M. A. degree at some Indian University. But it seems to me desirable that Indians, who have studied at some European University, should be preferred. On all general questions of education, the views of Indians unacquainted with any country, but their own, have little value. They do not know how far education in India falls short of what would be considered a tolerable standard in other countries. Hence, there is often to be noticed among Indians a tendency to lower the standard of examination with a view to obtain easy degrees for their sons. Any attempt to raise the age of admission also meets with opposition from the Indian community. But when there are more Indians who studied in Europe, it is to be hoped they will endeavour gradually to raise the level of their own Universities to that of the European Universities. The present system of electing Fellows does not, I think, secure the best men. It is specially unfavourable to Indian Professors engaged in teaching Mathematics or Physics, since their work, however good, does not attract attention. A better choice would, I think, be made by the Minister of Education. He would require local information, and this he should obtain from men engaged in teaching, not from the local Government. If the above qualifications were generally insisted on, and only men who took an interest in education were appointed, it would probably be found that the number of Fellows was not too great.

4. Constitution and function of Syndicate and Faculties.—In whatever way the Fellows are appointed, the Senate is not likely to deal satisfactorily with questions requiring technical knowledge. The Senate is a legislative body without party Government meeting only twice a year. Members often have not, before they come to the meeting, considered questions on which they have to vote. Sometimes they go away without knowing what they have voted. Proposals may be thrown out merely because their effects are not understood. Such questions, as raising the age of admission to the University, ought, no doubt, to come before the Senate, but it is better that more technical questions should be dealt with by the Faculties.

(a) The Syndicate.—The Principals of five Colleges are ex-officio members of the Syndicate. I see no reason why any man should be a member of the Syndicate apart his personal qualifications. At the time when I first came to India, only one of these five Principals was a scholar. The Syndicate often alters the courses of study recommended by the Faculties. In these matters the interest of the Principal conflicts with the duty of the member of the Syndicate. It is the interest of the Principal to obtain as many passes as possible. It is the duty of the member of the Syndicate to maintain the standard of the examination. It is desirable that there should be some independent European members of the Syndicate since their presence ensures a freedom of discussion which would be impossible if all the members were Government servants. This might be secured by appointing one or more Principals of non-Government Colleges, taking, however, into account, personal qualifications. Of course, some independent Indian members ought also to be on the Syndicate. Probably the best Syndicate would be obtained if members were appointed by the Minister of Education.

(b) The Faculties.—No constitution would be satisfactory which does not secure that technical questions shall be dealt with by men
possessing technical knowledge. The fundamental defect of Indian education is that instead of specialists who confine themselves within their own range of studies, we have men who are not specially qualified in any subject and who interfere in all subjects. Unless this is remedied, any changes of form in the Universities will be useless to raise the level of education in India. Besides the special Faculties of Law, Medicine, and Engineering, there should be a Faculty of Science as well as a Faculty of Arts. For most of the members of the Faculty of Arts are incompetent to discuss scientific questions. These Faculties should, I think, be placed on a statutory basis, so that their constitution may not hereafter be altered by the Senate. They should only consist of experts in the subjects with which they deal. Each Faculty might elect its own members subject to the confirmation of the Minister of Education. All the Faculties conjointly might form the Senate. The affiliation of Colleges in Science should be dealt with by the Faculty of Science. The Syndicate has, in the past, allowed Colleges to send up candidates in Physics and Chemistry without inquiring whether these Colleges possessed the means of teaching experimental science properly. Examiners are now recommended to the Syndicate by Boards consisting of experts. As the Syndicate generally accepts the recommendations of the Boards, the appointments are satisfactory. It would, however, be better for the Boards to be elected by and report to the respective Faculties. Courses of study should obviously be prescribed rather by the Faculties than by the Syndicate, since this a matter which requires expert knowledge.

5. Age of admission.—Students do not now enter European Universities before the age of eighteen. Up to that age they acquire the restraints of School discipline. Moreover, intellectually they are not sufficiently mature to study the higher parts of Mathematics or Physics.

6. A teaching University—Every genuine University has a local habitation. Perhaps the simplest way of establishing such Universities in India would be to call most of the existing Colleges schools and make what is now the B. A. examination an examination for admission. Each University would then consist of a single College or of several Colleges situated in the same town. It may be, however, that the Commission will come to the conclusion that this is impossible in India. In that case something will still be gained if a list of recognised teachers is formed and candidates for the M. A. degree are required to attend the lectures of recognised teachers. The candidate should, before admission to the examination, be obliged to produce a certificate of attendance signed by the lecturer, and no exemption should be allowed.

7. Minor defects.—I have not called the attention of the Commission to minor defects, such as the custom of prescribing text-books, for instance, since these will be remedied by internal action when the control of the Universities is placed in the hands of competent scholars subordinate only to the Imperial Government. With the present constitution there is little hope of any improvement. On the contrary, it is probable that as more Colleges become affiliated, the level of the University will gradually sink.
Centralization.

In the report which my learned friend Professor Ward of Lucknow will put before this Commission, he will deal in a comprehensive manner with the need for centralizing this University and will prove the benefit of such centralization to the student, teacher and the State. It is possible that the measures suggested by Professor Ward will prove too drastic for immediate adoption and I put forward some modifications of his proposals which are more feasible and which may yet accomplish some good purpose.

I take it that the benefits of centralization may be summed up as follows:

(1). Increased mutual intercourse between students engaged in similar pursuits.
(2). Increased improved teaching facilities.
(3). The consequent atmosphere of learning which would naturally surround the true University.

I do not attempt to prove these points; it is, I think, unnecessary to do so. We agree that one of the great factors in University education is, or should be, this mutual intercourse between students (the word includes the professor no less than the undergraduate). But when we look at the University as it is, we find it consists of a large number of scattered colleges, some small, some large, but all equally out of touch one with the other.

The first step in university reform is, I submit, to abolish the small college. I append a table of colleges affiliated up to the B. A. standard, with the number of candidates sent up for examination during the last three years.

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<tr>
<td>Ajmer</td>
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<td>19</td>
<td>22.74</td>
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<tr>
<td>Aligarh</td>
<td>30</td>
<td>34</td>
<td>34</td>
<td>33.84</td>
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<td>Muir College</td>
<td>29</td>
<td>66</td>
<td>54</td>
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<tr>
<td>Bareilly</td>
<td>24</td>
<td>16</td>
<td>9</td>
<td>16.66</td>
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<td>Benares</td>
<td>20</td>
<td>29</td>
<td>18</td>
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<td>Christ Church, Cawnpore</td>
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<td>14</td>
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<td>13.84</td>
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<td>Jabalpur</td>
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<td>Jaipur</td>
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<td>Jodhpur</td>
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<td>4</td>
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<td>Gwalior</td>
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<td>9.85</td>
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<td>Lucknow Canning College</td>
<td>23</td>
<td>35</td>
<td>26</td>
<td>30.38</td>
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<td>9.70</td>
</tr>
<tr>
<td>Women's College</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1.67</td>
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<tr>
<td>Meerut College</td>
<td>13</td>
<td>12</td>
<td>5</td>
<td>10.67</td>
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<tr>
<td>Ujjain</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>4.67</td>
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* Numbers at present at the respective centres.
It will be seen from these figures that out of 18 colleges no less than half average not more than 10 candidates a year, while only one-third attain to an average of more than 20 students a year; at Ajmer, Jaipur, Jodhpur and Ujjain the numbers are ridiculously small; two of these colleges sending up three candidates per annum.

Besides the fact that the broader educational value of college life depends, within limits, on the number of undergraduates at the college, as well as on the staff, the expense of education in these small colleges is an argument in favour of their disaffiliation. Most of these small "Colleges" are in reality schools with college classes (in itself a highly undesirable state of things), and the comparatively large amount of time and money spent on "University" work would be infinitely better employed in raising the quality of teaching in the school departments.

My table goes back only as far as 1900, but taking the year 1897 I find that in that year 9 candidates appeared from Jaipur, 11 from Ujjain, 7 from Gwalior, 4 from Ajmer. Numbers are of course bound to vary slightly from year to year, but the average for each of these colleges for the three years ending 1899 is in each case higher than the average for the three following years.

This gives additional evidence that the colleges are not really required. Let them teach only as far as the intermediate standard.

Two other colleges merit similar treatment, viz. Bareilly and Meerut. The numbers at Bareilly have fluctuated very much, but have in the last three years fallen from 24 to 9, while at Meerut the numbers for the last four years have been 14, 13, 12, and 5 respectively. Such a decline invites a merciful annihilation. The small numbers at Christ Church, Cawnpore, which is situated at so large and important a centre, are doubtless due to the sectarian character of the institution, but the fact of its being sectarian does not justify its existence, especially with the new Christian College and Christian Hostel at Allahabad. Broadly, then, my idea is to leave only 5 centres, each with a system of intercollegiate lectures. At each centre there would be several colleges as below:

<table>
<thead>
<tr>
<th>Centre</th>
<th>Colleges</th>
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<tbody>
<tr>
<td>Agra</td>
<td>3</td>
</tr>
<tr>
<td>Aligarh</td>
<td>3</td>
</tr>
<tr>
<td>Allahabad</td>
<td>3</td>
</tr>
<tr>
<td>Benares</td>
<td>2</td>
</tr>
<tr>
<td>Lucknow</td>
<td>3</td>
</tr>
</tbody>
</table>

These centres would then arrange lectures on an intercollegiate system.

I do not wish it to be thought that I advocate disaffiliation simply on the grounds of a college being small. It is because the numbers at the centre are small that I wish to see that centre removed from the affiliated list; for the future the University should deal with the affiliation not of colleges but of centres, each of which should itself, in the ideal, be a small teaching University.

So far my remarks have been confined to the B.A. standard. There is most unfortunately a certain amount of finality about the examinations...
for this degree. On the whole I think we should either make the examination easier than it is at present and let the course stretch over three years instead of four, or make it very much harder indeed, and try to make it correspond more to the examinations for the similar degree in European Universities.

With our existing institutions I think the former course presents the least difficulty, and the degree of B. A. would mean that a young man has reached the age of 19, that he possesses a fair knowledge of the English Language and a slight acquaintance with History, a Classical Language or some branch of Natural Science with Mathematics. All speculative subjects and English Literature should certainly be reserved for the M. A. courses in the university proper. With regard to higher work there can hardly be two opinions, and I heartily agree with the proposals made by Dr. Thibaut and Professor Ward that all this should be centralised in Allahabad.

These United Provinces present an almost ludicrous example of the extent to which decentralization can be carried. We have engineering at Roorkee, medicine at Agra, agriculture at Cawnpore, physics and chemistry in Allahabad, to mention science subjects only. The University has no examinations in biology, botany, physiology or agriculture, or any form of applied Science. Let the habitat of the University be where it may, if any spirit of research, any breath of the real University life is to be fostered, it will only be done where, in one place and with one aim, learned men are grouped together.

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Science in Schools.

This University rightly demands that candidates for the B. Sc., degree should have passed that Intermediate examination in the B. course. There is no such rule enforcing candidates for the Intermediate to study science in schools; consequently many of them begin their science at colleges. We have thus in the Intermediate classes some boys who have learned science at school and many who have not done so, and we might expect the former to show considerably more facility for their work than the latter. Speaking from experience I deny that this is the case; the reverse is often true. The boys have too frequently been taught to learn in quite the wrong way and cannot adapt themselves readily to a new method. This deduction is entirely borne out by the examiners in the school final examination whose remarks are always to the effect that the boys know "the book," that they know nothing of "the subject," that they have been badly taught.

The Inspectors of schools admit this. In some cases they confess their own inability to superintend science teaching and submit the impossibility of getting good teachers on the available salaries.

The question then arises as to the desirability of teaching science in schools at all; if it is taught as to what science should be taught, and as to how the present teaching can be improved.

The peculiarly unscientific temperament of the people of this country, and their absolute ignorance of the explanation of simple natural
phenomena is quite a sufficient reason for the continuance of some form of science teaching, and to my mind goes far to answer the question as to what Science should be taught. This should not consist in accurate measurement carried to an extreme, but rather in the enfolding of the secrets of nature with regard to the common objects of every day life, and the knowledge of method employed in the demonstrations. There is an excellent syllabus for an elementary course of physics and chemistry issued by the Council of the Incorporated Association of Head Masters which might be modified to suit our Indian Schools with the consequent abolition of the text-book.

The University of Allahabad has always been to the fore in urging the importance of the practical side of scientific studies. To conduct practical examinations in the schools otherwise than by the Government Inspectors is however impossible. My proposals therefore with regard to improving science teaching in schools include:

(1). Improving the teachers.

(2). Provision for suitable and thorough inspection.

I am told that the teachers are underpaid. It ought to be possible to get satisfactory men at Rs. 40—Rs. 50. This is large pay compared with that of English board school masters to whom our school masters correspond. In these Provinces our school teachers pass through an excellent course at the Training College, an institution the importance of which cannot be over-estimated. It would be well if other provinces copied us in this respect. But it must be remembered that the science master is cut off from his fellow scientists almost entirely, and unless his enthusiasm is wonderfully greater than that of any native teacher I have had the honour of meeting, a few years will see the advantage gained at the Training College completely lost, and the last state of that man will be worse than the first. I suggest that every science master should come in to Allahabad for an annual or biennial course of say 4 or 5 weeks at the Training College, or for a course of University extension lectures at the Muir College. This course might be on the lines of the prescribed course in the schools and be open to all other teachers who could attend it. I am convinced that such supplementary and regular training would soon have its effect in the schools. It is equally essential that a Science Inspector, a European, should at least biennially inspect all schools in which science is taught.

Boarding Houses.

Bound up to some degree with the idea of centralization is the idea of hostel or boarding-house accommodation for students. In our colleges students meet for a few minutes between lectures, but that is about all. There is no common life, and no thought of sharing in anything but the assimilation of matter which will enable them to pass prescribed examinations. The discipline of College life is very slight, and nothing is done at all by the University for the moral welfare of its undergraduates.

All that the University can do in this respect is to insist that undergraduates who are not living with their parents must live in boarding
houses recognised by the University and the colleges for which they provide accommodation. Unfortunately the representative Government institution in these Provinces has done little or nothing for its alumni in the provision of hostels, and it may be safely said that hitherto the lack of such accommodation has been little short of scandalous.

The simplest way in which reform can be brought about is for the University to pass some rule which will make residence in college hostels an essential qualification for its degrees. This should be done at once, and the rule should come into effect in say two years' time.

As regards the relation of these boarding houses to the University, this must surely depend upon, and be inseparably connected with, their relation to the colleges.

We already have colleges, and we cannot create another kind of affiliated institution so long as these colleges exist. We really need residential colleges and provision for the need should be made by the colleges which desire affiliation.

Private enterprise in the erection of hostels should be welcome, if on no other ground than that the induced competition will promote a high standard of excellence, but these hostels must be responsible to the college or colleges for which they provide accommodation. Recognition by the University should be granted through the Principal of the College, and the Principal of the College should be the only representative in the University of these hostels.

European superintendence, though desirable, is by no means a necessity, since the Principal or his deputy will have plenary power over every hostel affiliated to his college.

The University should frame a set of rules to which all recognised boarding houses must conform, these including accommodation, night rules, &c. Minor rules would be framed by the Principals or Wardens of the hostels subject to the Principal's countersignature.

The protected hostel system seems to fail; and it is undesirable that any more hostels on the lines of the Muhammadan boarding house should be allowed to spring into existence. The more open the competition between such institutions the better.
PANDIT ADITYA RAM BHATTARCHARYA, M.A., PROFESSOR OF SAN SKRIT, MUIR CENTRAL COLLEGE.

A few notes submitted to the Universities Commission in connection with educational matters in general and with the subject of Sanskrit in particular.

In submitting a few notes in connection with educational matters in general and with the subject of Sanskrit in particular, I have to go back retrospectively to the state of things as they existed before the establishment of the Allahabad University in 1887.

For about a quarter of century before that year the schools and colleges were affiliated to the Calcutta University and the school and college going youths of these Provinces had to go through the same training as the alumni of the educational institutions of Bengal. As a rule, our students always stood second best in the higher examinations, partly because the teaching staff in the colleges here were inadequate to cope with the variety of subjects that the students had to take up for their examinations and partly because the colleges of Bengal had taken a long start before the affiliation of the North-Western Provinces colleges and better equipped colleges like the Presidency college and other institutions enabled their students to keep ahead in the race; and partly because their proximity with the seat of the University as also the examinations being conducted chiefly by the Bengal professors gave their students certain advantages over the candidates who appeared from the remoter colleges of Upper India. In the Councils of the Calcutta University there was a very inadequate representations from the Upper Provinces and the few who were appointed Fellows hardly ever attended the Faculty or the Senate meetings, both on account of the distance and a feeling of strangeness which had always prevented their relationship with the Bengal people from growing into intimacy. This state of things could not last long. And though the idea was brewing from the Lieutenant-Governorship of Sir William Muir and the Directorship of Mr. M. Kempson, the severance actually took place during the satrapy of Sir Alfred Lyall and the Directorship of Mr. Edmund White, C.S. The desire to have the direction of education in their own hands led the head of the Local Government and the head of the Department of Public Instruction to secede from the Calcutta University. It was not from any serious dissatisfaction with the system of education that was in vogue with the Calcutta University. However, to make their case strong enough for severance, it was stated by the first Chancellor of the new University that oriental studies would find greater consideration at the hands of the seceders. But the ink of the Chancellor writing was scarcely dry before the men who took the leading part in the working of the new University gave the gobye to the classical languages of the Province and followed the Calcutta system by preferring English philosophy to oriental classics in the bifurcation scheme. The cause of the secession of Punjab a few years earlier was very different. There that orientalist, the late Dr. Leitner, had chalked out a scheme of his own and had urged the separation of the Punjab from Calcutta to carry out a distinct scheme of education—whether good or bad it may be judged from its results.

But the Allahabad University bodily adopted the Calcutta curriculum with some exceptions. One of these exceptions was an improvement on the Calcutta plan. There the classical language second paper of the Entrance Examination used to be a translation from English into the vernacular and vice versa. The result of such a system was at times embarrassing to the college professors. He would sometimes find a student admitted to the first year class quite innocent of Sanskrit, but who had managed to secure the total pass-mark in the vernacular translation paper. To prepare such a student for the Intermediate Examination in Sanskrit was an up-hill work. Our own system here requires in the second Sanskrit paper translation of unseen passages from the classical languages into English and vice versa. Beyond this the new University has done nothing that can be compared favourably with the older one. Rather, on the other hand, by reducing the number of papers in the classical languages from two to one in the Intermediate and from six to four in the M.A. Examinations it made the test less thorough. These defects have at last
recently been corrected on the representation by the Sanskrit Board of Studies which was long resisted by the Syndicate on financial grounds. Except the changes mentioned above, the Allahabad University has simply worked on the lines of the older University. The Calcutta University in spite of its many defects has done something for Sanskrit which will ever be remembered with gratitude by all its well-wishers, specially by those who have benefited by the reform which the University inaugurated long ago. In 1865 the University made Sanskrit compulsory for the First Arts Examination, and immediately afterwards for the Entrance and B.A. Examinations. By doing so the University has given Sanskrit a larger number of students than it had before. Before that period hardly any one outside the Sanskrit college of Calcutta and the Anglo-Sanskrit Department of the Benares college studied Sanskrit along with his English courses. Now several thousand youths get a knowledge of it which, however smattering, yet can form the foundation of a higher knowledge if the student cares to lay it in his higher examinations. Some of the present leaders of native opinion in Calcutta are in favour of abolishing Sanskrit and of placing Bengali in its stead. A more suicidal policy cannot be thought of. They may demand a knowledge of the vernacular in their scheme of examination. But to kill the mother that the child may get greater attention is hardly an action of wisdom. Bengali literature, of whose interests they are so solicitous, is from the beginning of its creation up to the present time permeated with classical thoughts and ideas. And no one, I venture to observe, would deny that Bengali has greatly gained by it and would not have been what it is but for this permeation. But by abolishing Sanskrit they will cut asunder the source of the fountain which has afforded such a perennial nourishment to it. What is wanted for the realisation of their wishes is, in my humble opinion, if not the keeping up a profound study of Sanskrit, but at least a familiarity with ancient and national traditions. I hope and trust that no man of light and leading up here in these provinces entertains like notions to which I have animadverted above. For the interests of vernacular education we have added a vernacular paper in our new scheme of matriculation examination.

I have already mentioned that in the bifurcation scheme the new University preferred English philosophy to oriental classics in imitation of the Calcutta system, thereby relegating the latter to an inferior place, making it alternative with history, the compulsory subjects being English literature and philosophy. When later on English philosophy was dethroned to give place to political science, the claim of the classical language was again lost sight of. It was not until very lately that by a resolution of the Faculty of Arts which has been accepted by the Syndicate and Senate, that the classical languages have been made a compulsory subject in the B.A., for those who would not take up Mathematics. This is a step in the right direction. But the more perfect scheme would be to make classical language compulsory for every one on the Arts side. Mathematics in the higher examinations should be exclusively reckoned as a subject of the Science Faculty. I may mention parenthetically here—though it may appear out of the place—that the creation of this Science Faculty was a later idea and the outcome of the activities of some of its leading and gifted members. There was no such notion present of a distinct Science Faculty in the minds of the founders of the new University who had adopted the B.A. course of the Calcutta University system as their science side and continued the system for a number of years. But this by the way. I should now return to Sanskrit.

The adoption of the proposal which gives precedence to Sanskrit over some subjects in the B.A. course, which were usually preferred, because their study did not demand so much labour as that of Sanskrit, will, however, take many years to attain any perceptible result in the increase of students in the Sanskrit classes, because the bifurcation system of the Arts and Science courses beginning from the lower examinations since the institution of the School Final Examination system has reduced the number of Sanskrit students in the schools and colleges very much.

But, while on the one hand, the educational schemes of the University and of the Department of Public Instruction have thinned the Sanskrit classes in the schools and colleges of these provinces, the main cause of the present
impoverished condition of Sanskrit as a second language in the University system of education is to be traced to another circumstance. Sanskrit as a second language does not pay in these provinces. The court language is Urdu. Hence Persian is preferred to Sanskrit by candidates for the Judicial and Executive subordinate services and for the Law, Roorkee Engineering and the Lahore Medical College Examinations. All demand or till lately demanded a knowledge of Urdu. The study of Sanskrit does not benefit them. I believe an old order of the Local Government required the passing of the Middle Class Examination with Urdu as a qualification for services of Rs. 10 and upwards. All these ukases of the Heads of Departments and institutions have made Urdu and Persian the favourite second language and Hindi and Sanskrit have been going to the wall. It is simply owing to the tenacity of life of the sacred language and of the spoken tongue of the Hindus of these Provinces that we still find them living in however decrepid a condition. The wonder is that they still live in the curriculum of studies. For the reasons stated above, Hindu students largely flock to the Persian and Urdu classes. For these reasons the Allahabad University counts smaller number of Sanskrit students than the Universities of Calcutta and Bombay.

Over and above these local circumstances which have made the study of Sanskrit unpopular in comparison with Persian there is its inherent difficulty of acquiring a knowledge of it. Sanskrit has the most intricate system of grammar, the study of which is repellent to students whose chief aim of University education is to attach the two coveted letters after their names, and thereby to qualify for Deputy Collectorships and Munsifships or a professional career. They want to reach this goal by the shortest and easiest route. The comparative ease with which Persian can be learnt is another great attraction to its class besides the official privileges it offers to its students. For the M.A. Examination in Sanskrit one of the most difficult text-books in Sanskrit rhetoric written about a thousand years ago is a text-book as also equally difficult and standard text-books in the different systems of philosophy. Selections from the old archaic Rigveda have to be mastered—a branch of study which even most modern pandits are not conversant with. Where is such a variety and comprehensiveness in the Persian course? Why even the English M.A. curriculum is confined to literature proper.

The Sanskrit examination demands a study of philosophical text-books, together with that of prose, poetry and drama. And yet strangely enough the easier Persian has all along been placed on an equal footing with the difficult Sanskrit in the University system of examination. It is only very lately that the University has become alive to this inequality and to the danger of the facility which Persian offers to the B.A. candidate over history and other alternative subjects, and that a medium of Arabic has been added to it to keep up the balance of studies. I have been forced to make these observations touching the popularity of Persian with the majority of Hindu students in order to trace the causes which have landed the study of Sanskrit in this University to its present plight. I should have fain avoided making these observations, for they are likely to be viewed as a covert attack upon Persian which may hurt the susceptibilities of my Mahomedan fellow subjects who have come to view Persian as their classical language. But here I will remind them that their true classical language Arabic is as much in the danger of being ousted from the schools and colleges as Sanskrit. If Persian has reduced many Hindus from the pursuit of Sanskrit, it has also drawn away many Mohamedans from the study of Arabic. Nay, more, fewer Mohamedans take up Arabic than Hindus take up Sanskrit. If then the study of the two great classical languages is to be encouraged, something ought to be done to readjust their status and to set a premium to their study. This brings me to the subjects of suggestions as to how to prevent the disappearance of Sanskrit from the schools and colleges of these Provinces.

1. For every examination on the Art side of the University the two classical languages must be made compulsory subjects.

2. Special scholarships and fellowships to be created for the promotion of Sanskrit and Arabic studies.
3. Civic honours (for example a seat in the Durbar) to be bestowed up Sanskrit and Arabic M.As.

4. Graduates taking up Sanskrit should have certain facilities offered them to enter the services and the professions by a slight relaxation of the rule which require an Urdu certificate from them. The suggestions made above are not exhaustive.

I have hitherto confined my remarks on the study of Sanskrit in its relation to the English schools and colleges under the University. If it be not foreign to the subject, I may be allowed to make some observations on the preservation of Sanskrit learning in the country. Sanskrit learning cannot be preserved simply by the agencies of English schools and colleges affiliated to the University, where Sanskrit has to be studied as a 'second' language. Sanskrit demands a whole heart, an entire devotion from its votaries. A study of Sanskrit to be thorough must be carried on in the traditional methods of the pandits, such as is in vogue in the Sanskrit College, Benares. The old method of course is open to improvement. A critical and historical study of Sanskrit literature on European methods may be introduced, so that the future pandit may be posted up to up-to-date Western criticisms. But let me raise a warning voice against the introduction of any system which may encourage cram. Lest the written examination system that has been introduced by the Benares Sanskrit College degenerate into cram the old *viva voce* system should be supplemented to the examinations on paper. Not that I give preference to the wranglings of the pandits and to their intellectual gymnastics in the arena of their sabhas, but a thorough oral examination is a superior test of scholarship which must be insisted upon. Too many subjects should not be allowed to be taken up. Speciality was the characteristic of the old system and it should continue. Such speciality not to begin until the student has acquired a knowledge of the language sufficiently well to intelligently study his special subject.

But what about the prospects in life of these would-be pandits? Emoluments and honours to learned Brahmins are day by day on the decrease. The channels of Indian generosity of these days have taken other outlets to spend themselves. Even the illiterate and militant Pandas of the sacred places of pilgrimage are pampered by the well-to-do of the land, and only a small quota of their charity goes to support the learned class. Unless Government sets apart a special fund for the preservation of Sanskrit learning and until Indian patriots of the Carnegie Cecil Rhodes type arise in the land, the future prospects of the Sanskrit pandits is very gloomy. This concludes my notes on the special points which I have been asked to consider.

I now take up certain points to deal with in connection with the constitution of the University. If the Allahabad new University adopted generally the system of education of the Calcutta University, it did not adopt its constitution. The new University avoided some of the defects of the older one. At least the constitution of the Syndicate is more representative of colleges than that of the Calcutta University. Those who work within it know that the Principals and Professors of Government Colleges and the Inspector of Schools will, as a rule, vote with their chief, the Director of Public Instruction. In tacitly commending the votes of the men of the department he is supposed to be acting the tyrant. But he himself is sometimes coerced by his superiors whose mandate he has to carry out. And how can he perform this work if he does not command both the willing and unwilling members of the service? How many times have I not wished in my heart of hearts that a rule had been laid down clearly that fellows who enter the Senate room did so, not as an employé of the State, but as a scholar or a specialist, or a member of the republic of letters? Official etiquette requires an implicit obedience on the part of the subordinate to his superior in office. The call of duty, however, to his convictions may demand a different course of action. What is he to do when he is thrown between this Scylla and Charybdis? If the Universities Commission advised Government to lay down a distinct line of actions for the guidance of its servants, a good thing would be achieved.

From the Syndicate to come now to the Faculty of Arts. The constitution of this body in this University is not an improvement, I fear, on the Calcutta
plan. I have often observed that the Boards of Studies, which are formed out of the Faculty of Arts, cannot find an adequate number of members owing to the smallness of the Faculty of Arts itself. The services of members in the Senate could not be utilised in the Board of Studies, because they were not members of the Faculty. I am of opinion that every Fellow should be a member of a Faculty and no one to be elected a Fellow who is not competent to sit in a Faculty.

As to the charge of having too many Fellows in the Senate and those too not always good, I fear the Government is more to blame than the fellow-electors of the University. The elected Fellows of our University are not so bad as some of the Government nominees. But whether nominated by the Government or elected by the Fellows, let there be no sleeping Fellows outside the Faculty. These Fellows take no active part in the affairs of the University in the course of the year, but embarrass the Syndicate and the Faculty of Arts by their hostile votes and swamp the regular workers in the meetings of the Senate.

The burning question of a teaching University versus an examining University demands a few remarks. If teaching Universities—I use the plural number purposely, for a large territory like that of the Allahabad University needs more than one seat of learning to meet the requirements of about sixty millions of its population—be feasible, nothing can be a better scheme for the imparting of the highest education to the Indian youths. We ought to have one or more centres of learning where the highest standard of education can be reached by the youths of these Provinces. We are at present producing mediocres and no nation can be great whose youths cannot rise above mediocrity. But it is often forgotten that mediocres can but produce mediocres. Where Government or private colleges have imported the best teachers from Europe, the scholars turned out by them have been of a better stamp. It all depends on the action of Government and Educational bodies who are managing colleges and it means cost. But if high education means cost; let it fall on the State and on the rich men of the land. If highest education means the greatest cost to the people, you place an impediment in the way of poor students of India. The Brahmin has always been poor in his purse, but rich in his intellect. The descendant of the ancient Rishis are being turned into hewers of wood and drawers of water, while the sons of the richer Khansama and the Babarchi of the Collector and the Commissioner Sahib are become B.As. and M.As. Is such a social revolution desirable? In ancient India and till now in indigenous Pathsala the highest education is obtained gratis, or by voluntary payment after the education of the student had been completed. The doors of the temple of learning were not closed to any one, because he had no money to pay for entrance and stay therein. For the advancement of learning the cost to its devotees should be made as small as possible.
EVIDENCE OF SHAMS-UL-ULAMA

M. S. AMJAD ALI M. A.
PROFESSOR OF ARABIC AND PERSIAN,
Muir Central College,
Allahabad.

I

Boarding House.

It is desirable that there should be Boarding Houses for Hindu and Moham­
madan students. Study at Colleges is comparatively of little value to students
without a common social life. It is, further, desirable that there should be some
place like the Union at Oxford or Cambridge where all students may meet.

II

University Professors and Lecturers.

Most of the present teachers of Arabic do not know the language sufficiently
and many do not even know English. They can hardly speak, write or even
grasp the sense of any Arabic work they have not specially studied, and he who
cannot do even as much can hardly be said to have made any great progress in it,
even though he should be familiar with some writings of the most difficult authors;
for how can the beauties of a polished style be perceived without a previous know­
ledge of that which is plain and unadorned? It is therefore highly desirable that
a list of University teachers should be formed and the candidates for M. A. should
be required to attend the lectures of a recognised teacher.

III

School of Theology.

This subject cannot be taught in India without exciting religious animosi­
ties. It is worth while to remember what Sir John Strachey has said in his India
"That education should be severed from religion is an idea as repugnant to a good
Mohammadan as it is to many Christians. There is now little use in discussing
whether we have not carried out too rigidly in India the principle of holding
ourselves aloof from all concern with the religious education of Mohammadans.
No similar questions arise with Hindus, for their religion is not one that can be
taught, or that they desire to see taught; it has no fixed dogmas and tenets; in
Sir Alfred Lyall's words, 'it is a troubled sea, without shore or visible horizon, driven
to and fro by the winds of boundless credulity and grotesque invention.' It may
be true that it would have been right and politically wise to show greater sympathy
with the belief and habits of thought of our Mohammadan subjects, and to treat
more respectfully a literature and philosophy which they highly and naturally
prize, but it was and is practically impossible for any English Government to act
in these matters on any other rule than that which has been adopted. We cannot
teach the doctrines of Islam."
IV

Urdu.

A good knowledge of Urdu is indispensable for all inhabitants of these Provinces, who wish to enter Government Service or adopt a learned profession. This knowledge should, however, be acquired at school and not at the University. It falls within the province of the Director of Public Instruction and Inspectors and not the University, to see that the schools are efficient in this respect.

Although the basis of the Urdu language lies in Hindi yet it is so full of Persian words, Phrases and even thoughts as to make the full grasp of it nearly impossible unless one has a good knowledge of the Persian language. It has adopted the Persian character and Persian Alphabet with some additional consonant sounds that are represented by Persian Consonants of analogous character, by the additions of either dots, technically called *nuqta* or short lines at the top, technically called *markazes*. Therefore it is very essential that a good Urdu speaker should know some Persian as well.

V

Classical Language.

The proper classical language for Mohammadans, I feel convinced, is Arabic and no other. The Persian language is quite modern in its grammatical structure and moreover Persian literature is far from being of the same value as Arabic. The moral tone of Persian literature is often revolting to human nature. Among modern languages the study of the English language is more desirable than that of Persian. It should never be called a classical language. Among the modern languages English and Persian surpass all others in the simplicity of their grammars and Persian is even simpler of the two. I think then that if students are allowed to take up Persian at all, they should be required to take up some Arabic at the same time. Moreover Persian scholarship demands some knowledge of the Arabic language not only for its vocabulary but for the very ideals, allusions &c. &c. Some of the Persian works (in Prose as well as in Poetry) which no true Persian scholar can neglect, can not, without some knowledge of Arabic, be thoroughly grasped, not to speak of the Persian language being so deeply tinged with Arabian thoughts and over flooded with Arabic words and phrases. It is therefore necessary that the Persian teaching in our Universities should include a little of the elementary Arabic, consisting partly of its grammar and partly of easy selections from Arabic prose and poetry. This combination will tend to equalize the Persian optional with its alternative Ancient languages. Otherwise very few may be attracted to the study of any other of the Ancient languages. Experience has thoroughly proved the truth of this very undesirable result. This combination is further expected at least to minimise the often talked of complaint that the Indian Universities do not produce true scholars and that the able graduates owe their ability in Persian rather to the teachings they had had at home, and not to their acquisitions in our schools or colleges.

VI

Standard in Arabic.

Oriental scholars have always recognized the great importance of the study of the Arabic, not only in respect of philological and antiquarian researches, but also as the best means of acquiring a correct knowledge of the bent and development of the eastern mind. It is undoubtedly, the most perfect of Oriental tongues,
possessing a vast literature—albeit now somewhat antiquated—in almost every department of science. Arabic is, furthermore, the sacred language of the Muslims throughout the world, and since the early conquest of Islam has formed an integral part of several of the living languages of the East. The modern Persian, Turkish, Pushto and Hindustani are so permeated with it that a thorough mastery of those tongues can hardly be attained without a competent acquaintance with Arabic. In spite of this it has been very much neglected. It is therefore very desirable that it should be encouraged by the Imperial Government.

Arabic literature may be divided into periods; Pre Islamic, Transition, Islamic, Early Post-Islamic and Late Post-Islamic. The Transition period is the period of the contemporaries of the Arabian Prophet and the Islamic Period ends about a hundred years after the Prophet's death. Each of these periods offers a number of authors at least equal to the number of good authors that any of the Ancient Languages do now possess.

Of these Periods the 1st three should be specially studied but some of the most famous of the latter two may also be read.

B. A.

(a)

The student should have enough grammatical knowledge to be able to use an Arabic Dictionary. He should be able to translate passages of about the same difficulty as Hadiqatul Afrah into English at sight and he should also be able to translate simple English into simple Arabic. A Book of selections from the 1st four Periods should be made.

M. A.

(b)

A more accurate knowledge of Grammar together with a knowledge of History, Rhetoric and Prosody of the language should be required. In addition to this the student may be expected to write an Essay or a translation in rhythmical prose in the examination hall. He should now be acquainted with the more difficult Arabic writings, such as Imraul Qais, Labid, Farazdoq, Abu Tammam, Hariri &c.

VII

Pay and prospects of an Indian Professor.

In no department are the Pay and prospects so poor as in the Education Department. A young man who becomes an Engineer or a Deputy Collector may earn more in a few years than a Professor after twenty year's service. Hence the best men are unwilling to enter the Education Department. The Arabic language can only be acquired by men of more than average industry and ability and at present the prospects are wholly insufficient to attract such men. In consequence the teachers of Arabic are insufficiently qualified. There will be no improvement in this respect until the Indians who join the Education Department receive as favourable a treatment as in other Departments.

Anwar Ahmad Press, Allahabad.
The courses of reading for Matriculation and School Final Examinations.

1. English.—The statement that many students begin their University course without sufficient knowledge of English to profit by the lectures they attend is true to the extent that they often fail to follow what is said from this cause. It is due partly to their meagre knowledge of the language, but more especially to their unfamiliarity with it as a spoken language. The remedy for the latter lies, I think, in selecting as Head Masters and Teachers in the High Sections of Schools only such men as have a good colloquial knowledge of English, and who speak it fluently and idiomatically with proper intonation and accent. For this reason I am in favour of employing European and Eurasian Head Masters in larger numbers. I do not think the possession of a high degree so important as a good knowledge of English. The Universities when considering applications from schools for recognition should make careful enquiry, not only into the academic qualifications of teachers, but as to their ability to speak English.

I do not think, however, that there is any truth in the statement so frequently made that English is not so well taught as it used to be. The fact that middle aged graduates know more English than graduates fresh from the Universities is due to their having had a longer acquaintance with it. They did not, when they left college, know English any better than the younger men—probably not so well.

As to the course of reading, I would test the candidates in set books as at present, for unless they have some text-books prescribed, they probably will read nothing carefully and may acquire slovenly habits of study. In addition to learning a good deal of English from the close study of a text-book, they learn best by this means under a capable teacher how to approach the solution of difficulties of language and how to explain them away. But to prevent cramming unseen passages should be given for explanation in the paper on set books and should carry half the marks. Grammar questions should be set on the text in both parts of the paper. I am against a separate paper on Grammar. There should be a second paper to include dictation and translation from Vernacular into English. The time allowed for, and the marks assigned to, each paper should be the same, and candidates should be required to obtain 33 per cent of the marks in each paper for a pass.

2. Oriental Classical Languages.—These should be studied on Western lines, and the teachers should be men trained on those lines. The present system of entrusting this part of the work to poorly paid pundits and moulvies, usually men who know their classical language well, but almost nothing else, is not suitable for English schools. Such men require unlimited time to impart their knowledge. Though much respected, their discipline is generally at fault, and their pupils are apt to regard the classical period as a welcome relaxation during school hours. I am not in favour of excluding Persian from the course. A knowledge of it is useful, if not even essential, to a thorough study of Urdu, and it is a language which Hindus and Muhammadans are accustomed to study in common, in this respect being unlike Sanskrit or Arabic.

3. Mathematics.—I do not think that the state of the teaching in this subject of the courses call for special enquiry.

4. Physics and Chemistry.—Instruction in these subjects may and sometimes does consist merely in imparting book knowledge for the purposes of the School Final Examination. To my knowledge students have passed the School Final Examination in the first division and even obtained scholarships by cramming up their text-books. It should not be impossible to arrange for an examination in practical work, if centres for the examination of science candidates were selected in which competent examiners and properly equipped laboratories were available. Four or five such centres would serve the needs of the United Provinces. An examination in practical work appears to me essential as a test of the knowledge of candidates in these subjects.
5. History and Geography.—Undoubtedly the results in both these subjects are unsatisfactory. It is my experience that the teaching is perfunctory and little or no interest is taken in either. It is a prevailing impression that these are the kinds of subjects which may be best left to students to get up by themselves for examination purposes in keys and guides when the time of examination draws near, and I am afraid it must be admitted that the result justifies the impression. It is not easy to suggest a remedy; for it is almost impossible to set questions which will discourage cramming, when only an elementary knowledge is required of candidates and their answers must be brief. It has been suggested that these subjects should be studied in vernacular; but there is the weighty objection that it would weaken the study of English; and I have not found any better results when I have examined vernacular school-boys in them, on the contrary, the cramming of history and geography is even more marked among them. Better and more conscientious teaching is what is wanted.

6. Spheres of influence of Universities.—In the year 1901 nearly 300 candidates from these Provinces sat for the Entrance Examination of the Punjab University and 201 less candidates sat for our Entrance and School Final Examinations than in the previous year. It is hardly necessary to point out what a serious diminution in fee income this has meant to the Allahabad University. It is due, I believe, mainly to two causes—(1) the fixing of an age limit of 16 years for admission to the Entrance and School Final Examinations of the Allahabad University, and (2) a general impression that it is easier to pass the Punjab Entrance Examination. It is not likely that many candidates find it more convenient to be examined at a centre in Punjab than at one in the United Provinces. When the standard of Matriculation for the Allahabad University is raised in 1904 it is probable that a much larger number of Entrance candidates will resort to the Punjab from the United Provinces. The majority of those who pass, it may be presumed, will return to the United Provinces and take their admissions into the first year classes of various colleges, quite unfitted to profit by the lectures they attend. The University’s income, already barely sufficient to meet current expenditure, will be thereby much reduced, and its efforts to prevent immature and ill-prepared students gaining admission to its colleges rendered futile. The question of discipline is also to be considered in this connection. Neither the Punjab nor the Allahabad University will be able to exercise any control over these numerous private candidates, and the colleges of the Allahabad University will have to admit a number of young men who have never known the influence of school discipline. It is possible that schools in the United Provinces may take to preparing candidates for the Punjab University Entrance Examination, but such schools could not be inspected by the Punjab Inspectors of Schools and would, on the other hand, not be bound by the Provincial Inter-School rules. Looked at from all points of view, the apportioning to Universities of spheres of influence seems eminently desirable.

7. Rules under which schools are recognised.—Bye-law 40 of the Bye-laws of the Syndicate, page 98 of the University Calendar, sets out the rules for the recognition of schools preparing candidates for the Entrance Examination.

It has been recognized that the rules are not strict enough, since they do not secure thorough efficiency in all cases. The question of their amendment is now before the Syndicate in connection with the new Matriculation Examination. It is proposed to make them more stringent and to require all schools, State, Aided and Private, which wish for recognition to make applications to the Syndicate direct. The application which must be accompanied by a return giving full particulars regarding staff, buildings, etc., subjects of instruction, desirability of the institution, managing committee, scale of fees and financial stability, must be submitted through an Inspector of Schools with his remarks thereon. It is further proposed to insist upon none but recognised teachers being employed in recognised schools. By a recognised teacher is meant one who is certified by the Education Department to be capable of teaching in the section of the school in which he is employed. The results of these changes in the rules will, I think, be that several schools now recognised will fail to get their recognition renewed and others not yet recognised will be unable to come up to the required standard of efficiency. This will reduce competition where it is
too keen and drive students into the better schools. As efficiency is mainly a question of funds, the better schools with an increased income from fees will probably spend more on tuition and so grow more efficient. What at present does more harm probably to English education than anything else and impairs its efficiency is over-competition. Inefficient and poorly equipped schools by charging lower fees, giving promotion to unfit boys, breaking the inter-school rules, and almost dispensing with discipline, are able to compete successfully with efficient rivals and sometimes almost ruin them by enticing away large numbers of their scholars. In towns in which over-competition exists, Head Masters are at the mercy of boys and the parents and guardians of boys. They dare not punish adequately for fear the delinquents may be withdrawn from school to take his admission in a rival institution, and his fee be thus lost to the school exchequer. Several such defections may mean that the pay of some member of the teaching staff will have to be reduced for want of funds.

The rule regarding the admission of private candidates to the Entrance Examination is so loosely interpreted by the University that unrecognised schools, subject to no restrictions, send up their pupils privately under it. The mischief brought to discipline and efficiency by these private schools has long been recognised, but till lately no serious attempt has been made to deal with it. An attempt was made to discourage private candidates a couple of years ago by a wholly inadequate addition of Rs. 6 to the amount paid for admission by them to the University Examination, and a proposal is now before the Syndiccate to define more clearly private candidates. It is high time that some steps were taken to deal with the evil, for otherwise any attempts to make the rules of recognition more stringent will merely encourage unrecognised schools, and cause an increase in the numbers of so-called 'private candidates.'

8. Recent improvement in the English Course.—The Allahabad University has lately given much consideration to the means of improving the courses in English for the Matriculation, Intermediate and B. A. Examinations, and the reforms soon to be introduced are designed to secure from the candidates a more practical acquaintance with English than they possess at present. This can be best understood by comparing the present courses with those which will shortly replace them:

**Entrance.**

1st paper—(a) Prescribed course in Prose and Poetry.
(b) Unseen passages.

2nd paper—English Grammar and Idiom.

3rd paper—Translation into English from an Indian Vernacular.

**Matriculation, 1905.**

1st paper—(a) Prescribed Prose course.
(b) Grammar applied to same.

2nd paper—(a) Prescribed Poetry course.
(b) Grammar applied to same.
(c) Unseen Prose passages.

3rd paper—Translation from Vernacular into English.

4th paper—(a) Translation from prescribed English course into Vernacular.
(b) Translation from unseen passages into Vernacular.
(c) Vernacular paraphrase and Vernacular composition.

**Intermediate.**

1st paper—(a) Prescribed Prose course.
(b) Grammar applied to same (new since 1902).

2nd paper—(a) Prescribed Poetry course.
(b) Grammar applied to same (new since 1902).
(c) Unseen passages, Prose and Poetry.

3rd paper—Translation from Vernacular into English.
GENERAL SECTION.

1st paper—(a) Unseen modern Prose passages (new from 1902).
(b) Grammar applied to same (new from 1903).

2nd paper—(a) Essay on subject of general interest (new from 1903).

Vivâ voice—Conversational and grammatical.

SPECIAL SECTION.

1st paper—(a) Prescribed Prose course.
(b) Literary History of English Prose.

2nd paper—(a) Prescribed Poetry course.
(b) Literary History of English Poetry.
GYANENDRA NATH CHAKRAVARTI, M.A., LL.B.,
INSPECTOR OF SCHOOLS, SECOND CIRCLE.

Historical Retrospect.

The Commission have no doubt been made aware during their stay in Benares of the existence in that city of two flourishing Sanskrit Colleges, besides the Government Sanskrit Colleges attached to the Queen's College. I refer to the colleges maintained by the Maharajas of Kashmir and Durbanga respectively. The one kept up by the Maharaja of Kashmir has now been made over to the authorities of the Central Hindu College for management. It is my purpose to bring to the notice of the Commission certain colleges in which higher education in Arabic is given. The most important institution of this kind within my knowledge is the Madrassa-Islami-Arabi at Deoband in the Saharanpur District. This is a kind of Arabi University that has been in existence for the last 36 years and draws students from all parts of India as also from Bokhara, Baghdad and Kabul. There is a boarding house attached to the school. The number of boarders is 120, and all of them are supplied with food and clothing by the college. It is managed by a committee of respectable Indian gentlemen and the annual expenditure comes up to Rs. 5,000. Instruction is given in Literature, Grammar, Medicine and Astronomy, but special attention is paid to Theology. It grants its own Sanads to its graduates.

In Lucknow itself there are several institutions somewhat similar to the Deoband College, in which instruction of a pretty advanced character is imparted in Arabic, but the principal object of all these colleges is the teaching of Musal-mant theology, either Shiah or Sunni. Details regarding some of these institutions—including the Deoband College—are given in the annexed table, which is by no means exhaustive. There are two or three other Arabic Colleges of importance (leaving out of account the efficient Arabic department of the Canning College), about which I have not had the chance of getting complete information, which, however, I shall be glad to furnish if the Commission so desire. I have personally visited some of these colleges and had a talk with the Moulvies as also the governing bodies. As far as I have been able to ascertain, they would be only too glad if their system of education receives some kind of recognition at the hands of the University. They would also be willing to form themselves into Boards for the determination of the best means of improving the system of teaching and of encouraging the study of Arabic, provided no attempt is made to interfere with their method of religious education. Such a body of learned men would be found very useful to the University for giving advice on the courses of study to be prescribed for the Arts' Examinations also.

Teaching University.

I do not think it is practicable to convert our University into a regular teaching body so far as the B.A. and B.Sc. degrees are concerned. At the same time it is both feasible and desirable that the University should be in closer touch with and exercise greater control over the affiliated institutions. Before affiliating a college the Syndicate or some officer deputed by it should make a detailed enquiry regarding the qualification of each member of the teaching staff, the constitution of the governing body and the funds at its disposal, the sufficiency of accommodation apparatus and appliances, the provision for the lodging and supervision of boarders and the nature of the general influence exercised by the institution. No affiliated institution should be permitted to make any change in its administrative policy or the personnel of its staff without the sanction of the Syndicate.

With regard to the M.A. degree, the University ought, in my opinion, to assume the responsibilities of a teaching body. It is not always possible for the various Mufassil Colleges to maintain a staff competent to help a student in his specialised study for M.A., and it would be a distinct advantage if all the graduates studying the same subject could be brought together in the same place. Such a

* Please see catalogue of papers presented to the Indian Universities Commission.
course would not only secure for all of them uniformly the benefits of the best lectures on the subject, but would stimulate effort in the students themselves and afford opportunities for mutual help. In connection with this degree there are not the same difficulties in the way of centralisation as exist in the case of the B.A. degree. Only a small percentage of graduates attempt the M.A. course, and these have generally the means of spending another year or two at an educational centre before entering into professional study. And then there would be no hardship on those who have not the means to do so, as this degree is not a sine qua non for any of the professions in the same way as the B.A. is. Moreover, the M.A. classes will not be too large for convenient lecturing. I am, however, of opinion that teaching in all subjects should not be concentrated in one place. Places may be chosen according to the facilities they afford for a thorough study of any particular subject. For instance, Sanskrit may be taught in Benares, Physical Science in Allahabad, Arabic in Lucknow, and so on. In order to obtain the M.A. degree, I would make residence for two years at the place of study compulsory. The remarks made about the M.A. degree are intended to apply to the D.Sc. degree also.

Affiliated colleges should be required to make satisfactory arrangements for the lodging and supervision of all students who live away from their homes, and these students should be compelled to live in the boarding houses provided by the colleges.

Constitution of the Senate.

On the whole, the work of the Senate of our University has been carried on smoothly and efficiently, and there are not many grounds for complaint regarding its constitution. There are, however, Fellows who never attend a meeting of the Senate, and it is desirable to have some provision for the elimination of Fellows of this class. I think the object will be achieved by having a rule similar to the one we have for the Facilities under which a member not attending any meeting for two consecutive years ceases to be a member, but is eligible for re-election. Some change in the list of ex-officio members seems also to be called for. As far as my experience goes, not one of the Fellows of this class, with the exception of the Director of Public Instruction and the Principals of the Muir Central and the Queen's Colleges, attends the meetings of the Senate, except on rare occasions. Perhaps it may be a better plan to reserve a number of places for State officials known to take interest in education, who should be nominated by the Chancellor for a period of two years.

I would also give the graduates of this University who possess a degree higher than that of the Bachelor's the privilege of electing a Fellow every year. But both with regard to this election and the election by the Senate itself, I would strongly discourage "canvassing." It is hardly consistent with the dignity of a learned body like the Senate of a University that an aspirant for a seat in it should solicit the patronage of other people and not rely on his own merit. But apart from the question of sentiment, I have known cases in which a person of inferior qualifications has by active canvassing been elected in preference to rival candidates of immensely superior attainments. The Fellow or Fellows nominating a candidate should mention in detail his qualifications and votes should be given altogether on the respective merits of the candidates. I would suggest that canvassing directly or indirectly should be held to disqualify a candidate for election.


I am in favour of having a three years' course for these degrees, as also of the abolition of the Intermediate Examination. The changes made in the standard of the Matriculation Examination render it a severer and more thorough test of the candidate's fitness to profit by the teaching at college; and as he would enter it with much better preparation than hitherto, a three years' course leading directly up to the Degree Examination would seem to meet the requirements of the case. The age-limit which, after due deliberation, we have now prescribed for the Matriculation Examination also furnishes a very cogent reason for my
recommending a three-year instead of a four-year course. While I am deeply impressed with the necessity for the age-rule and consider it admirably calculated to raise the tone of education in these Provinces, I am at the same time anxious to prevent certain hardships that are likely to follow, if a four years' course is insisted upon. Leaving out of account the fact that in this country young men enter life and have domestic responsibilities earlier than in the West, I may illustrate my point by working out the details of its practical working in certain cases.

It is well known that it is the ambition of an appreciable percentage of our graduates to join the subordinate judicial service. According to the rules in force, a young man must be a practising Vakil of the High Court and under the age of 25 years to be eligible for enrolment as a candidate for Munsifship. And in order to be a practising Vakil he must have put in a couple of years' practice at a subordinate Court, so that he must get his LL.B. degree before he is 23 years' old. And as two years' study in law is necessary, after passing the B.A. Examination, it follows that an aspirant for Munsifship must be less than 21 years of age when he obtains his B.A. degree. With a four years' course he must be above 20; so it will be seen that no margin is left for accidents of any kind. Again, the rules of the Civil Engineering College at Roorkee, which draws a fair number of our cleverest graduates, require candidates for admission to be within the maximum limit of 21 years of age at the date of entry into college. And when it is remembered that they have to pass an Entrance Examination in June, the difficulty in the way of graduates of this University who must, under the present rules, be over 20 years old in the preceding March is simply insurmountable. Unless the four years' course is cut down to one of three years, the doors of this very lucrative and useful profession will be practically shut against the graduates of this University.

Spheres of influence of Universities.

I am distinctly in favour of each University having a definite sphere of activity extending over a clearly defined area. With the greater control over affiliated institutions which it is now proposed to give to the Universities, it is all the more necessary that their territorial jurisdiction should not overlap. Under the existing state of affairs it is by no means uncommon to find a boy trying to escape the consequences of his inattention or misbehaviour by seeking admission into the University of another Province, and it is obvious that the mere existence of such a loop-hole for escape tells upon the discipline of educational institutions. Moreover, each University must be presumed to provide best for local wants, and it is highly undesirable that it should be possible to circumvent the provisions of the local University, thus stultifying the object for which they were framed.

Exigencies of public service, however, frequently involve transfer of guardians from one Province into another. For this reason, as also for other reasons, I would recommend that the standards fixed by different Universities should be as nearly uniform as is consistent with the peculiar condition and requirements of each Province.

Matriculation Examination.

A minimum age-limit for this examination is, in my opinion, very desirable. As this measure in the United Provinces has not met with the approval of a large number of my countrymen, I may be allowed to state very briefly why I have all along felt that the effect of such a restriction could not but be salutary both in the school and the college. To me it seems that not only will the age-limit provide us with some guarantee that a candidate seeking entrance within the portals of the University has his brain sufficiently developed and his character comparatively formed to profit by the more bracing mental and moral atmosphere of collegiate life, but its result on the general discipline of schools and its influence in improving the character of school education are likely to be healthy and far-reaching. Everyone connected with the work of education in India is aware of the feverish anxiety betrayed by an Indian parent (not to speak of the boy
himself) in seeking to rush a boy through the various classes in school, regardless of the pernicious effect of an unduly severe strain on the intellect of the boy at an early stage of its development. An age-limit is calculated to smoother all such senseless attempts on the part of the parent and to lessen considerably the enormous number of applications at present made for undue promotion. The parent of a clever boy who can master the prescribed work of the class sooner than the rest will, with the age-limit staring him in the face, abandon the desire of driving the boy in an exhausting race, and would try instead to direct his intellectual activity on more profitable and invigorating lines, thus developing in him a taste for study out of the groove cut out by the school curriculum, and encouraging him to strike out new plans of work for which he finds a special aptitude in himself. I am hopeful that one of the effects of the age-rule would be to afford greater facilities for the growth, in the cleverer sort of boys, of those faculties that make for a distinguished career of original work. I have a lurking suspicion in my mind that the premature forcing of intellect is a powerful factor in bringing about that lack of originality which is so often regarded as a characteristic of our University education.

I would advocate giving the headmasters of schools the power of disallowing a student of the top class from appearing at the Matriculation Examination for sufficient reason. At present headmasters in the United Provinces are compelled to send up all the boys in the class who have put in the required percentage. A change in this rule towards strengthening the hands of the headmasters is necessary both in the interests of discipline and steady work. In order to provide a safeguard against the practice of weeding, which experience has shown to be liable to abuse, the exercise of the power may be made subject to the control of the Circle Inspector.

An urgent reform in the method of conducting the Matriculation Examination, as a test of efficiency, is to assign both maximum and minimum number of marks to each subdivision of a subject comprised in one question paper. In order to illustrate the necessity for such a course, it may be mentioned that one of the three papers in English set at the Entrance Examination of this University consists of passages in the vernacular to be translated into English. There can be no better test of a candidate's practical knowledge of English and his power of expressing his thoughts in decent style than this work of translation, and yet, unless the passing in this paper is made compulsory, a boy can easily evade this test by working up the text-books and securing the required percentage of marks in the other papers. The same remarks apply mutatis mutandis to other groups of subjects, and I have often heard complaints from headmasters that boys neglect Geography, because they hope to secure the necessary minimum in history and vice versa.

It would also be desirable to depart from the ordinary practice of requiring all explanations of passages from the English text-book to be expressed in English by calling upon the candidate to explain some of the passages in his own vernacular. I make this suggestion not so much on the ground of the difficulty an Indian student finds in expressing himself in a foreign tongue—for this difficulty, if natural, is not altogether insurmountable—as for the far more obvious reason of the explanations affording the examiner the assurance that the candidate does really understand the passage he is trying to explain. Incredible as it may seem it is a common experience with me, while inspecting schools, to find that a boy who has explained a passage in faultless English has not taken in the full sense of the passage, and in some cases has not even made an approach to the comprehension of ideas that he has formulated in long strings of English words and phrases. In such cases the boy merely commits to memory the English meanings from a key or a dictionary or the notes dictated by the teacher without understanding their full significance; and the degree of my suspicion about the ignorance of the boy is always in proportion to the perfection of the language used in explanation. Once my suspicion is aroused, I insist upon the boy's explaining the same passage in the vernacular, and in nine cases out of ten I discover that my suspicions were well grounded. So completely do some of the boys rely on the set phrases they have learnt in explanation without understanding the meaning that they break down miserably when called upon to express the same ideas in their own mother-tongue. But for this searching test I would never have found out the ignorance
of the boys about the meaning of what they were explaining. If some of the
passages set in the question paper are required to be explained in the vernacu-
lar, the boys will know the meanings of the text-book both in English and the ver-
nacular—the vernacular test furnishing a safeguard against the boys writing out
elaborate explanations without understanding the sense.

The recognition of various kinds of Anglo-Vernacular Schools and their efficiency.

Under the rules in force at present—Rule 40 (d) of the Bye-laws of the
Syndicate—all the Government and Aided Schools, as such, are recognised by the
University as competent to send up candidates for the Entrance Examination,
and a list of such schools is forwarded annually to the Registrar by the Direc-
tor of Public Instruction. I propose no change in this procedure, although I
would suggest that Managers of Aided Schools should be required to appoint
teachers in consultation with the Inspector. Generally speaking, appointments
are not open to any serious objection, having in view the limitations in the
matter of funds and the number of qualified men available, but instances are not
wanting in which persons of an inferior stamp in point of intellectual attainment
and moral character have been preferred to more deserving men, merely because
the former happened to have some personal influence with the Manager. Of
course the Inspector could resort to the drastic remedy of stopping the grant,
but this cannot be done in all cases without unnecessary hardship, and no steps
could be taken anyhow till the Inspector pays his annual visit to the school.
According to Government orders, only trained teachers can be appointed, but
the demand for such teachers is far in excess of the supply, and as a large
majority of them are taken in Government service, very few are left for employ-
ment in other classes of schools.

As a rule, the Government Schools are more efficient and popular than
Aided Schools, although there are exceptions to this rule. The chief cause of
this is the more efficient staff employed in Government Schools and the better
control exercised therein. I must, however, confess that the staff in some of
the Government Schools is also ill-paid and not up to the required level of
efficiency, being, in a few cases, barely competent to teach up to the Entrance
standard. But a steady effort is being made to replace incompetent men by
more qualified, and, as far as possible, trained teachers. The great obstacle
in the way of getting men of superior attainments for our schools—whether
State or otherwise—is the poor salary that is offered. I am of opinion that with
a slightly more liberal pay it would be possible to recruit our teachers from
a class gifted with a higher intellectual calibre than that possessed by the majority
of our present teachers.

It will also be very desirable to affiliate the training college to the
University, as such a step is almost sure to give an impetus to its popularity by
enhancing its value in the eyes of the public as also in those of the teachers
themselves.

For the recognition of Unaided Schools the Inspector sends in, under
Bye-law 40 (e) of the Bye-laws of the Syndicate, a list of schools which, in his
opinion, employ a staff competent to teach up to the Entrance standard, which
is accepted by the Registrar. I do not propose any change in this procedure
either as the schools are too numerous for the Syndicate to employ an
efficient machinery of its own for the determination of questions which come
within the range of the Inspector's ordinary duties. I would, however, lay
greater stress on the care and discrimination with which schools should
be placed on the recognised list, and the Inspectors should be required to
satisfy themselves, not only regarding the competence of the staff, but the
efficiency of management, the moral tone of the school, the influence it exercises
on other schools, the sufficiency of accommodation and appliances and other
cognate matters before recommending a school for recognition. But provided
a recognised school maintains a high standard of efficiency in all details and
exercises a healthy influence all round, I am in favour of its allowed a certain
amount of latitude in the scale of fees to be levied at the institution. This
elasticity in the rate of fees would then come to be regarded as the principal feature differentiating schools not receiving any State aid from those that do receive such aid, for, in all matters regarding discipline and efficient management, they would be placed on the same footing. I may mention that Aided Schools in the United Provinces are bound to charge fees at a rate not less than \( \frac{3}{4} \) of the rate fixed for State Schools, subject, of course, to the concessions allowed regarding free and \( \frac{1}{3} \) rate scholars.

The rule under which schools sending up candidates for the Entrance Examination of another University or \textit{ipso facto} recognised Bye-law 40 (a) should be altered into its exact opposite, for it is undesirable in the interests of discipline to allow the same school the choice of different Universities.

A necessary safeguard against the illegitimate avoidance of the stricter discipline of schools ought to be provided by making the rules regarding the admission of private candidates to the Matriculation Examination more stringent. At present a large number of candidates who appear in this category are not \textit{bona fide} private candidates at all, but are merely school-boys who for some reason or other find it convenient to withdraw themselves from the discipline of a school a few months or a year before the examination. Lazy boys to whom promotion is refused from the Preparatory Entrance Class often resort to this device in order to be in a position to indulge in the luxury of sitting at a University Examination without working for it. The result is that very few of such boys are successful, only 11 per cent. of the total number of candidates passed last year. I am of opinion that only such persons as have not for two years previous to the examination attended a school should be allowed to go up as private candidates.
NOTE OF EVIDENCE BEFORE THE UNIVERSITIES COMMISSION.

Teaching University.—The Allahabad University is not merely an examining body, but is also a teaching body through the affiliated colleges over which the University exercises control. It would not be possible to have all these colleges concentrated in one place. They are scattered over a very large area. The University has its affiliated colleges not only in the United Provinces, but also in Rajputana, Central India and Central Provinces, where they are doing useful work in the spread of higher education. Now, if the work of these colleges be superseded or in any way interfered with, a large portion of those that are now enjoying the benefits of higher education will go without it.

Senate.—I would like to see some changes in the constitution of the Senate and of the Syndicate that would secure proper representation of the Rajputana and Central India colleges. An impression prevails that these colleges are not at all cared for by the University, and the fact that no one from among their professorial staff has ever been appointed a Fellow of the University or an examiner in any of the various University examinations, goes much to strengthen this impression. In order that the Allahabad Senate may not grow unwieldy, I would like to limit its strength to 100, including the ex-officio Fellows, but excluding the Honorary Fellows. The ex-officio Fellowships should also be reduced, as the attendance test cannot be applied to them. Their number should not exceed ten. They should be confined only to the heads of several departments. The Chief Justice of the High Court, the Chief Secretary to Government, the heads of Administration of Central Provinces, Rajputana and Central India, the Director of Public Instruction, United Provinces, and the Right Rev. the Lord Bishop of Lucknow should be ex-officio Fellows. At present some of the ex-officio Fellows are also either elected or appointed Fellows. The attendance test will eliminate those Fellows that do not take interest in the University affairs, however qualified they might be in other respects. I would, however, suggest that if an ordinary Fellow, who has faithfully served the University for a long time, cannot, on account of old age or for any other reasons, attend its meetings or take any active interest in its affairs he should be made an Honorary Fellow, if two-thirds of the Fellows present at a meeting agree to it. I would like to give the colleges-lecturers and the graduates of the University—B. A.’s or corresponding degree holders of ten years standing and M. A.’s or corresponding degree holders of five years standing—some voice in the University affairs. They should be entitled to have their names registered and form into a body. They should have the privilege of returning a certain number of Fellows to the Senate. I would distribute the Fellows in the following proportion:—

10, ex-officio.
40, appointed by Government.
40, elected by the Senate.
10, elected by the Association of college-lecturers and graduates.

Syndicate.—The constitution of the Syndicate has given unqualified satisfaction to all parties connected with the University. It does not properly represent the educational interests of all the provinces over which the University extends. The colleges in Rajputana and Central India, most of which are situated in Native States, labour under some disabilities. The colleges that are represented on the Syndicate have an advantage over those that are not. The students of the former may get
information about any impending changes long before they are formally announced, and this is liable to give rise to heart-burnings. I remember a case in which Mr Sharp, then Principal of the Jubbalpore College, complained of it in the Pioneer (April 8, 1887); and I am sorry to say, that was not a solitary instance. Education is very strongly represented, while the representation of the Private colleges is wholly inadequate. The Muir Central College is so strongly represented that practically it can govern the University, as it can often command a majority of votes in the Syndicate meeting. The Allahabad syndicate is too official and educational. It does not contain a fair proportion of independent members that are neither officials nor educationists to counteract the one-sided views of the latter. If there be too many college professors on the Syndicate, there will be a danger of i's being unduly biased in one direction, quite unconsciously of course. Of the 19 Syndics, 14 are Educationists, of whom only one belongs to an Unaided college and six to the Muir Central College; 1 Judge of the High Court; 2 Secretaries to N. W. P. Government; 2 elected by the Law Faculty, who are the only non-official and non-educational members of the Syndicate.

To take another picture of view, of the 19 syndics, 13 are Government officers, 3 belong to Aided colleges, and 3 are officials of whom only one is a non-official educationist. Again, from a third point of view, the Muftissalaaries are at a disadvantage. Of the 19 syndics, 13 are residents of Allahabad and six belong to Muftissi. Of the six, 5 are ex-officio syndics, who, being ex-officio, have little inducement to care for the general interests of the other Muftissi colleges except those of the special colleges with which they are connected. The sixth member, being an elected member, is the only one who has any reasonable motive to represent the general Muftissi interests. I would like to see the ex-officio syndics reduced, and apply the attendance test to all. At present the attendance test (Rule 47 of the University Rules) is applicable only to the elected members. The Director of Public Instruction of the United Provinces should be the only ex-officio member of the Syndicate. The six colleges, whose heads are now the ex-officio syndics, were the only colleges of importance when the University was founded. The University has now outgrown the requirements of its infancy. At present there are 17 higher grade colleges of the University, and the Syndicates should be open to all of them. The Private colleges and the colleges outside the United Provinces should have a more fair representation than they have now. The ex-officio and official members are too numerous, annual are likely to unduly influence the Syndicate. It should be ruled that no college should have more than 2 members of its staff on the Syndicate. Rule 45 of the University Rules relating to the Syndicate should be amended. I would suggest the following amendment:—

45. The Syndicate shall consist of the Vice-Chancellor, the Director of Public Instruction, and the following members elected by the Senate.—

4 Members off the Arts Faculty.
2 ,, Science Faculty.
2 ,, Law Faculty.
1 ,, Engineering Faculty.
11 other Fellows of the University, of which three must be from Rajputana, Central India and Central Provinces respectively.

Faculties.—In the Faculties also some changes are necessary. The Faculties should largely consist of specialists and experts in the subjects. Under the present rules all Principals of affiliated colleges, who are Fellows of the University, are ex-officio members. Now there are 48 colleges affiliated to the University, while the maximum number in the Arts Faculty is 55 and in the Science Faculty 20. There is thus a possibility of the heads of institutions appropriating all the memberships, leaving no room for experts and specialists. I would, therefore, either do away with the ex-officio memberships altogether, except in the case of the Director of Public Instruction.
and have all the other members elected by the Senate; or increase the
maximum number in each Faculty in such a way that the ex-officio mem-
bers form only a third part of its total strength. In the first case, how-
ever, I would have a fair proportion, say \(\frac{1}{3}\) of the members, elected from among
the heads of institutions, a part of which must again be from Rajputana,
Central India and Central Provinces; the rest are to be elected as now.

Certificate of Examination — In Jaipur we grant the certificate for the
University examinations after a Test examination. Those that fail miserably
at this test are withheld the certificates, and not allowed to sit at the Uni-
versity examinations. The minimum standard of efficiency in this examina-
tion is always a little lower than the University standard. But in enforcing
the Test examination I have always experienced a difficulty and sometimes
met with strong opposition from the guardians of rejected candidates. The
students, as well as their guardians, consider that if they have kept the per-
centage of attendance, they have fulfilled the conditions required by the
University, and the Principal has no right to detain them for inefficiency
or failure at the Test examination. Much unpleasantness can, however,
be avoided if there be an authoritative rule on this point made by the Syndi-
cate. It often happens that some rejected students manage to appear
as Private candidates from other schools where there is much laxity of
supervision; or if they cannot appear in the Allahabad examinations, they
find no difficulty in being admitted into those of the Punjab University.
This however sets up a bad example and exercises an injurious influence
on school discipline.

Age Limit — I do not consider that a minimum age limit for matricula-
tion is necessary. To fix it at 16 has, in my opinion, been a mistake. In
this connection I may mention that most of those Raychand Premchand
scholars at the Calcutta University, who are certainly the very best products
of that University, passed their Entrance examination under 16.

Teaching of English — To improve the knowledge of English of our
boys and to discourage cram, mere raising the standard of pass marks in
English would not meet the requirements of the case. Some provision must
be made to encourage boys to have a hold on colloquial English. If a
boy does not acquire the habit of speaking English early, he finds much
difficulty in doing so in after years. It is also true that in many schools
English, even in the higher classes, is taught through the medium of ver-
nacular by persons who cannot speak English well, whose scholarship is
indifferent and whose pronunciation is very defective. In the lower classes
boys often begin their English with ill-educated and ill-paid teachers, and
thus acquire a habit of bad pronunciation which they cannot get rid of
throughout their life. These things can be remedied only by the appoint-
ment of better-trained and better-paid teachers. The introduction of the riva-
cere test into the Entrance examination will, in my opinion, much
improve matters. The oral test is the best means for detecting shallow
knowledge. The same oral examination which is held for the School
Final candidates will do as well for the Entrance candidates. More stress
should also be laid on Original Composition in English than is done now by
putting questions on Essay-writing and Letter-writing. The written
part of the examination paper should not, again, contain passages
for explanation from the text-books, but from books of equal diffi-
culty not prescribed in the course, so that any one who has intelligently
studied the text-books can with ease answer these questions. If this be not
considered desirable on the ground that the teaching of suitable text-books in
the class will perhaps be altogether neglected in some schools, and students
will much more depend upon Manuals for examination, I would suggest that
a separate paper be set containing passages from books not prescribed; and
passing severally in the Composition, Translation and ‘Unseen’ papers be
made compulsory. This would put a discount upon mere cram and encourage
general reading among our students, which is at present so conspicuous by
its absence. I do not advocate the total abolition of text-books, for that would leave many teachers without any sufficient guide as to the books that are to be taught in the class. Of course, capable and intelligent teachers will be free to substitute books of their own choice in place of those prescribed. I would also like to see some changes in the teaching and examination of History and Geography of the Entrance Course. I am not, however, prepared to make any definite suggestion. But the fact is that boys often pass in it without even looking into the text-books, by getting up information from notes and analyses. The course may perhaps be reduced and included in the English Course, and not treated, as at present, as a separate subject; and the questions be so set as to discourage the present tendency.

Examiners.—I have no sufficient knowledge of the working of the Syndicate and of the Committee appointed to prepare a list of examiners for the Intermediate and Entrance examinations. But, without imputing blame to any one, I hope I may be allowed to point out that examinerships have never been offered to any professor or teacher of the Rajputana and Central India Colleges.

Affiliation Rules.—It would be desirable to extend the control and supervision of the University over the qualifications of the teaching staff, library and laboratory grants and other conditions of affiliation. But care should first of all be taken that the executive authority of the University properly represents the educational interests of all the provinces over which the University extends. The conditions of affiliation should be distinctly and precisely laid down, as has recently been done for the teaching of science, so that the colleges desiring affiliation could know beforehand what the requirements are, and those that could fulfill the conditions would alone apply for it. This would remove much misunderstanding that now and then arises out of affiliation cases. Whenever the Syndicate refuses an application for affiliation, it should distinctly mention the grounds on which it bases its decision, and not merely vaguely state that the staff is not considered adequate. It should point out those parts of the conditions which have not been fulfilled before the affiliation can be granted, and furnish other information regarding which the college authorities may require. Such advice on the part of the Syndicate would help the college authorities to bring their colleges up to the mark. It often happens that the college authorities are left quite in the dark as to the views of the Syndicate. After the affiliation is once granted the University should take means to ascertain that the affiliated colleges maintain the conditions on which the affiliation was granted. The conditions should not, however, be such as to preclude a large number of colleges from their fulfilment. If too high an ideal standard be set up, it will frustrate its own end.

Professor.—The title "Professor" should be reserved only for those distinguished college-lecturers that show special qualifications and high proficiency in their subjects. It should not be assumed by any college tutor until it is formally conferred on him by the University. No one should be admitted into this rank unless he makes some contributions to the science of his subject. Mere coaching up boys for the University examinations should not be deemed sufficient qualification. Such a rule would increase the dignity of "Professors," and also stimulate the college teachers to do some sort of original work for admission into this rank. It cannot but also have a very great indirect influence on the students themselves.

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REFORM IN UNIVERSITY EDUCATION IN INDIA.

I.—INDIGENOUS SYSTEM OF EDUCATION IN ANCIENT AND MODERN INDIA.

The indigenous system of education in ancient and modern India is so vastly different from the School and College system introduced by the British Government, that it can afford little help in reforming the latter. What it is and what help it can afford to us in this direction, will be gathered from these notes.

(a). Hindu system.

There was properly speaking no system of public education in India before the advent of the British rule. Schools and Institutions for imparting education to the youth of the country were common in every town, but the State, so far as can now be ascertained, did not support any system of public education. Individual kings, rulers and men of wealth founded institutions for the purpose and endowed them with grants of money or land, but the State as such did not recognize any system of public education. Such of its remnants as are still found all over the country, however show that it was a very inexpensive system and one suited to the requirements of the times in which it flourished. The student in the old Hindu times lived with, was treated as one of the family by, and served his teacher in every possible manner. He begged his way to the latter's home, lived upon remnauts of alms collected by him and was enjoined to be extremely respectful to his guru, receiving instruction only when it pleased the latter to give him. He was most strictly enjoined to keep his vow of celibacy inviolate, to be diligent in study, to avoid useless articles of dress and toilet, to perform his ablutions and prayers at the prescribed hours, and avoid untruthfulness and anger. His period of studentship ranged from 12 to 36 or even 48 years. All instruction was verbal. There were no books. But so highly was the system prized that even sons of kings lived the life of Brahmacharins (students) except in the matter of begging their food. The teachers who were always Brahmans were supported by the charity of the rich. They lived in jungles, and had few wants which could easily be supplied from what they got. On the completion of his studies the pupil paid his teacher as handsomely as his means permitted and left him for entrance into the world. There were however some who were life-long Brahmacharins. On parting the student was enjoined not to neglect study, to adhere to truth and righteousness, to honor the good and the wise, to be careful in making gifts, to be willing to impart instruction to those who came to him for the purpose and to follow the path of the virtuous in all cases of doubt or difficulty. Though shorn ef much of its former vitality, the system does not even now tell so heavily upon the physical well-being of the student as the English system of education does. The pupil does not generally serve his teacher menially, nor brings him alms. Sometimes he lives with his teacher, sometimes a number of students board together. But the teacher always takes a deep interest in his pupil. The instruction is, as it always was, free. The relation of pupil and teacher is most intimate. The pupil loves and respects the teacher as his father, nay as his God and the latter loves and treats his pupil as his own child. Most of the students being poor, their teachers manage to find maintenance for them and do not spare their own money when necessary. In Benares and other places of learning thousands of Hindu students are receiving free education in this way. In Benares alone there are some 6 public and many more private schools where education in Sanskrit is freely given to all who come to them. Every Pandit moreover regards it his duty to give free instruction to a number of pupils. If he cannot get paid for his labours he will do so as a labour of love. The incomes of these Pandits are very small. For instance in the Jammu Patshala which has just been incorporated with the Central Hindu College of Benares, the salaries of the 11 Pandits em-
ployed there, ranged only from Rs. 18 downwards and yet some of them at least were good scholars and all capable of teaching their respective subjects. The students are usually allowed a small monthly stipend by the founder of the institution and feed in the various charitable boarding houses established all over that place. No fee is ever charged to them. In fact they are tempted to come to school by stipends and prospects of getting maintenance. Besides the lay Pandits, members of religious orders of all ranks receive and educate pupils on the same system. Those of the lay students who care to go up for the public examinations established and recognized by the Government or the Universities, are educated according to that standard, but the majority read either for the purpose of acting as astrologers or as priests to the public, or earning money by repeating and expounding to them the Puranas and the epics. A few devote themselves to the higher branches of Sanskrit literature and philosophy, and yet the number of those who prize learning for the sake of learning, is larger and the students more earnest than is the case with the alumni of our Universities. A few devote themselves to the higher branches of Sanskrit literature and philosophy, and yet the number of those who prize learning for the sake of learning, is larger and the students more earnest than is the case with the alumni of our Universities. Among the religious orders this is more largely the case and many a student devotes himself to mastering the truths of Hindu philosophy, simply to achieve the highest aim of man not from the worldly but from the religious point of view.

The general characteristic of the system is that the pupil reads with only one teacher throughout and is therefore strongly attached to him.

In former times there were no public examinations for Pandits, but the learned men of the locality recognized proficiency in learning by giving them Pratislitha Patras (certificates). Meetings for discussion of questions of religious or philosophy used also to be and are still convened by those who patronize learning and those who come out successful in defeating others in argument at such meetings receive recognition both from their fellow scholars as well as the laity.

The Arya Samaj has lately attempted to approach the ancient system of teaching by establishing two seminaries known as the guru kula for the training of upadesha (preachers) and students after the Hindu Method. One of these is in Secundrabad in the Bulandshahr District and the other at Hardwar. The former has 12 students in the upadesha’s and 24 in the ordinary pupil’s class, the latter has 54 only in the student’s class. The teachers all live with the students. They do not charge anything for their labours. The instruction is all free. In the former institution no English is taught. Students whose Vedarambha Sanskara (Investiture with the sacred thread) has taken place are alone admitted to the seminary. They must be between 7 and 8 years of age. They live in the seminary for about 18 years and are strictly bound to a life of celibacy. They are divided into two sections. For the first 8 years, their study is almost exclusively confined to Sanskrit grammar and literature. History, Geography, Natural Philosophy and Mathematics are all taught to them through the medium of the vernacular. They then add English to their studies and during the next nine years while reading the highest branches of Sanskrit literature and philosophy, they receive instruction in Science and Mathematics through the medium of English. The English course is however not very high and comes up to about the Entrance standard. After that the study of English is left to the option of the student. The cost of education is said to be Rs. 10 per mensem for the first section and Rs. 15 for the second. Their food which is very simple is strictly vegetarian, and their clothing which is uniform is also of the simplest description. They are allowed very few articles of furniture and have to bathe twice in summer and once in winter and wear the Slikha and the Sutra. They are all treated on a footing of perfect equality and have to devote from 6 to 12 hours to study. They are not allowed to leave the seminary even during the vacation, nor permitted to visit a town or a village except under very special circumstances. Their parents and guardians are also not allowed to visit them except once a month and
the duration of the visit does not exceed two days. The system is in its experimental stage but I am told that those who go to these seminaries are strong and healthy.

(b). The Mahomedan system.

The Mahomedan system of education is somewhat different. The Makhahs (indigenous schools) are still largely resorted to by all Mahomedan students, for the study of Persian and Arabic. The period of study is from 7 to 8 years for the first course where students are taught up to Shara Mullah in Arabic in addition to the highest branches of Persian literature. Thereafter they read science and philosophy in Arabic. The cost of education is from Rs. 2 to 10 per month for those who can pay, while those who cannot, not only receive free instruction, but are also maintained by the community. There are several educational endowments for the purpose in each large town. In Agra, for instance, we have the great Juma Musjid and other mosques endowment coming from the Mughal times with its income of Rs. 700 or 800 a month from landed property. It has got a funded capital of some Rs. 20,000 and has a school attached to it. This school has 7 teachers whose salaries range from Rs. 8 to 15 a month. There are about 100 students, some of them from Afghanistan and Bengal. These come here for the purpose of studying theology. The school hours are from 7 to 11 a.m. and from 2 to 5 p.m. The teachers take great interest in their pupils and keep a strict eye over their conduct. The pupils are taught habits of reverence from the earliest age and the teacher is greatly respected both by his pupils and the community. In addition to these endowments every Mahomedan Mohalla which has a musjid has a small school attached to it. The teacher earns about Rs. 10 or 15 a month from fees levied from students and the more respectable residents of the locality also look after his wants. The rich and the well-to-do employ teachers for the education of their children, but other boys also come to them and receive instruction on payment of small fees. A moulvi has about the same worldly prospects as a Pandit which are not much. The most popular profession is that of medicine; a few take up theology and become muftis, or officiate at prayers in mosques.

This, I believe, is a rough outline of the Hindu and Mahomedan systems of education which have always prevailed throughout the country with modifications due to local requirements.

Their merits are (1) cheapness, (2) inculcation of habits of reverence and love on the part of the pupil and love and strong interest in the welfare of the pupil on the part of the teacher and (3) the general absence of all pernicious effect on the health of the students. Both systems though poor in average, are yet more successful in giving the world a greater number of devoted scholars than the English school and college system.

II.—UNIVERSITY TEACHING.

(a). Its defects.

In considering the question as to whether teaching Universities would be better than our present examining universities, let us first consider the result of the present system. The chief complaints against our universities are—(1) that they afford a premium to cramming, (2) that they develop the acquisitive at the expense of the creative faculties, (3) that they do not encourage original research, (4) that their alumni are generally wanting in accuracy of expression and comprehensiveness of thought, (5) that they make education subsidiary to examination, (6) that they do not conduce to the contact of mind with mind where errors are corrected and truth pushed forward, (7) that they have no place for missionaries of science and truth who infuse their own fire among their students, (8) that they exercise no influence upon the lives of their alumni, (9) that their system of examination almost incapacitates the student from serious intellectual pursuit, makes him irreligious, devoid of respect for age or authority, courage of conviction and determination to do the right because it is right, that it leaves in him a spirit of unhealthy pessimism and despondency with little or no disposition to look beyond immediate wants and (11)
that it is at the root of that physical degeneration of the race which is now so alarmingly on the increase among us. It is also said that while the number of men of second rate abilities sent out by our schools and colleges is fairly large, we have not yet given the world men who have achieved anything great in science, or philosophy or literature. Our colleges do enable a sufficient number of men to pass their examinations, but they fail to do justice to the intellects of either the weakest or the ablest of their students. The few who would have achieved something exceptionally great under a different system can not do so under a system which takes no account of difference of capacity and educates all after a rigid and uniform standard. The majority of our men after leaving the College moreover find themselves in a world, which does not value their acquirements at the same rate as they do themselves. They are seldom brought into contact with minds which would make them know their imperfections and enable them to take their proper place in society. They thus come to form a world in themselves with little or no sympathy for or from their fellow countrymen and thus fail to develop those traits of character which contact with the world can only do.

It must however be remembered that education in India, as everywhere else, has to adapt itself to the social conditions of those to whom it is imparted and the social institutions of this country during the last few centuries, have not been quite favourable to the development of original research or deep scholarship on a large scale. On the contrary in a society where conservation of manhood has been the exception instead of the rule, where boys become fathers before they matriculate, where home education and home influence are generally at a discount, and where poverty is the great incentive to education, the wonder is that our graduates and undergraduates have been able to achieve the position they have done. The present tone of the native public service in all branches, Judicial, Executive, Medical, Engineering &c., the ability displayed in the various professions, the impetus given to the cause of social, political and religious reform throughout India, the creation of a sense of patriotism and love for their country's institutions and an intelligent appreciation of the many blessings of British rule in India, are largely, if not solely due to the education given to us in our Schools and Colleges.

The defects above pointed out are however becoming most serious and are fast counter-balancing the advantages we have derived, and there is now a strong feeling in native society against the working of the present system and some of the above complaints demand immediate attention.

(b). How to remove them.

(I) Preservation of Brahmacharya or celibacy, and health of students.

(1). For this purpose I would introduce a rule in all Universities that say 5 years hence, no married student shall be eligible for the matriculation examination. This is not likely to meet with any serious opposition from native society. In fact it will strengthen the hands of all social reformers throughout the country. The Central Hindu College of Benares has already adopted it in its middle school department and yet the institution is not unpopular.

(2). In addition to cricket and foot ball I would have all students regularly exercise according to some recognized system through athletic teachers attached to each College.

(II). Boarding Houses.

(1). I would have resident teachers or professors in all Boarding houses whether owned by Government or the College authorities or particular castes or bodies. In the latter case I would insist upon their finding suitable and free lodging for such teachers and if necessary pay them a small sum over and above their salaries in the College.
I would have all students coming from out stations live in Boarding houses and encourage local students also to do the same.

I would have all boarding houses periodically inspected by members of the senate deputed by the University and their management regarding food, study, physical training carefully scrutinized.

In this way we will be able to prevent our students from falling into the vices of city life on one hand and wasting their manhood by living in their families on the other. If boarding houses are properly and economically managed and adequately supervised, parents and guardians will have no objection to their sons or wards living in them even though they are residents of the same town. I would moreover have definite and uniform rules for all boarding houses attached to a College only making due allowance for caste distinctions.

III. RELIGIOUS AND MORAL EDUCATION.

It is not so much the reading of moral text books as of acquiring the truths of religion and morality through intimate personal contact with a teacher that ought to be our aim in correcting the present irreligious tendencies of our students. For this purpose not only the intellectual capacity but the character and religious tendencies of the teacher cannot be too carefully scrutinized before he is employed in a school or college. Our students are taught morality and principles of universal religion in the class room through books which are prescribed by the University, but the impression left upon their minds is not lasting because they seldom find their teacher any approach to what he teaches. The simplest book taught by a teacher who is himself in earnest will do more than the loftiest philosophy taught by one who thinks his work in the school or college to be over after he has lectured to his students from a certain text book for a certain number of hours. It was different in the old Hindu times where the teacher was generally a living example of what he taught. We may have degrees in comparative religion for those who seek for them, but to make the majority of our students good and virtuous and love and practice religious truth, we must try to present it to them through living examples. Books on morality and religion cannot be dispensed with, but we must not lose sight of the fact that all success in the direction of a moral and spiritual life comes more from the personal influence of the teacher than of the books he teaches. I would therefore suggest (1) that adequate provision be made for religious education in all Colleges and Schools by calling upon the leaders of the respective communities of which their students are generally composed, to find funds for the same.

(2) Appoint the best men available for imparting religious education.

(3) Make over its supervision to the College authorities and (4) take care that religious controversies are not allowed.

I need not here particularize books which will be useful as religious text books though for Hindu students, books like the Bhagwatgita with certain portions left out and the Text books of Hinduism which are being published by the Central Hindu College Benares and for all students books like Emerson's Essays may be suggested.

For Hindu students I would moreover have periodical lectures on such Portions of the Vedas, Institutes of Manu, the great Hindu Epics, and the various systems of Hindu philosophy as are free from controversial matter. In all Hindu Boarding houses I would also have all students perform their prayers at prescribed hours with some resident teacher or professor of the same faith. I would also have inquiry into religious truth by College authorities encouraging lectures on religion by eminent preachers or teachers who happen to be passing through the place and who agree to give them without attacking other religions. I must however confess that Hindu parents show little regard for the religious education of their boys at home and they shall have to act more earnestly in this direction if they wish to turn the current of thought the right way.
IV.—TEACHING UNIVERSITIES.

I do not think teaching universities can flourish in a country like India with its Colleges scattered all over each province. To concentrate all such colleges into one institution at the head quarters of a province or at some other smaller town, would practically close high education to the majority of the middle classes of those who can only and do only profit by it. On the other hand a central organization directed by a university will not be so beneficial to native youth as may at first sight appear. In the old times when teacher and pupil were of one religion, lived together and had imbibed the same traditions, and there were no Colleges or Universities, the teacher influenced the character of the pupil for good more largely than is the case with teachers and professors in places where teaching universities are common. The extent of the influence depends upon the closeness of the contact and similarity of ways of thought and living which can scarcely be possible in India where the teacher and the taught must necessarily be of different religious and different ways of thought. It is moreover impossible to make each town which has now one or more Colleges, into a University. The cost of the undertaking will be too enormous both for the Government and the public. In countries where private beneficence has made universities rich in the matter of professors, libraries, laboratories and buildings, this may be possible, but in India where people look up to Government for everything, and private beneficence in the matter of education is very low, it would be too much to expect the Government to found even one teaching University on any decent scale, much less three or four in a Province. The cost of education at such Universities even if established, would moreover be beyond the means of the majority of Indian parents. Therefore (1) on the ground of cost to both the Students and the Government, (2) on that of the distance at which various towns in Indian Provinces are scattered (3) inconvenience and (4) of its making high education even more inaccessible to those who can only be expected to profit by it teaching universities cannot be established with advantage in India. The case of English universities furnishes no parallel here. The experiment was tried in the Punjab when the Oriental College was started in the earlier seventies and the university there attempted to teach the Science and the Philosophy of the west through the medium of the Indian vernaculars to Pandits and Moulvis. I was for sometime one of its paid fellows and lectured the students in mathematics and translated into Hindi two books on Logic and History. But I think the experiment was not so successful as was expected and the Punjab University had to content itself by becoming an examining body like the other Indian universities. It still keeps up its Oriental College, but I do not think it attracts Pandits and Moulvis to the extent anticipated. A better plan would probably be to let all Muffussil Colleges teach up to the B. A. and B. Sc. standards as hitherto and have candidates for the higher degrees both in arts and science trained at a central institution through specialists attached to it. These specialists may be appointed by the Government on the recommendation of the universities. A post graduate institution like this would give us more thorough scholars than the present system does. These specialists may also from time time most usefully visit and lecture to B. A. and other students in Muffussil Colleges.

V.—RECOGNITION OF TEACHERS BY UNIVERSITIES.

As regards recognized teachers and professors, I do not think that any inconvenience has arisen from the present practice of leaving each College free to choose its professors without any interference from the universities. It is to the interest of the College to appoint the best teachers for the pay it gives. To force it to take teachers recognized by the university would still private effort in the cause of education which it is our object to encourage. Public opinion is moreover not yet strong in India and the system would in all probability open wide the door of favoritism. It also remains to be proved that the average student turned out of a Government College is superior to one turned out by a private or aided institution.
VI.—AFFILIATION OF COLLEGES.

In order to prevent the instruction imparted in colleges affiliated to a university from deteriorating, I would have deputations from the Senate visiting such colleges from time to time to satisfy how far it comes up to the required standard. More definite rules regarding affiliation may also be most usefully framed by all universities and all Colleges applying for affiliation be made to satisfy the university fully as to the state of their libraries, laboratories and Boarding houses, the qualifications of their teachers and professors, the provision made by them for ensuring the health and supervision of the morals of their students before affiliation is granted. Definite rules for inspection may also be framed and if a college is reported to the unit, it may first be given a warning and then disaffiliated on a resolution of the Senate—not the Syndicate—of the university, after being allowed an opportunity to be heard in defence.

VII.—SPHERE OF INFLUENCE OF UNIVERSITY.

I would not limit the sphere of influence of a university to its own or the adjoining province, but freely allow students of one university to go up for the examinations of another under the rules of the latter. If however the standards of examination of all Indian universities be made as far uniform as possible and I think it desirable that this be soon done, there would be no inducements for the students of one university to go to another. They do so now because of the subjects for an examination in one being more difficult or more numerous than in the other or from considerations of age or other causes of a like nature. We must leave our boys free to graduate and under-graduate wherever they choose. The present practice of one university allowing students from another Province with its own university to appear for its examination has not over resulted in any inconvenience and there is no reason why it ought not to be retained.

VIII.—CONSTITUTION OF UNIVERSITIES.

(a). The Senate.

I would limit the constitution of the Senate to 1100 or 150, half the Fellows to be nominated by the Government and out of these other half ¼ to be elected by the graduates and ¼ by the Senate of the university. I should also have every first class college represented on the Senate. I would not prescribe any qualification for fellows appointed by the Government or the Senate except that they must be graduates of some university English or Indian. I would however interpret the words “eminent benefactors of the university or persons distinguished for attainments in literature, science and art or for services to the cause of education” used in Act XVIII of 1887 more strictly except in the case of ex-officio fellows. For Fellows elected by the graduates, I would have the electoral body constituted of those holding the M. A. or other equivalent and higher degree and Bachelors of at least 10 years standing. The selected candidate must also be a member of the electoral body or one possessed of higher qualification. I would have Fellowships for life, but make non-attendance at a number of consecutive meetings a reason for disqualification.

(b). The Syndicate.

I would have each 1st class College represented on the Syndicate through its principal or other recognized authority. Besides these I would have at least ¼ of the members to be men outside the educational department. For instance in Allahabad I would increase the number of outsiders on the Syndicate from 2 to 5.

(c). Faculties.

I would not insist upon every fellow being a Member of a Faculty, though as in the case of the Syndicate, while having recognized teachers and professors attached to each Faculty, I would also have some independent element in each. For I believe expert opinion if aided by independent opinion, is likely to give better results than if left alone.
I would keep a register of graduates in view of the electoral body mentioned above.

I would give the M. A. or even higher degrees according to qualification to recognized teachers and other men of eminence in science and literature, provided they hold a corresponding degree from some other university, English or Indian. The question of Honorary degrees to eminent benefactors of the University other than teachers and professors or to others who by their rank or social position ought to be given them, should be left to the discretion of each university.

X.—TEACHING IN SCHOOLS OR COLLEGES.

Our Matriculation and College Classes are now-a-days often too large to be efficiently managed by one teacher or professor, who if he falls into one of the two extremes of adjusting his teaching to the capacity of the dullest or the brightest of his pupils, has to do so at the expense of the other. If he disregards both and adopts a middle course or goes his own way, he profits neither and sets a premium to cramming in the shape of the pupils confining themselves to committing his notes or explanations to memory and exercising their intellects as little as possible. With a class of 40 or 50 or even more students to teach and lecture as is now generally the case in all large Colleges, personal attention to the wants of each student without which no real progress can be expected, is impossible. I would therefore suggest that no teacher for the Matriculation standard should have more than 25, for the F. A. 20, for the B. A. 15 and for the M. A. 10 students to teach. If it be necessary to employ extra teachers or professors for the purpose, I would sooner incur the expense than adhere to a system where the teacher cannot take any interest or in some cases even know the names of his pupils, much less exercise any influence over them.

XI. TEXT BOOKS AND SUBJECTS OF EXAMINATION.

Speaking generally the majority of our College men of all grades have a much poorer knowledge of English than can be expected from the examinations they have passed. The reason is (1) that the English courses prescribed by the university throughout show greater preference to classical over modern English literature and boys are made to read books or authors which they may admire but can never assimilate or approach, (2) reading of extra books is not encouraged to the same extent as it used to be when professors with smaller classes knew more of their pupils. Tennyson for instance for an F. A. boy may do as a classical study, but he can scarcely learn from him to write English as it is spoken or written. In like manner Lee Warner's Citizen of India though good on its own way, is not the book for and can scarcely be appreciated by an Entrance lad. Addison's works which find a place in our university teaching ought to give place to better works in more modern English literature. Carlyle's is in places beyond the comprehension of not only many of our B. A. students but of some of their professors also. His works are not for reading in the class but in the solitude of after life. Shakespeare though read is seldom appreciated by our B. A. students but in writing critiques on his plays they reproduce verbatim what they have learnt from their professor's notes or from critics who have devoted their lives to him. History, Geography, Political Economy, Logic and Philosophy are in many colleges very imperfectly taught by men who never profess to have made them their study. History is generally left to the student to muster at home. With such methods of teaching the student has little option but to cram in order to pass his examination, and before blaming him for it, we must give him better teachers and more suitable books to read. I would therefore suggest (1) that the English Course be made more modern and less classical throughout and that only such books should be placed in the hands of our students as they can appre-
citate and assimilate (2) that in all examinations up to the B. A. candidates be tested in not only paraphrasing or explaining their text books in English but into their own vernaculars also. They should also be given unseen passages of varying difficulty to translate from English into their own vernacular. When I was a student in the Delhi College, one of our departmental examiners for the B. A. class used always to set a paper in translation from English into the vernacular to see how far we had assimilated our text books, (3) that the Entrance standard be kept as it is and not raised as has been proposed in the Allahabad University. On the contrary the quality of teaching be improved and every candidate tested not only as above but also made to write a letter or a short story or account of a given subject not included in his text books. (4) The same may be done in the case of the F. A. and B. A. candidates, the subjects chosen being comparatively more difficult and no candidate passed till he gets at least 33 per cent in each of the above subjects, (5) that for the F. A. only English be made compulsory subject and the candidate required to take up any two of the following subjects—Mathematics, Logic, classical language, History, Physics, Chemistry, second Course of Mathematics, (6) that for the B. A. only two subjects, English as a compulsory subject and Philosophy, Political Economy, Mathematics, Physics, History, Classical language and Chemistry as optional subjects be prescribed and a higher standard of proficiency than is now required in each of these subjects be demanded (7) I would have no age limit for the Entrance Examination. It does not profit the dull or the mediocre and keeps back the promising. (8) It would be better to prescribe no text books, but indicate authors, subjects or periods or have a syllabus in each of the subjects for the B. A. and higher degrees. For the lower examinations text books may be retained.

XII.—INDIAN VERNACULARS AND INDIAN CLASSICS.

Our universities have hitherto given little or no encouragement to our Indian vernaculars and the way in which their examination have conducted in them in our Classical languages is scarcely conducive to scholarship in those branches. Many of our university men can write decent English, but betray lamentable ignorance of their own vernaculars and the evil is felt not in the College but in after-life, when they seek public employment or enter a profession. In their conversation they cannot avoid using English words and phrases even for things for which there are good vernacular equivalents. The reason is that their knowledge of their own vernacular is generally very poor and a hybrid tongue which seeks to destroy the distinctive feature of our vernacular languages is in course of formation throughout India. Those of our graduates and under-graduates who take up Oriental classics are scarcely equal to even ordinary Pandits or Maulvis and lay their studies in them aside as soon as they leave the College. The matter in my opinion requires attention of the Commission and I would respectfully suggest that (1) the principal Indian vernaculars be recognized as subjects of examination up to the B. A. degree by all universities, a high degree of proficiency being of course demanded at the higher examinations (2) that degrees in Oriental languages and literature be given, and professors and teachers of Oriental languages in Schools and Colleges, recruited from the holders of such degrees, (3) that authors of good books in the vernacular and the classics be encouraged and rewarded by prizes and medals and an Oriental faculty be constituted in each University for the purpose of examining and reporting upon such books and selecting text book for the examination of the University.

XIII.—EXAMINERS AND EXAMINATIONS.

I would change the system under which examiners are now appointed and have them as far as possible out of teachers and professors outside the province where the University is situated. The present system generally sets a premium to cramming as students at once find out the idiosyncrasies of their examiner, the
questions he generally sets to his own class, the favorite portions of his subjects and try and secure his notes and prepare them for him without taking the trouble of mastering their subjects. I would also suggest that answer books of those who fail in one subject be re-examined on the recommendation of the head of their College on payment of prescribed fees and that the marks allotted to each question be printed opposite to it in the Examination papers. I would also have the subjects and dates of examination fixed once for all or at least for 5 or 10 years and would not alter them except on the strongest ground possible. The present practice of altering them unsettles the minds of both student and professor alike. I would also have students who fail in one subject only examined in that subject alone the next year.

Constituted as our public service and professions are we cannot do entirely away with examinations and their attendant evil of cram. Even in countries with teaching universities fully equipped, competitive examinations for their services and the professions are indispensable, and cramming is as rampant there as in India. When I was at Oxford I asked a Professor if their graduates passed without cramming and he said they did not. The same is found to be the case in the Indian Civil Service, the Bar, and other examinations in England. The competition of modern life and the struggle for existence in all ranks compels education to be finished in the shortest time possible and necessitates the cultivation of the memory at the expense of the intellect. Nervous break downs and ruined constitutions are the general result of the pressure. But if we cannot alter the conditions, we can minimize the evil and lessen the pressure of school life by introducing greater variety in the teaching, giving greater option to the student in the selection of his subjects and creating more sympathetic relations between the teacher and the pupil. In India where the evil of early marriage and premature development add to the pressure of the system of education and hastening decay of the youth and the ruin of the constitution of our students, too great attention, cannot be paid to reform in this direction. I admit that everything cannot be done by Government or the universities and they can only build upon foundations of a healthy and moral life which must be laid early in the home, yet I believe the sphere open to them is very wide.

The object of our educational system is in my opinion to give every possible facility to all who possess the brains and the willingness to profit by it. In former times, as I have tried to point out, education was free. In modern times it is almost free in our indigenous schools even of the highest grade and I beg most respectfully to submit for the consideration of the Commission the question whether we could not safely reduce the cost of it to the Indian parents. The fees charged in our Schools and College, are in my opinion too high for the instruction given. The object is that those who can pay should alone profit by high education. But in India those who can pay do not possess the willingness to do so and the system keeps back those who possess it. The case of English universities is no parallel.

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<td>College Fees</td>
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On the other hand taking a College education in a Government Institution for the B. A. degree in the United Provinces the cost is as follows:
College Fees .................................................. Rs. 360 0 0
Examination Fees ........................................... Rs. 50 0 0
Cost of books .................................................. Rs. 200 0 0
Cost of living in an ordinary style in a Boarding House .................................. Rs. 800 0 0
Miscellaneous .................................................. Rs. 100 0 0

Rs. 1,410 0 0

1 Scholarship of Rs. 10 for F. A. ................................ Rs. 240 0 0
Do. of Rs. 12 for B. A. .......................................... Rs. 288 0 0

Rs. 528 0 0

Cost to parent .................................................. about Rs. 1,000 0 0

Cost 25 or 30 years ago.

College Fees .................................................. Rs. 96 0 0
Books .............................................................. Rs. 100 0 0
Fees of Examination ............................................ Rs. 50 0 0
Cost of living .................................................... Rs. 480 0 0

Rs. 726 0 0

For F. A. Scholarships @ Rs. 13 per mensem .......... Rs. 312 0 0
For B. A. @ 32 per ............................................. Rs. 768 0 0

Rs. 1,090 0 0

Income to student ............................................. Rs. 354 0 0

Prospects of employment of :

An English graduate in India about. Rs. 300 0 0 per m.
An Indian graduate .............................................. Rs. 30 or 40
An Indian graduate 25 or 30 years ago .................. Rs. 75 0 0

Thus the difference is of about Rs. 700; but for this the English student gets advantage of university life nowhere met with in India. Education was not less thorough when smaller fees were charged nor is less efficient in aided institutions where the rates of fees are about half of what they are in Government Institutions.

XIV.—PROFESSIONAL EDUCATION.

Law.—I would let each first class College prepare students for the L. L. B. Examination as at present but would make the teaching more efficient and place its supervision in the hand of the University as of the Arts branch. From all students for Honors in Law I would require a critical study of the Hindu or Mohomedan Law in the original. For the Doctor's degree, I would require them to submit for the approval of the University a treatise showing independent research on some subject of law in force in British India. I would leave the subjects for the Bachelor's degree as they are but would examine students more thoroughly in Principles of Law.

Engineering.—I would make the Thomason College at Roorki more effectively subordinate to the Allahabad University and would have no racial or provincial distinctions in admissions, giving of scholarships and posts to students of that College.

Medicine.—I would raise the Medical School at Agra to the rank of a College and affiliate it to the Allahabad University and make it prepare students for its medical degrees. I would also have special classes in that College for the study of native medicine (Yunani and Ayurvedic) as in Lahore.
Agriculture.— I would raise the Agricultural School at Cawnpore to the status of a College and have the Allahabad University grant degrees in Agriculture, attracting students to this most useful branch by affording them increased facilities for employment under the Court of Wards as well as in Agricultural Departments of the Government.

To conclude I would have the present system made less rigid, less pressing on the healths and minds of our youth; less costly and more elastic, more suited to the growing needs of the country. The Indian parent sees that the system is telling heavily upon the healths of the boys and that the gain is not commensurate with the cost; and yet he has no option but to educate them according to that system and I think he has a right to expect the same modifications in it as have been made in other progressive countries.

BAIJ NATH.

THE FOLLOWING ARE SOME OF THE ADDITIONAL POINTS SUBMITTED TO THE COMMISSION IN THE COURSE OF MY GIVING THE ABOVE EVIDENCE.

(1) In 1884 when Mr. Bahramjiji Maalabari of Bombay circulated his note on the question of Infant marriage and enforced widowhood in India, he suggested that the Indian Universities should adopt the rule regarding married students not being eligible for their Matriculation examinations. The proposal was however opposed by those who were consulted as it was thought to be rather premature. The question of early marriage has since then been before the various social reform associations throughout India and public opinion is now coming to recognize the evils of the practice. I can speak of Upper India and think that a rule like this instead of evoking any serious opposition will now be welcomed as strengthening those who are working in this direction. If such a rule is likely to operate harshly upon those who matriculate not for the purpose of entering a college and taking a University degree, but for entering government service or a profession which requires the passing of this test, the rule may be framed accordingly. There may also be cases in which candidates for the matriculation being over 16 years of age, a rule like this may lead to some hardship, but such cases will be rare and should not prevent us from advocating a measure which is conducive to the good of the majority of our students. We are not advocating any new or radical reform, but merely wish for a better observance of the rule laid down in the sastras, that married life should follow and not precede studentship.

(2) The introduction of a system of religious education is impracticable. In 1899 when I had a talk with Sir Antony MacDonnell on the subject, he told me that the Government of India had no objection to the introduction of such education in schools and colleges through teachers paid by those who wished to have it. The school authorities were only to find accommodation and have the instruction imparted after school hours. The scheme has been put in operation in Mathura by the Nigam Mandali and religious education is being imparted through a Pandit paid by the Hindu community and attached to the Government school; and I am told the scheme is working well. The teachers in most cases will be Brahmanas. But where English text books are used others could as well teach them. The text books of Hinduism prepared by the Central Hindu College of Benares were sent to me for opinion and I think no objection could be taken to them, especially in the form in which it is now proposed to publish them. The question is certainly a difficult one, but it is not one of solution. The present irreligious tendencies of our youth are universally
deplored and while the remedy should commence in the home, it should be continued in the hostel and the College. If the majority of students in a hostel or College or school belong to a particular sect of the Hindus, there is no reason why a teacher of that sect should not be employed on their community paying for his services. Observation of religious neutrality on the part of secular teachers employed in Government institutions should not stand in the way of this reform. On the contrary it is desirable that their moral character and the religious opinions be made the subject of scrutiny before they are employed as teachers. However carefully a man may hide his convictions or character, both are apt to break out through the thickest media and influence those who come in contact with him for good or evil.

(3) The way in which I would encourage the study of our vernaculars is not only in the manner above suggested, but also by making them as one of the optional subjects of examination for languages. I do not think that we shall thereby discourage the study of classics. Even as studied at present the latter are very imperfectly studied and a good knowledge of a vernacular is certainly better than an imperfect knowledge of its corresponding classic. In the case of some of the vernaculars like Urdu a knowledge of the classics related to them is essential. But in the case of others it is not so. For instance a good Hindi scholar need not be a good Sanskrit scholar. In fact some of our standard writers like Surdas and Tulsidas have not been known as Sanskrit scholars. The want of a good knowledge of the vernacular is daily felt in our courts where our legal practitioners use English words and phrases to express ideas which can be as well expressed in the vernacular. This is not so much due to affectation as to a bad habit and an imperfect knowledge of the language. It is also seen in the language used by some of our vernacular papers and a remedy is in my opinion very necessary.

(4) I would make the present system of education less costly by reducing the fees and the present expenditure to the Indian parent. For instance the fee for a B.A. student should not exceed Rs 6. The Government are, it is true, paying a large sum of money for education, but I submit that they are not paying all that is required. We do not want them to abolish the fees. But we want their system of education to be so framed as not to dissuade or discourage those who in a country like India can, and do only profit by it. It is the middle class alone which has hitherto done it and to raise the cost of education means shutting its doors to their children. Some of our best men come from the poorest classes and I submit that in public interests we should not deprive them of the educational facilities they have hitherto enjoyed. In England, of course, only those who can pay give their sons a University education, but there also increased facilities are being afforded to the poor for receiving higher education. In India those who can pay for the quality of education received should not be saddled with cost which bears no proportion to the advantages given. The matter should in my opinion be looked at from all points of view and I submit that the cost of living having already vastly increased throughout native society, to increase the cost of education would operate very detrimentally to their interests. If the quality of the teaching is to be improved and the fees are to be kept as they are there may be some extra cost to Government. But this cost should in my opinion not be met by raising the taxes but by reduction of expenditure in departments of State where such reduction is possible.

B. N.
REVEREND J. N. WEST, M.A., B.D., PRINCIPAL OF REID CHRISTIAN
COLLEGE, LUCKNOW.

I.—Commercial Education.

I have been asked by the Director of Public Instruction to give evidence on
the subject of Commercial Education. I presume that I have been asked to
speak upon this subject because in the Reid Christian College of which I am
Principal, we have a Business Department which aims at giving to young men a
sound, practical, business education. The subjects taught are Book-keeping,
Type-writing, Précis Writing, Caligraphy and General Business Methods. Having
had close connection with this department for six years, I think I understand
in some degree the commercial requirements of these Provinces and the capa-
bilities of Indian students to fill them.

1. I would speak in the first place of the large and growing demand there
is for thoroughly trained young men. Although we have sent out large num-
bers of young men into the principal Government and Commercial Offices of
North India, from the office of the Lieutenant-Governor down, yet we have
not been able to supply one-half the applications that have come to us. I call
attention to the fact that this demand is from commercial as well as from Govern-
ment Offices. For example, in Cawnpore all the leading Mills and Factories
have been supplied with steno-typists from our Business Department. Some of
these Mill offices have four or five of our students. The demand being large, the
remuneration is correspondingly large. It is not an uncommon thing to see a
B. A. or M. A. graduate searching in vain for employment, willing to work even
as an unpaid apprentice, while a bright Entrance passed boy, who has taken a
year or two of technical training, steps into a lucrative position. A technical
training usually doubles a student’s prospects for employment and promotion. My
point is that there should be adequate provision made for commercial training to
meet this demand.

2. The second point I desire to make is the ability of the Indian student
to master the subjects mentioned above. It was doubted for some time whether,
for instance, the Indian student could master shorthand and type-writing. But
this is no longer an open question for the students have demonstrated this pos-
sibility by their success. The mistakes made by the amateur stenographer are
proverbial not only in India but in England as well, and no doubt the beginner
makes mistakes, but he succeeds. Ninety-five per cent. of our students succeed in
practical business life. If you ask what I mean by success I would say that they
make themselves indispensable to their employers.

3. The great essential in commercial education is thoroughness. I call
attention to the fact that in those schools where commercial branches are taught
the time usually allotted is utterly insufficient. For instance to ask a boy who
has already full work, to study shorthand and type-writing for one hour a day is
next to useless. In my opinion, no student should begin a commercial education
until he has passed his Entrance Examination (if he has passed the Intermediate
it would be better). Then make the course two years in length and make these
two years of study equivalent to two years of study in the college course. These
two years of work should receive official recognition. If necessary, invent a new
name to represent the work done, such as F.C., First in Commerce or B.C.,
Bachelor of Commerce. The first term could be applied if the student began his
work in the first college year and the second could be used if the student began
his course in the third college year. Until commercial training is put on the
same plane as college studies, those who are trained will be inefficient and un-
satisfactory.

4. There should be one great Commercial College established in these
Provinces, similar to Pitman’s Institute in London or the Eastman Business
College in America. In this college there should be regularly constituted pro-
fessors—experts in their respective branches. Such an institution would be able
to turn out students really fitted for commercial life.

The next best thing (if this could not be done) would be that each college
should have a Commercial Department presided over by a professor assisted by
expert teachers. It should be a recognized department of the college work and
should be accorded a place on a par with any other department such as science or law.

II.—Promotion of Moral Welfare of Students.

I approve of the establishment of hostels under proper management and supervision as a means of helpfulness to students. These are especially helpful in a large city where the temptations to young men are great. They exert a restraining influence.

The greatest influence upon the students however will not be exerted by outside coercion, but rather by the personal character and example of the teaching staff. If the teacher is known to be a moral and upright man, the pupil will unconsciously be lifted to that standard. Hence the importance of seeing to it that the members of the teaching staff are men of the right stamp.

There must be, on the part of the teacher, a recognition of the moral nature of the student. We must not look upon our students as mere intellectual machines. They have a spiritual nature that may be appealed to and reached and influenced for good. If we can get a young man inspired from within with an enthusiasm for righteousness it will accomplish vastly more than any external restraint that may be placed upon him. I would advise the law to be used together.

The most effective way for the moral welfare of the student to be promoted is for the teacher to take a personal interest in the student and show him that he not only cares about his examinations but also about his habits, his character and his spiritual life.

I should be glad to see a text book on morality prepared, but I am aware of the difficulty of the task. It seems to me that a moral text book embracing the highest moral teachings of all the sacred books might be prepared and profitably used in our schools and colleges. At least certain subjects might be taught such as patriotism, unselfishness, universal good will, truthfulness, honesty, the wrong of bribery, etc. I believe that Mission Colleges, as a rule, teach the ethics of the Bible without attempting to force any of the students to accept its inspiration. I may add by way of testimony that this method of teaching moral truth in our college has not only not been opposed either by students or parents, but there has also been a decided interest taken in moral questions that we believe has been personally profitable to our students.
THE HON'BLE BABU SRI RAM, RAJ BAHADUR.

1. English.—The students enter the college with a deficient knowledge of English. This is attributable to two causes: (1) the system of teaching English in the school classes, (2) the method of testing the knowledge of English in the Entrance and the School Final Examinations.

Sufficient time is not given to the teaching of English in the college classes. Generally only one hour a day is devoted to the teaching of English. More time should be devoted to the subject and, if necessary, the staff strengthened. Unwieldy classes should be divided off into sections. The period of study of English in the schools has been reduced to a six years' course, and this necessarily affects the knowledge of students in English in the college classes.

In the Entrance and School Final Examinations the English papers should be so set as to test a thorough knowledge of the subject on the part of the students. The number of text books in English in these examinations should be reduced, so that more time may be given to teaching composition.

The mode of setting the paper in translation from vernacular into English is faulty. The passages required to be translated into English are themselves translations of English passages, and not often bad translations. The examiner in the translation paper should possess a sufficient knowledge of both the languages.

There is hardly any inducement for competent men taking to teaching as a profession. The salaries are as a rule too low and promotion among them is very slow, and not always regulated by any sound principles; and since 1886 these appointments have been made non-pensionable.

2. Mathematics.—The system of examination in Mathematics in the intermediate is also open to objection. The present system of setting one paper in Mathematics hardly tests the knowledge of the subject on the part of the students in so many branches of it as Arithmetic, Principles of Arithmetic, Mensuration of solids, Algebra and Euclid. At times it so happens that no questions are set in some of these branches, while those set in others are proportionately too few.

3. History and Philosophy.—The method of teaching History and Philosophy is defective, as there are no expert professors to teach these subjects. There should be separate chairs for each of these important subjects.

4. Ill-balancing of subjects.—The optional subjects in the B.A. course are ill-balanced, as for instance, Political Science and Political Economy and Persian are matched against Mathematics and Physics or Chemistry. Even in comparison with the course in Physics that in Chemistry is low. In exercising the option the students do not often take up allied subjects such as Science and Mathematics, but subjects so different in nature to each other as Persian and Chemistry, or Politics and Chemistry, the students naturally preferring to take the easier of the optional subjects. This is one of the reasons why Mathematics and Science are so unpopular in the degree examinations and why so few students go in for these subjects for the M.A. Degree.

5. Agriculture.—Provision ought to be made for agriculture being included among the subjects for the Degree examination. I lay before the Commission an extract from a memorandum submitted by me to the Local Government on the subject.

Extract from a memorandum on the establishment of an Agricultural College for the North-Western Provinces and Oudh.

The necessity for imparting agricultural instruction based on scientific principles to the people of this country is so obvious that I do not consider it necessary to enter into any details in this short memorandum. India being an agricultural country and its prosperity depending on agriculture alone, institutions for teaching it, according to scientific principles, ought to be as many and located in the different parts of the country as the funds and circumstances would allow. The United States of America have no less than 61 Agricultural Colleges and institutions in which agriculture is taught both in its scientific and
practical branches (vide pages 597-598, Year Book of the Department of Agriculture of United States of America for 1898). It is a pity that in a vast country like India the number of such institutions should be so insignificant. That the establishment of an Agricultural College for these Provinces is a great necessity cannot be denied.

2. In order that the proposed college may be useful and successful, it must not be an institution isolated from the general educational system of the Province, but it must be a part of it, it must be affiliated to the Allahabad University, and at the completion of the prescribed course and according to the results of the final examinations a University Degree must be conferred on its successful students.

3. The above object will best be secured by adding two more subjects to group II of the B.A. examination, viz., Rural Economy and Agriculture, with Agricultural Chemistry, and by introducing into the second group of the subjects prescribed for the intermediate examinations. Physiography as an alternative to Deductive Logic and Agriculture as an alternative to the Second Course of Mathematics which comprises Trigonometry and Geometrical Conic Sections.

4. The College course should extend to four years after passing the Entrance or School Final Examination. The course in agriculture of the first two years' classes will practically be equal to the course at present taught at the Agricultural School, Cawnpore, and the successful candidates of those two classes will have before them the prospects now open to diploma-holders of that school. The third and fourth year's course would be for obtaining the degree which may be styled as may seem proper, and which must be equal to the ordinary B.A. Degree, including the qualification for studying for LL.B. examination.

5. Practical work in the fields should form a part of the course during all the four years. The degree-holders will not be finished practical agriculturists. In order to acquire that qualification, they will have to serve an apprenticeship for one year on the College Farm or on the Cawnpore Experimental Farm.
Note of Evidence for the Universities’ Commission by A. H. Pirie, Canning College, Lucknow.

I.—The establishment of a Central Teaching University.

I understand this to mean that, instead of the present Allahabad University with its nineteen affiliated Colleges, there should be established at some centre a University of the Oxford or Cambridge type, with a large staff of Professors delivering courses of original lectures on special subjects of study, with residential Colleges for the students under Heads and Tutors, and granting degrees varying in value according to the proficiency displayed by the students in examinations on the subjects of the lectures. The enunciation of the scheme raises three questions:—

1. Has the Allahabad University been a failure and therefore merits nothing short of annihilation? (2) Is the establishment of such a Teaching University feasible? (3) Is such a University the best possible solution of the educational problem in India?

1. In my opinion the history of the Allahabad University does not show that it has been a failure. In the first place, it is not a mere examining University. It prescribes courses of study for its examinations, but at the same time it insists on the regular attendance of its students at one or other of its affiliated Colleges, and these are Teaching Colleges. By Article 12, Section 4 of the Allahabad University Act of 1887, the Senate has power “to appoint Professors and Lecturers,” in other words, to constitute a Teaching University. The Senate has made no attempt to exercise this power, but has left the Teaching function to its affiliated Colleges. The University doubtless limits the teaching of its College Professors to prescribed courses of study and sometimes even to prescribed text-books. But as these courses of study and text-books are selected by Boards of Studies consisting of experts they are presumably of a high degree of excellence. And the limitation to prescribed text-books is only an apparent one. A good College Professor endeavours to impart to his students a mental training in the subject on which he lectures, limited only by his own ability on the one hand and by the student’s receptivity on the other.

In the second place the history of the Allahabad University shows a continuous course of development, and it is to be hoped of progress. At its very inception it started ahead of the Calcutta University by introducing viva voce examinations for its degrees. At present its prescribed courses of study are in most subjects second to none in the Indian Universities, and in Science its standard is the highest of all. Throughout its existence it has aimed at a lofty ideal of excellence in its degree standards, and it has followed this ideal with a persistency that has brought it financially to the verge of bankruptcy.

In the third place the work of the Allahabad University has been approved by the public of the United Provinces, whose sole source of complaint is the rapidity of its progress; it has been also approved by the Local Government to the extent that its degree is considered a necessary qualification for appointment to the higher administrative and judicial
posts. Many of its alumni are doing good work in India; several are continuing their professional studies in London, Edinburgh, and Cirencester; and some are deepening their mental culture at Oxford and Cambridge.

In my opinion the Allahabad University has shown itself adequate to the task of supplying the educational wants of its public and its time, and I see no reason why it should be superseded by a Central Teaching University.

(2). I have grave doubts as to the feasibility of establishing a Central Teaching University on a scale of sufficient magnitude to secure noteworthy efficiency. In the first place the cost of constructing new buildings and of securing a large highly-salaried staff would be something unprecedented in Indian educational expenditure. Secondly, the vested interests of existing Colleges would have to be reckoned with. And thirdly, the local feeling of the Indian student would have to be overcome. The strength of this feeling may be measured by the number of students who prefer to attend an inferior Local College rather than migrate to a markedly superior Central College.

(3). I hardly think myself qualified to give a definite opinion on the third question. The advocates of the Oxford and Cambridge system of University Education are confident that the importation of that system into India would be a complete solution of the problem. The advocates of the Corn Laws Repeal felt equally confident that before 1870 the commerce of the World would be conducted on Free Trade principles. One thing certain is that up to date the English University system has not been adopted by any of the great British Colonies. They have preferred to develop systems of University Education suited to the wants and capacities of Colonial students. And Indian students differ far more than Colonial students from the typical English student. To begin with there is the fact of caste. A residential College for Mahomedan students has been shown to be practicable; but that does not prove the practicability of a residential College for a mixture of Kanaujia Brahmans, Kshatriyas, Kayasths, and Kurnis. Again Indian students do not stand in the same relation to their Professor as students in England. Differences of language, of modes of comprehension, of inherent ideas, and of methods of preparation, form wide gulfs which interfere with the direct communication of thought by lectures. Carlyle's dictum that "A University is a collection of books" is much nearer the truth with Indian than with English students. On the whole I am of opinion that the problem of education in India is more likely to be solved by the development from within of the existing University system than by the forcible imposition from without of a system foreign to the nature of Indian students and unsuited to their wants.

II.—Courses of reading and standards of Examination.

(1). English.—I think the Allahabad University courses of reading in English require revision. In the first place, they are too lengthy. The excessive length of the course is an obstacle to that intensive study of the language which is useful, not only as a mental training, but for the
practical writing and speaking of good English. It is also an obstacle to the very necessary work of revision. In the second place, the proportion of pure literature is, in my opinion, excessive. Our students derive more benefit from learning to seize the leading points in one of Macaulay's narratives or to follow the thread of one of Froude's arguments, than from committing to memory pages of literary criticism on the structure of Milton's blank verse or the Dramatic Construction of several plays of Shakespeare. The literary element of English should not be omitted altogether, but neither should it preponderate.

(2). Philosophy.—I do not agree with those who propose to abolish this study in our Indian Universities. It is suited to the subjective temperament of most of our Indian students, and is capable of developing considerable mental culture. It tends to form a habit of mind conducive to the Professional study of the Law and to the Professional work of the Teacher, and many of our students adopt these careers.

(3). History.—The Allahabad University is still feeling its way as regards the course of study to be prescribed in this subject. It fluctuates between the comparative advantages of Classical, European, and Indian History, and at present the last-named is at a discount. This I think a mistake. India is the country of our students, and the University must credit them with a certain amount of patriotism. I admit that the History of India does not teach the same lessons as the History of Greece. But it is better for our students to learn what is expected of them as citizens of the Indian Empire, than to learn to emulate the citizens of a petty Greek republic. Besides, the History of India offers a vast field of research to the post-graduate student. The University ought, I think, to encourage this, so that India may in time be relieved from the necessity of importing its epigraphists from Germany and exporting its historical documents to that same learned land.

(4). The predilection of the Allahabad University students for the study of Political Economy is anomalous. The majority of them are indifferent to Industry as a sphere of life beneath their notice. They study the theories of Malthus and Ricardo with the greatest interest, and yet they get married during their College career, and are proudly ignorant of the average production of a bigha of land. If the attraction to this study arises from the comparative easiness of a pass in it, the standard should be raised.

(5). A new Regulation of the Allahabad University which comes into force in 1907 has caused considerable dissatisfaction. This will compel all students who do not study Mathematics to study a classical language for the B. A. degree. It seems to me that this is a retrogressive step. While the English Universities are elaborating new Classes and Triposes, such as Modern History, Natural Science, and Moral Science, the Allahabad University has seen fit to practically cancel these and to revert to the old Literae Humaniores. The strongest protest against this was made to me by a Native Government Servant who once officiated as Sanskrit Professor in Canning College.
(6). I should like to see the study of Natural Science introduced into the Allahabad University. The deficiency of the Indian student as regards power of observation is proverbial. His knowledge of a thing is based not upon his own observation of it, but upon what he hears or reads about it, and when he sees it he usually fails to recognise it as the thing he knows so much about. The study of Botany and Zoology, for which all the materials are ready to hand everywhere in India, might I think be introduced as a corrective to the inordinately subjective habit of mind of our students.

(7). I think the standards of examination in most subjects of study ought to be raised. The low standard in the Entrance Examination allows boys to enter College who are not qualified to receive College teaching. The low standard in some of the B.A. subjects, e.g., in History and Political Economy, allows students to hold a degree which they do not deserve.

III.—The length of the College Course.

I think the length of the College course should remain as it is, viz., four years at least from Matriculation to Graduation. The average of our B.A.'s have not such a high reputation for ability as to warrant our attempting to lower our standard in any way. And the substitution of a three years' College course would, in my opinion, be a decided lowering of our standard. As it is, only a fraction of the B.A.'s in any year obtain their degree in four years from Matriculation; many of them take six and seven years. Only 57 out of 256 candidates for the B.A. Examination this year passed the Entrance or School Final Examination in 1898, and these 57 are not all going to pass.

IV.—The system of appointing Examiners.

I think the Allahabad University system of appointing Examiners a decidedly good one. The Degrees Examiners are appointed by Boards of Examiners consisting of specialists in the various subjects. In each subject one Examiner is selected from an outside University, and the other from Allahabad University. As a rule the field for selection is a narrow one. There is not much competition for Examinerships in the Degrees Examinations. The Examiners for the Intermediate and Entrance Examinations are selected by a sub-committee of the Syndicate consisting of the Director and four members of the Syndicate selected by ballot. The voting for these four members is usually unanimous. A list of applicants for Examinerships is drawn up, and the suitability of each Examiner is carefully considered before he is selected. All selections for Examinerships have to be finally sanctioned by the Syndicate. All Examination Papers are carefully moderated by the Board of Examiners, and mistakes made by untried Examiners are, as far as possible, eliminated,
The reform of University Education in India is inseparably connected with reform of Secondary or School education. In India, University Education is almost the only branch of education to which popular attention has been directed. It is the failed F.A or B.A. who is made the laughing stock of those who ridicule the education of natives of this country, whereas in England it is the product of Board Schools that is made the butt of contempt. University Education in England arouses but little interest in the public mind, while questions of Secondary and Primary Education are daily discussed. There is in England a broad gulf fixed between School life and University life, which few cross. In India there is no such gulf. School life and University life are continuous, and if the highest class in the School be the 8th, the first class in the College is called the 9th. The School Final examination is the Matriculation examination of the University. The school master's aim is to pass his pupil as quickly as possible into the University. Life in the sixth form as we know it in England is absent from India. The mental attitude of a college student towards knowledge is the same as that of the school boy, with a slight exception in favour of the senior students. It is interesting to find that failure in degree examinations is occasionally followed by good results; the folly of cramming is proved and earnest study takes its place.

The Relation of Schools to Universities.

The evil effects of rushing boys through school life into the universities as quickly as possible has been experienced in Scotland as well as in this country. No inferior age limit bars entrance to a Scotch university. Such age limit may be fixed by Statute as at London, or by custom as at Cambridge or Oxford. Boys who have passed a certain standard of examination may and do enter Edinburgh or Glasgow at the age of 15 years. Colleges thus become schools, and high schools become degraded. University Education as we see it in Oxford or Cambridge is not to be found in Scotland, and Scotch students frequently join an English university after they have graduated as Masters of Arts. This evil has been recognised for some time in Scotland, and efforts are being made to remedy this state of things by raising the age to which boys are kept at school. The following is extracted from a circular letter drawn up by Sir Henry Craik, Secretary to the Education Department of Scotland.

Sir,

With reference to their Lordships' circular of the 20th December, 1901, I am now to lay before you a statement of the conditions under which it is proposed that Leaving Certificates shall in future be issued.

My Lords have decided that there shall be two classes of certificate. One of these, the Leaving Certificate proper is intended to mark the completion of a full course of secondary education. The other, to be called the Intermediate Certificate, is primarily intended to meet the case of those schools which, although they may be doing valuable work in secondary subjects, are yet unable, from one cause or another, to retain their pupils long enough to enable them to reach the standard of the Leaving Certificate proper. This latter certificate will, however, always be open to pupils of any school who may satisfy the prescribed conditions. I am to remind you that while candidates will no longer be furnished with a "Leaving Certificate" for each subject in which they may be successful, they will receive instead a document certifying that they have passed in a specified subject at grade in the Leaving Certificate Examination. Applicants for Leaving Certificates must have been receiving higher instruction at some recognised school for not less than four years. In the case of applicants for Intermediate Certificates, the corresponding period shall be two years.

* In the Statutes of King's Hall Cambridge given by Richard III, we have the earliest evidence respecting the limitation imposed in the Colleges as to age at the time of admission; no student being admissible under fourteen years. The Arts course of study after admission extended over seven years, and for the doctoral degree in Civil and Canon Law ten years.

† For instance Sir William Hamilton remarks: "In Scotland how defective soever be the system of popular schools, this may be viewed as complete and perfect compared with the system of grammar schools. Until a sufficient number of these be established over Scotland, and brought within the reach of those destined for an academical career, it is impossible that the universities can perform their proper functions in the cultivation of learning."
To prevent over pressure, it seems to their Lordships desirable that a minimum age should be fixed. They therefore propose that a Leaving Certificate shall not be issued to any candidate who is under 17 years of age on the 1st of October of the year in which he passes the last of the written examinations that would fall to be recorded on the face of his certificate. Similarly, he limit for the Intermediate Certificate will be 15.

I am, however, to inform you that it is not the intention of their Lordships that certificates of either class shall be issued merely on the strength of the requisite number of passes in the written examination. My Lords must be satisfied that the course of instruction undergone by the candidate has been of adequate range and quality, and that proper attention has been paid to those elements of the curriculum that do not admit of being fully tested by written papers. The Inspector who visits the School will be instructed to enquire and report to their Lordships as to these points. Such enquiries will be directed towards ascertaining, for instance, whether the study of subjects in which passes have been secured in former years, is being continued in adequate measures, whether a candidate's knowledge of a language, English or other, has been wholly obtained from disconnected reading, or whether he has a real acquaintance with at least some of the masterpieces of its literature, and whether especially in the case of a modern language, sufficient care has been bestowed on the training of the ear. In certain circumstances, even in the present year, my Lords may deem it advisable to call for a special report as to the appearance made by individual candidates under oral examination, and they wish teachers and managers to understand that increasing importance will be attached to this aspect of the examination in future.

These changes, which have been decided upon after prolonged and careful deliberation, are introduced with the view of fostering continuous and well regulated courses of study according to a definite plan. My Lords trust that, in carrying them out, they may rely upon the continuance of that loyal support on the part of teachers and managers to which the benefits that have so far resulted from the institution of the Leaving Certificate Examination have been in no small measure due. In particular, teachers should endeavour to secure that the new certificates are not claimed on behalf of pupils who intend to return to school (this applies with special force to the Intermediate Certificate), while managers should do their best to impress upon the public, and chiefly upon parents and upon employers, a sense of the value of such certificates, as evidence, that their possessors have not merely been successful in some isolated examination but have reached a certain stage in a course of sound educational training fitted to develop their intelligence and prepare them for the work of life.

I have the honour to be,

SIR,

Your obedient servant,

H. CRAIK.

The policy outlined in the above circular letter applies with equal force to India. When applied to India the school leaving age should be raised to 18 and this as a necessary corollary should be the minimum age for entrance to the university. Scotch boys are much more industrious than the natives of this country, while, in addition, the latter have to acquire their knowledge through the medium of a foreign language. I venture to reprint here an article on this subject which I contributed to the Indian Daily Telegraph in August 1901.

"We have many times in our columns pointed out the necessity of an age limit being imposed on the entrance examination into the Allahabad University. At last an age limit has been fixed, but it is far too low—but sixteen years. The limit we have always advocated has been eighteen years, and anything short of this will fail to effect any radical improvement in our Indian system of education. If in addition to the lower limit of sixteen, the University course is reduced to 3 years, the change will be of little benefit at all."
In his recent remarks on this point at Allahabad, it appears to us that His Honour the Lieutenant-Governor has not realised the principal necessity for a change, and that is, to break the continuity of school and college education. The object of school education at present is to rush pupils as soon as possible through the entrance examination into colleges. This is not a very lofty ideal, and good schools soon get ashamed of their ignoble state, and desire to be converted into second grade colleges. Thus a good school is destroyed and a bad college created. This is an utterly mischievous state of things. It should be the object of school education to train and educate their scholars during the period of school life for the young. The limit to this period of life can never be fixed by an examination; it is, as in our English Universities, best determined by age. A student who enters college begins life as a man, with a feeling of responsibility. If he wishes to learn he must study: he will gain nothing without hard work. Idleness and idleness are no longer punished by imposition. Childlife has ceased, and manlife begun—but not at fourteen or even sixteen years of age.

A still greater evil of the inadequacy of school education is very imperfectly prepared boys are sent into colleges to be there improved, until they become fit for municipal or bankers' clerks, or writers in some Government offices. This is not the work of University professors, it is the work of schools, and schools must be raised to the requisite standard. As things are now, the colleges cannot do their work properly, and the schools will not. At the University matriculation examination held in 1900, there were 2,052 candidates, of whom 750 passed, 127 only obtaining more than half marks. What is the meaning of this terrible state of things? Simply that the sole object and aim of school education is to rush as many boys as possible, by hook or crook, through the entrance examination. An examination is not a test of educational work, it is a part of the machinery. There is but one test of the value of education—the subsequent career of the pupil and non-recognition of this vital truth is the curse of education.

To remedy this, schools must be immensely improved. The social status of headmasters and their assistants should be raised, and their pay also. All second grade colleges, i.e., colleges teaching up to the Intermediate standard only, should be abolished, and good school constructed out of the material. When this has been done and the age limit raised to 18, we may consider the propriety of a 3 years' course to the B. A. degree, but a 3 years' course with an age limit of 16 would be disastrous in the extreme. University men at Oxford or Cambridge very seldom ever take their degree before 21, and educational facilities are very much greater in England than here. It is maintained, however, by sundry demagogues pandering to popular ignorance, that India is a poor country, and that their sons cannot wait until 21 or 23 years of age to earn a living. The cogency of this argument will be duly appreciated, when it is remembered that on an average, every graduate in the University spends between 500 and 1,000 rupees on his wedding festivities—a sum largely in excess of his total expenditure on education. And if this age limit bears heavily on those undergraduates who are married and have families, so much the better; we recommend that, in addition, they should be charged quadruple fees.

His Honor, in arguing for a reduction of the four years' to a three years' course, on the ground that the first year's course is to be undertaken by the schools, tacitly assumes that the results of the University course are satisfactory. We find, however, that in 1900 there were 5,568 candidates for the Intermediate examination of whom 176 passed, one being placed in the 1st division and 38 in the 2nd division. The conclusion to be drawn is incontrovertible, viz., that the candidates for the Intermediate examination require at least one year more at school in addition to the years spent at college. The real difficulty experienced by professors in college dealing with 1st and 2nd year classes is to persuade their pupils to learn. The fresh product of school cramming seems almost incapable of mental exertion. He is prepared to listen to his lecturer, and even to take notes (slowly dictated), but he declines to take any active part. He will lie on his back on a charpoy inanely repeating the same sentence over and over, until (as one said the other day) “deceived by the lulling and languid breeze,” he falls asleep; but honest work hee will not do. This evil will not be
cured by diminishing the college course by one year; it will be increased. It can be mitigated by diminishing the size of the classes, so that the lecturer can come into closer contact with his pupils. We welcome then any raising of the entrance standard, but equally deprecate any shortening of the college course.”

The relation of high schools to the universities has received much attention in Germany. There are two important classes, known as the Realschulen and Gymnasia. The function of the former is in the main to give a rounded off and finished education within themselves. The majority of the scholars on leaving the Realschulen do not continue their education, but go direct into the business they mean to follow, although without any special instruction in any particular line such as could be got in the special trade schools. The gymnasium, on the other hand, does not undertake to finish education, it leaves this to the university, which stands between school and professional life. Fifty per cent. of the maturi of the Gymnasia are over 20 years of age. On completion of the gymnasium course and after passing an examination called the *abiturienten-examen*, the abiturients can enter the universities. The maturi of the Realschulen are also allowed to enter the universities but with certain restrictions on their choice of studies. A certificate of maturity at a Gymnasium qualifies:

1. For entering the university, and the examinations required for entering the church and the higher posts in the civil services.
2. For entering the course of study for architecture and machine-construction and the state examinations connected therewith.
3. For entering the course of study at the Mining Academy and the examinations for the higher posts in the service of the mines, iron furnaces, and the salt works.
4. For entering the Royal Academy of Forestry and the examinations for the higher offices in the Royal Forestry services.
5. For admission to the examinations for the higher postal service.
6. For admission to the Royal Friedrich-Wilhelms Institute, and the Royal Military Academy for Medicine and Surgery at Berlin.

The certificate of maturity at a Real School of the first grade (now termed Real Gymnasium) qualifies as above with the exception of 1 and 6. The certificate of maturity however qualifies for entrance to the university and the state examinations for the higher school service in the branches of mathematics science and modern languages. Full details are given in the English translation of Conrad’s Book on the German Universities, an authority which I have very freely used.

The total number of Gymnasia in 1881 was 250, and the number of scholars was 74,000. In the same year there were 57,000 schools (of all kinds), 120,000 teachers and 7,100,000 pupils.

India has much to learn from Germany in this matter of high schools, and it is a lesson we are much concerned with in the present question of university reform. I do not think that any real reform can be brought about without a very large reduction in the number of existing affiliated colleges, and these I propose should be converted into schools modelled upon the German gymnasia. This would constitute a wide field for the educational work of missionary societies and would furnish employment for distinguished graduates of the universities. The course of instruction should include a thorough training in English, Classical Languages, Mathematics and Science, but no attempt should be made to teach Philosophy. Corresponding to the Realschulen, I propose the establishment of schools which should teach English thoroughly (paying, however, but little attention to literature), Mathematics, Science and Commercial Studies, the classical languages being excluded. Schools established on this plan would bring the native high schools into line with the European high schools.

A Comparative Study of Foreign Universities.

It is generally stated that Indian Universities have been modelled upon that of London, but if so the modelling has been done by Scotchmen. From London
we have imbibed an inordinate respect for examinations, and from Scotland a low ideal of University learning, and a vain belief in a premature study of philosophy. From Scotland also we have acquired the mischievous habit of sending boys to college, before they are fit to be freed from the closer trammels of school discipline. The models we have copied are now proved by experience in England and Scotland to have been bad models. London degrees have fallen into great discredit, and it is now decided to convert the mere examining body into a teaching University. Indian Universities as far as their system of affiliated Colleges is concerned are similar to the Victoria University. "The characteristic features of the Victoria University as compared with other British Universities are these:—it does not, like London, confer its degrees on candidates who have passed certain examinations only, but it also requires attendance on prescribed courses of study in a college of the University, the constitution of the University contemplates its (ultimately) becoming a federation of colleges, but these colleges will not be situated like those of Oxford and Cambridge in one town, but wherever a college of adequate efficiency and stability shall have arisen. University College Liverpool and the Yorkshire College Leeds, having fulfilled these requirements have become affiliated with the University. The University like the older bodies in England and Scotland is at once a teaching and an examining body, and there is an intimate rapport between the teaching and the examining functions. External examiners are appointed who conduct the examinations, in conjunction with examiners representing the teaching body. To give it a general or national character the governing body consists partly of persons nominated by the crown and partly of representatives of the governing and teaching bodies of the colleges, and of the graduates of the University. The graduates of the University meet its teachers in convocation to discuss the affairs of the University." Before the institution of the Victoria University, Owen's College, Manchester, Mason College, Birmingham, and certain Welsh Colleges were, in a sense, affiliated to the London University. Experience seems to have proved that their power for good under these conditions was curtailed, and each of these colleges has since become the centre of a new university. The Victoria University is also unstable, and the Liverpool College is now asking to be made into a separate university.

In Ireland there are two universities Trinity College, Dublin, and the Royal University Trinity College, Dublin, was founded in 1591, and its charter empowered the body corporate to establish among themselves "whatever laws of either of the universities of Cambridge or Oxford they may judge to be apt or suitable." The Royal university is similar in constitution to the London university, and embraces colleges at Belfast, Cork and Galway. Of the two universities, Trinity College, Dublin, holds much the higher place in public estimation and is justly renowned for the learning of its professors, and the gentle courtesy of its alumni.

German universities compare unfavourably with the great English universities, as far as the acquisition of good manners is concerned. The university of Marburg, established in 1527, attempted to follow the collegiate system prevailing in Oxford and Cambridge. This university was the first to be established without papal privileges, and speedily acquired a great reputation throughout Protestant Europe. In the long run the English collegiate system has not been a success in Germany. This is very probably due to the institution of national Colleges, which has tended to encourage strife and duelling. But while the German universities have been wanting in the development of good manners, they have been pre-eminently successful in the promotion of learning; and this is much the greater thing. We may have good manners without learning, but in the wake of great learning, good manners will not be far behind. The university of Berlin has a record unequalled throughout the world. It was founded in 1809 by Humboldt, and professed subservience to the interests of science and learning alone. In 1863 Berlin had only 36 teachers, in 1866, 173, and in 1886 we find 306 teachers and 5,357 students! In 1866 there are 5,700 students and 384 teachers.

The university of Leyden founded in 1575 was distinguished throughout the 17th century by its learning and the ability of its professors. The first curator was James Dousa [Jan van der Does], an office which he held for 30 years. Sir W. Hamilton says "Dousa's principles were those which ought to regulate the practice of all academical patrons, and they were those of his successors
He knew that at the rate learning was seen prized by the state in the academy, would it be valued by the nation at large. In his eyes a university was not merely a mouthpiece of necessary instruction, but at once a pattern of lofty erudition, and a stimulus to its attainment. He knew that professors wrought more even by example and influence than by teaching, that it was theirs to pitch high or low the standard of learning in a country, and that as it proved arduous or easy to come up with them, they awoke either a restless endeavour after an even loftier attainment or lulled into a self-satisfied conceit. And this relation between the professorial body and the nation held also between the professors themselves. Imperative on all it was more particularly incumbent on the first curators of a university, to strain after the very highest qualifications; for it was theirs to determine the character which the School should afterwards maintain; and theirs to give a higher tone to the policy of their successors. With these views Dousa proposed to concentrate in Leyden a complement of professors, all illustrious for their learning; and if the most transcendent erudition could not be procured for the university with the obligation of teaching, that it should still be secured to it without. In the Batavian Netherlands when Leyden was founded, erudition was at a lower level than in most other countries; but a generation had hardly passed away when the Dutch scholars of every profession were the most numerous and learned in the world.

What Dousa accomplished for Leyden Münchhausen effected for Göttingen. "Leyden was the model on which the younger universities of the republic were constructed; Göttingen the model on which the older universities of the empire were reformed. Both Münchhausen and Dousa proposed a high ideal for the schools founded under their auspices, and both as first curators, laboured with paramount influence in realizing this ideal for the same long period. Under their patronage Leyden and Göttingen took the highest place among the universities of Europe; and both have only lost their relative supremacy by the application in other seminaries of the same measures which had at first determined their superiority."

The university of Louvain was founded in 1426. It was styled the "Belgian Athens" and ranked second only to Paris in numbers and reputation. In its numerous separate foundations and general organization (it possessed no less than 28 colleges), it closely resembled the English universities. It embraced all the faculties, and no degrees in Europe stood so high as guarantees of general acquirements. Erasmus records it as a common saying that "no one could graduate at Louvain without knowledge, manners, and age."

CONCLUSIONS.

An important lesson can surely be learnt from a comparative study of these universities, and it appears to me that the following conclusions are warranted:

I. Only students of mature age should be admitted to universities.

II. The university must be not only a place for learning, but a place of learning.

III. The university must have a local habitat.

IV. The affiliation of colleges in different centres is incompatible with true university life.

V. The universities of Oxford and Cambridge furnish the best example of the relations that ought to subsist between the students and the colleges. This relation is, in my own opinion, not at all dependent upon either Hall or Chapel, or river or field.

VI. The range of studies must be comprehensive.

VII. There must be an adequate supply of teachers.

VIII. Teachers must have time and opportunity for research.

IX. The university must have a large and comprehensive library.

X. The university must have proper laboratories and museums.

THE COST OF UNIVERSITIES.

I regret I am not able to furnish information on this point in a more business like manner. The statistics I do furnish are taken from Mulhall's Statistics.
Stateman's Year Book, Conrad's History of the German Universities and various articles scattered through the Encyclopædia Britannica.

The number of students and expenditure of the Universities of the United Kingdom, in 1876, and of the Prussian Universities taken en bloc in 1882, are here exhibited.

<table>
<thead>
<tr>
<th>University</th>
<th>Student</th>
<th>Annual Expenditure</th>
<th>Per student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxford</td>
<td>1,860</td>
<td>414,000</td>
<td>220</td>
</tr>
<tr>
<td>Cambridge</td>
<td>1,920</td>
<td>340,000</td>
<td>177</td>
</tr>
<tr>
<td>Dublin (Trinity)</td>
<td>810</td>
<td>62,000</td>
<td>78</td>
</tr>
<tr>
<td>Edinburgh</td>
<td>2,320</td>
<td>200,000</td>
<td>87</td>
</tr>
<tr>
<td>Glasgow</td>
<td>1,340</td>
<td>90,000</td>
<td>68</td>
</tr>
<tr>
<td>Aberdeen</td>
<td>650</td>
<td>30,000</td>
<td>45</td>
</tr>
<tr>
<td>St. Andrews</td>
<td>300</td>
<td>17,000</td>
<td>56</td>
</tr>
<tr>
<td>Prussian Univs. (10)</td>
<td>12,600</td>
<td>391,000</td>
<td>31</td>
</tr>
</tbody>
</table>

The numbers of fellows and professors at Oxford, Cambridge and Dublin are 424, 481, and 59 respectively, and their salaries amount to £159,000, £139,000, £31,000, respectively. The incomes of the same three colleges are as follows:

<table>
<thead>
<tr>
<th>College</th>
<th>Endowments</th>
<th>Fees, etc.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxford</td>
<td>280,000</td>
<td>134,000</td>
<td>414,000</td>
</tr>
<tr>
<td>Cambridge</td>
<td>235,000</td>
<td>115,000</td>
<td>340,000</td>
</tr>
<tr>
<td>Dublin</td>
<td>49,000</td>
<td>13,000</td>
<td>62,000</td>
</tr>
</tbody>
</table>

The following table gives details concerning the Russian and Austrian Universities. The statistics for the former are for the year 1884, and for the latter for the year 1878:

<table>
<thead>
<tr>
<th>City</th>
<th>Teachers</th>
<th>Students</th>
<th>State Grant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moscow</td>
<td>103</td>
<td>2,430</td>
<td>53,000</td>
</tr>
<tr>
<td>St. Petersburg</td>
<td>99</td>
<td>2,050</td>
<td>43,000</td>
</tr>
<tr>
<td>Kiev</td>
<td>105</td>
<td>1,470</td>
<td>46,000</td>
</tr>
<tr>
<td>Dorpat</td>
<td>65</td>
<td>1,420</td>
<td>26,000</td>
</tr>
<tr>
<td>Warsaw</td>
<td>79</td>
<td>1,000</td>
<td>23,000</td>
</tr>
<tr>
<td>Kharkov</td>
<td>89</td>
<td>820</td>
<td>37,000</td>
</tr>
<tr>
<td>Kazan</td>
<td>100</td>
<td>780</td>
<td>38,000</td>
</tr>
<tr>
<td>Odessa</td>
<td>52</td>
<td>350</td>
<td>25,000</td>
</tr>
</tbody>
</table>

Total       | 701      | 10,360   | 297,000     |
<table>
<thead>
<tr>
<th></th>
<th>Teachers</th>
<th>Students</th>
<th>State Grant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vienna</td>
<td>361</td>
<td>5,456</td>
<td>83,000</td>
</tr>
<tr>
<td>Graz</td>
<td>139</td>
<td>1,308</td>
<td>23,000</td>
</tr>
<tr>
<td>Innsbruck</td>
<td>86</td>
<td>818</td>
<td>21,000</td>
</tr>
<tr>
<td>Prague</td>
<td>285</td>
<td>3,674</td>
<td>63,000</td>
</tr>
<tr>
<td>Lemberg</td>
<td>69</td>
<td>1,084</td>
<td>15,000</td>
</tr>
<tr>
<td>Cracow</td>
<td>110</td>
<td>1,094</td>
<td>29,000</td>
</tr>
<tr>
<td>Czeiehowitz</td>
<td>42</td>
<td>249</td>
<td>8,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,092</td>
<td>13,683</td>
<td>243,000</td>
</tr>
</tbody>
</table>

The annual fees payable by Russian students are less than £7 a head.

Dr. Conrad in his History of the German Universities states that the cost of the Universities to the State in 1882-83 was £495,661, while the receipt from fees was only £36,430. In addition to this there was a very large extraordinary expenditure contributed to by the State.

In England out of a revenue of about £100,000,000 more than £10,000,000 is spent upon education. In India out of a revenue of Rs. 98,000,000 less than Rs. 1,000,000 is spent upon public instruction. The following table extracted from Mulhall’s Statistics illustrates the educational condition of nations in 1896—

<table>
<thead>
<tr>
<th></th>
<th>Schools</th>
<th>Pupils</th>
<th>Expenditure</th>
<th>Pence per Inhabitant</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>19,858</td>
<td>4,420,000</td>
<td>10,500,000</td>
<td>82</td>
</tr>
<tr>
<td>Scotland</td>
<td>3,000</td>
<td>590,000</td>
<td>2,400,000</td>
<td>134</td>
</tr>
<tr>
<td>Ireland</td>
<td>6,600</td>
<td>640,000</td>
<td>8,000,000</td>
<td>50</td>
</tr>
<tr>
<td>France</td>
<td>89,210</td>
<td>7,930,000</td>
<td>12,100,000</td>
<td>54</td>
</tr>
<tr>
<td>Germany</td>
<td>56,560</td>
<td>3,130,000</td>
<td>5,000,000</td>
<td>15</td>
</tr>
<tr>
<td>Russia</td>
<td>66,040</td>
<td>650,000</td>
<td>1,000,000</td>
<td>80</td>
</tr>
<tr>
<td>Holland</td>
<td>4,220</td>
<td>930,000</td>
<td>1,500,000</td>
<td>120</td>
</tr>
<tr>
<td>Switzerland</td>
<td>252,000</td>
<td>9,750,000</td>
<td>38,500,000</td>
<td>130</td>
</tr>
<tr>
<td>United States</td>
<td>17,270</td>
<td>630,000</td>
<td>2,100,000</td>
<td>98</td>
</tr>
<tr>
<td>Canada</td>
<td>8,040</td>
<td>540,000</td>
<td>2,300,000</td>
<td>132</td>
</tr>
<tr>
<td>Australia</td>
<td>153,800</td>
<td>430,000</td>
<td>2,200,000</td>
<td>2</td>
</tr>
<tr>
<td>India</td>
<td>2,810</td>
<td>300,000</td>
<td>300,000</td>
<td>33</td>
</tr>
<tr>
<td>South Africa</td>
<td>3,870</td>
<td>180,000</td>
<td>100,000</td>
<td>15</td>
</tr>
<tr>
<td>Ceylon</td>
<td>28,179</td>
<td>3,770,000</td>
<td>300,000</td>
<td>3</td>
</tr>
</tbody>
</table>

The national taxation in England is about 588d. per head, while in India is only 53d. per head, so that whereas in England about ¼ of the taxation is spent on education, in India only ¼ is so consumed. In this taxation is included the direct and indirect taxes, but not the proceeds of Government industries such as Railways, Post Office, etc. Moreover the expenditure on education on India, by the Government is less than 1 crore of rupees, which divided by 220,000,000 the number of inhabitants yields about 7d. In the United Kingdom the expenditure on education provided for in the Budget was £10,777,000, which taking the population at 40,000,000 works out to about 63d. per inhabitant. Such a meagre grant to education is not compatible with efficiency, nor do I think that
any radical reform in University education, or indeed education generally, can be effected without expenditure on a scale comparable with that of other countries. If moreover the Government do not lead the way in the matter of munificent endowments, they cannot expect the rich natives of this country to follow the example so nobly set by Mr. Tata.

In trying to form an estimate of the minimum state subsidy necessary to start a university on the lines I have indicated, it must be borne in mind, that the salaries paid must be high to attract good men to fill the various chairs. Professor Ramsay estimated the annual cost of the proposed Tata Institute as Rs. 9,00,000, and this was my own estimate made some time before. The annual cost of each proposed new university would be about three times this amount, and of this the Government might contribute Rs. 5,00,000 annually. In addition to this there would be a very large initial cost.

To encourage endowments, I suggest that the Government might issue Government Paper bearing interest at 4 per cent. per annum, to be solely employed for educational purposes. If for instance a philanthropist wished to endow a chair of mathematics with a revenue of Rs. 18,000 a year, he would be able to do this by depositing Rs. 3,00,000 of the above mentioned Government Paper. This of course simply means that for every endowment of Rs. 7 a year, the Government will add Re. 1, if we take the ordinary rate of interest at 3%, and Government Paper at par value, with a guarantee that the interest shall not be reduced.

**EVILS OF AFFILIATION.**

The affiliation of a large number of inferior Colleges tends to lower the level of University teaching. This is inevitable, for if a college cannot teach up to a given standard, either the standard must be lowered or the college falls into disrepute. The university examinations rule everything. Scholarships, prizes, medals are all given on the results of these examinations, and neither the university nor college ever attempt to encourage a student to read outside the narrow limits of his own particular course. The results of examinations are carefully tabulated and arranged according to colleges, or beliefs, and these get repeated in reports and addresses, but the one lesson that can be surely derived is never noted. It is an incontestable fact that 50 per cent of the candidates who appear for our university examinations ought never to have been sent up. In the Cambridge University Extension Lectures no student is permitted to enter for the final examination, whose work with the lecturer has not reached a certain standard of merit. In India the colleges have no power to prevent a student from appearing for the university examinations if he has kept the required attendance. There is no university life in India, though there may be an apology for college life. The high standard of learning and good manners found in Trinity College, Cambridge, or Balliol College, Oxford, may and does affect the smaller colleges for good, but how can a high standard observed in Allahabad affect a college 400 miles away, or even only twenty miles distant?

**SUMMARY.**

Summing up the above discursive remarks, I propose:—

(a) that all universities be converted into teaching universities;
(b) that each university be located in a single town, preferably a small town;
(c) that the colleges be modelled on the older English universities;
(d) that the colleges be non-sectarian, though any college may include sectarian hostels;
(e) that the teaching staff consist of professors, assistant professors, lecturers and demonstrators;
(f) that the affairs of the university be managed by educational experts who know their business;
(g) that the senate of the university should mainly consist of members of the teaching staff;
(h) that a liberal state grant be made to each university.

G. C. Pras. Simla.—No. 55 H. D.—8a-4-02.—3a.
The Revd. J. Haythornthwaite has stated that it is impossible for his college to compete with the Muir College in science, and therefore urged that such colleges as his should be represented on the Syndicate to counterbalance the effect of the more forward colleges. He objected to the Inspectors of Colleges which sought affiliation in science being professors of the premier college in science, or having an interest in rival institutions to that which they were inspecting. The facts of the case are as follows. Mr. Hill of the Muir College was asked by the Syndicate to report on the fitness of the chemical laboratories, and I was asked to report on the physical laboratories. In reporting on St. John's College, Agra, of which Mr. Haythornthwaite is the Principal, Mr. Hill reported as follows:

"St. John's College, Agra.—The Principal of this College has been placed in a difficult position owing to the unexpected and sudden resignation of his Professor of Chemistry. He has, however, obviously done his best to fit his laboratory in a suitable manner, and according to the hints in the note by myself which was accepted by the Syndicate.

The working benches are neat and of ample dimensions, and are well stocked with re-agent bottles. There also seems to be a sufficient stock of flasks, beakers, dishes, and such apparatus as is required for practical work. As regards lecture experiments, there was perhaps a slight lack of precise instruments for quantitative experiments, but the Principal is obviously in earnest, and I have pleasure in stating that the Chemical laboratory bids fair to becoming a successful institution. I understand that further improvements in the laying on of gas and water direct from the main are contemplated in the immediate future; at present water is supplied from storage tanks fitted with cocks. I recommend affiliation as far as Chemistry is concerned."

On the Physical laboratory, I remarked:

"St. John's College, Agra, has not enough physical apparatus to warrant me in recommending its affiliation in Science as far as the teaching of Physics is concerned. There is, however, a determination on the part of the Principal to establish a good laboratory, and if they can make good their defects, affiliation should be granted."

In his application for affiliation, Mr. Haythornthwaite states:

"St. John's College, Agra, exists specially for conferring the highest educational advantages possible upon Indian Christians from the various Missions of the Society in North India, and who are gathered together from these various affiliated High Schools for their higher studies in Arts and Science. Hitherto such students have been able to read Chemistry and Physics as part of the ordinary B.A. Course, but by a recent decision of the Senate of the Allahabad University this privilege has been rescinded.

On this account, as also in recognition of the growing importance of a scientific education for Indian Christian students, the Church Missionary Society seeks in the present application to provide further facilities for scientific study. To this end it is prepared to set apart:

(a) The sum of one thousand rupees per year for the purchase of scientific appliances and a sum of fifty rupees per month for the working expenses of a Science Department. The value of present appliances, with those under order, may be valued at three thousand rupees.

(b) A fully competent Professor of Science of M.A. standing, and an Assistant Professor of Graduate standing.

I have the honour to assure the Syndicate that these provisions for the adequate teaching of Science will be continued for at least five years, and if necessary will be extended, as there is every desire on the part of the Church Missionary Society authorities that the teaching of Science should be as thorough as possible."

When Mr. Hill and myself inspected St. John's College, we discovered that there was no professor of science, and that none of the apparatus said to be ordered had been received. I pointed out to Mr. Haythornthwaite numerous imperfections in his list of apparatus, but said, that until he had got his apparatus, we could not affiliate him in Physics. About six weeks ago Mr. Haythornwaite sent me a revised list of apparatus, and asked my opinion. I informed him that his list had been drawn up by some one quite ignorant of practical physics, and once more furnished him with a specific list of apparatus, and offered to make several of the more expensive items. For this Mr. Haythornthwaite thanked me personally and said it was just what he wanted.
It, therefore, appears that Mr. Haythornthwaite was under a debt of gratitude to the Inspectors appointed by the Syndicate, in return for which he has slandered them by implication before this Commission.

In criticising examiners Mr. Haythornthwaite is again equally indifferent to the truth or justice of his remarks. The Syndicate of the Allahabad University does not appoint examiners for any examination above the F. A., and even with regard to the lower examinations invites recommendations from the Board of Examiners. Again the Syndicate of the Allahabad University contains 11 of the most distinguished teachers among us, and therefore if teachers are to be made examiners, it follows that a large number of examiners are likely to be also members of the Syndicate. Mr. Haythornthwaite would like all examiners to be external. Such however is not the opinion of educational (University) experts at home, and is opposed to the practice of both Oxford and Cambridge. Further experience has taught us that external examiners are apt to be very unsatisfactory. I can personally affirm that papers by external examiners need a very large amount of undertaking. The Board of Examiners in Physics a year or two ago completely rejected one paper, and had to almost reconstruct three others.

TEST PAPERS.

Mr. Haythornthwaite besides adorning my tale points an important moral. His entire object is to lower the level of our University education, and he furnishes an excellent illustration of the evils of affiliation to which I have alluded.
SUPPLEMENT II.

EDUCATION IN JAPAN.

April 26, 1902.

Dear Mr. Nathan,

When the Universities Commission took my evidence in Lucknow, I was asked by the President, how it was that Japan had made such material progress, and yet her expenditure on Education was only 2d. per inhabitant as in India. This question had reference to a table of statistics quoted on page 18 of my pamphlet. To gain fuller information on this point I recently wrote to the Japanese Consul, and I should be glad if you could place this additional information before the Commission.

1. According to the Budget for 1902-1903, the total expenditure on Education by the Government of Japan is [taking the yen as 2s.] £689,000 (ordinary—£484,500, extraordinary—£204,500). This, however, does not include about £5,000,000, yearly spent by the Provincial Government for the same purpose.

2. Of the sum above mentioned, the sum of £123,000 is provided for the expenses of the Imperial Universities.

3. The expenditure on Education in Japan is estimated at 18d. per head for the year 1899-1900.

4. The Imperial Universities of Tokio and of Kioto are Government Institutions, and all their expenses are defrayed by the State.

[The above statements are made on the authority of Mr. H. Kirino, Acting Consul for Japan at Bombay.]

5. Education in Japan is general and compulsory. There is a complete system of local Elementary, Middle and Normal schools, and a Central University in the capital, with five higher Middle schools as feeders, one at Tokio, the others at Senda, Kioto, Kanayawa in Kaya, and Kumamoto.

[Chambers' Encyclopaedia.]

It appears then that the Japanese have modelled both their school and University education on the German plan, and have realised that the material progress of country cannot be advanced without freely spending money on Education.

Yours faithfully,

A. W. WARD.
UNIVERSITY OF THE PUNJAB.
<table>
<thead>
<tr>
<th>Serial No.</th>
<th>No. of witnesses in Part I</th>
<th>Name of witness</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>The Hon'ble Mr. C. L. Tupper, B. A., C.S.I., Financial Commissioner of the Punjab and Vice-Chancellor of the Punjab University.</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>The Hon'ble Rai Bahadur Mr. P. C. Chatterji, M. A., B. L., Judge of the Chief Court, Punjab.</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>S. Robson, Esq., M. A., Principal of the Government College, Lahore.</td>
<td>21</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>The Revd. Dr. J. C. R. Ewing, M. A., D. D., Principal, Forman Christian College, Lahore.</td>
<td>51</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>Dr. A. W. Stratton, Ph. D., Registrar, Punjab University, and Principal, Oriental College, Lahore.</td>
<td>57</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>The Revd. J. W. T. Wright, M. A., Principal, St. Stephen's Mission College, Delhi.</td>
<td>63</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>Dr. Geo. Serrell, M. A., LL. D., Barrister-at-Law, Principal, Law College, Lahore.</td>
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<td>Colonel S. H. Browne, C. I. E., I. M. S., M. D., M. R. C. P., London (Honorary Surgeon to the Viceroy), Principal and Professor of Medicine, Medical College, Lahore.</td>
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<td>Lieutenant- Colonel D. St. J. D. Grant, I. M. S., M. B., M. A., B. C. H., Professor of Chemistry and Toxicology, Medical College, Lahore, and Chemical Examiner to Government, Punjab.</td>
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<td>Lala Lajpat Rai, Pleader, Chief Court, and Secretary, Managing Committee, Dayanand Anglo-Vedic College, Lahore.</td>
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<td>S. Abdul Qadir, B. A., Professor, Islamia College, Lahore, representing Graduates' Association, Forman Christian College, Lahore.</td>
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I suppose it is part of the ideal of a University that it should be a principal centre of the highest intellectual life of the country where it exists, and a home of culture, provided with the resources which facilitate, and full of the spirit which prompts literary and scientific research and activity. An ideal University should be a teaching University not only in the sense that it should be prepared to train young men in the various branches of knowledge, and to test by examinations the proficiency to which they attain, but also in the sense that its Professors and Graduates should by their own original work add to the national stock of learning and to the national achievements both in letters and science. Moreover, such a University should be a true body corporate; its component parts should bear a definite relation to the whole, and all should be animated by a common spirit lifting them above merely sordid views, their common purpose being that improvement of mankind and of the conditions of human life which results from the refined and comprehensive knowledge of that which is true.

2. Such an ideal must everywhere be difficult of attainment, and probably has nowhere been fully attained. In the Punjab it is, I frankly admit, too high for us; and if we could propose to ourselves only such objects as I have just described we might not unjustly be described as visionaries led by our own imagination far away from facts. But fortunately, although we must content ourselves with humbler aims, we have in the recognised objects of our University a definite goal, not indeed yet attained, but sufficient for the immediate direction
of our efforts. Still I have referred to a remote ideal because I myself believe that there is some truth in the vision, and because any recommendations, which I may venture to make, commend themselves to my judgment in proportion to their consistency with that ideal. Unattainable in any full sense it may be; but we shall do more and do better things from having had it in mind. A star may guide us, though we never reach it. At any rate I am convinced that we can combine the judicious furtherance of the recognised objects of our University with the temperate and rational pursuit of such an ideal.

3. Our recognised objects are set forth in the first of our Statutes, and I wish to call special attention to the sixth clause. That declares that the University of the Punjab has been incorporated with the special object of promoting (amongst other things) the association of the learned and influential classes of the Province with the officers of Government in the promotion and supervision of popular education. I may mention that this was an object of the Punjab University College long before the days when the phrase local self-government became famous in India. I think this object of the University has fallen too much out of sight; but I attach great importance to it. The judicious recognition of it in a practical way may encourage the very remarkable spirit of self-help in educational matters by which collegiate education in this Province is characterised, and may help to bring the Government more into touch with aspirations which deserve considerate treatment, all the more because they are not always similar to our own.

4. The fourth Statute directs the maintenance of a Law School and an Oriental College. These are useful institutions and should be continued. The Law School has lately been improved. It was suggested to me at Delhi, where I was recently on tour, that perhaps a second Law School might be established there. I do not think there is at present any sufficient demand for teaching in law to provide for the support of more than one Law College. But the statutes would admit of the foundation of a second Law College should the need exist and funds be forthcoming.
5. I am not as yet prepared to advocate so radical a change in our methods and arrangements as would be involved in the appointment of Professors to teach Honours students only. Virtually the M. O. L. and M. A. Degrees correspond with honours elsewhere. I doubt whether we are prepared as yet for a change of system involving the institution of honours other than those already attainable; and I think it is more important to aid College development than to secure a specially high class of teaching for a few students by taking them away from their own Colleges to be taught by University Professors. At the same time I am not opposed on principle to the organisation of honours classes when this is shown to be practicable.

6. I have carefully considered the question whether we could institute any system of inter-collegiate lectures. I fear the answer must for the present be in the negative. The Colleges here are as yet too disunited to admit of such a scheme being readily accepted. It seems to me, however, that in the teaching of science, where expensive appliances are required and the matter of tuition consists of facts and things rather than opinions, there is great waste of time, power and money in providing the needful staff and plant for a number of Colleges. In science, if in anything, I should hope that perhaps inter-collegiate lectures might at some time become possible; and if we are able to organise honours classes probably inter-collegiate lectures would form part of the scheme.

7. Although it does not seem to me probable that Professorships will be founded either by Government or by benefactors for a considerable time, I should of course be very glad if they could be afforded. Meanwhile I think we should make the most of our existing advantages. I should like to see a scheme devised for University lectures, the lecturer to be elected by the Senate from amongst the Principals, Professors and Teachers of affiliated Colleges. An adequate fee, say Rs. 200, should be given for each lecture, and there should not be more than a few lectures, say four, in the year. The lectures should be on subjects taught in the University, but the subjects might vary from year to year according to the chances of getting good
lectures. It would not be necessary to fix the number of lectures; we should take what we could get. The lectures should have no direct bearing on the examination. They should be professorial, not tuitional. The attendance of students likely to benefit by them should be compulsory. When enough lectures had accumulated they should be published in volumes by the University; and I hope they would do it credit.

8. I do not think it is advisable to lay down any rigid rules as to spheres of influence. Probably we should not wish to affiliate any institutions in Bengal or the United Provinces, nor would they wish to be affiliated to us. But there is a wide debateable land in Rájpútána, Central India and the Central Provinces; and I should think it would be wisest to let spheres of influence gradually acquire their own limits according to the desires and convenience of those concerned. Doubtful cases might be settled by communication between the Universities.

9. In the constitution of the Senate I would propose very little change. Fellowships should not be given by way of compliment. The nominations of the Chancellor should be made in exact accordance with Section 6 (b) of the Act. It will be observed that this clause allows the nomination not only of persons distinguished for attainments in Literature, Science or Art, but also of eminent benefactors of the Punjab University, original promoters of the movement in favour of the establishment of the Punjab University College, and persons distinguished for zeal in the cause of education. I think this basis of nomination is a wise one both in the interests of the University as a corporation, and in view of the principle that it ought to be associated with the officers of Government in the promotion and supervision of popular education. In my opinion the successors of Ruling Chiefs who have been founders of the Punjab University College or eminent benefactors of the Punjab University should, if or when of age, be nominated Fellows for life by the Chancellor. The list of ex-officio Fellows should be much reduced. I do not think it is necessary that more than two Judges of the Chief Court, the Chief Judge and another, should be ex-officio Fellows. I would exclude the Financial Com-
missioner, the Commissioners of Lahore and Delhi, the Deputy Commissioners of Lahore, Delhi and Amritsar, the Civil Surgeon of Lahore, the Secretaries to Government in all departments except the Chief Secretary; also all the additions made to the ex-officio list in 1901. On the other hand, I think all Principals of affiliated Colleges should be ex-officio Fellows. They would, as a matter of course, take an interest in University affairs. As a rule, I do not think the position of an ex-officio Fellow is valued or that ex-officio Fellows take interest in University affairs. I do not think there is any need here to limit the number of the Senate, but if a limit has to be imposed elsewhere, it would probably be harmless to apply it in the Punjab. Section 6 (c) provides no qualifications in the case of Fellows elected by the Senate. I think the qualifications should be the same as in the case of nominations under Section 6 (b), and that the Chancellor should have no hesitation in withholding his approval were any one elected without such qualifications. Election by the Senate is in abeyance at present. Provision is made for it in Rule 19 at page 43 of the Calendar. Even with the safeguards I have suggested, I am not in favour of reviving the system of election by the Senate, at any rate until there is some strong desire on the part of the public that this should be done. I believe public sentiment here still prefers nomination to election as the more honourable thing. I am certainly not prepared to advocate any new system of election differing in principle from that provided by the Act and Rules. With the exception of the life and ex-officio Fellowships above proposed, I think Fellowships should be tenable for five years only, re-nomination and re-election for any number of terms of office being allowed. I should like to see this rule made use of to bring in as Fellows junior men who are fresh from the experience and traditions of Oxford or Cambridge. In carrying out the change I would deprive no one of anything he has. The five years' rule should apply to fresh nominations or elections only. It is most essential that the status of a Fellowship should not in future carry with it the status of a Darbari; but those who are Darbaris now in consequence of holding Fellowships should remain so.
10. I should like the Syndicate to have the power of co-opting not more than two members for periods not exceeding three months. The members so co-opted should be Fellows. Co-optation should be by unanimous vote to obviate the objection that it might be used to carry particular measures. I think this power would be useful for the purpose of bringing to bear upon the counsels of the Syndicate general experience gained in practical administration or when subjects were under discussion in which expert opinions were required. Although I think the power of co-optation would be an improvement, I do not attach much importance to this suggestion. It could be carried out without legislation by an alteration of Rule 26, page 45 of Calendar.

11. Universities should certainly be empowered to confer the M. A. or other suitable degree on recognised teachers who come from other Universities. This would require legislation here,—see Sections 14 and 16 of the Act.

12. Affiliation rules are, in my opinion, necessary, and I think the time has come when they may with advantage be adopted. In giving evidence I will explain why the carefully framed draft passed by the Syndicate was put aside by the Resolution of the Senate of 4th February 1901. The recognition of teachers and the admission of private candidates to examinations are matters which can best be dealt with in connection with affiliation rules.
THE HON'BLE MR. C. L. TUPPER, C.S.I.

Memo. on the obligation of the Punjab University to fulfil certain trusts.

WHAT I say here has no reference to the special trusts of the aggregate value of Rs. 2,96,600 detailed at pages 490-492 of the Calendar. In these cases there is specific appropriation and they require no remark.

I refer only to funds subscribed without any express direction by the donors as to the precise objects to which the money was to be devoted, and so subscribed before Act XIX of 1882 was passed and the Punjab University established under its provisions on October 14, 1882.

My argument is that the wishes of such donors must be held to be adequately expressed in Statute I, published in Notification No 472, dated 8th December 1869, in Punjab Government Gazette dated 23rd December 1869; that the objects set forth in that Statute are identical with the objects set forth in our present Statute I at page 35 of the Calendar; and that so long as we pursue these objects we cannot be justly charged with violating any trust implied in the wishes of the said donors.

We have, however, a certain liberty in interpreting these wishes, and the limits of this liberty are defined in paragraph 20 of Punjab Government Resolution No. 51, dated the 14th April 1886, and in paragraph 18, last clause, of Punjab Government Resolution No. 52, dated 15th April 1886.

Notwithstanding what is said in this clause, the maintenance of the Oriental College being one of the chief means by which we now fulfil the wishes of the original donors, I hold that we are for the present morally bound to maintain the Oriental College, but not the school attached thereto.

To object (viz) in Statute I, viz., the association of the learned and influential classes of the Province with the officers of Government in the promotion and supervision of popular education, I attach great importance, both on general grounds, and because so long as the Senate represents the Ruling Chiefs
and the learned and influential classes who subscribed to the original funds we may justly resort to the views of the Senate for the interpretation of our present Statute I in its practical application to the acts and expenditure of the University.

It is only by making the Senate a body representative of these Chiefs and classes that we are able to fulfil object (vi) at all; and by keeping the Senate in this sense a representative body we shall ensure to ourselves the safest liberty to move with the changing requirements of the times without incurring the charge of violating pledges.

C. L. TUPPER,
Vice-Chancellor.

April 15, 1909.
**APPENDIX TO MR. TUPPER’S NOTE.**

*Statement concerning the Arts Colleges* recognized for the award of University Scholarships and for the sending up of College candidates for the Arts Examinations.*

<table>
<thead>
<tr>
<th>Number</th>
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<tr>
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<tr>
<td>2</td>
<td>St. Stephen's College, Delhi</td>
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<td>3</td>
<td>Forman Christian College, Lahore</td>
<td>1886†</td>
<td>1889</td>
<td>337</td>
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<td>Mohindra College, Patiala</td>
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<td>1900</td>
<td>1902</td>
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| Total   | ...                                   | ...                   | ...                 | 1,319                                       |

* The statement does not include the Oriental and Law Colleges.
† First opened 1866, closed in 1869.
I do not propose to go over the whole ground covered by the Hon'ble Mr. Raleigh's note, but to make remarks on such points as appear to me to be of greater importance than the rest, and on which I have been able to form an opinion; but I cannot state all my reasons for fear of unduly increasing the length of this memorandum, nor reckon upon saying all that ought to be said on them. I may be able, when examined, to supplement my remarks in the light of questions put from them and to explain, support, or modify my positions.

I have no knowledge of the working of the Universities in Europe or America except by report. I belong to the Calcutta University; but since my settlement in Lahore in 1870, I have kept up hardly any connection with that University beyond voting for Fellows when elections to the Senate from among graduates took place. But I have watched the growth and development of the Punjab University almost from its foundation. When I came to this province it was still the Punjab University College, and its ruling principle was to impart University education without making English a compulsory subject of study. I was an opponent of its proposal to grant English Arts degrees to those who passed their examinations in purely Oriental languages and joined in memorializing the Government of India against it. The agitation was successful so far that Oriental and Arts degrees were kept distinct, but precedence was given to the former and, theoretically at least, to Oriental studies. I became a Senator by election in 1886, and worked with the late Vice-Chancellor, Sir W. Rattigan, when he re-organized the University and re-drafted most of its Regulations in 1887, and have ever since taken part in its proceedings. It is thus the only University about whose affairs I am able to speak from personal knowledge.
Teaching Universities.

The Punjab University under one of its Statutes is, unlike the three sister Presidency Universities, a Teaching University. Under the Incorporating Act it is bound to maintain an Oriental College and a Law College. These Institutions it still keeps up, as well as a small School of Elementary Civil Engineering, and this is the sort of teaching work done by it. There are a number of Arts Colleges and one Medical College in the Province working up to its Examination standards, but beyond supplying instruction in Oriental languages for the Higher Examinations to the Government College, the University has no connection with them.

It would of course be a great advantage if the teaching functions could be further extended, but the only way this can be profitably done would be by developing the Elementary Engineering School into a College or by establishing a College of Arts or Science. The solution of this question really lies in increasing the financial resources of the University. In regard to the subjects taught in the educational institutions it possesses the University has a monopoly in the province. There is a Medical College under efficient Government management. There are several Arts Colleges, the Government College being best off financially and the best equipped as regards the professorial staff and teaching requirements. The advantage of the University taking up teaching functions would best be exemplified by its establishing (1) a Model College working generally upon its examination standards, or (2) a College for teaching subjects for which no machinery of instruction at present exists, or which, without preparing students for passing mere examinations, should aim at imparting a high course of instruction, and generally at raising the standard of scholarship and mental training. If the University establishes an ordinary Arts College, it will be unnecessarily increasing the number of existing Colleges and entering into competition with them. The question, as I have said, is mainly one of money, but I cannot reasonably hope that the University will be able to establish a better equipped Arts College than the Government College. If, therefore, funds can
be raised, I would suggest the establishment of a College for the higher teaching of certain important branches of Science not taught by the existing Colleges. The University has lately instituted examinations for Science degrees, and this branch of instruction up to a pitch higher than the requirements for the examinations may be taken up by it. The higher study of Oriental languages may be also undertaken by the Oriental College, and lectures may be delivered in the Law College on higher subjects, such as Comparative Jurisprudence, an advanced course of Roman Law, International Law, and the like. A moderate outlay will enable the two latter institutions to extend their teaching functions and to raise the standard of their instruction, but the establishment of a Science College will require a very large sum. All the money, I think, must come from Government. I see no imperative need to start an Engineering College for this province.

These appear to me to be the directions in which the teaching functions of the University may be usefully extended. The University may also found chairs on particular subjects and allot them to particular Colleges, or grant a subsidy to a particular College, having a man of distinction in some branch of learning on its professorial staff to deliver lectures on his special subject; but I should not be disposed to set much value on such a scheme as the benefit would be very partial, and there might be difficulties in the way of equal treatment of all local Colleges, while those in other parts of the province will be altogether excluded from participating in its advantages. If a particular chair is founded the lectures should be delivered for the University at some place fixed by it. What I have mentioned above exemplifies the difficulties of a University which is not local but supervises the Collegiate education of a whole province in increasing its teaching functions. It should take up ground not appropriated already to an existing College and avoid competition with established Institutions as far as possible.

As regards certificated teachers, I do not fully realize how it is proposed to work the system in India; but I fear one result of it would be to raise the cost of high education by restricting the number
of teachers and so to diminish the existing chances of graduates earning a livelihood on coming out of College. At present a student who passes the higher University Examinations, with some distinction is frequently offered a professorship or teachership in a College and High School, and this opening will be to a great extent closed to them. I hope the system will not increase the number of our starving graduates and drive them more to journalism.

The constitution of the University.

Fellows are appointed in this University in accordance with the provisions of Section 6 of the Act of Incorporation, which I need not repeat here. Clause (b) permits the Chancellor to appoint, inter alia, persons who are distinguished for zeal in the cause of education or who are eminent benefactors of the University. Clause (c) about election by the Senate has been, I believe, most acted on since 1887 or 1888. Under (b) personal qualifications of high education or literary or scientific attainments are not essential, and I believe this rule, which was adopted for good reasons, will have to be adhered to in future, at least for some time. I do not think the number of Senators is too many; and though all the nominations perhaps have not proved unqualified successes, I do not know that we can justly say that the Senate as a body is inefficient. Some of the Native Fellows do not know English, and many are not well acquainted with Western principles of education; but they have generally shown good common sense and proved amenable to reason, and readily defer to the judgments of their more qualified colleagues. Moreover, unless a radical change is made in the constitution, objects and aims of the University, natives distinguished for scholarship in Oriental languages must be made Senators even if they are unacquainted with English.

I deplore the disqualification of the present Fellows en bloc and the appointment of an entirely new body. In passing a measure of this kind the existing conditions of the Province must not be forgotten. Every Fellow is ipso facto a Viceregal Darbari, and this privilege is highly prized among native gentlemen of this Province and furnishes a potent motive for helping, or working for, the University. To be appointed a
Fellow and a Viceregal Darbári after some years of toil and expense, and then to be suddenly deprived of the honour for no fault of his own, will be regarded as an unmerited hardship by a Native Fellow of this class. When the nomination was made there was no condition or prospect of loss of the position at any time, and this will give the measure a character of harshness. I would suggest that no Fellow be declared disqualified, but that the new rules, whatever they are, be gradually introduced. Honorary Fellowships might also be instituted for the class of people mentioned above.

I am unable to give any clear opinion about the desirability of appointments as Fellows being made for a term; but I fear they will be unpopular with the class appointed under clause (b) of section 6 of the Incorporating Act, and discourage those members of the community who seek admission into the Senate by doing service to the cause of education and make them less willing for such work. The rule, however, be introduced as regards all elected Fellows, and Europeans and educated Natives, whose services as experts would be useful to the University, might be appointed on this principle. Members who have permanently left India might be treated as having vacated their Fellowships.

As regards attendance, I believe resident Native members are generally willing to take part in the meetings of the Senate, and so also the European members who take interest in the affairs of the University, and particularly those who manage its affairs. However, a rule that continued non-attendance for a stated period shall authorize the Chancellor to declare a Fellowship vacated, or the Senate to do the same as regards members elected by itself, might be useful. I do not know that there is any complaint in this University of business being delayed owing to non-attendance of members.

As regards the number of Senators, the Act, section 6, prescribes an irreducible minimum, and the maximum need not exceed one hundred. I think the number of Senators should not be less than 100, so as to allow of distinguished persons not resident at Lahore to be appointed and of the resident members being sufficiently
numerous to ordinarily obviate the danger of a want of quorum for meetings. The Act prescribes that the Senate might elect as many members as the Chancellor appoints, but there has been no election for the last fifteen years. I think the graduates ought to be allowed a share in the right of election, and for the class of Fellows elected by them a term of membership may well be fixed. They would understand the principle of terminable Fellowships, and the hope of re-election would serve as a stimulus for good work. Men who have proved their merit might also be rewarded with Life Fellowships.

At present the number of ex-officio Fellows is perhaps unnecessarily large. Certain officers, however, may be retained as Fellows, as it saves the trouble of appointing them each time by name. The Judges of the Chief Court, who have practically the entire control of the Law Department, and some of whose examinations are held by the University by delegation, should be well represented in the Senate. The Financial Commissioner, who is interested in the examinations and courses prescribed in revenue subjects, should be a member. The Director of Public Instruction should also be a member, and the Accountant-General also discharges many important functions in our University.

The Syndicate at present consists of the Vice-Chancellor and twenty members elected by the Faculties, and is constituted under the statutory power of the Senate. I think the rules for election are logical and fair on the whole and satisfactory, as they secure the representation of all important interests. I have no suggestions to make beyond the trivial one that the Chancellor might also be made a member ex-officio.

Faculties.

I think the Faculties should have the power of election to their bodies from among the Fellows instead of the Senate assigning members to them or the members choosing their own Faculties.

Boards of Studies.

I consider the rules as regards those of the Arts and Oriental Faculties should be altered. The Arts Faculty requires more than one Board of Studies for the numerous subjects with which it deals.
The same will be true of the Science Faculty when Science examinations become more popular and its work increases.

**Power to grant Honorary Degrees.**

This should be extended, though the power should be very sparingly exercised. This University has power to grant Honorary Doctor's degrees, and I believe there have been one or two instances in which it would have liked to confer the Master's degree, but for want of power to do so was obliged to give the higher one.

**Registrar and Staff.**

We have a practically whole-time Registrar, who is exclusively the servant of the University. I do not think any changes are imperatively called for in this matter. Our examination results came out fairly early, though there is room for improvement.

**Affiliation of Colleges.**

The affiliation of colleges is most desirable. Rules for it were lately framed and discussed, but the consideration of them was indefinitely postponed owing to certain reasons.

I think the rules should be re-framed and passed, the Senate being allowed to have a voice in sanctioning or disallowing affiliation.

As regards the other matters mentioned in the note, I shall briefly state my views as follows:

I deprecate any material raising of the standard for the Entrance Examination. I believe the standard of the Indian Universities is not lower than the Matriculation standard of the London University; and a further raising of it is, with reference to the existing conditions of Indian life, undesirable. The teaching in the schools is, however, defective, particularly in English, and this accounts for the large percentage of the failures. In this province the study of English is handicapped by the undue prominence given to some of the Vernaculars in schools which prepare students for the Higher Examinations. English should be begun at an earlier stage, and the excessive amount of information on other subjects, which is crammed into the heads of immature students in the lower forms, largely
curtailed. The Primary Examination as well as Middle School Examination should be abolished, particularly the latter, which does much harm to students who mean to study up to the University standards. The Middle School Examination was probably originally meant to test progress in the school, but has been diverted from its original purpose and converted into a sort of final examination for qualifying for service in the lowest grade. Thus the subjects for examination have been multiplied and the standard unnecessarily raised, specially in Mathematics, which is absurdly high for tender young boys of 10 or 12. The object apparently has been to equip the boy who passes it with all the knowledge ordinarily deemed necessary for commencing life as a clerk. This examination being abolished, and the other subjects curtailed, extra time and attention can easily be devoted to the study of English.

For the Entrance Examination a moderately searching examination should take place in easy English books, and particularly in English composition. The existing scheme for the University Examinations prescribes far too many subjects and does not allow specialization of studies until the M. A. Examination is reached. However in all the lower examinations English must be a compulsory subject and proficiency in it insisted on.

For the Entrance Examination I would not fix an age qualification. If it is to be fixed at all it should not exceed fifteen years. I would not make it a tangibly more difficult examination than now, except as regards English, while the other subjects might be made slightly easier by way of compensation. This examination is accepted as a qualification for service, and it is proper that the student should have a moderate grounding in general knowledge. I would fix four subjects for it, viz., English; a Vernacular or Classical language; Mathematics, viz., Euclid 3 books, Algebra up to simple equations and Arithmetic up to single rule of three; and History and Geography up to a moderate standard, a small History of India being one of the books prescribed. The minimum pass marks for English should be 33 per cent., and in the other subjects 20, and in the aggregate 33.
The Intermediate Examination should be retained, but the subjects reduced so that specialization may begin. The two other compulsory subjects should be English and a Classical language—the last being retained mainly for the purpose of encouraging the study of Oriental Classics, as this University has a distinctive Oriental character. The pass marks in English and in the aggregate should not be less than thirty-five per cent.

I would retain the present B. A. Examination and four years as the minimum term of attendance in a college in order to qualify for the examination. The subjects should be English and that branch of study in which the student shows special aptitude. The pass marks in English and in the aggregate should not be less than 40 per cent. I think that it is not necessary to start an Honor's Course for the B. A. degree, but that the M. A. Examination should stand as its equivalent as hitherto. The bifurcation of studies into a Pass Course and an Honor's Course would entail additional expenditure and create a complication, and, as far as I can judge, the M. A. Examination well serves the same purpose. It is not granted before five years from the date of matriculation, which is an advantage. The scheme for the M. A. Examination may be revised if thought proper.

Scientific instruction is at present mostly theoretical and defective, except perhaps in the Government College, which, I believe, possesses a good laboratory. Care should be taken to remedy this defect and to make the Science degree lately instituted by the University more attractive by attaching more prizes and scholarships to them.

The University should also, in my opinion, encourage technical education. It has already made a start in this direction.

In conclusion I may be permitted to say that in my humble opinion our University has, in spite of drawbacks, on the whole done good work. Though drastic
changes are to be deprecated and want of due regard for local conditions, there is ample room for improvement even with these limitations. I refrain from touching on the question of instruction in colleges and schools, as that is a matter specially within the province of educational experts with actual experience in teaching.
III—Teaching Universities.—

Indian Universities should be as far as possible teaching bodies. The Punjab University is to some extent a teaching body as it maintains a Law College and an Oriental College.

University Professorships and Lecture-ships ought to be founded. Large sums of money are available for purposes of much less utility. The donors probably consult influential officers as to the object for which they give, and their wish in many cases is at least partly to stand well with our rulers or to gain titles or influence. By judicious advice and prudent award of titles, those in power might do much to direct liberality into educational channels.

At present University Professors and Lecturers would be available only or chiefly for post-graduate courses. Until the system is changed few, if any, under-graduates would attend lectures not bearing directly on the subjects prescribed, unless they were made compulsory. If University Professors and Lecturers took up the prescribed courses, they would simply be doing the work now done in the Colleges.

Indirectly the University should become a teaching body by means of its affiliated Colleges. It should exercise an efficient supervision over their working, and all the members of their staffs should be teachers recognised by the University.

The great difficulty here would be that the majority of the working members of the University are also members of the staffs of rival Colleges. This would make supervision difficult and invidious.
IV.—Spheres of Influence.—Each University should have its own sphere of influence. The Punjab University examines many candidates from the North-West Provinces. The Director of Public Instruction, North-West Provinces, does not recognise any schools for the purpose of the examinations of the Punjab University, and he forbids candidates to look to any examination outside the Province. All school candidates from the North-West Provinces for the Middle School Examination, and the great majority of those for the Entrance Examination of the Punjab University appear as "Private" candidates. This interferes with the discipline of schools in the North-West Provinces, and in the case of these candidates there is no check on personation.

The Allahabad University prescribes a minimum age limit for its Entrance Examination. School boys can evade this by appearing as "Private" candidates in the Punjab University Entrance Examination. The number of Entrance candidates from the North-West Provinces has risen from 275 to 350 this year.

V.—Constitution: the Senate.—
1. The Senate should be dissolved and reconstituted.

2. The Senate should be limited in numbers, and new Fellows should be appointed only to fill vacancies as they occur.

3. The Senate should consist mainly of men who are doing the teaching work of the University, and no one should be appointed a Fellow unless he has special knowledge of University affairs.

An exception might be made in the case of Chancellors and Ruling Chiefs, who might be made Fellows for life.

4. Fellows should be appointed for a limited time (not exceeding 5 years). Ever Fellow who proved useful would be re-appointed as a matter of course. Those who have not taken an active part in the work of the University should not be eligible for re-appointment. A small number of Life Fellowships might be conferred on Fellows who have done specially good work for the University.

5. Fellows should not be appointed for political or social reasons, but for the services they can render to the Uni-
versity. It follows that they should be appointed by name, and not as holding certain offices.

6. It should be permissible to bring forward an original proposal in the Senate, in the Syndicate, or in a Faculty.

7. It is not desirable to introduce or continue the principle of election.

Selection, if wisely made, is likely to give the University better men than election, because those who make recommendations and appointments are better acquainted with the best men than a miscellaneous body of graduates scattered all over the Province. There has been no corporate life, and graduates are for the most part absolute strangers to one another. The most assiduous canvasser would probably be elected. It may be doubted whether regard for University interests would greatly influence the choice. If the best candidate were a Muhammadan or a Sikh, he would probably have little chance of being elected. The available constituency has no experience or real conception of a University as it ought to be.

VI.—The Syndicate.—In the Punjab University the number at present fixed is suitable. The Government and the Colleges are adequately represented. The Director of Public Instruction should be a member ex-officio.

The majority of the Syndics should be men who are intimately connected with educational work. This has always been the case in the Punjab.

VII.—Faculties and Boards of Studies.—1. No Fellow should be attached to a Faculty unless his nomination has been accepted by the Faculty.

2. A Board of Studies should be elected by the Faculty of Law and also by the Faculty of Medicine. The combined Arts, Science and Oriental Faculties should elect a Board of Studies for each subject or group of subjects.

VIII.—If the principle of election is retained, a register of graduates should be kept. This should be revised annually and a small annual fee should be charged for registration. The University has the power to confer a degree honoris causa. The M.A. degree conferred on
one who holds an honors degree of a European University, would hardly be a distinction, and it is difficult to see what useful purpose it could serve.

IX.—Students of the University.—
When a candidate presents himself for examination, the Punjab University requires a certificate of attendance and good character, but not a certificate of proficiency.

Heads of Institutions should be required to certify that a candidate has read up to the standard of the examination and that he has a reasonable chance of passing it. This would encourage steady, consistent work in Schools and Colleges. Students who shirked or scampied their work and examinations would not be sent up; the time of Examiners would not be wasted by a crowd of candidates of whom from half to two-thirds are certain failures; the results could be published in a reasonable time, and would be much more reliable. In some subjects an Examiner has to work at high pressure for an unreasonable number of hours during weeks, and is reduced to a pitiable mental condition before his task is done. At present Heads of Colleges are obliged to send up every one who has attended two-thirds of the lectures. The idea seems to be that the greater the crowd the oftener students go up, and the oftener they fail, the more grist they bring to the University mill. If necessary the pecuniary loss might be made good by charging higher fees.

The Punjab University does a good deal for the physical welfare of the students in holding an annual tournament which includes contests in Gymnastics, Athletics, Cricket, and Football. The great need is playgrounds and a supply of water for them. These are absolutely essential. A large proportion of the Government College students are resident. The Superintendent lives in the Boarding House, and the gates are closed at night. The Boarding House is also under the personal supervision of the Principal, who resides in the College compound. There are College Societies, but none which bring together the students of different Colleges.

It is impossible for Professors to do very much for the students out of College until they are provided with houses in the neighbourhood of the College. They have to look for houses where they can
find them, or rather where they can afford to take them, perhaps two or three miles from the College.

Probably no measure would do so much to raise the tone of education as a regulation requiring residence as well as attendance in class. Students who live miles away in the city are practically cut off from the corporate life of the place.

Where possible the Superintendent of the Boarding House should be a European Professor; but it would often be difficult to secure a bachelor thoroughly in sympathy with the work he would have to do.

The Principal is not sufficiently free for general supervision. He has to do the work of an ordinary Professor, to teach three or four classes daily six days a week (which is by far the lightest part of a Professor's work), to read, to study, to correct, essays, &c., at home. Besides this, he has to do the work of the office, to deal with applications of every kind, to look into innumerable details connected with the general supervision of the College and the Boarding House, The Union Club, Debating Society, Essay Groups, Social Meetings, Graduates' Union, Games, Grounds, Servants, editing the College "Record," and so on.

Further, the Principal of the Government College is expected to take part in the management of the University, the Aitchison College, the Khalsa College, the Museum, and the Text-Book Committee. This is not put forward as a personal grievance, but merely to point out that a very important part of a Principal's work must suffer when he carries a triple burden of teaching, general supervision, and outside duties.

**Minimum age limit.**—For Matriculation there ought to be a minimum age limit adapted to the circumstances of the country and the time. Boys of 10 and upwards now pass into Colleges, and the results both to the boys themselves and to the cause of sound education are altogether bad. The Colleges are compelled to do elementary work which cannot be done satisfactorily in large College classes, and are more or less forced down to the level of Secondary Schools. Boys are encouraged to rush through their school course in order to reach the
final goal at the earliest possible moment. Masters in Board Schools are largely dependent on members of the Board and those who have influence with them. Strong influence is sometimes brought to bear on masters to make them promote boys against their better judgment. If the Matriculation Examinations were distinct from the School Final, it would not be impossible to have a limited number of schools qualified to carry on the education of bond fide candidates for matriculation up to the age fixed upon. It would not be necessary to raise all High Schools to this standard.

Government keeps up at least one College in each province to set a standard and serve as a model, although in the matter of furnishing men and money the ideal has sometimes been lost sight of.

Similarly, Government ought to maintain in every district one Model School as efficient in every respect as it is possible to make it with a highly-qualified, well paid staff, living in or close to the school premises; with suitable buildings, apparatus, library, boarding-house, gymnasium, and play-grounds. Even a few such schools would do work of great value, and their influence for good upon the general school world would be incalculable. The following table gives the ages of the students who passed the Matriculation Examination (Arts Faculty) in 1900 and of those admitted to the first year class of the Government College in that year:

<table>
<thead>
<tr>
<th>Age</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Entrance students</td>
<td>1</td>
<td>2</td>
<td>15</td>
<td>78</td>
<td>369</td>
<td>275</td>
<td>520</td>
<td></td>
</tr>
<tr>
<td>Number in first year Government College</td>
<td>1</td>
<td>4</td>
<td>10</td>
<td>8</td>
<td>12</td>
<td>11</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

X.—University Teaching.—The majority of students begin their University course without sufficient knowledge of English to profit much by the lectures they attend. Of those who pass the Entrance the best enter Colleges; of those who enter Colleges half fail to pass the Intermediate; and of those who pass the Intermediate two-thirds fail to secure a pass degree. Deficient knowledge of English is a constant source of difficulty in the English classes, and to a hardly
less degree in Philosophy and History. Even in Mathematics and Science there are complaints that students cannot follow the lectures intelligently. Children go to school too young, they are kept at work five or six hours six days a week practically all the year round. A vacation of a fortnight is given in Elementary Schools, of a month in Secondary Schools. They are not intelligently taught; they become dull and lifeless; they do not think for themselves or work for themselves; they depend entirely on their teachers, and confine themselves to memorising what they are told. The teachers are underpaid. Some get as little as Rs. 6 per month, and it is vain to expect intelligent men for the salaries given. The dull unbroken grind takes all life out of them and leaves no time for study or general reading. There ought to be two half holidays a week for games, and more vacations. Matriculation and School Final should be entirely distinct. The Matriculation Examination is unsuitable for many who now go up for it, and puts them educationally on the wrong rails; while the character of the examination is degraded because it has also to serve the purposes of a School Final. It should be the passport to a College, and should not be recognised for any other purpose. The results should not be published, but the list of those who pass should be sent to heads of Colleges. Candidates should be required to produce a certificate stating that they have studied up to the required standard and are sufficiently advanced to enter upon the course of study for a degree.

There should be a prescribed course of reading in English. Many students seem to have read practically nothing before entering the College. They have to be dragged slowly and laboriously through their text-books. Every sentence has to be explained, and little time is left for anything else. So many hours have to be spent in class, that the students have not sufficient time to digest what they get in the class and practically none for general reading. Saturday should be given for this purpose, and no lectures should be delivered on that day.

The Entrance Examination should be a test of the students' ability to think, not merely of power of learning by rote. More importance should be attached to idiomatic composition, and knowledge of
grammar should be estimated by ability to write English grammatically, not by ability to memorise grammatical rules and definitions. Easy “unseen” passages should be set. The University should pay higher fees and secure better Examiners.

*Private Candidates*—These are a great source of demoralisation. In many cases they are not private candidates at all. Some Colleges have been in the habit of sending up their weak students as “private candidates” in order to show a high percentage of passes.

Students who have had to leave College or whom their College has for good reasons refused to send up have been able to go up as “private candidates” with certificates signed by Deputy Commissioners and others. The University degree ought to be evidence that a student has done more than cram up enough to secure the marks required for passing. It ought to imply a certain breadth of culture which can be obtained only through the discipline, systematic training and social advantages of a College. In India fees are so low that practically every one who is fit for it can secure a College education.

*Cram*—The present system is largely cram and not education inasmuch as the aim is not to fit the students for life but to prepare them for the Examiner; not to teach methodical habits, to instil a love of the subject taught and of knowledge in general, to cultivate the reasoning powers, to form a cultivated taste for reading; not to produce useful men and good citizens, but chiefly to secure passes.

However much a teacher may abhor the system, he is to some extent bound by it, because if he does not work for the Examiner and pass the usual percentage of his pupils, students will go elsewhere and get what they want.

The percentage of passes is made the test of the work of a College and of the individual teachers. A College which thought only of educating its students (in the best sense of the word) and not at all of cramming them, would soon be left with empty benches.

The causes are many.

The students themselves and their parents care only about passing. **Students become restive if a teacher goes**
It is unreasonable to blame the students. They must think first of making their living and supporting their families, and the necessity of trying to secure good appointments by passing must take precedence of all other considerations. Even those students who have a natural love of learning for its own sake must subordinate this to practical success. This is not peculiar to Indian students, and there is little hope of improvement here until the degree ceases to be regarded solely or chiefly as a passport to Government service.

University examinations are largely competitive Civil Service examinations, and the Colleges have to do the work done by the "Crammers" in England. This system therefore does not as a rule produce sound scholars or even impart a love of knowledge and culture. The effect upon University education is bad, and it may be doubted whether there is a corresponding gain to Government or the nation. The mere crammer who mugs steadily on and thinks of nothing but passing will (other things being equal) outdistance the student who rides, plays cricket, football, hockey and tennis, takes an active part in the Debating Society and in the general life of the College, and reads and thinks outside the limits of the prescribed course. The latter will not gain so many marks; but he is far more of a man, has much more real culture, and will make a much better public servant. The well-to-do students of the better class are likely to be among the latter. Those to whom grinding poverty is a continual reminder of the necessity of passing are likely to be among the former. The wish for University examinations as being the passport to lucrative employment has descended even to sons of menial servants and petty tradesmen, and tends to turn Indian society topsy turvy.

Government might recognise the B.A. degree as one condition of eligibility for all candidates for certain classes of appointments. Each Department might then examine candidates to test their knowledge and capacity solely with reference to the work of that particular Department.
This is to some extent done now.

The character of the examinations encourages cramming by the excessive amount of book-work questions calculated to test the memory rather than the intelligence of the student.

They should aim at testing intellectual ability, a student's power of thinking for himself, of expressing himself clearly, logically, concisely, and not his capacity for loading his memory with useless lumber. In literary subjects more importance should be given to essays, and the subject should not be one which can be treated merely by summarising a text-book or by reproducing the introduction to a text-book. Unseen passages of ordinary difficulty should always be included. The prevailing idea is that a student must be taught the text-book in minute detail, and nothing more. The true end is through the text-book to give him a knowledge of the language, which will enable him to read intelligently any book of ordinary difficulty. At present the students have to spend endless time in getting up mythological, biographical, historical and other allusions, "explanations" of many difficult passages which they sometimes "explain" without in the least understanding or caring to understand, summaries, sketches of character, criticisms of style and what not, to meet the Examiner. If a student knew the language well first, then it might be a good discipline to get up particular books in minutest detail, especially if he is intended to become a Dryasdust pedant or a German Commentator; but he has no time to learn the language because these minutiae absorb it all. It is waste of time to spend it on minute points of scholarship before the language has been acquired. Ability to write simple English prose correctly and read ordinary English books intelligently is of far more value to a graduate than any amount of capacity to pick critical holes in the style of English classics. Most of our B.A.'s and some of our M.A.'s are unable to write an ordinary letter, make a short speech, or carry on an ordinary conversation without making egregious blunders in English.

Passages to be explained are often set in such a way that the question can be answered after a fashion by
a loose paraphrase and the substitution of a word here and there, which fail to show whether the student understands the thought or does not understand it.

Sometimes text-books are mere cram-books. Sometimes they are selected for examination purposes rather than their educational value.

The Histories of Literature prescribed are cram-books; pure and simple, and can only be got up as such in the time available. In examinations we get such questions as this: "Criticise the style of A; compare it with that of B; and estimate their influence upon the literature of their times"—the point of the question being that the student has not read a line of either, and is not expected to.

In Mathematics more value should be attached to problems.

In Science students should be required to show knowledge of the subject, and not merely knowledge of a text-book. The practical test should be thorough, and should be regarded as the more important part of the examination. It should be really practical, and not merely an oral examination.

Marks.—A rigid system of marks—fixed marks for each question, for each sub-division of a question—tends to make the examination mechanical, to make both candidate and Examiner the slave of marks. A student should be free to show what he knows in his own way. Several of the questions may give him the chance of doing so. A question may be one on which volumes might be written, and about which the student may know much; but as it bears 5 marks or 10 marks he cannot afford more than a scrappy answer just sufficient to secure the marks assigned. In order to gain high marks, he must tackle the whole paper and scrape up all the marks he can from every question. This encourages superficiality and cramming. It is a handicap on the good student, and gives an undue advantage to the mere crammer. In answering two or three questions a candidate may show ability of a high order, may even show that he is the best student of his year; but the Examiner can give only the few marks assigned to those questions on the margin of the question paper, and must regretfully pluck a student he would like to pass.
This University entertains a large staff of clerks who for part of the year work overtime, and in consideration of this receive a considerable sum in bonuses. Besides these, the University has to entertain a number of additional clerks to help in the work of tabulating results. In addition there are paid scrutineers to check the work done by the clerks. Most of the work done by this establishment serves no useful purpose, and merely ministers to a depraved appetite for marks and statistics. The marks in each paper in each subject are recorded, the marks gained by each student are added up, and the names down to the last passman are arranged in what is called "order of merit," i.e., in order of aggregate marks. Then the percentage of passes in each subject, and on the whole, is calculated and compared with the percentages of previous years. If the Examiners were allowed only three marks—honours, pass, failed—much of this useless labour would be saved, and much unnecessary expense. Only the Honours men in each subject need be arranged in order of merit. This would be done by the Examiners, and the scholarship for that particular subject would go to the candidate placed first. The result could be made out in a very short time by a single clerk. The exact number of marks in each subject and in the aggregate and a student's exact place on the list of passmen are matters of no importance to anybody. All that is necessary is the order of merit of a few at the top. The present "order of merit" is entirely misleading because students are examined in different groups of subjects by different Examiners. It is well known that the best student frequently does not "stand first," and that no student has a chance of standing first unless he takes up both courses of Mathematics.

The Statutes of the Punjab University (III. v.) provide "that the written examinations shall be conducted by persons other than those engaged in teaching the candidates." Hence many of the Examiners live in distant parts of India, and have no interest in the Punjab University and no knowledge of its requirements or standards. This provision makes it impracticable to have moderators. If teachers cannot be trusted to examine, still less can they be trusted to act as moderators.
A gentleman in Madras or Bombay gets to know the standard of the Punjab University only by examining for it, and a moderator living in these Provinces would know less about the standard than the Examiner. The Examiners ought to be the men who are doing the teaching work of the University, so far as the University can find teachers whom it can trust.

After the teaching work is over, the Examiners in a subject should meet and set the question papers in consultation with a third party who is also a teacher. The questions would thus be drawn up by a committee of three. This would be a check on the eccentricities or wrong headedness of an individual, and would serve the same end as moderators.

Many students are so badly grounded and prepared that "cramming" is the only way of passing them.

In some cases the courses are too long, so that every hour is given to struggling through the text-books.

The course should be short and easy, so as to leave time for general culture, and the examination should not require the student to cram himself with a mass of lumber which burdens the memory without cultivating the intellect.

If a minimum age limit were fixed and the Entrance Standard raised, students would be better prepared when they matriculate; they would be certain of passing with a reasonable amount of steady work, and they would have time for wider and more intelligent study. At present the majority of our graduates throw away, burn, or sell their books as soon as they have passed, and read no more for the rest of their lives. They have learned—to hate learning. For this the examination incubus is chiefly responsible.

The pass should be easy, and should merely be evidence that a student has been well grounded before leaving school, that he has had the training, discipline and social advantages of a College for four years, that he has borne a good character, and has been certified by the College authorities to have attained such proficiency in his studies and such general breadth of culture as to be qualified for a degree.
Better results would probably be obtained if the Colleges were allowed to do their own examining, and degrees conferred on the candidates recommended by the Heads of affiliated Colleges. This system is said to work well in America.

**Honour Courses.**—For the brilliant students there ought to be an Honour Course in each subject. This should be entirely different from the pass course; and it should be clearly understood that Honour Courses in all subjects more than double the work of a College, and cannot be undertaken satisfactorily unless the staff is doubled. In Bengal the Honour Course used to be the pass course plus certain additional books. Pass and Honour students read the passed course together, and therefore as a pass course, the pace and standard of the teaching being determined by the capacity of the dullest pass students in the class. No addition was made to the staff, and hence neither part of the Honour Course could be satisfactorily taught.

**Inter-Collegiate lectures.**—It has been suggested that a system of inter-collegiate lectures might enable Colleges to provide for honour courses without addition to the present staff; but this seems very doubtful.

Inter-collegiate lectures might be practicable to some extent. The difficulties are considerable.

The fees are different in different Colleges, and probably those who join the cheaper Colleges do so simply because they are cheaper. If students could attend lectures just where they pleased, they would presumably join the cheapest College and pay the lowest fees, and attend lectures elsewhere. This would throw all the work upon the dearer and more efficient College, but give all the fees to the cheaper. A uniform rate of fees would seem to be necessary. The work to be done in a subject would presumably be divided among the Professors of that subject. Students now efficiently taught might have to read half the subject or more with less efficient or inefficient teachers. Students who now read English with Englishmen would probably object if made to read the greater part of the course with Indian Professors. But in a compulsory subject like English division of labour would be impracticable.
because every Professor of English has as many students as he can teach, some perhaps more than he can teach efficiently. The students would probably object to the walk from one College to another, especially in the hot weather. The Lahore Colleges are kept open till the end of July. During May, June and July walking about from one College to another would hardly be practicable.

Unless the number of lectures were reduced, students would not have time to spend in going from one College to another. Such reduction would be a great advantage to the students if they could be brought to do more for themselves and depend less on the teacher. The difficulty is the badly prepared student, whose only idea of study is to take down what he is told in the class and commit it to memory before the examination.

An efficient College would have to do much of the work of those which are less efficient, and it is difficult to see what it would get in return.

The arrangement, if practicable, would be a reform of great value. A beginning might be made, if students taking advantage of such lectures were required to pay the fees charged in the dearest College, and if a limit were placed on the size of each class.

Oriental languages.—Oriental languages should be taught by men well acquainted with English, and by European Orientalists where such are available.

Candidates are required to translate from and into English and to explain passages in English, and therefore cannot be taught efficiently in this part of their subject by men who do not know a word of English. These men may be profound scholars in their own way, but they are generally quite ignorant of what has been done in their own subject by scholars in Europe, in Syria, in Egypt, and of the books available. They know nothing of other classical languages or of comparative philology. Even where a European specialist is available, he is not allowed to have anything to do with the teaching of his own subject, but is set to teach (say) English or Philosophy.

Affiliation Rules.—Affiliation Rules are most necessary and ought to be strictly enforced, not only when a College is affiliated, but as long as it continues to
be affiliated. Where there is an efficient or a fairly efficient College, a rival College charging lower fees is often started when there is no real need for it. With a poorly paid staff and provision only for cramming text-books, even in scientific subjects, it is possible to do this as a successful commercial enterprise; but the result is not to promote sound education. Affiliation Rules rightly administered would check this. These must include inter-collegiate rules to be strictly observed by all affiliated Colleges. Strict discipline is very unpopular, and Colleges in which it is lax tend to draw away students from Colleges in which it is enforced.
Punjab.

Additional Note by Mr. S. Robson.

This part of the Senate's duty seems to have been entirely neglected.

Statute III. Section ii is practically a dead letter.

The provision regarding colloquial knowledge of living languages is altogether ignored in examinations.

The Oriental College as a building does not exist. The classes meet in some of the class-rooms of the Government College. This is a most objectionable arrangement against which a succession of Principals has protested. It brings into the Government College a crowd of boys who are under no supervision except in their class-rooms, and who are not known to and not under the control of the Principal. This is entirely mischievous, and it seriously interferes with the Principal in his endeavour to become acquainted with fresh men outside the class-rooms.

The so-called Law College is a hired bungalow in a most unsuitable position.

The University professes to conduct examinations, while in practice it does nothing more than provide for the setting of questions and the reading of answers. The examinations are really conducted by the staffs of colleges and schools, who are expected to give up without remuneration some ten days to the extremely irksome and unhealthy work of superintendence. The staff of a college has to go on practically without a break from the middle of October until the end of July, and they might reasonably expect to get a much needed break while their students are being examined.

The students do nothing in July, nor can they be made to do any satisfactory work,
while the attempt to exact the impossible injures the health of the students.

It is necessary to enter the strongest possible protest against the official view that the amount of sound educational work done by college students and Professors is directly in proportion to the number of days and hours they are made to spend in the class-room.

Although it is considered necessary to attempt the impossible and make young students do hard intellectual work in the Lahore July, yet much time is wasted during the best part of the year. The work of the M. A., Fourth Year and Second Year Classes is stopped from the 1st of March to the 15th of May, by preparatory leave, the University examinations, the wait for results, and some further inevitable delay before the students can hear the results and make their arrangements to rejoin the colleges. Further, the regulations allow a student to be absent a third of his time. If a college is open for nine months, the student need only attend six. Why not open the college for eight months, still requiring the student to attend six months or even seven, and give all the students leave for a month during which they find it impossible to work, instead of giving them leave in batches all through the year. There are a certain number of miscellaneous holidays which are not absolutely necessary, and which are not given in some private colleges. These afford no real break or rest. They should, where possible, be cut out and a corresponding number of days given in July, when work is impossible.

Every student should be required to make a deposit of caution money as English students do at the English colleges. This is most necessary for many reasons. For the last three years caution money has been levied in the Lahore Government College with most excellent results; but a few months ago the late Lieutenant-Governor of the Punjab ordered the Principal to discontinue the practice on the amazing ground that caution money was not levied in other colleges. Improvements introduced into the Government College are generally adopted as far as possible in other colleges, and it is a new and strange idea of a Model College that it must never adopt any measure not already accepted in the colleges to which it is meant to serve as a model. The interest on student's caution money should be available for college
prizes, and should not be appropriated by Government, which insists on applying to these deposits the rule of the Civil Accounts Code.

Scholarships are supposed to be awarded for two years from the 1st of May, but the scholar receives his scholarship only from the day on which he joins a college, although it is often impossible for the student to join on the 1st of May because the University results have not been published.

There is so much official routine that scholarships for May are generally not paid until October. This is a great hardship in the case of poor students. The Accountant-General should pay on the Principal's certificate that the student has gained a scholarship and joined the college.

The distinction between these should be abolished. The student is compelled to guess in which subject he will score 40 per cent. marks, and in which 33 per cent., and is often plucked simply because he guesses wrong. Hence two students may take the same subjects and gain exactly the same marks in each; but one passes and the other is plucked.

All college candidates should be required to attend a two years' course of lectures.

Comparative statistics of passes from colleges should not be published.

Residence should be compulsory.

The tutorial system should be introduced, and, to make this practicable, the students should be resident, and the Professors should live in or near the college compound.

Affiliated colleges should be required to provide recreation grounds for their students.

Matriculation candidates have never had a long vacation in the course of their lives; they work at high pressure up to the day of the Entrance Examination; and yet they are expected to join colleges and enter upon a course of hard study for a degree at once as soon as the Entrance results are published. Those who have gone through the
exhausting strain of the F. A. and B. A. Examinations are similarly required to enter at once, as soon as the results are published, upon the still harder course of study for the B. A. or M. A.

These examinations ought to be followed by a long vacation — the longer the better.

The main consideration seems to be, not the mental and physical health of the student, but the earliest date at which he can obtain a pass and a Government post.
Mr. S. Robson.

Substance of the remarks made on the occasion of the visit of the Commission to the Government College.

It is unfortunate that so few of the students are present. The University examinations have just been concluded, and the students of the M.A., Fourth Year, and Second Year Classes have gone home. Only the Third and First Year Classes remain.

The staff of the college is expected to conduct the University examinations without remuneration, and this very irksome work comes at a time when rest and change are specially needed. The staff has to work from 16th October to 31st July practically without a break, and might reasonably expect a brief holiday while their students are being examined by the University.

The staff of the college includes four European Professors, all graduates in Honours, two of Cambridge, one of Oxford, and one of Edinburgh; and four Indian Professors, one a graduate of Cambridge, and the remaining three Masters of Arts of the Punjab University. An Assistant Professor of Biology—a Master of Arts of the Bombay University, Lisbon Scholar, and Dakshina Fellow of the Elphinstone College—has been appointed, and will join on the 1st of May.

The Government College has no Professors of Oriental Languages, and the students are instructed in these subjects by the staff of the Oriental College which is located in some of the Government College class-rooms. This arrangement is by no means satisfactory. In Arts Faculty Examinations students are required to translate from and into English, and to explain passages in English, and therefore they cannot be efficiently taught by men to whom English is an unknown tongue. The teachers of Arabic, Sanskrit and Persian belong to the staff of a different institution, are not under the control of the Principal, and are not available for any duty outside the class-rooms, such for instance as the working of the tutorial system which is now to be introduced.

Another objection to the location of the Oriental College classes in the Government College building is that it brings into the college a crowd of boys over whom the Principal has no authority and who are under no supervision outside
the class-rooms. This mixture of students in the college grounds seriously hampers the Principal in his endeavours to become personally acquainted with the 50 or 60 fresh men which each successive year brings into the college.

There is much in the work of a college regarding which it is impossible to find out anything by walking through the class-rooms and inspecting the laboratories, much indeed which it is difficult to put down in words and which appears only in the life and character of the students whom the college sends forth into the world. It seems necessary therefore to indicate very briefly something of what is being done for the students of this college apart from the instruction they receive in the class-rooms.

The students are divided into eight groups, each of which is put under the charge of a Professor and meets two periods weekly for readings, recitations, essays, speeches, discussions. After three weeks with one Professor the group is passed on to another, with the group register which shows what each student has done; and thus each Professor is brought into contact with all the students. This gives the students invaluable practice in the use of English as a living language, and they are asked to read and think about the subjects prescribed for essays and speeches. The essays are examined by the Professor, read aloud, criticised by the other students and finally by the Professor.

There is a Voluntary Society, the members of which bind themselves to practice translation and re-translation daily, and another whose members undertake to speak only English so far as this is practicable. There is a Union Club to which every student in the college subscribes eight annas per month. These subscriptions pay for the papers and magazines supplied to the reading-room, and for cricket, football and tennis gear.

The Library is open for 3½ hours daily, and considerable use is made of it. There ought to be a whole-time Librarian, so that the books might be available for all students during vacant periods. The Debating Society is in a very flourishing condition. It meets weekly, and the Professors take in turn the duty of being present. The President is a student who is elected for one term only. The syllabus of subjects for the term is
printed in advance and a copy given to every student.

House examinations are held three times a year, and prizes are awarded on the results of all the examinations held during the year. This encourages steady consistent work all through the course.

A scheme for endowing prizes has been started and the endowment already exceeds Rs. 3,000. It is hoped the amount will soon be Rs. 10,000, a sum which would probably suffice for the purpose. From this year the Local Government has agreed to give Rs. 100 annually for prizes.

There have been several dramatic representations. Sheridan's "Critic" and a part of the "Midsummer Night's Dream" were the last two pieces acted.

The Union Club holds an annual social gathering, at which the Professors are present as guests. The members are photographed in groups; all feast together in the Hall, and the feast is followed by eloquence and music.

The tutorial system is just being introduced. A very practical difficulty is that some of the Professors live very far from the college. The Principal lives in the college compound, and exercises direct personal supervision of the Boarding House. There is also a Superintendent who lives in the Boarding House, the gates of which are locked at night so that neither ingress nor egress is possible. Hindus, Muhammadans and Sikhs live there amicably together, and intimate friendships are often formed between students of different creeds. This is in itself no small education.

A European Assistant Surgeon who lives quite near is in medical charge. For trifling ailments students go to him; serious cases he sees in the Boarding House.

Strict discipline is enforced. No student is allowed to be absent without leave, to overstay vacations, or shirk examinations.

Caution money has been levied for the last three years with excellent results, but it has lately had to be discontinued by order of the Local Government, which, however, allows a Library deposit. The interest on these deposits ought to be available for prizes, but the Civil Account Code requires that they shall be deposited in the Government Treasury which pays no interest.

In the course of the year the Principal endeavours to invite every student at least once to badminton parties at his house.
Some members of the staff take a keen interest in all that concerns the well-being of the students, invite them to their houses, advise them as to their reading, lend them books, visit them when ill, and so on. One coached the actors in their parts, and another coached the cricketers and athletes.

No system of dogmatic theology is taught here, but punctuality, regularity, cleanliness, obedience, respect for authority are inculcated, and an endeavour is made to train the students to be manly, truthful, and straightforward. They seem to be zealous in the performance of their religious duties and to have a fairly high standard of morality. Their conduct is generally unexceptionable.

A College Magazine confined to record is now published annually, and every student of the college is required to furnish himself with a copy. It is also supplied to all members of the Graduates' Union.

There are three tennis courts, two cricket grounds, two football grounds, and a gymnasium with a Gymnastic Instructor.

There are three Cricket Teams, four Football Teams, and one Hockey Team. The Secretary of each Eleven keeps a register which is submitted weekly to the Principal.

The Gymnastic Team has won the gymnastic trophy six years running in the Punjab University Tournament. It includes two M.A. students, one of whom has taken the M.A. degree in Mathematics and is now reading for it in Physics.

The Cricket Team has carried off the cricket trophy the last two years. This Eleven made a tour last November, and played matches at Delhi, Agra, Aligarh and Phillour, all of which were won. Two members of this team are M.A. students, one of whom has taken the M.A. degree in Chemistry and is now reading for it in Sanskrit.

College Athletic Sports are held annually, and there are competitions for each class as well as a competition open to the whole college. The prizes are subscribed for by the members of the staff. For old students there is a Graduates' Union, and social gatherings are held quarterly.

In the matter of bringing the college into touch with other institutions something is accomplished by the recently established College Conference. This is
informal and unofficial, but extremely useful. The membership includes the Principals of the Government College, the Forman Christian College, the Dayanand Anglo-Vedic College, the Islamia College (all in Lahore) and St. Stephen's College, Delhi; and several members of their staffs. This Conference has already suggested to the University several measures of reform, some of which have been carried, and some are still being discussed. It has also drawn up inter-collegiate rules which are accepted by these five colleges, and which in some measure supply the want of such rules enforced by the Punjab University which has neither affiliation nor inter-collegiate rules.
Note by Mr. S. Robson on the present arrangement of College terms and University Examinations.

The University examinations are held in the latter half of March, and a student is supposed to begin his course on the 16th of May. In that case he works from 16th May to 31st July, from 16th October to 15th March from 1st April to 31st July, and from 16th October to 28th February,—16 months in all. But, as a matter of fact, some students do not join on the 1st of June, and some not until the middle or end of June. The student loses half March in his first or third year, and March, April and half of May in his second or fourth year. Moreover, this term includes the month of July twice, i.e., two months, the work done in which is of no value and highly injurious to the student.

Further, in order that a student may receive lectures during 16 months of his two years' course, the college staff has to lecture for 19 months, because for 3 months out of the 19 work is carried on with only First and Third Year Classes. This involves useless waste of time and energy. The folly of pulling half work in March and full work in July cannot be exaggerated.

The scheme I suggest is as follows: the University examinations should be held from the 1st to the 8th of October. The session would begin on the 16th of October, and it should be made compulsory for all students to join on that date unless prevented by illness. The term would then be from 16th October to 30th June with a break of a fortnight at the beginning of April, and the same in the following year—16 months in the two years' course, and the same as the maximum under the old scheme, without working a day in July, but working half March and half April in the first year, half April and half May in the second year instead of two Julys, and gaining a break of a fortnight in both years.

F. A. and B. A. candidates going on to study for the B. A. or M. A. would have a week to rest before joining the college. They would be allowed to join the Third Year and M. A. Classes provisionally, pending the publication of the University results, as is done in the Medical College.

Besides transferring the work of two unhealthy Julys to March, April and May, this scheme would have another great advantage: the student after the conclusion of his college course would have
three clear months, instead of a fortnight or three weeks, in which to digest the notes he had taken during his course, and he would be able to do this in Kashmir, in some hill station, or in any other healthy place he might select, and the work could be done leisurely and thoroughly. This would do away with the necessity for that pre-examination cramming at high pressure which disgraces our present system.

The Punjab University fails to secure the best men as Examiners, because in March they are fully occupied with the examinations of other Universities. This is a very great loss. The change would enable the Punjab University to secure the best Examiners, and many of these Examiners would then be at leisure and able to do their work more quickly and more efficiently.

*Measured in work* this would be again of two months, because the work now supposed to be done in July is useless and worse than useless.

A long monotonous grind is fatal to all good educational work, and this scheme secures at least a break of a fortnight in April.

It gives the students three months (instead of a fortnight or three weeks) to revise and digest what they have learned, and in the most bracing climate they can find.

It brings all the classes together at the same time.

It would avoid the physical injury caused by forcing young students to do hard brain work in a Lahore July.

It would give the staff more time for private study.

It would enable the University to secure better Examiners.

The Matriculation Examination should be held in April or the beginning of May. The results would be published in June, but the students would not join the First Year Class until October. After a long school course during which he has worked six hours a day for six days in the week practically without vacations (two weeks annually in Primary schools and four weeks annually in High schools), the young growing boy needs a rest—*the longer the better*. Under the present system the fresh man when he comes up is physically and mentally unfit to enter upon a long and arduous course of study.

The subjoined table shows the old and (proposed) new schemes at a glance.
<table>
<thead>
<tr>
<th>Old Scheme</th>
<th>New Scheme</th>
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<tbody>
<tr>
<td>16th October—28th February</td>
<td>No change</td>
</tr>
<tr>
<td>Half March</td>
<td>Full work</td>
</tr>
<tr>
<td>Full work</td>
<td></td>
</tr>
<tr>
<td>College closed for University examinations including preparation of rooms and removal of examination furniture.</td>
<td>Full work</td>
</tr>
<tr>
<td>Half March</td>
<td>Class-work with First and Third Years only.</td>
</tr>
<tr>
<td>April</td>
<td>Full work</td>
</tr>
<tr>
<td>Half May</td>
<td>No change</td>
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<tr>
<td>June</td>
<td>Full work</td>
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<td>Full work</td>
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<tr>
<td>July</td>
<td>Full work, but of no value and highly injurious to students.</td>
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<tr>
<td>Vacation</td>
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<tr>
<td>August</td>
<td>No change</td>
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<tr>
<td>September</td>
<td>University examinations.</td>
</tr>
<tr>
<td>October 1st—15th</td>
<td>Rest for candidates</td>
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<tr>
<td>October 1st—8th</td>
<td></td>
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<tr>
<td>October 9th—15th</td>
<td></td>
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<tr>
<td>Total in 2 years 16 months' class-work, effective work 14 months.</td>
<td>Total in 2 years 16 months' class-work, a gain of 2 months' effective work.</td>
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INDIAN UNIVERSITIES COMMISSION, 1902

Punjab.


I. The Punjab University is, within a limited scope, a teaching institution. The Oriental and Law Colleges are under the direct control of the Senate, and are fulfilling a need not elsewhere provided for within this Province.

It does not seem to me practicable for this University to assume teaching functions for the benefit of undergraduate students in Arts, Science and Medicine.

(a) Existing arrangements for undergraduate study, while not perfect, are nevertheless as efficient, in my opinion, as any that would likely be maintained by the University; where defects exist the Colleges involved may be depended upon to remove them.

(b) The several Colleges should be left, within certain limits, which may easily be outlined and emphasized in a code of wisely devised affiliation rules, to do their work upon their own lines. The University should see to it that the several Colleges really do what they claim to do. If this important function of the controlling body be wisely and vigorously exercised, it will be in the highest sense fulfilling the duty of a teaching institution.

While believing that undergraduate teaching work will be best left to the direct control of the Colleges, under the general control of the University, I am of opinion that in the case of all Postgraduate study, the University might with advantage assume direct responsibility. Here classes are comparatively small and specialization important. For such teaching a corps of Professors appointed or recognized by the Uni-
versity would seem most desirable. In addition to this provision for higher work, the University might advantageously institute courses of lectures to be delivered by gentlemen specially qualified for such service. These lectures, while not designed to afford definite assistance to the student in preparation for examinations, might deal with subjects of study in such manner as to be of very great advantage to him. Such lectures should be open to all undergraduates, and, indeed, it might possibly be wise to make attendance upon them compulsory.

Honours Courses.—It is suggested that these be introduced for those students who may elect to undertake such work, and who attain a certain minimum in the Intermediate Examination. In the interests of good scholarship, this is perhaps a thing to be desired, though there remains in my mind some doubt as to the wisdom of permitting more specialization previous to the B. A. than is admitted under existing rules. Granting, however, the desirability of instituting such higher courses as will secure the separate and more special training of the brighter men, it is my conviction that this, too, should be left to the several Colleges, and that the University should content itself with the supervision and control of this work. If the standard fixed be high, only the well furnished Colleges can undertake Honours teaching; but I think these should be allowed to do so. In the interest of economy and efficiency, where there are more than one College in the same neighbourhood, such inter-College arrangements can, I believe, be made as would prove most satisfactory. In this manner much useless expenditure of time and money would be avoided, more efficient teaching upon the whole might be secured, and, above all, a community of work and interest would do much to destroy (if such there be) any objectionable feelings of rivalry or competition between neighbouring institutions.

II. Constitution of the University.—

1. Fellowships should, in no case, be given by way of mere compliment.

2. In the Punjab University the maximum number should not be greater than one hundred and twenty, or the minimum less than ninety.
3. Fellows might be of the following classes:

(a) Ruling Chiefs, who evince an interest in the subject of education;

(b) About two-thirds of the whole number to be appointed by Government;

(c) A representative from each affiliated 1st grade College;

(d) One-fifth of the whole number to be elected by the Senate;

(e) A very limited number to be chosen by graduates from amongst themselves.

4. All appointments and elections should be for a period of, say, five years.

5. In order to the introduction of this or any similar scheme, all present Fellows should cease from office, and the way be thus opened for new selections.

III. The pressure of competition and the consequent temptation to devote attention to the supplying of the student with such materials as will ensure his success in the examinations is exceedingly detrimental to the quality of the instruction given in our Colleges. The most practical method of dealing with this evil would seem to be that of improving the quality of the examinations. Toward the attainment of this I would suggest two things, neither of which is entirely free from very obvious difficulty; but neither is, in my judgment, wholly unworkable. The University should see to it that the examinations be of such a character as will effectually prevent the student who has merely memorized his texts from passing. In order to do this—

(a) Moderators should be provided, who might be expected to enforce the University's ideal as to what sort of questions should be employed in testing the candidates;

(b) Those engaged in actual teaching of the students should be largely employed as Examiners.

Obviously a teacher should neither act as a Moderator or set a question paper until after his lectures to his classes have been completed. Such arrangements in the case of some examinations
are, I believe practicable as would make it possible for teachers to perform these duties within a fortnight or three weeks of the opening of the examination.

IV. Each University should have a definite sphere of influence. Over-lapping will inevitably result in interference with that effective supervision which it is so desirable that the University should exercise over all affiliated institutions.

V. I am not in favour of the fixing of a minimum age limit for the Matriculation Examination.

VI. Students in an affiliated College should be taught to regard themselves as connected in a definite sense with the University. The latter might, with advantage, arrange for the organization of inter-College Literary or Debating Societies. Participation in such societies might be made compulsory.
Additional Note by the Reverend Dr. J. C. R. Ewing.

The practice of requiring students, in all cases, to appear a second time in those subjects in which they have previously secured pass-marks, is, in my opinion, detrimental to sound education. This requirement works injury by imposing upon the student the depressing task of retaining in memory the technical details of texts which he has once fairly mastered. His gain from this drudgery is exceedingly small, and yet his time is necessarily so occupied by it that he is precluded from the most thorough and vigorous work upon the one subject in which he is specially deficient.

It would probably be unwise to grant the privilege of exemption from reappearance in examination in all cases. Only those who have done well in all subjects, save one, and in that have attained a respectable minimum, should be freed from further test in the subjects wherein they have once been declared successful. If, for example, a candidate gain enough marks in the aggregate to entitle him to a place in the Second Division, but fails in one subject, he should be examined in that subject alone in the succeeding year.

Were this rule to be adopted, such unsatisfactory and cumbersome devices as "grace marks" and "the reconsideration of answer papers" might with advantage disappear. We should thus place the "failed" student in a position wherein he might be reasonably expected to thoroughly master that portion of the subject prescribed. His time and energy for an entire year could be given to that particular work. This being true the University may fairly insist upon a good degree of proficiency, and the minimum pass-marks should be considerably higher than that fixed for the subject when taken in conjunction with others. Such insistence upon good work, with such opportunity for specialization, would unquestionably be productive of better results than we are accustomed to witness under the present system, where the man who has failed, it may be, only a mark or two, is obliged to take up the old load with little prospect of anything but a mere pass after a year, spent for the most part, in re-doing what he has done fairly well before, and into which he finds it almost impossible to enter with any degree of interest or enthusiasm.
In my experience as a teacher in this country I have known many instances, wherein the application of a provision of this nature, would unquestionably have produced most satisfactory results. It is difficult to conceive of any case in which such a plan could operate otherwise than beneficially.
Note by A. W. Stratton, Esquire, Ph.D., Registrar, Punjab University, and Principal, Oriental College, Lahore.

1. On the desirability of instituting honour courses.

1. The University of the Punjab has never attempted to prescribe one course of study for all candidates for non-professional degrees, nor has it held that any one course leading to such degrees can be devised which is indispensable for all students or adapted to the needs of all. It allows students great liberty in selecting what they are to study. Certain restrictions it imposes: every candidate for the degree of B. A. or B. Sc. must in all his examinations take English; every candidate for the degree of B. O. L. must similarly take Sanskrit and Arabic; and candidates for any of these degrees must take Mathematics, History and Geography in the Entrance Examination, and Mathematics in the Intermediate. On the other hand, English is not required at all in the courses leading to the degree of B. O. L. In the B. A. Examination the only restriction has been that one subject shall be one of those held to be fundamental in certain lines of study, namely, on the literary side a classical language (Sanskrit, Arabic, Persian, Greek, Latin or Hebrew) or on the Science side a branch of Mathematics (Pure or Applied) or a branch of physical science (Physics or Chemistry). The last-mentioned of these restrictions has recently been removed, and a candidate for this examination may hereafter take, e.g., English, Botany and Zoology. In the examinations of the Science Faculty every encouragement is given to special study within the range of Mathematics and the physical and natural sciences to the exclusion of the classical languages, Philosophy, History and Political Economy.

2. The University does not recognise the pursuit of one rather than another of these courses as entitling a man to be considered an educated man,
Its only concern is in the several faculties and in the several alternative subjects of study to demand as nearly as possible the same degree of mental effort. Believing fully in the principle herein followed I wish only to point out how the object aimed at may be more fully attained.

3. In our College classes generally there is such inequality in the ability and attainments of the students that a teacher is quite unable to do what he would wish either for the best or for the poorest of them. If he consults the interests of the better students, the others are not prepared to follow him, and at the same time they fail to get a clear understanding of the more elementary matters, which with suitable methods of instruction they might secure. If on the other hand the teacher, for the sake of the less proficient students, recurs again and again to matters long familiar to the brighter men, the latter not only fail to receive the inspiration in their work which a teacher should give, but may even because of the teacher's attitude lose all lively interest in the subject. The same courses and the same methods of instruction are not suitable to these two classes of students.

4. The one hope of improvement in this respect is, it appears to me, in the institution of honour courses. In this way students who are particularly interested in special lines of study will be enabled to pursue those studies unhindered by the men who are duller generally or less proficient in those particular subjects.

5. For the present, at least, and until the experience gained in our University gives rise to a general sentiment in favour of an extension of the system to the Intermediate Examination in Arts, I would only suggest that such courses be instituted for the B. A. Examination. I am not of opinion that there is any need to establish such courses in the faculties of Oriental Learning and Science. In the first place the number of students in the classes is in these faculties so small that the teachers are able to consider the needs of individual students. In the second place the courses prescribed, as compared with those of the Arts Faculty, are essentially specialised and advanced courses in Oriental Literature.
and the Sciences respectively. Candidates for the degree of B. O. L. take with two B. A. courses in other subjects the M. A. course in Sanskrit or Arabic. Candidates for the degree of B. Sc. must in each laboratory subject give as much time to practical work as is required of candidates for the M. A. in that subject.

6. With reference then to the Faculty of Arts I would propose—

(a) that for the present, at least, no change be made in the scheme of studies for the Intermediate Examination, all students being required to take English, a classical language (or Persian) and Mathematics, and being allowed to choose the fourth subject, as at present;

(b) that students who follow successfully the courses at present prescribed for the B. A. Examination receive a pass degree;

(c) that honour courses in a certain number of subjects be instituted for the B. A. Examination; and

(d) that no student be admitted as a candidate for honours in any of these subjects unless he has obtained a high percentage (60 or at least 50) of the marks in a specified (the same or a related) subject of the Intermediate Examination.

(a) that each honour course be more than equal in extent and difficulty to two of the present B. A. courses, and that whatever studies essential to intelligent and thorough work in any honour course have not been provided for in the Intermediate Examination should be included in that course, e.g., a certain amount of advanced Mathematics in the honour course in Physics;

(3) that candidates for honors in any subject but English be required to take the pass course in English, and that candidates for honours in English be required to take one pass course in another subject (I should prefer to say a classical language or History or Philosophy); and
(4) that every candidate for honours must in order to secure his degree obtain pass marks (33 or 40 per cent.) in his pass subject and marks entitling him to honours in his honour subject.

7. Such honour courses, if established, would, I believe, generally attract the ablest students, whose influence would distinctly count in favour of scholarship in the whole body of students. At the same time for the sake of such good men as might prefer to take a pass course I should wish to see the present three “divisions” maintained. Within these three divisions of the pass list and in the classes (presumably two) of the honour lists I am strongly of opinion that there should be no attempt to rank in order of merit. The best men stand least in need of the incitement of competition and may well be satisfied with a success which others may share. Indeed it appears to me that by lessening the temptation a student has to view his class-fellows as his rivals we may encourage in him the love of knowledge for its own sake.

II.—On the means by which instruction in honour courses can best be provided.

8. The instructors in our Colleges are generally required to give so much time to class-room work that no College, so far as I am aware, could, without strengthening its staff, hope to provide fitly for the instruction of honour classes. If our B. A. Colleges, desiring to take part in the highest teaching work in the University, should for this purpose so strengthen their teaching force, it is obvious that much money would be needlessly spent and that the results would be altogether less satisfactory than those that might be gained by combination of forces. But apart altogether from financial considerations it appears to me that it would in itself be most unfortunate to have Colleges competing to secure for their men places in the honour lists. The efficiency of our several Colleges is generally believed to be judged by the student body and by the public according to the success of their students in the University examinations. A teacher cannot forget that he is preparing men for a competitive examination, and to the extent to which he is influenced by
this consideration his men fail to be imbued with the love of learning for its own sake. Such competition in the highest ranges is deadening to the intellectual life of a University.

9. There are three ways in which, without any undue burden falling on the Colleges and without unhealthy competition among them, suitable provision might be made—

(1) A staff of University Professors or Lecturers might be appointed, whose work as teachers would be, mainly at least, with the B.A. honour classes and the M.A. classes. Candidates for honours in the B.A. Examination would be enrolled as students in one of the recognised (affiliated) Colleges in Lahore, might influence and be influenced by the corporate life of their several Colleges and would receive in them instruction in their pass subjects, but the University alone would provide the opportunities for honour work. Honour students would pay to the University through their Colleges a fixed sum for instruction in their honour work and the use of the University laboratories and libraries.

(2) The University might appoint for specified terms, re-appointing, if it deemed advisable, such Instructors in the several Lahore Colleges as it considered best qualified to be University Lecturers. A sum to be agreed upon would be paid by the University to the College to which each such Lecturer belonged. Otherwise the arrangement would be identical with the first.

(3) The several Lahore Colleges might from time to time, subject to the approval of the University, arrange for providing the necessary instruction and laboratory facilities by co-operation. The Colleges would in that case determine the basis of the financial arrangements.

10. The first of these methods would secure the greatest continuity of service, and, with the establishment of well equipped laboratories and libraries, would
in the truest sense give us in the higher work a teaching University. The expenditure, however, that would be involved even for the payment of salaries, to say nothing of buildings and equipment, is altogether beyond the means at the disposal or within the expectation of the University. Only with substantial endowments from friends of education and liberal grants from Government could such a scheme be carried out. The second would be less expensive and might be better adapted to the organising of honour work in subjects which might not be taken every year. The third would, I believe, best satisfy those men who, connected with existing Colleges and devoted to the causes they represent and anxious to remain identified with them, would yet wish and might be expected to share in the proposed work. Besides, it has this merit that it would make the best use of the men and materials we now have in the Colleges of Lahore, and would with little change in existing arrangements secure not a little of the desired improvement.

II. For my own part I see no reason why, beginning with approved inter-collegiate arrangements for some subjects and temporary appointments of men in Lahore for others, we should not aim at the gradual establishment of University Professorships. We have indeed even now in the Oriental College the means of providing University teaching in the Oriental Classical Languages.
Punjab.

Note by the Reverend J. W. T. Wright, M. A., Principal, St. Stephen's College, Delhi.

Such suggestions as I should venture to offer are alluded to in the form addressed to you, amongst others, by Government, viz., that the University should be not merely an examining but also a teaching body; and that due attention should be paid to the election of Fellows and to the constitution of the Syndicate. Also that Affiliation Rules should be carried and enforced; and that all possible provision should be made to encourage the better development of discipline and sound learning in the University.
Para. 3. The question whether Universities should be teaching bodies is one on which I have heard much discussion in connexion with my own University, the University of London. It appears to me that the question whether the examining body and the teaching bodies should be the same or different is one of which the importance has been very greatly exaggerated. I have never seen reason to believe that where, as in London, there were already efficient teaching bodies, their utility would be greatly increased by their being united with the examining body. I was educated at University College, London, and I graduated at the University of London, which was entirely a distinct body; the College gave high education, and I do not consider that the education suffered in any way through the separation of the College from the examining body.

The Punjab University is already a teaching University (through its Oriental College and its Law College), and may under its Act of Incorporation and Statutes be so to any further extent which the Senate sees good. But, as Lahore is already not scantily supplied with collegiate instruction, I should doubt if any good would be done by an extension of the teaching operations of the University.

To one thing I should certainly be opposed, and that is, to a rule requiring that candidates for degrees should receive instruction from teachers appointed or recognized by the University. This, unless the University took over all the Colleges in the area over which it operated, would seem to prevent such Colleges from appointing whom they thought fit as their professors; and even...
if the University had absorbed all the Colleges, it would seem to imply the extinction of the "private," or non-collegiate, candidate for degrees; and I see no reason why he should be extinguished.

4. The assignment to each University of a "sphere of influence," so that bodies within that area wishing to be affiliated to some University should be affiliated to that one within whose sphere they were situated, would seem to be desirable, as tending to prevent a waste of time and force in organizing examinations, &c., at a needless distance from the centre.

5. I see no good in the existence of a long list of names of Fellows of whom but a small proportion attend the meetings of the Senate and many are probably appointed merely from compliment. If indeed those who receive the compliment become in return for it liberal pecuniary supporters of the University, the compliment may be practically justified; but I do not know whether it is the fact that they do, and even if it is, I would ask whether the same result might not be obtained by their nomination to some other title, not carrying with it the duty of sharing in the government of the University.

I think it is possible that the graduates of each University might take greater interest in it and feel more one with it if they were allowed to elect a certain number of the Fellows.

I observe that the "note of points" does not even hint at the question whether some share in the government of the University might not be given to the graduates. In the University of London, for many years past, the graduates (or such of them as chose to pay a small fee) have formed a body—there known as Convocation—which held occasional meetings and suggested changes in the University, for the consideration of the Senate; and although the actual powers of that body were very small, its influence was not unimportant, and several changes of moment which were effected by the Senate—notably the admission of women to degrees—were suggested to it by the graduates in Convocation assembled. The existence of such a body certainly tends to strengthen the attachment of graduates to the University and their interest in it,
and I do not know why there should not be a like institution in the University of the Punjab and in other Indian Universities.

6. As to the Syndicate in the Punjab University I see no ground for suggesting any change. I see no reason why all Syndicates should be placed on a statutory basis. I do not think that the assimilation of all Indian Universities to one type is by any means a result which it is desirable to aim at.

7. There seems no reason why a Fellow should be assigned to one Faculty only, and in the Punjab University he may be assigned to several if his qualifications are such as to render him suitable for several.

To add to the Faculties "recognized teachers" and graduates in honours would appear to be merely augmenting the Senate afresh, whereas there seems reason rather for diminishing it.

In the election of certain members of the Senate by the graduates, in the University of London, regard was paid to the separate Faculties, so as to keep a certain regular proportion among the number of elected Senators representing the different Faculties. This seems to me a reasonable arrangement.

8. A Register of Graduates, kept up to date, would certainly be desirable for the election of Fellows, and also if it were proposed to give the graduates, as suggested above, a share in the government of the University.

The proposal to confer an M.A. or other degree on a teacher from another University is a part of the system of Honorary Degrees, the whole of which, to my mind, is objectionable. I am sorry that the University of London, as reconstituted, has departed from its ancient practice, by which a degree in any subject meant really proficiency in that subject, and not some service rendered to the world otherwise, or the fact that the recipient was one whom the University delighted to honour. If there were a degree kept solely for a recognition of general merit, it would be very well; but I think it is not well that "Doctor of Literature" or "of Law" or "of Oriental Learning" should be of utterly uncertain significance, importing now that the bearer is proficient in that subject, now that he is or
has been a successful General, or an admirable Lieutenant-Governor or an eminent Statesman.

9. Whether or not the University is generally responsible for seeing to the moral and physical welfare of College students, otherwise than to that of private students, may be open to question. It is of course bound to do no harm to either, as it may do, if, e.g., its examinations impose, year after year, an excessive strain on the nervous system. But there are some special reasons for suggesting a duty owed by the University to College students (1) where the University conducts the College, (2) where the University, by requiring attendance at College lectures as a condition of admission to the examinations, necessitates the student’s being a student of some College and not a private student. Both these points apply to the Law College of the Punjab University, and are of importance in connexion with the strong wish of the Law College students for a College boarding house.

This subject connects itself with the question whether it is well for the University to require attendance at College lectures as a condition for graduating. It is considered, I believe, that thereby the student is subjected to a certain degree of College discipline, which is calculated to have a beneficial tendency. Against this are to be set the following facts:

(1) Such discipline may not necessarily extend to more than presence for an hour or two a day in a College class, the student coming to the College for his necessary lectures and leaving directly after.

(2) Such rule compels many men—of whom some perhaps might study in their own homes—to come to town and live, in the absence of a College boarding house, in what I understand are often highly undesirable lodgings, with perhaps more damage to their characters than can be compensated by the benefit derived from the brief College discipline.
(3) It probably adds to the expense of graduation, and therefore, in the case of a poor student, to the difficulty of it.

(4) It tends to bring into the class-rooms men who are not present because they value the instruction given, but only because they are bound to put in a certain number of attendances, and who consider that their success is really much more dependent on their private study than on their class lectures and look on the time of their attendance at class as comparatively wastage. A lecturer might address himself with more satisfaction to smaller classes if composed solely of men who came because they wanted to learn and thought that the classes would be helpful to that end.

10. The remarks under this head about English suggest the inquiry whether it is well that English should be "the" medium of instruction in History and Science. Considering that the Punjab University states as its very first object "the diffusion of European Science, as far as possible, through the medium of the vernacular languages of the Punjab," it might seem natural to enquire whether it is now possible, and desirable, for instruction to be given and examinations to be held much more largely in the vernacular than was possible when the University was originally founded. Many subjects which then could be taught only by Europeans could (perhaps) now be taught by graduates of the University in their own language.

I do not claim any experience on the subject, but I was struck by the remark in Sir John Strachey's book on India (Edition of 1894, page 191). "The bare statement of the fact that little can be learned in our Colleges except through the medium of a foreign tongue goes far to explain their comparative failure"

As to provision for the comparative study of religions, this may be good, but I apprehend that it ought not to be spoken of as theology. The subject of the latter study is the nature of God, while the subject of the former is man's opinions about God.
II. The only suggestion I would wish to make in connexion with the working of the examinations is as to the desirability of some check on the examiners to prevent the inconvenience and dissatisfaction, if not the positive injustice, that occur when an examiner happens to set a paper differing very widely from the ordinary standard, especially by exceptional severity, by which the candidates' labours not only in the subject of that paper but in all the other subjects may, for that occasion, be practically rendered useless.

As regards the standard of the Law Examinations I apprehend that the Punjab University has not altogether a free hand, inasmuch as its law classes and examinations are resorted to, not, I think, to any great degree from a desire to gain University distinctions, but because they are, under the rules of the Chief Court, the passport to the legal profession. Therefore the great question for students is, what the Chief Court will require, and if the University altered its standard of requirements and did not gain the concurrence of the Court—so that the new standard of the University Examination was not the professional standard—I do not imagine that very many students would trouble themselves about the University standard.

I incline to doubt whether the standard of the Law Examinations is not rather too severe, especially through omitting to take sufficient account of the distinction which is well put by Professor Holland, in his work on Jurisprudence when he remarks that "while legal Science is capable of being intelligently learned, isolated legal facts are capable only of being committed to memory." No doubt it is not always easy, while remembering the distinction, to give practical effect to it, but I have thought, on looking over examination papers, that students are asked too many questions on isolated facts not involving knowledge of legal principle—questions, the answers to which it is not at all essential that a practitioner should have in his mind, provided that he knows where he can turn them up at a minute's notice. Most of us know that a good part of the information we want in life—say, e.g., the addresses of all our acquaintances—is not worth committing to memory: that it would burden a memory whose powers after all are limited and would not even then be
so safely known as if looked up in a book of reference when wanted. There are things in law (and in very many other subjects of study) of the same nature, and I doubt if sufficient care is taken to avoid tempting (or requiring) students to burden their memories with such things.

12. I should think that the work of the Registrar of a large University is quite enough to occupy the attention of one man, without the office of Principal of a College being annexed to it.

13. Under this heading I propose to speak only of the Law College, which is one of the two Teaching Institutions of the Punjab University:

(a) The number and the qualifications of the teaching staff have been stated in detail in answer to the Circular sent by Mr. Bell. The subjects taught include—in addition to those stated in the University Calendar for 1901, pages 249, 250, viz. the subjects required for the Preliminary, First Certificate and Licentiate-in-Law Examinations—the following also:

1. The one special subject (Law of Limitation) required for the Intermediate-in-Law Examination in addition to the subjects of the Licentiate-in-Law Examination.

2. The subjects required for the LL.B. Examination,—see pages 258, 259.

(b) The students now number about 150, of whom 17 only attend Vernacular Classes.

(c) The building is a house rented for 2 years from 1st April 1901. It is not at all a dignified building, being one in a line of buildings mostly used for shops, and itself adjoining a coach-builder's premises much inferior in appearance to the rest of the street. It is sufficiently spacious, but it is by no means such a building as any one can be contented with who would like the
students to be attached to their College and to feel a pride in it. It is much to be wished that there were a permanent building, and one of a worthy character.

(d) The constitution and rules will be found in the Calendar, pages 366 et seq.

(e) The College is stated in the Calendar (page 477) to be supported entirely from the funds of the University—that is to say, the University pays all the expenses of the College—at the same time taking all its receipts (the admission fees and the tuition fees). In former years the receipts considerably exceeded the expenses, so that the College was a source of income to the University. With the declining financial condition of the legal profession in recent years, the attendance at the College has fallen off and it is now a source of expense.

(f) There is no provision for the students outside the class rooms, except that they can read in the College library. Proposals for the establishment of a boarding house and for the provision of a recreation ground are now before the University.


Lastly, I think that a minimum age limit for undergoing the earliest University Examination would, if practicable, be a good thing and would tend in the direction of preventing excessive mental strain. But it would of course be useless or worse than useless to fix a limit on paper, if in practice it could be evaded through misstatements as to the actual age of candidates, and unless there are the means of preventing this, it would be undesirable to make any such change.
The remarks which I propose to make apply for the most part to matters connected with Medical education in the Punjab.

(1) Preliminary Arts Examinations.—For many years the Entrance Examination was the standard accepted for admission to the L. M. & S. Classes in the Medical College, but it was eventually found to be insufficient chiefly owing to its deficiency as a test of the candidates' knowledge of English. We found that the fact of a student having passed this examination gave no guarantee that he had a living knowledge of the language. It was found that students were unable to understand lectures in English at first and thus lost much valuable time.

In the Entrance Examination the oral test in English consists of reading only, and apparently it is possible for a student to pass the examination without being able to speak English at all fluently or to understand it when spoken. The marks allotted to the oral examination in English are 10 only out of a total of 150. The Intermediate Examination was then adopted as the standard, and it too has the same defect, although to a less degree, as students are required to write English "with a fair degree of accuracy." For the profitable study of Medicine a good knowledge of English is necessary, and the Entrance Examination might easily be improved in this direction. At the same time it would greatly facilitate the study of Medicine if students were required to take Latin as their classical language in the Arts Examination.

(2) Should the University take an active part in teaching?—Speaking entirely from the point of view of
medical study I do not think that much advantage would be gained by the appointment of University Professors or Lecturers. The classes in the Medical College are already so large as to be to some extent unwieldy, and if in a subject, such as Chemistry or Biology, University Lecturers were appointed, their classes would in all probability be too large for efficient teaching even if accommodation could be found for them. My experience has convinced me that, in the case of Indian students especially, the teaching of the subjects forming the Medical curriculum to be effective must be practical and objective.

Didactic lectures on these subjects are becoming more and more discredited from year to year in the Schools of Medicine in Europe and America. I do not therefore think that much advantage can be expected in so far as Medical education is concerned from an extension of the functions of the University in this direction.

Laboratories, not Lecturers, are required, and if the University will assist in this direction it will be doing a real service to Medical education. The University should in my opinion insist on due provision being made for effective teaching in all recognised Colleges, making this a condition of recognition. At present I do not think the University does its duty in this respect.

(3) Boarding-Houses in connection with Colleges.—It is undoubtedly most desirable that accommodation of this kind should be provided for students; establishments where they would be under some sort of disciplinary control during the time when they are not attending classes. The success of any institution of this kind lies mainly in its supervision; unless adequate supervision is arranged for no benefit would accrue. In the case of the Medical College students it should be remembered that they are for the most part young men, not school boys. They come to us after they have passed through other Colleges and should therefore be better able to take care of themselves. Many of them come from Colleges already provided with boarding-houses, and one would naturally expect that the results of their training there would be apparent in their conduct; but this is not so satisfactory, speaking
in a general way, as one would desire. It would be a great advantage if proper accommodation were provided for out students, and this might be better effected by private enterprise than otherwise.

(4) Examinations.—The Medical Examinations of the Punjab University are unsatisfactory. The papers in the written examinations are set by examiners selected from amongst the Professors in other Medical Colleges in India, or other specially qualified persons who have no part in the teaching of the students. We have therefore some examiners in Bombay, some in Calcutta and some in Madras; so that it is not possible to hold any meeting of examiners at which the merits of doubtful cases can be discussed.

The question is partly one of geographical position and partly of remuneration. The remuneration offered to examiners is so small it is often a difficult matter to secure the services of persons who are experienced in examinations, the result being that the papers vary a good deal in standard and are not always very judiciously framed. In other Indian Universities the difficulty is not so great as they are situated in large centres where the services of properly qualified examiners are more easily obtained. It is scarcely necessary to urge the importance of this point especially in medical examinations, and if the University is to maintain the reputation and standing of its medical degrees it will have to increase its expenditure under this head.

(5) Degrees and Diplomas in Medicine.—At present the University grants the degrees of M. D. and M. B. and the diploma of L. M. and S. in Medicine. It seems to me that it is anomalous and unnecessary for the University to grant a diploma which does not carry with it the status of a degree. I am aware that the same practice is followed in other Indian Universities, but this fact does not justify it. There should in my opinion be, as in all British Universities, two degrees obtainable by examination, viz., the M. B. and B. S. At present the only distinctions between the M. B. degree and the L. M. and S. diploma are that for the former candidates are required to have graduated in Arts or Science before commencing their medical studies, whilst in the latter they are only required to have passed the Intermediate Examination in Arts. For the
M. B. degree candidates are required also to attend lectures on Comparative Anatomy and to pass an examination in this subject at the first University Examination in Medicine; this condition not being required in the case of candidates for the L. M. and S. diploma. The unification of the examinations for the M. B. degree and the L. M. and S. diploma would, I think, be a step in advance, and as a separate qualification in Surgery is necessary the degree of Bachelor of Surgery should be instituted.

These points gain increased importance from the fact that many students of the Medical College after completing their courses of study have to go to England to get further qualifications there, and it is consequently desirable that the degrees and curricula of this University should be kept as much as possible in line with those in England. I should not omit in connection with this subject to point out that the candidates for the M. B. degree and L. M. and S. diploma have to pass examinations which are identical in every respect, except in so far as the subject of Comparative Anatomy is concerned, as already mentioned. The same set of questions answers in both cases in all the subjects of examination, a condition which seems to me altogether anomalous and undesirable. I would therefore recommend that there be only one examination and one degree, viz., the M. B., to which should be added a Bachelorship in Surgery to be granted after a special examination in Surgery.
Punjab:

Note by Lieutenant-Colonel D. St. J. D. Grant, I.M.S., M.B., M.A., B.Ch., F.C.S., D.S.M., (Dublin), Professor of Chemistry and Toxicology, Medical College, Lahore, and Chemical Examiner to Government, Punjab.

The points I would like to lay before the University Commission are the following:

I.—The teaching of Science in the Province is not satisfactory, the practical side being neglected, with the result that it is made a cram subject, and its great advantage as an educational instrument is lost.

With the exception of the Government College, no institution, as far as I am aware, is in a position to teach Science practically. The University should insist on certificates of bond fide practical courses for the F. A., B. A. and M. A. Examinations.

The University has not suitable places or apparatus for carrying out the examinations in Science in which a large number of students present themselves, and the practical examinations can only be described as a farce.

II.—Elementary Science (Dynamics, Hydrostatics and Pneumatics) with a higher standard of Mathematics should form part of the F. A. Examination. At present students, when they first enter the Medical College, are so ignorant of these subjects that they are unfit to commence the curriculum, and much valuable time is wasted in giving them the necessary elementary instruction.

III.—The Senate is swamped by Fellows chosen for any reason except fitness for the position. Fellowship of the University should carry no secondary social advantages such as rendering Fellows Darbāris.
IV.—The establishment of a University College, the lectures of which all undergraduates should attend, the other institutions remaining secondary teaching bodies, would insure a suitable standard of instruction.

V.—Affiliation of all teaching bodies to the University is to be desired.

VI.—The University should have its own examination buildings.
INDIAN UNIVERSITIES COMMISSION, 1902.

Punjab.

Note by Lala Hans Raj, B.A. (Punjab), Principal of the Dayanand Anglo-Vedic College, Lahore.

NOTES.

I. Teaching University—

(a) The Punjab University is already a teaching University in law and Oriental studies. The Law College and the Oriental College are in no way better managed than the Arts Colleges which are only affiliated to the University. Following are the reasons:—

(1) Very few specialists as teachers.
(2) No boarding house or one of an ordinary nature.
(3) Nothing to encourage corporate life.
(4) The miserable condition of the Vaidic Class.
(5) The work of the students not upto the mark. Grammar defective and no deep scholarship.

The work of the diffusion of Sanskrit knowledge has been well done by the Oriental College.

(b) I do not think we can have a teaching University on the side of Engineering. The reasons are:—

(1) The Government cannot be expected to provide funds for the establishment and maintenance of an institution which will only be an imitation of the Roorkee College.
(2) The Engineering Classes in the D. A. V. College and the Mayo School of Art do not prepare students for the Second Examination in Civil Engineering.

(c) I cannot say anything about the Medical College.

(d) On the Arts side, I am not in favour of the University taking up teaching work before the B.A. Following are the reasons:—

(1) Arts Colleges are scattered all over the province and the appointment of University lecturers to deliver lectures at Lahore will be to ruin them. To arrange for lectures at different centres is to make the work of the lecturers inefficient.
(2) Drilling work is to be done upto the B.A. Standard.
(3) Specialization begins after B.A. and it is only then that a University lecturer can prove most useful.
(4) The University ought not to enter into competition with existing Colleges.
(5) The number of students that will flock to the University lecturers will become unmanageable.
(6) Every College has got an ideal which it cannot be expected to forego.

(e) I am not in favour of a few College lecturers being recognised as University lecturers and their lectures being opened to all Colleges, for the following reasons:—

(1) The task is very delicate and to do so will be to make invincible distinctions.
(2) As the Mofussil and private Colleges are not adequately represented on the Senate, they will suffer most.
(3) Students will naturally like to join Colleges whose professors are recognised and that will be to give an artificial encouragement to admissions. This will be subversive of all competition.
(4) It will necessitate the equalization of fees which will be a serious matter to the Colleges concerned as well as to the students.
(5) The arrangement of time table in different Colleges will become an impossible task.

(6) Students will be put to great inconvenience when going to and fro.

(7) The number of students will become unmanageable.

(8) The University will not be effecting much by this recognition of certain lecturers.

I am not in favour of the institution of the Honors Course in F. A. and B. A., and making it compulsory for the Honors students to read with University lecturers.

(1) The present course is sufficiently stiff and I do not see any reason for adding to it even in the case of brilliant students.

(2) It is not so much teaching as proper direction and the habit to work that make a good student. Such a student can distinguish himself by taking his degree in the first division.

(3) The institution of an Honors degree without an increase in staff is useless.

(4) The proposal that Honor students should read with certain recognised professors is to tell them to read only with European professors and join the Government College or if they like to study in an unaided College to pay increased fee and expose themselves to the heat of June and July when going from one College to the other.

(5) The difficulties of the Mofussil Colleges will increase very much.

(g) The Punjab University can profitably extend its teaching functions by taking up the work of the M A. Class.

(1) The number of students will not be very large.

(2) The students require high and special instruction at this stage.

(3) University lecturers will have fit pupils to teach and teaching will become more efficient.

(4) The Principal of the Oriental College can be made available for Sanskrit students. One or two professors can be spared by the Government from the Government College. The University can import one or two first class men from England if the Government help.

(h) The University can help to a very large extent in fostering corporate life and giving sound education:

(1) By the establishment of a University Library and Reading Room.

(2) By the establishment of Inter College debating clubs.

(3) By the establishment of a scientific museum.

(4) By the institution of a system of occasional evening lectures in the premises of the University.

(5) By insisting on the better management of College Boarding Houses. The institution of the University tournament has resulted in much good.

(i) A real teaching University implies a University controlled and managed by teachers engaged in University work and represented on the Senate without any other consideration besides that of educational influence and efficiency. I doubt whether the Government can fully accept this principle.

II. Senate and Faculties.

(1) Clause 4 (c) of the Act of Incorporation be given effect to.

(2) The graduates of the University should be given the right of electing a certain number of Fellows to the University.

(3) Affiliated Colleges should be given the right of being represented on the Senate.

(4) Fellowships ought not to be complimentary.
(5) Every member of the Senate should continue to belong to one Faculty or the other. Any one who cannot be safely put on any faculty is not fit to become a member of the Senate.

III. Students of the University.

(1) Professors should have as at present the right of not promoting students to the 2nd and 4th year classes but they should not possess the power of keeping back a student from the University Examination because there is no probability of his success in the Examination. It will prove injurious to the interests of education.

(2) University should insist on the physical education of the students. It should direct all Colleges to make exercise compulsory on all students. Before sending up boys to the University Examinations, Principals should be required to certify that the candidates have regularly gone through a course of physical exercise.

(3) Boarding Houses should be better looked after.

IV. University Teaching.

(a) English—

There is no doubt that Punjabi students are generally weak in English. The University has tried to improve this condition of things by rendering pass in translation and composition paper compulsory. It is also proposed to prescribe a text book in English for the Entrance Examination. The evil can be remedied—

(1) By commencing the study of English at an earlier stage than at present, say, in the 2nd Primary.

(2) By eliminating Persian from the scheme of studies of the Primary Department of Anglo-Vernacular schools.

(3) By teaching History in English in the Middle Department.

(4) By eliminating Mensuration from the scheme of studies of the Middle Department.

(5) By securing some highly educated and competent men as headmasters on high salaries. Some bright Punjabi youths can be trained by Government for this purpose in an English University.

(6) The multiplicity of subjects in the Entrance should be reduced by permitting no student to take up more than four subjects viz. (1) English (2) a vernacular (3) Mathematics (4) a classical language, or Persian.

(7) Marks assigned to English should be increased.

(8) History and Geography should be taught in the High Department and a few questions on the subject should be included in the paper on English. No separate paper should be set on the subject as it encourages cram. But better text books ought to be prescribed.

(9) No board school ought to have more than 25 boys in any class.

(10) In colleges themselves, greater attention ought to be paid to composition and translation.

(b) Classical languages of the East—

The great defect in the study of Sanskrit is that the University does not insist upon the study of Sanskrit grammar. Students pass by committing the translations of texts to memory.

(e) Vernacular—

Students know Vernacular as little as English. They have no taste for its study. The University regulations induce students to leave its study just at the point when taste is being developed for it. It is most unfortunate when one of the chief objects of the University is to develop Vernacular literature.
(d) History, Political Economy and Geography—

In the Entrance classes, students are simply disgusted with the cram work they have to do in connection with this subject. Its study is uninteresting. In the First Arts, intelligent students do not take the subject. Its marks are less than those of Science and its text books do not give anything which an intelligent student can not learn without the help of the Professor. Some text book in History should always form a part of English Course and a book on political economy should form a part of the F. A. History Course. Its marks should be raised to 150. The B.A. Course is in its trial. The subject has got no position in M. A.

V. Affiliation Rules —

None doubts the necessity and advisability of Affiliation Rules but they should be framed in a spirit of sympathy and catholicity. Denominational institutions are springing up in the province, combining religious education with secular instruction and they are exactly the kind of institutions required in the country. Rigorous rules rigorously applied will blight the prospects of denominational education. I urge that—

1. There should be no interference with the scale of fees. Our ideal should be free and sound education and not one based on "give and take" principle.

2. Teachers should be judged not merely by the salaries they receive. Academic qualifications should count for much but work should also be considered.

3. The managers of an infant institution cannot provide a good building at the outset. Its provision should be left to a later period in the growth of an institution. In fact the Government should be the first to come forward with an offer of contribution for the building.

VI. Minimum age limit for the Entrance Examination.—

I am not in favor of it for the following reasons:—

1. 3821 students have appeared in the last Entrance Examination. Out of them 391 are below 16. Even out of them a good number is short by a few months. The evil is too limited to require any special legislation.

2. There being no arrangement in schools for the instruction of boys after they have passed the Entrance Examination, under age boys, however brilliant they may be, will have to spend one or two years of their life to forget what they had learnt in the previous year.

3. Indian students who gain Government of India scholarships will not be able to compete for the Civil Service.

4. If there are dullards among boys below 16, there are as many, if not more, among those who are above 16.

I think, however, no preference should be given to under age boys and therefore I wish that the Clause in the Code which gives preference in the award of scholarships to a boy of lower age should be removed.

HANS RAJ.
The Indian Universities Commission.

SUGGESTIONS BY LAJPAT RAI,
Honorary Secretary, D. A. V. College Managing Committee, Lahore.

The special objects for which the Punjab University was incorporated are given on page 35 of the last Calendar (Statutes).

Taking them categorically, little or nothing worth speaking of has been done to achieve the first object up till now. Very few good books (whether Educational or General) have been translated, prepared, or published by or at the cost of the University, and practically no encouragement has been extended to those who were inclined, as well as qualified, to do this work. Towards these objects the University spent only Rs. 570 in the year 1899-1900 out of its general funds—Rs. 5,988-4-0 having been spent during the same period under the head "Endowed Readerrships and Translatorships." The University claims savings to the extent of Rs. 1,36,423 under the head "Current Account." At least Rs. 25,000 out of this amount should be voted for the improvement and extension of vernacular literature, and an annual grant of Rs. 10,000 should be provided in the Budget for at least ten years to come. These grants must be equally distributed between the 3 vernaculars of this Province, viz., Urdu, Hindi and Gurmukhi, and it should be made worth the while of literary men to produce good and substantial books (both Educational and General) in these vernaculars. A competent and efficient Committee, composed of members who are qualified both by tastes as well as by the amount of leisure which they can command, should be appointed to recommend (a) books for translation or reproduction, (b) subjects for compilation, (c) books for approval, (d) arrangements for their publication. The annual report of the University should make a special mention of the work done and results achieved by the University under this head of its duties.

The regulations for the grant of Endowed Readerrships and Translatorships should be so altered as to ensure the selection of such graduates only as pledge themselves to a life of literature or teaching. The candidates, as at present selected, use these Readerrships or Translatorships as stepping-stones for entering Government service or the profession of law. The period also for which these readerships and translatorships are tenable should be extended to 5 years at the least.

The third object of this University is said to be an enlightened study of the Eastern classics and the teaching of the Arts courses through the medium of vernacular.

An enlightened study of the Eastern classics and the teaching of the Arts courses through the medium of vernacular is apparently maintained to achieve this object as well as No. 5. That the Oriental College has till now substantially failed in attaining object 5, will not, I suppose, be seriously contested. In fact it could not have been otherwise. The fact that in the last 20 years not even one student has taken his M. O. L. Degree in any subject other than Sanskrit and Arabic carries its own condemnation. In Sanskrit also only one student has taken Arabic. As for the other examinations it sounds ridiculous to prepare students for the Arts Examinations through the medium of vernaculars. The idea is not ignoble, but the state of the vernaculars renders its successful realization impossible. A glance at the list...
of the subjects prescribed for these examinations will show the truth of this observation. To successfully deliver lectures on such subjects as Higher Mathematics, History, Political Economy, European Philosophy and Natural Science, you require specialists of a very high order, experts in their own branches of learning, competent to express themselves in vernacular. That it is impossible for the Oriental College to secure the services of such men at the low salaries that are now paid for the same, even if such men be available from amongst the Indian graduates, is a truth which no one is likely to deny. Not to speak of the Oriental College, even the Arts Colleges in this Province have not (except in one or two instances) been able to attract specialists of the 1st or 2nd class. Under the circumstances, there is naturally a strong consensus of intelligent public opinion to the effect that this attempt has proved futile and ought to be discontinued. The growth of our vernaculars is a question of time, and unless that time arrives it seems to be a sheer waste of money to attempt to attain the impossible. The savings thus effected would be well spent towards the accomplishment of the 1st and 2nd objects, i.e., the improvement and extension of the vernaculars. The 1st object would also be better served by the Readers and the Translators in Natural Science, &c., being required to deliver a number of specially prepared lectures on popular scientific subjects to popular audiences in different cities of the Province. These lectures might well, in the course of time, take the place of "University Extension Lectures" delivered under the auspices of English Universities. As to object No. 3, I think the Oriental College has not been altogether without use, although radical changes are required if an effective realization of the object is aimed at in this branch of its work. I can only speak with regard to the teaching of Sanskrit in the Oriental College. The College has, in my opinion, supplied a class of fairly intelligent Sanskrit teachers to the schools of the Province, although the system under which these gentlemen are instructed in Sanskrit is so radically defective that, the efforts of last 30 years notwithstanding, the enlightened and systematic study and knowledge of Sanskrit has not made any appreciable advance in this Province. Even now, whenever a specialist is required in any of the different branches of Sanskrit Philosophy, in Vakaranas (Grammar), or in the Vedic literature, you have to look to other Provinces to supply the want.

One of the special objects of the D. A.-V. College is to encourage and enforce the study of "Classical Sanskrit." In the year 1901 it had 4 Sanskrit Professors on its staff in the College Department. The senior of them was a Bengali Pundit, a distinguished scholar of the Sanskrit College, Calcutta, and a noble type of specialist in the Darshana Philosophy of India. The other two, claiming scholarly attainments in the two Mimansas, received their higher education at Benares. The 4th was an M. A. of the Punjab University employed to help the students in getting up their text-books for University examinations. The D. A.-V. College authorities have had very frequently to advertise for specialists in Sanskrit Grammar and in the recitation of Vedic mantras, and almost invariably the applicants whose claims were favourably considered were Pandits of other Provinces who owed nothing to the Oriental College. If the Oriental College is really intended to promote an enlightened study of the Classical Sanskrit, it must undergo radical changes, both in its staff of teachers as well as in the course of reading, in the quality of the former and in the system of the latter. It must have renowned Sanskrit scholars, specialists in the different branches of Sanskrit learning, on its staff, must pay them well in order
to induce them to stay, and must adopt a scheme of studies which is calculated to impart sound and substantial knowledge of the Sanskrit language and literature, of its philosophy and its science, of Hindu religion and ethics, of Hindu laws and Hindu sociology. If the financial state of the University renders the realization of the scheme impossible, or impracticable, then the best course would be to utilise the funds at present applied to the teaching of Eastern Classics to the making of liberal grants to unaided private institutions which at present exist or which may hereafter be opened for imparting an intelligent knowledge of the same. Because it should always be remembered that the principal endowments of the University having been received for these objects, they cannot be utilised for other purposes without laying the authorities open to a charge of breach of faith.

With the courses of reading prescribed for the various Examinations in Sanskrit language and literature, whether on the Oriental or on the Arts side, I will deal hereafter. The treatment which the University has till now accorded to the teaching of the Ayurvedic system of medicine is also hardly in keeping with the importance given to the same in the original scheme of the Oriental College.

Another, rather, objectionable feature of the Oriental College is the teaching of Hindu scriptures on the system of the oriental scholars of the west, such as Ludwig, Roth etc. One cannot reasonably expect non-Hindu Professors to follow, and regard with respect, the traditional meanings that are attached to Vedic texts and formulas, in the commentaries of pious Hindu commentators. It is useless moreover to expect a rational understanding of the Vedas by students who have neither studied Vedic Vyakarana nor Nirukta, Jyotish, Chhanda, &c., which are called the Vedangas, and without a knowledge of which no one can approach a proper study of the Vedas. The result is that neither Professor nor student can do justice to the most holy and most revered of the Hindu Scriptures. The system is open to serious objection on religious grounds. It shakes the faith of the Hindu students in their scriptures and tends to demoralise by forcing them to learn meanings in which they do not believe, and to answer question accordingly. In no case should Vedas form part of the courses.

On the Arts side it is not practicable to convert the Punjab University into a teaching body, unless it is proposed to convert the Government College into a University College for preparing M. A. students or students preparing for Science degrees. Even in that case the personnel of the Government College will have to be materially changed, and the salaries and the prospects of the staff will have to be appreciably raised, to induce competent scholars (both of European and Indian reputation) to accept the different chairs of Literature and Science. As things stand at present, the only practicable steps that can be taken immediately are—

(a) The strengthening of the Science Department of the Government College by the addition of some more chairs. There should be at least two Professors of Physics, two of Chemistry, one of Botany, one of Zoology, one of Geology, and one of Physiology. The Government College timetable of the Science classes will show that at present the Science Professor can only spare three periods a week to lecture on Physics to the M. A. class and so on.
The throwing open of the lectures of these Professors to the students of all the affiliated Colleges.

It is neither necessary nor expedient to adopt the system of Inter-Collegiate lectures. The differences in the abilities and the capacities of the Professors and lecturers at present employed in different Colleges of this Province are not so marked as to render the system of Inter-Collegiate lectures of much practical use. In fact, the number of students that receive their education in the 3 principal Arts Colleges of Lahore is so large, as compared with the number of Professors who are engaged to lecture to them, that at present the idea does not seem to be worth even a trial. Besides, in the Punjab there is only one non-denominational College. All others are denominational, each having a religious mission of its own. It will not, therefore, be free from objection to adopt a system of Inter-Collegiate lectures in these Colleges. It is not right to assume that all European Professors are superior to all Native Professors, and when I say that, I do not make an exception even in the case of teaching English.

In the Lahore Colleges the system of teaching English seems to me to be very defective. It mainly consists in giving notes and in teaching by paraphrase. One of the most popular Professors of English in Lahore, a European, has made a reputation for giving an equivalent expression for almost every word that occurs in a text-book. He solves every difficulty for the students, and enjoys a popularity in coaching up students for that subject. On the other hand, I know, as a matter of fact, that students enjoy the privilege of learning English at the feet of European Professors have often been anxious to get hold of the copy-books of the students of the D. A.-V. College containing notes given by the Indian Professors of English employed in that College.

In my humble opinion a Professor of Language and Literature can efficiently teach only a limited number of students. The Punjab graduate is generally deficient in a knowledge of English, the main causes of which are the following:

(a). The foundations are very slender. A Punjabi boy reading in a Government Primary School has to study three foreign languages—Urdu, Persian, and English. To this may be added Arabic or Sanskrit if he belongs to a Mohamedan or Hindu denominational school, respectively. He has thus to keep four languages up to the Entrance.

(b). The service of the Education Department is not sufficiently paying to attract graduates of high standing.

(c). The number of students with each teacher in the schools is generally too large to allow of a language being efficiently taught.

(d). The strain to which a student is put in learning History and Geography, by rote, is too heavy to allow him a margin, to devote time and thought to the cultivation of a taste for accurate writing and speaking.

(e). The teaching in the Colleges also is not as sound as it should be.

(f). The number of text-books that a student has to get up, and upon which a Professor has to lecture, is too large to allow of the Professor and the student devoting sufficient attention to the art of accurate writing and speaking.
The teaching of Sanskrit in the School Department admits of improvement.

The teaching of Sanskrit is perhaps even more defective than that of English. Neither the Department nor the University seems to have yet realised that nobody can acquire even ordinarily correct knowledge of the Sanskrit language without having a good knowledge of Grammar as the basis of his studies in Sanskrit. In this matter the Punjab is at a great disadvantage as compared with the other Provinces, where a good knowledge of the real vernacular of the Province and its grammar precedes the study of Sanskrit. A knowledge of the Bengali, Marathi, Gujarati or Hindi grammar makes the task of a student of Sanskrit easier, while a knowledge of Urdu grammar makes it still more difficult and arduous, if nothing else.

In the Punjab University an effort is made to teach Rig Veda to students who have not studied Laghu Kaumudi, not to speak of Panini, Nirukta, and the Maha Bhashya.

For the Punjab University Arts Examinations a student of Sanskrit proceeds to read modern Sanskrit, drama, and poetry on the slender basis of Dr. Bhandarkar's 1st and 2nd Books of Grammar prescribed for the Entrance Examination.

In the text-books on Sanskrit prescribed for the F. A. and B. A., one finds no trace of "grammar," although there is mention of grammar in the subjects of examination where grammar occupies only a subsidiary part of the paper on poetry, the whole paper carrying 75 marks out of 150. The same is the case with the Examination for the degree of B. A. From modern prose and poetry in Sanskrit a student at once proceeds to the Vedas, overlapping the Sutra, the Epic, and the Brahmana periods of Sanskrit literature. It is no wonder then that the Punjab graduate's knowledge of Sanskrit is most shabby and hollow, and does not even enable him to understand an ordinary book of Sanskrit beyond the text-books read by him for the examination. The case is different with Arabic. The rules prescribe standard books on Arabic grammar both in the Entrance and the F. A., and there is no attempt to force the student to take a leap from modern Arabic to ancient and archaic Arabic, covering a distance of several centuries, possibly several thousands of years. The same can be said of Persian. Why should there be an exception in the case of Sanskrit alone is beyond comprehension, specially when Sanskrit is admittedly one of the most, if not the most, difficult, the most complex, and the most grammatical of all the languages, and still more so when the Sanskrit of different epochs is governed by different formulae and rules of grammar, and when the transition of the language from the archaic to the modern form covers an almost unimaginable distance of time and embraces a vast literature marked by the special peculiarities of each period in the history of its development.

In my opinion a book on Sanskrit grammar should be prescribed for each of the Arts Examinations, and a substantial proportion of marks should be assigned to this branch of the subject.

The hymns of the Vedas should be omitted from the Degree courses and a graduated course of instruction in Sanskrit Philosophy and Sanskrit laws should be introduced, or special courses of study, consisting of selections on the model of the Arabic
course for the B.A., should be prepared. It may be noted that no portion of the Quran forms part of the selections prescribed for the B.A. Examination.

The 3rd subject, which is the most neglected in the Arts Examination, is **History and Political Economy.** The way in which the candidates are examined in this subject is most faulty. Every Indian graduate should know at least the history of his own country thoroughly. 1stly, the teaching of the subject should be more intelligent in the school, although I am opposed to any paper being set in History and Geography in the Entrance Examination. This will to a great extent lighten the strain that is now put on the memory of the students, who will have more time for acquiring real proficiency in the languages. 2ndly, in the higher University Examinations it should be included in the list of compulsory subjects. So far as the First Arts is concerned the subject should be divided as follows:—

(a) Histories of India and England;
(b) General outlines of the Histories of Ancient Greece and Rome; and
(c) Elementary Political Economy.

In the Degree Examination one should expect a very thorough and critical knowledge of the periods that may be prescribed. I have a little experience of the teaching of History of India, and I can say that at present, with the prescribed text-books on History, the students resent rather than appreciate good and critical lectures based on information other than that given in their text-books. Such lectures are more an infliction to them than a treat. Experience tells me that they generally pass by committing to memory ordinary school books, including catechisms, &c.

(1). **Examinations:**

(a). I would abolish the Middle School Examination altogether.

(b). I would retain the Matriculation for the general body of students, but I think partial trial should be given to the system of allowing affiliated Colleges to admit non-matriculated students to their classes by holding an examination of their own, as is now done by the Civil Engineering College, Roorkee.

(2). I would confine the Matriculation to the following compulsory subjects:—

(a). English.—(In the Arts Examinations of the London University, English History and Geography form one subject with English.

(b). An Eastern Classical language.


(d). Vernacular.

(3). I would retain the F.A. with the following subjects as compulsory:—

(a). English.

(b). An Eastern Classical language.

(c). History and Political Economy.

(d). One of the following:—Mathematics, Philosophy, and Science.

(4). After the F.A., I would allow the students to specialize and select only one subject for the B.A.

(5). In this case only may the Degree Examination be divided into a Pass course and an Honors course; otherwise not.

(6). I am opposed to the appointment of Moderators except in the case of the Entrance Examination.
(7). I am of opinion that a student who passes in all subjects but one, and in this latter fails by 5 marks only, should be passed without re-examination, or should be allowed to appear next year in that one subject only.

(8). The Examiners should be selected from the professors and teachers of the affiliated Colleges of other Universities.

(9). If more subjects than one are to form the course for the B.A. degree, then students should be allowed to pass their examinations by instalments in one subject at a time.

(10). All affiliated Colleges, specially the Colleges teaching up to the B. A. should be well represented on Committees that select Examiners. At present the Private Colleges are not represented at all on the Committee that selects Examiners on the Arts side.

(11) The dates of the Medical examinations are very objectionable, and have been fixed with an utter disregard of the interests of students.

In the Punjab the appointment of Fellows has probably been much more anomalous than anywhere else. A number of persons have from time to time found seats on the Senate who could hardly be called educated. A good deal of patronage is exercised in the appointments to seats on the Senate. The Principal of the D. A.-V. College, numerically the largest College in the Punjab and not much behind the best in the matter of education, had, till only recently, no seat on the Senate.

The College was recognised in 1889, and the B.A. Classes were opened in 1893. Since then the College had been showing excellent results in all the University Examinations, including M.A. in Sanskrit, but still the Principal was not taken on the Senate until, towards the end of 1899, the matter had to be represented to the authorities, and the Vice-Chancellor and the Chancellor were pleased to give a favourable consideration to this representation. Some of the senior Professors of the D. A.-V. College have been successfully preparing students for the Degree Examinations for the last ten years, but they hold no seats on the Senate, while an examination will show that American and English Professors of the Government and Mission Colleges have generally been appointed Fellows after only a year or two's service in India. Some of the members of the Punjab Commission (Covenanted) are appointed as Fellows who hardly take any interest in the University or its affairs.

The number of covenanted members of the Punjab Commission who are Fellows ex-officio is abnormally and unnecessarily large. I do not think in the Punjab any difficulty has been experienced on the ground of the Senate being unwieldy. The number of the Senate should be about 125 or 150. The Principals of all Colleges affiliated up to the B.A. and all Professors and Lecturers of more than 5 years' standing should be ex-officio Fellows of the University. The governing bodies of all Aided and Unaided Colleges should be represented on the Senate according to the size and importance of the respective Institutions. The number of representatives allotted to each to be fixed by the Senate every third year. The election of the representatives to be made by the governing bodies subject to the approval of the Senate. Graduates to have the right of electing a fixed percentage of the whole strength of the Senate. All M.A.'s and B.A.'s of ten years' standing to have the right of voting in these elections. All others to be nominated by Government, by virtue of their reputation or office, subject to the condition that only men of literary
attainments and those actively interested in the course of education, or likely to take active interest in the same, are appointed. Due regard should be paid to the inclinations and tastes of the persons selected and to the leisure at their command to enable them to render effective service. Fellowships should not be terminable except in the case of elected ones, but liable to be vacated by continued absence from meetings for more than a prescribed period.

The present representation of the Arts Colleges at Lahore on the Senate stands thus:

- Government College 6 out of a total strength of 8
- Forman Christian College 5 out of a total strength of 12
- D. A.-V. College 1 out of a total strength of 12
- Islamia College 1 out of a total strength of 8

Principals of all the 1st grade Arts Colleges at Lahore should be ex-officio members of the Syndicate, as well as Principals of the Medical and the Law Colleges (if the latter is to be retained) in its present form.

Besides these, the Director of Public Instruction, the Vice-Chancellor, and the Registrar shall be ex-officio members, and so may be the Deans of Faculties if they are not already members of the Syndicate in some other capacity. The rest may be elected by the Faculties as at present. The total number not to exceed 25 and not to fall short of 20.

The Principal Arts Colleges at Lahore are just now represented on the Syndicate as follows:

- Government College ... ... ... 3
- Forman College ................... ... 3
- D. A.-V. College ..................................1
- Islamia College ... ... ... 0

In my opinion it is neither advisable nor expedient to provide for a school of Comparative Theology in connection with the Indian Universities, nor is it desirable to found a chair of Comparative Religion in connection with each University. The promotion of a study of Comparative Religion must be left to private Colleges.

On the Arts and Oriental sides the number of Faculties should coincide with the number of subjects for the teaching of which provision is made in the several Colleges constituting the University; for instance, there should be a separate Faculty for each of the following subjects:

1. English.
3. History, Geography, and Political Economy.
4. Philosophy.
5. Physical Science.
7. Arabic.
8. Persian.

Under the present arrangement it often happens that specialists in some branch of knowledge are controlled by others not interested in, or not possessing information on, that subject. Faculties should certainly be strengthened by the addition of recognised teachers and distinguished graduates in the special subjects of the Faculty.

Boards of Studies as at present constituted do not seem to be of much use.
The present rules of the University as to who are to be allowed to join its examinations are sufficient and adequate; no alterations are needed.

Every College should be required to make adequate provisions for the physical welfare of its students.

As for their moral welfare the Boarding-house system should be extended, and, except in the case of students having guardians in the city, all should be required to live in Boarding-houses. I am not favourably disposed towards the system of licensed lodgings. This would lead to laxity of supervision and discipline, and encourage a tendency to evade the rule of residence in Boarding-houses.

(3) As for the fostering of a genuine University life, I would make the following suggestions:

(a) Inter-Collegiate debates and meetings, plays and dinners, should be encouraged.

(b) The University should provide—

(1) A common playground.

(2) A good and substantial library and reading-room.

(3) Scientific museums. They should be open to students of all the affiliated Colleges.

(c) The Sports Committee should be better organised and the Colleges should be well represented in fair proportion to the number of students in each.

There should certainly be some rules of affiliation, but—

Affiliation of Colleges

(a) There should be no restriction as to fees.

(b) Stress should not be laid on the recognition of professors and teachers by the University.

(c) There should not be any interference in the rules of management and internal discipline.

LAJPAT RAI.

Lahore:

Dated 11th April, 1902.

Musul-i'Am Press, Lahore.
Supplementary Notes

BY

LAJPAT RAI,
PLEADER, CHIEF COURT.

(An Examiner in the Law Faculty).

LEGAL STUDIES.

(1) Legal studies should be post graduate.

(2) The Course should be reduced to two years.

(3) Substantial reduction and changes are required in the prescribed Courses of reading and in the text-books.

(4) Substantial changes are required in the manner of conducting examinations. The present methods tend to encourage cram and toll very seriously on the health of the candidates. The viva voce examination as at present conducted is not of much use.

(5) The staff of the Law College is not well paid. Hence teaching not good. Teaching can be materially improved by allowing affiliated Colleges to open classes.

(6) A Boarding-house badly wanted.

(7) Legal studies ought to be encouraged by throwing judicial appointments open to the best Law graduates.

LAJPAT RAI,
PLEADER, CHIEF COURT.
Note by T. W. Arnold, Esquire, B.A. (Cantab.), Professor of Philosophy, Government College, Lahore.

One of the most serious defects in our University system in India is the subordination of teaching to examinations. The promotion of sound learning, the encouragement of a love of knowledge and the formation of intellectual habits, are aims apt to be lost sight of in the effort to secure as large a percentage of passes as possible. By such percentages the work of the Colleges is largely judged, and the Colleges are thus forced into an unhealthy rivalry, which in many cases brings them down to the level of cramming establishments. The institution of University lectureships would do much towards raising the tone of University life and introducing a higher ideal of scholarship. The attention of the students could hereby be directed to aspects of study beyond the narrow range of the prescribed text-books, and much could be done to stimulate a love of learning which might exercise an influence upon our students after they have left the Colleges. For one of the most lamentable results of our present system is that learning is often made so distasteful to our students (those at least who do not proceed to the M. A.) that for the most part they do not continue their studies after taking their degrees; while the small minority that is animated by some desire for knowledge, lacks that training in methods of study that forms so essential a part of true education; for such training is generally neglected by the Professor, owing to the fact that he has to bring his teaching down to the level of the dullest student of the class, lest the percentage of passes should be lowered by pitching the standard of his teaching too high.

If University Professorships be instituted (and such a scheme is very practicable in Lahore), I would suggest that
the lectures of the University Professors should not ordinarily be confined to the courses of study prescribed by the University, nor should they form the subject of examination, so that our students may learn to acquire knowledge for its own sake and not merely for the purposes of an examination. Such a higher ideal of learning has not been unknown among the Pandits and Ulama of India, just as it is found in Europe and America at the present day; but it is wofully lacking in our Indian Universities.

The University Professors might be appointed by the University from among such members of the staffs of the affiliated Colleges as are most fitted for such office. As far as the University of the Punjab is concerned, the choice would at present be practically confined to Lahore; but it would be a distinct gain to have higher University teaching in at least one centre of learning in the Province. The carrying out of such a scheme would imply a system of combined lectures also. This too is quite practicable in Lahore, where there is a great waste of power owing to the fact that a number of Professors are simultaneously engaged in doing exactly the same work in different Colleges.

As already indicated above, I believe that the Colleges themselves are largely responsible for the practice of cram so prevalent among our students. Cram is essentially the accumulation of information for the purposes of an examination, and if the examination loomed less in the eyes of a College, there would be room for more solid teaching. In this connection, I believe that the Government reports by publishing comparative tables of percentages of passes do a great amount of harm, and the Universities Commission might act in the interests of higher education by recommending that such statistics of the work of Colleges be omitted from Government reports. Any less adequate method of judging of higher education than statistical returns could hardly be devised, and it does infinite harm by giving prominence to an entirely false ideal.

In connection with the teaching of the Classical Languages of the East, there is one point which especially
deserves the attention of this Commission, namely, whether the Universities and the Colleges are giving that encouragement to Oriental studies which may be expected from such institutions in India. The contributions made by the Indian Universities to the sum-total of human knowledge may most naturally be expected to be in the departments of Oriental study. But, in Northern India at least, the Universities have not only done very little for the promotion of the study of Sanskrit, Persian and Arabic, but, further, many of the Indian members of the governing bodies of the Universities are distinctly hostile to these studies, in their anxiety to promote Western learning among their fellow-countrymen. It is desirable that the Indian Universities should distinctly recognise their duty in this matter, for it seems indeed preposterous that while so much excellent work is being done in Europe and America in Oriental scholarship, the Indian Universities should produce so little. The amount of work that still remains to be done in this field, in historical research, in editing texts, &c., in India is enormous, and much of it can be done in India alone; the Universities therefore ought to be training scholars to carry on this work.

In this connection, I would suggest that if the chairs of Oriental languages are to continue to be held by Indian scholars, the cooperation of such European Orientalists as happen to be connected with the Universities should be encouraged. One of the causes of the futility of much Oriental scholarship in India is the absence of a larger outlook upon the general progress of these studies and ignorance of the work that has been done and is being done in other countries, and for this a knowledge of European languages, such as our Pandits and Maulvis do not possess, is essential.

I beg to append to the communication I have already forwarded a few remarks on some of the other points to be considered by the Commission.

I am of opinion that the number of the members of the Senate should be limited, the number being fixed in each University according to the progress of education in the parts of the country that come under its sphere of influence,—this sphere of influence being territorially
defined. For the Punjab University, 100 would serve for some years to come as a sufficient number to include all the persons competent to deal with matters of higher education. Of this number a certain proportion might be appointed by Government, and the others be elected partly by the Faculties, partly by the affiliated Colleges and partly by the Graduates of the University. The aim in each case should be to associate with the University persons most competent to render efficient service to the cause of education; no Fellowship should therefore be conferred with the object of raising the social status of the recipient. But as it is desirable in India to associate with the Universities certain persons of distinguished social position, Honorary Fellowships may be instituted for this purpose, such Honorary Fellows being invited to Convocations and other public functions, but exonerated from taking a part in the current business of the University.

With certain exceptions, the tenure of Fellowships should be for a number of years,—say 5 or 7, with possibility of re-appointment or re-election. This seems a necessary corollary to the limitation of the number of the Senate; it would prevent the admission of newcomers being undesirably delayed, and enable the University to dispense with the services of such Fellows as took no interest in the proceedings of the University. This limitation of the tenure of Fellowships would render unnecessary any hard-and-fast-rule relating to the number of meetings to be attended, which might bear hardly on Fellows not resident in the University town.

It is undesirable that every member of the Senate should necessarily be a member of some Faculty. The Faculties are presumably bodies of specialists, and none but those possessing a special knowledge of the branches of study concerned should belong to them. The members of a Faculty may be elected by the Senate, but such election should be subject to the approval of the Faculty.

I am in favour of a minimum age limit being fixed for candidates for the Entrance Examination, so as to prevent school boys from being unduly forced, to the detriment of their health. At the same time I think that the standard of the Entrance Examination should be raised, so as to prevent students from
entering Colleges before they are prepared for the prosecution of higher studies.

I may state that I have been engaged in educational work in India as a Professor of Philosophy for the last 14 years, for 10 years in the M. A. O. College, Aligarh, and since 1898 in the Government College, Lahore; that I have been a Fellow of the University of Allahabad for the last 12 years, and up to 1898 a member of the Faculty of Arts and of the Boards of Studies in Philosophy, Arabic and Persian; and that since 1899 I have been a Fellow of the University of the Punjab, in which I am a member of the Faculties of Arts and Oriental Learning and Dean of the Oriental Faculty. In 1899, I officiated as Principal of the Oriental College for six months, but did not teach any of the classes.
Punjab.

Note by C. C. Caleb, M. B., M. S., Professor of Physiology and Botany, Medical College, Lahore.

1. I am of opinion that a Teaching University for the Punjab advocated is both desirable and practicable. The Punjab University as at present constituted is partly a Teaching University, since it maintains and has complete control of the administration and management of the Oriental and Law Colleges, and through the curricula and regulations for its various examinations it directs to an important extent the teaching of the Colleges which it recognises.

2. What is wanted, then, is to enlarge the scope of the University's functions in one or both of these directions, so as to bring into greater prominence its work as a teaching body in contradistinction to its present more pronounced function as an examining authority.

3. Any scheme which would suggest, much less recommend, the acquirement on the part of the University of the managing control of the Colleges, by purchase, or otherwise, must be set aside at once as an impossible scheme, and therefore the alternative we have to consider—from the point of view of its practicability—is, can the existing machinery be so modified, or the powers of the University so enlarged, as to enable it not merely to direct in a more or less remote way, but to control and supervise, the teaching work of the educational institutions already existing, with a view to promote the interests of true learning.

4. This, in my opinion, can be accomplished, and the means which I would suggest to bring it about are briefly these:—

(a) The affiliation to the University of such of the existing Colleges as the Syndicate shall deem to have satisfied the con-
ditions for affiliation laid down in a set of Special Rules which shall be drawn up for the purpose. In these Rules stress should be laid upon the following points:

(1) The academic, or other qualification for teaching, of the staff employed by the institution applying for affiliation.

(2) The provision of the laboratory accommodation, apparatus, or other appliances necessary for instruction in particular subjects.

(3) The provision of an adequate library of books on all subjects taught in the institution.

(4) The fees, charged by the institution. No institution should be affiliated without satisfactory proof that its scale of fees does not fall below a certain minimum fixed by the Syndicate. (N.B.—It is essential to this scheme, that it should be made impossible for one College to underbid another in the matter of fees.)

5. It shall be open to the University Affiliation to Faculty on the recommendation of the Syndicate to affiliate a College in all, or in one only, or in several of its Statutory Faculties up to a stated standard, and in all cases the exact affiliation shall be entered in the University Calendar.

6. To make the control and supervision of the University Recognition of Teachers as University Lecturers still more effective and to promote and foster the sentiment that the Colleges themselves are in a real sense constituent parts of the University, I would further recommend that the teachers of a College affiliated in one or more of the Faculties of the University should be recognised as University Lecturers (by name), and that such Lecturers should not be replaced by others, without the sanction, after due examination of their qualifications, of the Syndicate.
7. (b) The establishment of a system of Inter-College Lectures, given by the University Lecturers, in accordance with a previously advertised syllabus covering either the whole or part of the syllabus required for any given University Examination. These lectures should be open to every registered undergraduate, and his attendance upon the whole or part of the course he selects to attend should count towards satisfying the requirements of the University Regulations.

8. For this purpose, it will be necessary to group the affiliated Colleges together in the several Faculties in some such a way as this, and by way of illustration only:

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9. For the system of Inter-College lectures advocated and illustrated above, the following advantages are claimed:

(i) As regards Teachers, it brings into operation the stimulus of emulation and rivalry, which in process of time must lead to better work being done by them, and which is likely also to induce them to specialise in one or more departments of a subject for which, from previous training, or present inclination or facilities, they have a special attraction.
(2) As regards the student, it leaves him the freedom to learn from a living source which for personal or psychological reasons appeals to him much more than any other, and it gives him the liberty also of receiving instruction from a selected teacher, who, for various reasons, is better fitted to teach a particular subject or part of a subject, than his other colleagues amongst University lectures.

(3) As regards the Colleges, the system possesses the merit of making them stronger, better equipped, and generally better prepared to devote their attention to teaching some, and even all, of the subjects required for the University Examinations, than is at present the case. Thus, it is possible to conceive of the Medical College, giving up the teaching of Biology, Physics and Chemistry, if it can be sure that these subjects can be equally well taught in the Government or the Forman College, and concentrating its resources upon subjects of more vital importance to the Practice of Medicine; or the Government and Forman Colleges, both bringing their equipments, as regards teaching staff and practical appliances, in one or all of these subjects, to a state of perfection in accordance with modern requirements, which, in the absence of a no higher stimulus than the percentage of passes, is at present entirely wanting.

10. The objections to the Scheme are briefly these:—

(1) That time would be wasted in going from one College to another. This objection, so far as this University is concerned, need not be considered seriously. Nearly all the local Colleges,
with the exception of the Islâmia, are situated within ten minutes' walk of each other—and in any case it should be remembered that the scheme, so far as attendance upon lectures delivered at particular groups of Colleges is concerned, is entirely voluntary.

(2) That difficulties in connection with accommodation and apparatus would occasionally arise in consequence of the greater popularity of certain of the University Lecturers, as compared with others. In the event of such difficulties arising, they could be overcome in the first instance by limiting the number of undergraduates, and, in case of repetition, it may be left to be satisfactorily dealt by the authorities of the institutions (Government, University, or private), who are not likely to be found unwilling to devise ways and means to maintain and if necessary to develop the accession of popularity in their favour.

(3) That the private students would be excluded from aspiring to University distinction. Personally, I think that this instead of being an objection is a recommendation. No private student has certainly any business to go up for a Science degree, and from ordinary considerations I should be inclined to infer that a person who had not been instructed by a bonâ fide teacher, and in a suitable educational environment, was not a person to be seriously considered in a scheme of University re-organisation.

11(c). The appointment of University Professors—that is of officers directly appointed by the University and receiving an honorarium from University Funds or from Special Endowments.
In the Inter-College Scheme, I should have made it clear that that scheme was intended to be applicable to the Ordinary or Pass Degrees only, and that the work of teaching for those Degrees was to be the special function of the University Lecturers. The function of the University Professor, on the other hand, should be to give courses of lectures for "Honours" men, the University giving to each Professor a small honorarium, say of Rs. 1,000, for every course of lectures delivered.

12. These are the three chief ways in which, in my opinion, residential halls for Colleges, and the Punjab University, without the introduction of cataclysmic changes, may be converted into a Teaching University. But before concluding the subject, I wish to bring to the notice of the Commissioners the great importance I attach to Boarding Houses or Residential Halls as essential adjuncts to the fuller realization of the aims and objects of University training. I would indeed go so far as to recommend that no College should be affiliated to this University which does not possess a Boarding House, or which, within a limit of time to be fixed by the Syndicate, fails to provide residential accommodation for at least two-thirds of the undergraduates on its rolls.

13. It is the Boarding Houses which should serve to give "timbre" to the Colleges, and by means of these houses, by the strictness of their internal discipline, by the moral influences brought to bear upon the resident members, or by the religious instruction which may be therein imparted, together with such help as may be afforded by the College play-ground, that the social, moral and physical culture of the undergraduate should be attempted, the culture of his intellect being left mainly to the College Class Room.

14. In course of time it will be the traditions centering around the Boarding House—not so much the teaching imparted in the College—which will become the determining factor in helping parents and guardians to select a particular institution for the education of their sons and wards. One College
would attract men for its undenomina-
tionalism, another for its special sec-
tarian character, a third for its aristo-
cratic exclusiveness, a fourth for its
prowess at games, a fifth for its discip-
line, and so on, and each College would
thus through its Boarding House be-
come a centre of peculiar tradition and
attraction.

15. I have laid some emphasis upon
Reasons for advo-
cating Residential
Halls.

16. Under this head 1 desire to draw
University Teaching.
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prescribed text-book has been upheld in favour of the candidates by Boards of Studies.

18. Under existing conditions—that the teacher not is under conditions which make the text-book the real educator and not the teacher—it pays the student best to "get up" his text-book, and it is unfair to blame him seriously if for him the Professor's or the Lecturer's work does not possess much value.

19. To do away with this subordination of the teacher's work to the textbook, to minimise the habit of cramming which the system encourages, and to enlarge the student's own view of a given subject, I would strongly recommend that text-books should not be prescribed, but that the standard for each subject required for any given University examination should be indicated by means of a carefully drawn up syllabus—a list of books being appended to show its scope.

20. I may note that this method has recently been adopted by the Science Faculty of the Punjab University.
SUGGESTIONS

TO BE SUBMITTED TO THE UNIVERSITY COMMISSION

BY

M. A. STEIN, PH. D.

INDIAN EDUCATIONAL SERVICE, PUNJAB.

1. The points to be considered by the University Commission which have so lucidly been set forth in the note dated 10th February, 1902, of the Honourable the President of the Commission, mainly fall under two heads: those concerning the internal constitution of the Universities and their administrative bodies, and those bearing on the teaching work of the Universities.

With the former points as far as they relate to the Punjab University, I am unable to concern myself here though eleven years’ work as Registrar of the University and Principal of its Oriental College has necessarily furnished me with some experience in regard to the internal administration of that body. With respect to the latter points, however, which affect the teaching functions of the University and thus the future of academic culture in the Punjab, I am anxious to record my opinion, both as an Educational Officer and as a scholar.

2. In the case of the Punjab University it is fortunately unnecessary to consider the preliminary question as to whether it was intended that it should fulfill the functions of a teaching body. The Act of Incorporation (Preamble, and Section 12), and still more fully the Statutes, show that direct academic instruction was given a prominent place among the objects for which the Punjab University was originally constituted. A reference to the records bearing on the movement which led first to the establishment of the Punjab University College and subsequently to its recognition as an incorporated University, would prove that its originators, among them so far-sighted and cultured a statesman as Sir Donald Mcleod, clearly recognized the risks and drawbacks attending the creation in India of purely examining Universities.

2. Looking at the question from a historical point of view, it is impossible not to realize at once that in respect of their task, their means of attaining it, and their sphere of utility such institutions in India are necessarily placed in a position entirely different from that which may legitimately be assigned to them in England. There a
purely examining body might well claim to do useful work by testing, and thus indirectly guiding, the higher instruction obtained in a variety of Colleges or by private effort. Examiners, teachers and examinees connected with a body like the London University under its former constitution, are all the inheritors of a common culture that has had its slow and natural growth in the land itself, and that has permeated and moulded the minds of a long succession of generations. Those who have to prepare students for its examinations, must, no doubt, vary in attainments and abilities. But the system under which they have received their own education is practically the same, and as much the result of unbroken historical development as their common language.

In India all the conditions are different. The European science and culture which Indian Universities are called upon to diffuse, is in reality as foreign to the Indian mind as it is to the Chinese. Its introduction into India must appear a thing truly of yesterday when judged by the antiquity of the culture which it endeavours to supplant. The foreign language in which this new knowledge has to be conveyed, necessarily retards its absorption. An equally great obstacle is the deep-rooted difference in inherited notions and manners of thought which separates the Indian mind from the Western. This obstacle is all the more serious as for want of a first-hand acquaintance with the classical traditions and literatures of India upon which the whole system of Indian thought rests, it is very difficult for the average European professor in India clearly to realize, or sometimes even to suspect, the mental barriers opposed to his teaching.

Where such exceptional difficulties have to be contended with, a system of academic control which restricts itself practically to the fixing of courses and the conduct of examinations, cannot reasonably be expected to secure either thoroughness of knowledge or an early spread of those methods of thought to which we must attach more importance even than to the bare knowledge itself. The task of mental transformation which higher education in India must aim at, is an exceedingly difficult one. It is impossible to assure due progress towards its attainment under a system which fails to exercise control over the methods and means of instruction. It is scarcely necessary to point out that to test the latter effectively through examinations becomes more and more impracticable the higher the standard.

4. The shortcomings of the results which have attended the existing University system throughout India, have been
emphasized too frequently during the Com-
misson's progress to need my comments
here. But I may be allowed to illustrate
them by an observation concerning the
field of study in which as an Indologist I
am personally most interested. I have
often heard fellow-scholars occupying Sans-
krit chairs and similar positions in Euro-
pean Universities express their surprise at
the fact that with the wide spread of higher
English instruction in India on the one hand,
and with the manifest attachment of the
ducated Hindu to the traditional lore of
his country on the other, contributions of
Indian workers indicating some measure of
original research on Western lines in the
closely allied fields of Indian philology,
archeology and history are comparatively
so rare.

For those Orientalist scholars who
have had occasion on the spot to study
the working of the modern educational system
of India, this fact presents nothing surpris-
ing. During a long school and College
course almost nothing is done to systema-
tically develop the habit of historical
reasoning which is in itself so foreign to
the Indian mind, and without which critical
work in those fields is an impossibility.
The strange medley of notions which are
thus left undigested and unamalgamated in
the brain of the average College student,
has been revealed to me by many a curious
personal observation. It is only natural
that this fundamental defect of mental
training prevents even those who by
inherited interest or genuine enthusiasm
are drawn towards the great monuments of
ancient Indian culture, from ever attempt-
ing to assist the labours of Western scho-
Iars in those fields.

5. The Punjab University, for rea-
sons which it is unnecessary to discuss
here, has never been in a position to under-
take on its Arts side the teaching func-
tions provided for by its Statutes But
though its work has suffered in consequence,
just like that of the older Universities,
there seems to me to be good reason to
believe that an effort to remedy this
great defect would present here less serious
difficulties. The comparatively recent ex-
tension of advanced English education
in the Punjab has left us with the ad-
vantage that with the exception of one
or two institutions, all important Arts
Colleges of the Punjab preparing students
for the B. A. and M. A. Degrees are
centred at Lahore. Thus it is possible to
approach a scheme of Inter-Collegiate
lectures which under existing circum-
stances appears to me the only practicable
means for assuring to the University the
minimum of its needful control over higher
academic instruction, without encounter-
ing from the first the formidable objection of real, or supposed, injury to existing institutions.

6. Judging matters from a purely scientific and educational point of view, and leaving aside financial and quasi-political considerations, it has always appeared to me regrettable that the Government Colleges originally established at Provincial capitals were not, like the Medical Colleges by their side, systematically developed and raised in status until they could take their place as teaching Arts Faculties in true Universities organized after the great models of Europe. Japan proceeding on such lines has succeeded in building up in the "Imperial University of Tokio" an academic institution which by reason of its scholarly activity, the alumni it has trained, and its remarkable success in the diffusion of Western culture and science, has gained a distinguished place among the Universities of the world.

It is impossible to aim at anything approaching this standard where the teaching work of what may safely be called the most important branch of Indian Universities is divided among a variety of Colleges, widely differing in the qualifications of their Staffs, in equipment, management and aims. But it is essential to ensure at least that the methods of instruction are in keeping with the true objects of University work, and that the educational and scientific interests of the students are not sacrificed in empty competition for high pass percentages.

I believe that Inter-Collegiate lectures of Professors specially selected by the University, attendance at which would be obligatory for students preparing for Arts Degrees, would furnish a far more effective means for attaining that end than any system of inspection however elaborate. These lectures if delivered by those best qualified in the particular branch of knowledge, and dealing with those portions of the course which are most calculated to call into play and develop the power of independent critical reasoning, would not only set the standard to which the work carried on in the Colleges would have to conform, but would undoubtedly exercise also a distinctly stimulating influence on students and teachers alike.

It may suffice for the present to give in bare outlines my suggestions as regards these Inter-Collegiate lectures. They would be introduced in all those subjects taken by Arts Degrees candidates for which professors of special attainments and abilities are available in local Colleges. The appointment as University Lecturer or Professor in a particular subject would be
made only for a limited number of years (say three), but would be renewable. It would carry no emoluments beyond the salary already held by the nominee in his permanent post. The appointment would be made only on condition of the lecturer being wholly set free from all ordinary work in his College. The number of weekly lectures to be given would be restricted by due regard to the time needed both for their preparation and for their mental digestion by the students. This assurance of increased leisure for scientific work, indispensable as it is for a proper discharge of the higher duties entrusted to the lecturer, together with the more interesting nature of the work, would be the main inducement and reward connected with the appointment. The cost of "officiating arrangements" caused by this kind of "deputation" would have to be met by the University.

7. The proper selection of the most capable man for this post of University Professor would undoubtedly be a matter of greatest importance. It would be incumbent on the authorities entrusted with this responsible task to consider not merely the academic distinctions and teaching qualifications of the available candidates, but above all their capacity for scholarly work as attested by original research and scientific or literary publications. It is scarcely necessary to emphasize the fact that under modern conditions of true University study only those who are capable of independent work in their respective field of learning, can be expected to stimulate and guide in the manner indicated.

Fortunately labours of this kind if carried on systematically and on the right lines, are bound to secure distinction, at least among fellow-workers. In consequence no difficulty need be apprehended about merit and ability being recognized in the case of the proposed appointments if only the selection is entrusted to an authority (distinct from the executive bodies of the University) which can be depended upon to consult those best qualified to judge in the particular field of study.

8. It would be the duty of the University Professor to settle what portion of the instructional work would be dealt with in his lectures and what would be entrusted to College tuition. In order to ensure that the latter proceeds in harmony with lines followed in the University lectures and supplies their needed complement, it would be necessary to make the University Professor also the Head-Examiner for the time being in his particular branch of the Degree Examinations. I know that this proposal implies a total reversion of the
policy hitherto followed in the appointment of Examiners. But the suggested arrangement is one which has long been accepted as a matter of course in the best-organized and most efficient European Universities. The fact that attendance at the University lectures would be obligatory for all Degree students, removes the only serious consideration which in the case of the local University has hitherto militated against the appointment of a teacher as an Examiner. It is evident that by the proposed arrangement many of the grave deficiencies attending the existing Examination system, such as the variation of standards, the difficulty of extending the oral part of the Examinations, the Examiner's imperfect acquaintance with the candidates' intellectual level, etc., would be satisfactorily removed.

9. It is in my opinion a strong ground in favour of the suggested scheme of University Lectures and Professorships that it would not interfere with the continued existence and usefulness of Colleges, while relieving them of those highest academic functions which in their individual isolation they cannot be expected to discharge.

I believe that the Colleges constitute very important and valuable agencies for directing and controlling the moral education of students and for supplying that part of higher instruction which may be described as intellectual grounding. The present necessity of Colleges within an Indian University appears to me all the more established in view of the great divergencies in social and religious notions which divide, and for historical reasons will for a long time continue to divide, the various Indian communities. To provide for true moral training without taking into account these far-reaching differences seems to me in the existing condition of things a well-nigh impossible task, or at least one which could successfully be attempted only by a exceptional combination of mental gifts and personal devotion. The system of separate Colleges leaves a free scope for the assertion of the legitimate interests and claims of the various great communities. On this account alone it deserves the consideration of those who have to weigh also the social and political problems involved in the progress of modern education in India.

10. Among matters of practical organization closely connected with the suggested reform there are two which seem to call for immediate notice even at the present stage. One refers to the supply of qualified scholars to fill the proposed University Professorships; the other to the
supervision of the teaching work left to
the care of the affiliated Colleges.

In respect of the first point I am
of opinion that an important and attractive
task would await the Staff of the Govern­
ment College if in its organization due
attention were paid to the requirements of
the proposed University Professorships.
Considering the terms and prospects of­
fered to those members of the Government
College Staff who are recruited from the
Indian Educational Service, I think there
ought to be good reason to expect that
scholars of those superior qualifications
which I have above endeavoured to indi­
cate as conditions for the tenure of Univer­
sity Professorships, would readily be
found among them.

If in the selection of candidates for
these Government appointments it were
steadily kept in view that systematic schol­
larly training and proved aptitude for origi­
nal research work are most likely to assure
the future usefulness of the nominee as a
teacher, and if reasonable leisure and facili­
ties were given for the continuance of such
work after his arrival in India, we could con­
fidently look forward to a steady supply of
scholars eager and fully capable to dis­
charge the higher duties of University Pro­
fessors. Government by making the selec­
tion with special regard to such qualifica­
tions, and by adding if possible to the number
of College Professorships so as to include all
important subjects on the Arts side, would
indirectly and without special financial
sacrifices render most important help
towards the success of higher University
work on the proposed lines.

11. It would scarcely be expedient on
the present occasion to name the particu­
lar branches of study for which Professors of
the requisite type, would or previously would
have been, locally available. But in order
to show that given suitable selection and
some little encouragement, a steady supply
of qualified workers could be depended
upon, I may make at least a brief reference
to the evidence available in that field of stu­
dies with which personally I am best ac­
quainted. I may safely say—and my asser­
tion could easily be supported by referring
to competent fellow-students in Europe and
America—that wherever in India European
scholars have held Sanskrit Professorships
in Government Colleges, they have almost
without exception distinguished themselves
by scientific labours which have assured
to them an European reputation. It is
enough for me to mention the names of
Professor Cowell, Dr. Ballantyne, Profes­
sors Bühlcr, Haug, Kielhorn, and Peterson
which will long be remembered in the an­
nals of Indology, and to add that there are
others still holding posts in Indian College who would confer distinction on Orientalist chairs in any European University.

12. I am convinced that other branches of learning though the local opportunities and inducements for original research may sometimes be less obvious, can show equally distinguished representatives on the staffs of Indian Colleges. It is needless to speculate how much greater the number of such scholars, academic teachers in the truest sense of the word, would be if the scientific interests concerned and the needful facilities for original work were always carefully considered.

The Indian Government have on many occasions generously recognized the claims of scientific research, especially where it touches the great historic past of the country. An example may show how easily the scientific interests thus acknowledged could be furthered in connection with Educational posts already established. Original research in Indian history would undoubtedly receive a most effective stimulus if the History Professorships in Government Colleges were filled with special regard to the scholarly qualifications needed for such work. It scarcely requires explanation that a thorough acquaintance with at least one of the classical languages of India is as indispensable for original research into the history of India (preceding the last three centuries) as is, e.g., a knowledge of Latin and Greek for work in classical history or archaeology.

13. Referring to the second point above mentioned it appears to me essential in the interest of the proposed reform that the University should exercise a closer supervision than has hitherto been possible, over the teaching organization of Colleges. If the University is to render itself directly responsible for the provision of academic instruction according to the highest Arts standards, it must also be given the power to assure that the Colleges to which the important task of supplementary tuition will be entrusted, should be fully qualified for the efficient discharge of these functions.

With this object in view it will be incumbent on the University to see that only those subjects are included in the curriculum of a particular College for which duly qualified teachers as well as all necessary appliances and materials are available. In judging of the qualifications of individual teachers it will be necessary to apply the test not of academic degrees alone but also of scientific and literary work. Similar control will have to be exercised also over the arrangements on which the mainte-
nance of proper discipline and the care for the students' moral and physical welfare will depend.

14. It is manifest that this important duty of supervision over the affiliated Colleges of the future could not be properly discharged by any of the existing administrative bodies of the University. It could, however, be entrusted with full confidence to a Board, composed of the University Professors with the addition of the Vice-Chancellor, the Director of Public Instruction and, perhaps, the Deans of the existing Arts, Oriental and Science Faculties. In such a Board the best professional knowledge on the Arts side of the University would rightly predominate while the general interests of the University would also be assured attention.

15. Among the matters of internal teaching organization of Colleges which this Board would be called upon to supervise, I wish to mention here one particularly to which as an Orientalist I am bound to attach importance. At present the teaching of Oriental languages and literatures in many, if not most, of the Arts Colleges is entrusted to Pandits and Maulwifs whose acquaintance with the methods and aims of critical philology may without injustice be described as very limited. Useful as their work may be where instruction on traditional lines suffices, it can certainly not be expected to ensure the enlightened study of those classical literatures according to the historical and critical methods of the West as contemplated by the University.

For this purpose immediate supervision and guidance of their work by a scholar thoroughly conversant with Oriental philology as understood by Western students, is absolutely necessary. It would hence be a duty of the Board to make sure that in each College the services of such a scholar, whether European or Indian, are available and actually utilized for the purposes of such supervision until it is possible to hand over the tuition of Oriental classics entirely to teachers who have themselves received the benefit of a Western philological training.

16. My concluding remarks concern the necessity of increasing the thoroughness of the Entrance Examination test, in order to assure that matriculation be attainable only by students fully capable of following, and benefitting by, an University course of studies maintained at a true academic level. My remarks on this subject may be short. The serious deficiencies in the mental equipment of the stu-
Students at present entering the University are generally recognized. The question of remedying them has also, I understand, formed already an object of thorough consideration by the Educational Conference assembled at Sinhala and is likely to be dealt with before long in a definite manner.

I have had occasion to study those defects not only during my connection with the teaching work of the Punjab University, but recently also as an Inspector of Schools in the western Districts of this Province. They extend almost over the whole field of subjects taught in the High School classes, but appear to me particularly marked in English, History and Geography and the Classical languages (with the exception of Persian). The most striking features are, in English the want of conversational acquaintance with the language which very seriously hampers the student in following College lectures; in History and Geography, an often amazing indifference of the teachers to the real objects of this study; and in Oriental Classical languages a lamentable superficiality in Grammar and all that forms the foundation of a real knowledge of the language and its literature.

17. The attainment of better results in the instructional work of the High Schools can be hoped for only through a gradual improvement in the quality and training of the teachers. In this direction the University can exercise no immediate influence. But it has well got the power to protect itself against some at least of the imperfections of the existing school training.

On the one hand it might remove the temptation of entering on a University course from those passed High School students who are mentally not strong enough for an academic curriculum, by instituting, alongside its Entrance Examination, or as a portion of it, a test which would qualify for certain classes of Government employment but not for admission to a College.

18. On the other hand, the University ought to use every possible effort to render the examination of Entrance candidates by the prescribed standards really searching and effective. At present, I think, there is reason to fear that the application of the standards is by no means as thorough as it ought to be in the true interests both of the University and the candidates themselves. More than once I have been surprised to find that Schools in which the teaching of certain subjects does not rise much above a system of parrot-like memorizing, could show distinctly satisfactory pass percentages, year after year, in those
very subjects. Nor has it been an uncommon experience for me to be told that a certain Pandit whose pupils about to appear at the Entrance Examination in Sanskrit showed an ignorance of grammar such as would incapacitate an European schoolboy from beginning to read his Cornelius Nepos, and whose method of teaching, whether judged by the traditional or the European standard, as equally contemptible, almost invariably saw his candidates pass successfully into the academic fold.

19. Imperfect as every examination system based solely on written papers must be, it would be possible to prevent such serious shortcomings if an endeavour were made in every case to secure the services as Entrance Examiners of those who by attainments and educational experience are best qualified to recognize and assert the right standard. It appears certain that such an endeavour could succeed only if the work of both Head and Sub-Examineers were by an increased rate of honoraria made far more attractive than it is at present. Such an increase would, no doubt, entail a financial sacrifice to the University, while at the same time the greater thoroughness in application of the test would in all probability lead to a considerable fall in the number of those entering Colleges for higher education. But the loss in both directions would weigh but little in the balance when compared with the lasting advantage of the raised level of academic instruction.

M. A. STEIN.

RAWALPINDI:

March, 1902.
INdIAN UNIvERSITIES COMMISSION, 1902.

Punjab.

Note by A. S. Hemmy, Esquire, B.A. (Cantab.), M. Sc. (Melbourne), Professor of Science, Government College, Lahore.

A Scheme for the conversion of the existing Universities in India into Teaching Universities.

Various types of Universities exist in the British Empire in which a varying amount of teaching is done by the University. By comparing these, it may be possible to find one which can be most readily adapted to the special needs and existing conditions in India.

In no University, however, outside of India, are the functions reduced to the mere testing of candidates; even London University, upon which the Indian Universities have been modelled, has realised that in being merely an examining body it had too low an ideal, and has devised a scheme by which most of the higher teaching institutions in London form an integral portion of the whole.

Considering first of all London University, we have still a body dealing only with examinations, curricula, and standards, but the University has two sides, one, the External, examining candidates from all parts of the country without inquiry as to how they obtained their knowledge, the other, the Internal, which consists of recognised teachers of institutions in or near London, to whom is given control of the courses of studies and examination of all students of those institutions.

This scheme, although at first sight it might appear to have been evolved to meet a need similar to that which exists here, namely, to convert a purely examin-
ing body into one which takes direct cognizance of the teaching of the student, yet in reality satisfies a different need, namely, to raise the status of the highly efficient colleges in London and to allow their staffs of eminent Professors to have a part in judging the fitness of their own students.

In India it is the Colleges which require to be kept up to the mark, and any scheme by which a College examined its own students would lead to jealousy and suspicion.

The system at Oxford or Cambridge is too much the product of the past to lend itself to India; but it may be noted that, owing to the necessity of providing expensive laboratories and apparatus for teaching Science, almost the whole of the teaching in that subject is done by the University itself.

The system at Edinburgh where the University does all the teaching and does not in any way concern itself with the welfare of the student outside the lecture-room, or of Victoria University which is a confederation of Colleges each in a different town, could not now be adopted in this country with its existing institutions.

Turning to the Colonies we find a type which seems to me to be more suitable for adaptation to India.

Sydney and Melbourne both have Universities more or less of the same type, but I shall specially consider the latter, as I am familiar with its methods, and can form some opinion of their success.

At Melbourne University, teaching is provided in all branches of learning except theology. Attendance at lectures is not compulsory for the Arts degree, but is so for other degrees; this, however, appears to have little influence on the attendance, for this reason, if for no other, that the Professor, together with an external Examiner, examines his own students. Only a very small percentage do not attend lectures, and they have to pay the same fees whether they attend or not.
Besides the University there are three affiliated Colleges on adjoining grounds which form centres for the athletic and social life of the University. The Colleges are maintained each by a different religious body, whilst the University itself is supported by an annual grant from Government. The Colleges, besides theological teaching and training of candidates for the Church, provide elementary lectures to junior students which to some extent replace but rather supplement the University courses, but the bulk of the teaching is of a tutorial nature.

The internal discipline of the University is maintained by a Professorial Board. The University is governed by an Executive Council elected by the Senate which consists of all persons holding doctors' or masters' degrees. The Faculties of Law, Medicine and Engineering respectively, which act as advisory bodies to the Council, and also prescribe the books and detail the subjects, consist of all Members of Council of those professions together with the Professors and Lecturers on those subjects. The Dean must be a Professor. The Arts and Science degrees are similarly regulated by the Professorial Board.

Sydney University has a system in most respects similar; attendance at lectures for all degrees, however, is compulsory.

This system by which the Colleges are more or less confined to tutorial teaching is found to work very satisfactorily; almost all the students who do well in the different honours examinations are college students.

A scheme framed on lines similar to the proposed Melbourne University scheme. I wish to propose to the Commission as suitable for India and one to which the existing institutions could without undue difficulty be adapted.

The University would consist of two sides, an examining side and a teaching side.

On the examining side matters would remain much as at present. The Senate with the aid and advice of the Syndicate would draw up rules and regulations with regard
to the various examinations, and would exercise control over them. They would also appoint Examiners.

The manner in which the Fellows of the University are selected does not affect the essentials of this scheme, but all University Professors should be *ex-officio* Fellows; also a certain proportion of the Syndicate should be elected by the Professorial Board.

The constitution of the Faculties need not be altered. The internal discipline of the University and all financial matters would be removed from the control of the Senate: the former would be regulated in each College by the Principal assisted by the Professors, the latter by the Director of Public Instruction or of some board appointed by Government.

On the teaching side, a system of University Colleges in Arts, University Colleges, Oriental Learning, Law, &c., would be instituted, teaching all subjects examined by the University. These Colleges would be of higher status than the affiliated Colleges, and attendance at their lectures, with certain exceptions, would be compulsory. The existing Medical Colleges fall naturally into line with these Colleges.

The whole of the permanent staff of the University would be in Government service, the full Professors and Registrar members of the Indian Educational Service, the Assistant Professors members of the Provincial Educational Service, &c.

The Professors in their lectures would not be expected necessarily to cover the whole prescribed course, but to maintain the standard of learning expected of the students, and more especially to inculcate the spirit of the subject. In Science, however, a complete course of laboratory instruction would be given, and if required, opportunities for original research. Opportunities for research would be given to the Professors.

The University lectures would not enter into competition with those of the affiliated Colleges which would be of a more tutorial nature and specially for the purpose of taking the student through the prescribed course; however, certain courses of lectures at the affiliated Colleges might be recognised as equivalent to the University courses, provided...
that the University were satisfied as to the qualifications of the lecturer; this would apply especially to Colleges situated in towns where there was no University College. Religious teaching in the Colleges might be encouraged if considered advisable.

The University would be supported financially by Government, to whom all revenue derived by fees, &c., would go.

The cost to Government of this scheme need not necessarily be any greater than the present expenditure on higher education.

The existing Government Colleges with their staffs would become University Colleges, and, though it might be advisable to increase the staffs, yet, beyond such necessary enlargement of lecture-rooms to hold the larger classes, no extra expenditure need necessarily be incurred. The income derived by the Universities from fees, as it is, more than covers the cost of examinations.

This scheme whilst utilizing existing institutions will be a great improvement over the system in force, and this without great expense or disturbance of present arrangements.

At present though the professorial members of the Indian teaching, drawn as they are mostly from England, are on the whole of higher intellectual attainments than the staffs of other Colleges, yet only a limited proportion of undergraduates obtain the benefit of their lectures, whilst the staffs themselves are cramped by the necessity of coaching up the duller students to the neglect of the brighter ones.

Under this scheme they are freed from these limitations, and will be able to encourage in their lectures higher intellectual ideals.

Further, in the future, a still better class of Professors will be attracted by the higher status and more congenial work, nor shall we have the frequent resignations in the first few years of service which at present occur in the
Educational Department. Professors will then be Professors indeed and not merely in name.

An honours degree could be instituted without entailing additional work upon the very limited staffs of existing Colleges. The Professors in their lectures could consider more especially the cleverer students, giving special courses for their benefit when required, whilst upon the affiliated Colleges would more particularly fall the work of carrying the average passman on to his degree.

The standard and intellectual tone of the University would be raised by this division of labour without hardship to the average student.

This scheme enables a tutorial method of teaching to be introduced into the affiliated Colleges. The average student in India generally requires a great deal of teaching of a coaching nature, and the University lectures which would be of a more formal character would require supplementing by the College lecturer. Most members of the staffs of affiliated Colleges are drawn from graduates of Indian Universities, and, for lack of opportunities, cannot be imbued with the same intellectual spirit as those who have studied in the great European centres of learning. They are, therefore, not so well suited for formal lecturing, but are none the less adapted for tutorial work. The affiliated Colleges are at present very generally understaffed and unable to do all the tutorial work that is required.

Again, from lack of funds, the science laboratories of most Colleges are very inferior both in accommodation and equipment. It would be a considerable economy to the Colleges and at the same time conduce to greater efficiency of teaching if all students in Science worked in one well-equipped laboratory under capable teachers. Nor would there be so much dislike on the part of the Universities to an increase in the amount of laboratory work, at present most insufficient.

By recognising certain of the lectures delivered at a College as equivalent to the whole or part of the corresponding
University course in the more elementary classes or for the pass degree, the College need not suffer in status, and it would be able to utilise its staff to better advantage. Again, if a College wished to specialise in some particular subject and provided distinguished teachers for the purpose, the University might depute the teaching of that subject to the College and create honorary Professorships.

A special adjustment of University fees in favour of College students could be made to compensate for the extra cost of attending lectures at affiliated Colleges.

By such means the waste of money and Greater efficiency effort by several competing Colleges with inadequate means teaching the same subject would be diminished, the Colleges would be more efficient, and they would remain as before the centres of the social and athletic sides of University life.

An objection will very likely be brought forward that Professors of Government Colleges are not in all cases as able men as those to be found in certain of the other Colleges. This, as has already been indicated, could be met by making such men of other Colleges honorary Professors and giving to the Colleges concerned an appropriate grant. Another objection might be that the University would have no voice in the selection of new Professors. This touches the question of the method of recruiting for the Indian Educational Service, which is certainly open to objection owing to the lack of publicity given to vacant appointments. If, however, all appointments to University Professorships were widely advertised by the Secretary of State for India, who should previously nominate a committee of experts to aid him with their advice (as is done for the Colonial Universities by the Agents-General), and if the Secretary of State's nomination before final decision were submitted to the University concerned for approval, a better class of men would certainly be obtained than at present, better even than would be attracted by the University itself advertising, as the security of a Government appointment is always a consideration to men coming out from England.
The adoption of this course would also tend to prevent the previous objection being raised, as distinguished men in other Colleges would be eligible for appointment to the service.

It would be advisable to reduce the number of Assistant Professors as opportunity offered, amalgamating the incomes to form more full professorial appointments. In Science, however, Assistant Professors or their equivalents will always be required. The objection of going from one College to another for lectures, which has been raised against all systems of lectures open to the whole University could be considerably obviated by limiting all the University lectures to students of any one year to three particular days of the week, leaving the other three days free for College lectures.

It has also been objected that Government Colleges as Colleges are really required; but in these days when new Colleges are springing up to meet the special wants of each different section of the community, this is not so much the case as before. The number of undergraduates at each College tends to decrease, whilst the number of subjects to be taught increases. The Government spends large sums of money to educate and influence a diminishing number of students and competes with private institutions. By this scheme, the number influenced will be an expanding one, whilst private institutions will not feel that they have to face the competition of comparatively well endowed Government institutions. There will be no further requests that the Government shall not teach certain subjects because the poorer institutions cannot afford to do so; nor so much endeavour to make a small staff cover in a cursory way a larger ground than they are really able to do.

That the Senate would have no direct control over the teaching and internal discipline of the University Colleges would not be a disadvantage, as interference by such a body is always open to objection. The Punjab University has under its control the Oriental College, but all questions relating to teaching and discipline are rightly left to the discretion of the Principal. In like manner the Principals of Government Colleges are given a free hand.
I do not think that a body of men equal to, still less superior to the present Indian Educational Service, will be attracted to India except by the fixity of tenure, assurance of pension, &c., of Government service, and to have as University Professors men inferior to members of that service would render any scheme unworkable.

In conclusion, I notice all the other schemes for converting Indian Universities into teaching bodies entail a considerable additional expenditure upon the University without making it clear where the money is to come from; further, none of them really touch one of the most important objects of such conversion, namely, to have a body of teachers independent of examinations and their results. Any change in an existing system entails difficulties and grievances; it is as well, therefore, when the opportunity for change does occur, to make it an effective one to avoid the necessity of further alterations in the future.

The state of University life in India is at present thoroughly unsatisfactory, and slight modifications will not touch the root of the evil. The Universities want intellectual tone, and the only way to introduce it is to have the undergraduates brought into contact with a body of teachers who are raised above all feeling that they are coaching students for examination. The rivalry of Colleges prevents them from supplying such teaching; the only answer to the difficulty is to have University Professors. In my opinion, the scheme I have set forth above is workable, the introduction of it without any insuperable difficulty. I have not gone into minute particulars, and the details might be modified to suit the needs of each particular Province.

The main outlines of the scheme are—

1. Division of the University into an examining and a teaching side;
2. The examining side to remain essentially as at present;
3. The cost of maintenance to fall upon the Local Government which would control the finances;
(4) The institution of University Colleges in all branches of learning;

(5) The staffs of these Colleges to be in Government Educational Service;

(6) University lectures to be compulsory with certain exceptions;

(7) Affiliated Colleges to have certain of their lectures recognised as equivalent to University lectures;

(8) The conversion of the existing Government Colleges into University Colleges.

Additional Note by Professor Hemmy.

On Honours' degrees.

I am in substantial agreement with the scheme proposed by Dr. Stratton.

I consider that there should be an interval of three years from the Intermediate examination to the Honours one, and that the examination in English required of candidates taking another subject for Honours should be taken previously, either one or two years after passing the Intermediate as the candidate prefers.

A candidate should be allowed only one attempt at Honours, and if not considered to show sufficient proficiency for Honours, may be allowed a pass provided he show sufficient knowledge. If he fail completely, then he should be required to enter for the ordinary B. A. examination.

A student who has obtained Honours should be allowed the M. A. degree without further examination. A student obtaining a pass should be allowed the B. A. degree, and must proceed in the ordinary way to the M. A. degree by examination.

For all pass examinations, B. A. or M. A., there should be no classification or order of merit.

Any system in which the Honours course is simply an enlarged pass course is not worth the extra trouble or cost to the Colleges.
As referred to in my note on a Teaching University, unless a special class of teachers be set apart for teaching Honours men, it is impossible for the Colleges (in the Punjab at any rate) to take up the extra work with their limited staffs.

Affiliation of Colleges.

Some scheme of affiliation is imperative in the Punjab unless the University be allowed to degenerate.

Before affiliating, the University Syndicate should consider the financial stability, the accommodation and equipment, the scale of fees charged, and the qualifications of the staff of the institution applying.

The affiliation should not merely be up to a certain standard, but the subjects permitted to be taught should also be specified. If a College wishes to extend its curriculum, it should make a fresh application to the University.

The qualifications of any new members of the staff of a College, should be considered by the Syndicate, which should have power to prevent any teacher whose qualifications were regarded as insufficient from teaching in an affiliated institution.

The Syndicate should also have authority to prevent anything of the nature of one College underselling another.

Recognition of Teachers.

I fail to see that the publishing of a list of recognised teachers would serve any useful purpose. All teachers in affiliated Colleges should have their qualifications scrutinised by the University, as I have mentioned above. To recognise them specially by publication in a list is only to make a cheap and harmful distinction—harmful because it would imply in India that a teacher in an affiliated College as such was regarded by the University as worthy of some special distinction. If only a certain proportion of the teachers are recognised, what is the meaning of recognition? In London University the distinction appears to be in recognising certain teachers in unrecognised institutions; apparently in recognised institutions there, all the staff are recognised.
Constitution of the Senate.

In my opinion it would be advisable to have four classes of Senators:—

(a) Ex-officio. This class should be much more limited in number than at present. If University Professors be appointed, they should be included in this class.

(b) Nominees of the Local Government. These should consist of those men only whose opinions on educational matters it is advisable to have.

(c) Those elected by the staffs of affiliated Colleges.

(d) Those elected by the general body of graduates of higher standing than B. A. (viz., all having Doctors' or Masters' degrees, M. B.'s and L. L. B.'s).

The elections should be by Faculties.

Fellows should be nominated or elected for five years only, but be eligible, of course, for re-nomination or re-election. The existing Fellows, unless re-nominated or elected, should be made Honorary Fellows with power to be present at Senate meetings without a vote, but not at Faculty meetings.

Fellows, as such, should be given no privileges outside of the University.

Constitution of the Syndicate.

The only alteration I should propose is that, if University Professors be appointed, they should be allowed to elect certain of their number to the Syndicate.

Teaching of Science.

There is certainly too little practical work required of students in Science. In every examination there ought to be some test of a candidate's practical knowledge even if only orally. In all examinations beyond the Intermediate, students should be required to bring certificates of having spent so many hours working in some laboratory recognised by the University as properly equipped, and the examination should be truly a practical one in which the student performs experiments, &c., unaided. For the Science degree this should also be required for the Intermediate also.
Teaching Universities.

1. Taking it for granted that Indian Universities should teach as well as examine, I believe the first step to be taken in the Punjab in this direction is to bring the University into right relations with the Colleges which now do the teaching work. I do not think the University is in a position to maintain any more teaching institutions, and even if it were, it would not be desirable that it should do so, and in any way enter into competition with existing institutions or take any of the work now done by them out of their hands. The fact is the Colleges are better qualified to carry on the teaching work than the University now is. But what is needed is to bring these institutions into closer relations with the University. In the Arts and Science Faculties the Colleges do all the teaching, but their relation to the University is only formal. The Punjab University is the only University in India which has no affiliation rules whatsoever. It makes little or no effort to exert an influence upon the Colleges preparing candidates for its examinations; it asks no questions as to the character or the efficiency of the teaching given in them; it exercises no supervision or control over any of these institutions. In this respect, therefore, it is less of a teaching University than any of the other Universities in India. Here it is where reform should begin. The Colleges may still continue to do the teaching, but the University should exercise over them a close and effective supervision. Such an arrangement will benefit the Colleges themselves, as well as promote the highest interests of education.
3. The University may, however, supplement the teaching given by the Colleges, and help the Colleges to do better work. It may, if it has the funds, institute lectureships on subjects not provided for in the Colleges. It could also arrange for courses of lectures on subjects of general interest for the benefit of students and of the general public. These lectures should be open to all students of affiliated Colleges on payment of a specified fee. Some of the lectures of the Oriental College on the Arts side might with advantage be made available to all students of affiliated Colleges. The University might also establish and maintain a Library, open to Fellows, teachers and graduates, and well-equipped laboratories for students of the physical and chemical sciences.

Constitution: the Senate, Syndicate and Faculties.

1. The Senate should be re-organised. All existing appointments might be cancelled, and a new Senate formed. The maximum number should be 100. It is desirable to prescribe the qualifications of those to be appointed Fellows. Only those should be appointed who have a certain academical status, who are qualified to advise on educational questions, and who take an active interest in the work of the University. Each appointment should be for five years, and should be capable of renewal at the end of that term.

2. The principle of election should again be introduced. Graduates of ten years' standing should be given the privilege of nominating Fellows to represent them on the Senate. The representation should be by Faculties.

3. The majority of the members of the Syndicate should be persons directly connected with education. The different Colleges should be represented. The Director of Public Instruction should be a member ex-officio.

4. Fellows should be elected to serve on certain Faculties by the Faculties themselves. In no case should a Fellow be appointed to a Faculty without the consent of that Faculty.

Examinations.

1. The present system of examination encourages cram; the element of chance, so fatal to the student, is present
to a considerable extent. Many good students, who would do credit to a College were they promoted, are held back and become disheartened, while inferior candidates are successful, and are sent on to choke up classes which they are unfit to join.

2. Examinations occupy altogether too large a place in the life of the Indian student. He is tempted to think only of his examinations and to neglect real study and that broad culture of the mind which is an essential element of a College education.

3. The number of examinations should be reduced. The Middle School Examinations could be left to the schools, and the Intermediate Examination might, perhaps, be left to the Colleges. The teacher, after all, is the best judge of a student's attainments, and of his fitness to be promoted to a higher class, until he is ready to appear for his degree. At present good, faithful work done by a student in College under his teacher often counts for nothing, while the student who has neglected his work, but has learned the art of cramming, passes the examination.

4. The present Entrance Examination is such only in name. Only about one-sixth of those who pass this examination join College and take up a University course. There should be a Final Examination for schools, and a separate Matriculation Examination only for those who wish to be admitted to the University.

5. The standard of this examination should be raised. The examiners should be, so far as possible, Professors of University Colleges. At present many students who enter College do not know sufficient English to understand the lectures, or to use English as a medium of study. The examination in English should be more strict, and special importance should be attached to the Essay and to English Composition.

6. According to the present rules candidates cannot be examined by those engaged in teaching them, not even in a subject other than that which they may be teaching. This rule should either be modified or abolished.

7. In the Degree Examinations it does not seem desirable in such subjects
as English and History, to require answers to be valued by marks; nor is it desirable to publish the marks candidates have gained. Examiners should be required to declare candidates as either Passed or Failed. Candidates who have passed should be arranged by the examiner in three classes,—first, second and third. This will make the examination less mechanical; it will lighten the work of the University office and make it possible for the results to be published sooner; it will simplify the work of the examiner, while the passing of a candidate will depend not so much on the quantity of the work done by him as upon its quality.

8. No student should be admitted to the examination who has not kept full terms at College, and finished all the prescribed courses. Except in the case of bona fide teachers, private candidates should not be allowed to appear in the examinations.

Co-operation.

1. The co-operation of Colleges situated in the same town, and near each other, through combined lectures and in other ways, is desirable, but I doubt, whether, under present conditions, it is practicable, except in the post-graduate courses.

2. Colleges should be encouraged to specialise in particular subjects, so as to economise labour and expense. This applies to the post-graduate courses, and to such subjects as Biology in the F. A. as well as to some subjects in the B. A. courses.
Punjab.

Indians Universities Commission, 1902.


Memorandum on certain points under consideration by the University Commission.

Teaching Universities.

The Punjab University already exercises teaching functions in connection with the Law School and the Oriental College, in appointing teachers and supervising instruction; but I believe the time has fully come for the University to undertake something further in the direction of providing advanced teaching in Science and Arts. A beginning might be made thus:

(a) Let Annual Lecture courses be inaugurated by the University on subjects pertaining to Arts and Science, attendance on which might be made obligatory for men reading for degrees in those subjects. Such lectures would deal with subjects on broader and deeper lines than is possible at present, and would become powerful means of intellectual stimulus and inspiration. (A University Course of Lectures on Comparative Religion would also be extremely profitable.)

(b) Let the University give all Postgraduate teaching into the hands of University Professors. Most of these could be selected from among already existing Staffs of Colleges (for example, Classical Languages—Oriental College; English and Science—Government College; History and Philosophy—Forman College; Mathematics—Dayanand Anglo-Vedic College, &c.) The University shall have full power to choose and designate in each case. If necessary, one or two additional Professorships could be established, to be filled by able
men from England brought out from time to time for the purpose. In the case of Professors appointed locally, part of their time might be given to post-graduate work for the University, and part to under-graduate work for their Colleges according to choice and circumstances; appropriations being made from University funds to the Colleges to aid them in employing Assistant Professors to do the under-graduate work thus left partially unprovided for. All fees to be paid by students going in for post-graduate work should be equalized.

If even a beginning were made on the lines indicated above, a decided advance movement would be initiated which might gradually be developed and extended. A higher tone, a broader culture, a truer spirit would be infused into the education fostered and controlled by the University. A higher degree of specialization, a great desideratum, would be encouraged and attained in post-graduate work. A wholesome mixture of co-operation and competition would be secured, the former ingredient being gradually increased and the latter correspondingly reduced. (I would remark, by the way, that inter-collegiate competition is not by any means wholly an evil). I should not be in favour of extending University teaching to such a degree as to destroy or even jeopardize the individuality of life and teaching, the particular esprit de corps, which should be developed in the different Colleges. Each College, it seems to me, ought to stand for some distinct type of teaching and discipline, some special idea or ideal which it aims to impress upon its own students in its own way, and which it should be unwilling to relinquish. Hence it would appear desirable to retain a considerable portion of under-graduate training in the care and control of the Colleges (some of which are outside of Lahore).

As regards the University undertaking Honours courses for the B. A. degree, I confess there are some strong arguments in favour of such a scheme. But there are also weighty objections—(1) great additional expense would be involved; (2) adjustment of time-tables would be difficult; (3) Colleges would doubtless object to the instruction of the brighter men being relegated to others, unless indeed they were permitted to have a share in it; (4) the entire
separation of the brighter from the duller men would not be wholly advantageous to either class, though a partial separation may be desirable and is attempted in some of the Colleges; (5) the importance of maintaining the individuality of the College spirit and training would have some bearing in this connection; (6) a comparatively small proportion of those passing the Intermediate are capable of taking full advantage of an Honours course. It does not seem to me advisable to permit any further specialization for the B.A. degree. There is sufficient opportunity for this in post-graduate work. My remarks apply of course more particularly to conditions experienced in the Punjab.

**Constitution of the Senate.**

I think it would be a great improvement if the re-construction of the Senate were inaugurated *de novo* in order that it might become a more intelligent, efficient, representative and genuinely competent body, possessing the ability as well as authority to initiate, influence and control matters and measures educational. The number of Fellows, including those non-resident in Lahore, might be not less than 100 and not more than 150, divided say into five classes:—

(i) Honorary Fellows, including Life Fellows, of limited number; (2) nominated by Government, say 70; (3) elected by the Senate, say 10; (4) a representative from each of the affiliated Colleges; (5) representatives of the graduates, say one for every 500, to be chosen from themselves. Much care of course would be required in working out the details of the method of election to be adopted in this case. I think it would not be feasible to arrange for election by Faculties, but by the general body of graduates all graduates of not less than 10 years' standing being made eligible to act as electors.

**Age limit for Matriculation.**

It does not seem to me necessary or expedient in present circumstances to attempt to fix a minimum age limit for matriculates for the following reasons:—

(i) it seems advisable as a rule not to interfere with natural processes, such as early maturity, precocity, extraordinary talent, exceptional home training, &c., in the case of some boys; (2) experience has not shown that these boys suffer in comparison with their fellows;
(3) it is not expedient to place restrictions upon freedom of action in such matters except for very urgent reasons;

(4) parents will inevitably resort to dishonest manipulation in recording the ages of boys. I hear this has already happened in Allahabad.

**Examinations.**

This point I believe to be of fundamental importance. I feel strongly that some *root reforms* and substantial changes are needed precisely in this connection if we are to correct some of the defects most urgently calling for remedy in the present system. At the same time I recognize that the matter is complicated and difficult to handle, and therefore it is with some diffidence that I offer certain suggestions which have occurred to me. There are two *desiderata* which seem to stand out clear and prominent—

1. It is desirable to lessen the strain, physical and mental, to which the students are subjected in preparing for and in passing our examinations. These are at present a bugbear to all concerned.

2. It is desirable to diminish the stress laid upon the 'passing of examinations, which leads students to regard *that* as an end in itself and the chief goal of all effort, and consequently tends to the excessive cramming so common among them. To meet these requirements the following changes and modifications seem to me advisable:

1. The Middle School and High School examinations might be managed as ordinary School examinations, certificates being issued to those who pass; while a special Matriculation examination of a fairly searching and sifting character might be instituted, only for those who desire to enter College, scholarships being given to those standing highest.

2. Let the Intermediate Examination be modified. (The letters F. A. ought to be dropped entirely, as indicating a degree or title which has no longer real significance or worth as such.) *(a)* It might be made a College examination, those passing it being eligible to promotion to the Third Year Class, or if not caring to proceed further they would be granted special diplomas. Why should the University continue to conduct a minor examination such as this is? Would it not be enough that the University lay down the curriculum to
be followed? It may be objected that the Colleges cannot be trusted, that some Colleges will be lax and careless in passing men. To this I might reply that such Colleges would only injure themselves by promoting badly prepared and unworthy men into their B. A. Classes, and moreover that those are the Colleges whose reputation would soon suffer and whose diplomas would be of little worth in the estimation of the Government and the public. (b) If the plan suggested were not considered feasible, I should strongly urge that the Intermediate Examination be at least made as strictly local as possible, that is to say, the Examiners should not be chosen outside the Province, and they should be chosen from among those who are themselves engaged in teaching and are therefore best acquainted with existing requirements as to standard, capacity of students, &c. In any case lessen the importance attached to the Intermediate Examination as such, and diminish the strain upon those preparing for it.

(3) Let the B. A. Examination be made as far as practicable a local examination with Examiners appointed from among those who are engaged in educational work in the Province. I feel convinced that the results will be far more uniform, fair and satisfactory to all concerned. Let it be understood that the mere passing of the examination and the getting of the B. A. degree is not regarded as in itself a matter of extraordinary moment and value, either from the pecuniary point of view, or the point of view of Government employment; but rather as a mark of having reached a certain standard of general education, or having passed a certain stage in the educational curriculum as an introduction to post-graduate or professional studies. Consequently let it be understood that it is not the great aim of the University (or the Government) to discourage aspirants for degrees, or to limit the number of men obtaining degrees by raising the barriers so high as to be insurmountable. My feeling is that the more graduates of the right sort the better, both for governors and governed, provided it be made clear that possession of a degree (especially an ordinary one) does not constitute a special claim to Government employment.
(4) Let some plan be adopted by which the name of the student, the name of his College, and his religion would not appear on his examination paper or the list sent to the Examiner.

(5) Let the passed candidates be placed in three groups as at present (the best men in different subjects being awarded prizes and scholarships), but let the names in each group be published in alphabetical order. By placing men in groups rather than according to individual marks, something might be done to diminish unhealthy rivalry, competition and jealousy, both among Colleges and individuals. Special additional papers could be set for men going in for high standing or scholarships.

(6) I should not be in favour of making the present courses any narrower. The present curriculum is in all conscience quite narrow enough. If anything, the education provided for these men should be broader, though it might involve making each subject easier.

INTER-COLLEGIATE CO-OPERATION.

This should be more encouraged, so as to develop something of a University spirit as well as a distinctively College spirit. This would be done in connection with University Lectures, Debating Clubs, and Sports.
Note on Teacher's Diplomas and the Affiliation of the Central Training College to the University by H. T. Knowlton, Esquire, Principal, Central Training College, Lahore.

The results of the examinations (Arts Faculty) for the past ten years are as follows:

<table>
<thead>
<tr>
<th>Examination</th>
<th>Number examined</th>
<th>Number passed</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance</td>
<td>18,751</td>
<td>10,001</td>
<td>53.3%</td>
</tr>
<tr>
<td>First Arts</td>
<td>4,533</td>
<td>2,338</td>
<td>51.7%</td>
</tr>
<tr>
<td>B. A.</td>
<td>2,689</td>
<td>982</td>
<td>36.5%</td>
</tr>
</tbody>
</table>

These figures are generally considered unsatisfactory, and have been variously explained.

Whatever may be the cause, the University has taken no steps to make the instruction given in the schools and colleges more efficient by encouraging the members of the teaching profession to properly qualify themselves for their work. For the Lawyer, the Doctor, and the Engineer special training has been considered necessary, and the University has, by its courses of study and examinations, encouraged and directed that special training; but no such guidance and stimulus has been given to the teachers of our schools.

Should there be a Faculty of Pedagogy?—In dealing with the means by which the University might encourage and direct the systematic study of the History, Theory, and Practice of Education, one of the first points to be considered is whether there should be a separate Faculty of Pedagogy, or whether education should be one of the many subjects entrusted to the Faculty of Arts. At Edinburgh, St. Andrews, and most of the English
Universities, there are Professors of the Science and Art of Education and special Boards of Studies entrusted with the drawing up of courses of Reading and Regulations for the conduct of the Examinations for the Teacher’s Diploma. But, as far I am aware, at no English University does there exist a separate Faculty of Pedagogy. At Madras University, too, there is simply a Board of Studies. Still, the creation of a Faculty of Pedagogy seems to be very desirable. When a Board of Studies is once formed, it frequently happens that not only is the number of members composing it small, but that no change in the membership takes place unless a vacancy occurs through the transfer or resignation of a member. Thus there is a possibility of the syllabus and every thing connected with the work becoming stereotyped. There is little or no progress. With a Faculty things are different. New members are added every year; the University profits by the knowledge and experience of these gentlemen; the text-books and courses of study are frequently revised; the latest views prevail; and there is no ‘marking time.’ In the Punjab University there are already separate Faculties for Law, Science, Medicine and Engineering, and surely it will not be contended that education is of less importance than either of these subjects. If no separate Faculty of Pedagogy be created, there is a possibility of the importance of the subject being underestimated, of the drawing up of the regulations and the courses of study being left to one or two members directly concerned, and of little or no interest being taken in the subject by the majority of the Fellows. There are many gentlemen in the Province not only deeply interested in the Training of Secondary Teachers, but both able and willing to give advice regarding the courses of study, etc., and it is in order that the University may emphasise the importance which it attaches to the training of a teacher, and enlist the interest and co-operation of as many as possible, that I strongly urge the creation of a Faculty of Pedagogy.

The affiliation of the Central Training College to the University.—But in order that there may be some guarantee that the subjects prescribed by the University will be systematically studied
and intelligently mastered, (and not merely crammed up for the purpose of passing the examination,) it is essential that the students preparing for the Teacher's Diploma should be attached to an institution carried on in conformity with rules laid down by the University itself. In other words, that the college in which the students are trained to become teachers should be affiliated to the University. Further it is essential that the college affiliated to the University for this purpose should have attached to it a large school in which the students may learn the art of teaching. Such an institution already exists in the Central Training College, and its affiliation to the University should be a matter of little difficulty. The college from the first has in a way been connected with the University: since 1883 the Principal has been ex-officio a Fellow and a member of both the Science and the Arts Faculties; the only examinations recognised by the college when considering the qualifications of candidates applying for admission are those conducted by the University; and for many years the college regularly sent up men to the University Examinations. If affiliated, the college would conform to the affiliation rules observed by other colleges, and would teach the courses of study prescribed by the University for the Teacher's Diploma.

Should the course of study be a post-graduate course?—The next point to be considered is whether the course of study prescribed should be a post-graduate course; or whether, after passing the First Arts Examination, students should proceed to take a degree in Pedagogy in the same way as they take a degree in Arts. In most of the British Universities, the candidates who present themselves for the examination for the Teacher's Diploma must be graduates. At Edinburgh two diplomas are awarded. For one the candidate must have taken Honours at the M. A. Examination, for the other, he must have taken a pass degree. The Victoria University only admits to its examination for the Teacher's Diploma graduates of some University in the United Kingdom. The University of London only examines its own graduates. Oxford University admits to the examination for the "Diploma in the Theory, History, and Practice of Education (i) members of the University who have entered on the eighth term
from their matriculation and have passed all the examinations qualifying them to enter for the second public examination or (2) men who have qualified for a degree at some recognised University." At Cambridge and Durham Universities candidates for the Teacher's Certificate must be 20 years of age and have passed one of some thirteen examinations enumerated in the regulations. It will be seen that all agree in admitting to the Teacher's Examination only those who can give some guarantee of having received a good general education; and that, in most of Universities, the examination is only open to graduates.

But in considering this question in India, we have to bear in mind the special conditions under which we work. English is the medium of instruction in both English and Indian Universities; and it thus happens that the English student is taught through the medium of the vernacular, while the Indian student is taught through the medium of a foreign tongue. Hence the English student can devote his whole attention to the mastery of the subject-matter, having been perfectly familiar from childhood with the language in which the facts and truths are expressed. The Indian student, on the other hand, is only imperfectly acquainted with the language which forms the medium of instruction; and frequently experiences the greatest difficulty in grasping the statements made by his teachers or found in his text-books. He thus experiences a difficulty which the English student never meets with; and it is not therefore surprising that the attainments of the majority of our Indian graduates are comparatively lower than those of graduates of English Universities. But if at home it is considered desirable that only graduates should be eligible for admission to the examination for the Teacher's Diploma, it seems doubly necessary that the course of training prescribed by the University for secondary teachers should be a postgraduate course.

Should the course of training extend over one or two years?—Another point to be considered is whether the course of training should extend over one or two years. In England, the course of training for graduates usually extends over one year; but, as I have already pointed out, we have to
work in this country under very different conditions. First, the men have frequently been taught by untrained teachers; secondly, their training has been impeded by their imperfect knowledge of the language used as a medium of instruction; and thirdly, while they have gradually learned to understand statements made to them in the foreign tongue, they have acquired little or no facility in using the foreign language when imparting information to others. They can understand statements made to them in English, but have little power to express themselves fluently and correctly in that language. For these reasons, a two years' course of study at a training institution appears necessary.

Outline of the course of study.—The course of study would naturally be laid down by the Faculty, but I give below an outline of the course generally prescribed:

(1) The Elements in Mental and Moral Science in their relation to the work of teaching.

(2) An outline of the History of Education with a detailed study of the life and work of an eminent teacher.

(3) Methods of teaching and class management.

(4) The preparation and delivery of regular courses of lessons in the practising school under the guidance and supervision of lecturers and tutors. (A certificate to the effect that the student has delivered at least 100 lessons should be required of every candidate before he is allowed to sit for the written examination.)
Punjab.

Note by Maulavi Hakim Ali, B. A. (Punjab), Principal, Islamia College, Lahore.

1. That for the Punjab University it is too early to be turned into a teaching University.

2. That each University should have a sphere of influence and that a local limit be placed on the right to affiliate Colleges; provided that any University may affiliate to it any College situated in the sphere of influence of any other University if the former is satisfied that a mistake has been committed by the latter in not affiliating to it the College or in rejecting it if already affiliated.

3. That in Punjab the number of Fellows be fixed at 150. That Fellowships be terminable, as they are at present, by death. That the new and vacant Fellowships be given to persons qualified to advise on questions relating to higher education and as far as possible not by way of compliment.

4. That the number of members of the Syndicate be increased to 30, in order to represent the Colleges adequately.

5. That the Faculties and Boards are not as at present constituted equal to the duties assigned to them.

6. That M. A.s and B. A.s of certain qualifications be elected Fellows in proportion to the number of graduates.

That the University be empowered to confer the M. A. or other higher degrees on recognised teachers who come from this University or other Universities.

7. That attention be paid to bring men of different Colleges together.

That no minimum age be fixed for candidates for the Entrance Examination.

8. That Boards of Moderators be appointed to consider the question papers (in the various subjects) set by the examiners.
9. That the statement "that many students begin their University course without sufficient knowledge of English to profit by the lectures they attend" is not well founded.

10. That in Lahore Colleges there is much of practical work in Physics and Chemistry.

11. That to promote the comparative study of religions no schools of Theology be established.
INDIAN UNIVERSITIES COMMISSION, 1902.

Punjab.

Note by the Graduates' Association of the Forman Christian College, Lahore.

The Graduates' Association of the Forman Christian College beg leave to submit the following suggestions regarding some of the points to be considered by the University Commission. The Association has tried to confine its suggestions to points coming within its scope, and has not deemed it necessary to make observations on all the subjects embodied in the Note circulated on behalf of the University Commission. We have also contented ourselves with indicating general lines of reform without going into details.

1. We are of opinion that it will be of advantage to the University to allow its graduates the privilege of electing a limited number of men from among themselves to serve as Fellows of the University with due regard to considerations of ability, experience and standing. We recognize, under existing circumstances in our country, the value of Government retaining largely in its own hands the power of nominating Fellows, but we think the time has arrived when graduates as such should be given some recognition in the constitution of the University, and some small proportion of Fellowships be set apart to be filled by representatives of the graduates. This step, besides satisfying a legitimate aspiration of the graduates, will facilitate the eliciting of the views of the educated classes on educational problems, and will secure their sympathy and co-operation to a very large extent.

2. In order to promote a more liberal and sound education than obtains at present, and to arrest the tendency toward cram, it seems desirable that a double course of studies be introduced, viz., an "Honours" course and an ordinary Pass course. The former may
lead to an examination more searching than our degree examinations have been hitherto, and the latter may provide an easier test than at present for the benefit of those requiring a degree for admission to further professional studies and not aiming at or fitted for literary or scholastic distinction. We recognize that there are practical difficulties in the way of introducing this scheme, the chief among them being that of expense which would be very heavy, and it is doubtful if the University would be willing to undertake it. This difficulty might be overcome, however, by placing on record the advisability of this scheme and leaving it to the option of individual Colleges to introduce it if their funds permit the adoption of the proposal.

3. On the question of making the University a teaching body, exercising a direct control over the appointment and recognition of Professors and Teachers, we feel that this step, though fraught with possible advantages in respect to the interests of true education, is not feasible under present circumstances in this Province, and that the time has not yet come for the University to assume teaching functions in connection with pre-graduate studies. This plan could not be well tried without running the risk of retarding the progress of indigenous Colleges which are just budding out into life, and some of which acquire an exceptional value as denominational institutions, satisfying the particular religious and moral requirements of particular communities; especially in this Province, where education is still in its infancy, comparatively speaking, any step that is likely to be resented as undue interference with individual freedom cannot be recommended. We think, however, the experiment may be tried to a certain degree by making the University directly responsible for post-graduate studies, and allowing it to supervise and control the teaching in these subjects.

4. The provision of scholarships for original research, in different branches of learning, we think, is an urgent necessity, if true scholarship is to be encouraged, and if the development of the faculties of the best University men be aimed at. In the Punjab University there has hitherto been almost no provision made under this head, as the few ill-paid Readerships connected with it
have been awarded on condition of service in the Oriental College for a number of periods.

5. To avoid abnormal pressure on the brains of students, which is believed to be largely responsible for their physical weakness, for premature decay of mental faculties, and for dulling their intellects, we would suggest that greater option be allowed to students in the selection of subjects of study, and that students failing in one subject only may not be forced to again pass an examination in subjects in which they have once passed.

(a) The career of many a brilliant student has been marred because the rules of the University obliged him to take up subjects for which he had no aptitude or taste. This has been a direct incentive to cram, and has greatly injured the prospects of true learning and original research. If instead of this the choice of a student be left more free to select subjects better suited to his taste, better results may be expected.

(b) A great deal of valuable energy of young men has been so far wasted by subjecting them to repeated examinations in subjects in which they have already passed, simply because they failed in some other subject. We are strongly in favour of a rule being passed to the effect that a student failing in one subject alone in the F. A. and B. A. Examinations shall be permitted to appear again in that subject only.

6. As regards the Oriental Classical languages (Sanskrit, Arabic and Persian), we are of opinion that the study of the former two may be given the encouragement they deserve by placing the courses in those languages on the same level with the Persian courses in point of difficulty. We also beg strongly to urge the removal from the B. A. Persian course of the Arabic portions of Reading and Grammar that have been appended to it, because this presses hard on those students who have not read any Arabic previously, and who form the majority of those taking up Persian for the B. A.

7. In connection with the question of the vernacular languages of India, we believe that by the impulse given in recent times to the development of indigenous literature these languages
have improved sufficiently in point of literary wealth to deserve a place in the curriculum of Colleges, and that as an experiment the most advanced of these languages may be recognized as fit subjects of study for the Intermediate Examination in Arts, if not for the B.A. In the Punjab, Urdu, Hindi and Gurmukhi (Panjabi) might be included in the list of optional subjects for the F.A., provided that no student be permitted to take more than two languages in all, including English. The recognition of these languages as possible subjects of study in the Colleges will give an impetus to the growth of vernacular literature, and will help to develop men fitted to do original work in the vernaculars, which is retarded at present by the fact that the instruction of the students in the vernaculars of the country is left far too incomplete in the schools.

8. One other question which we feel it necessary to touch is that of fixing a minimum age limit for candidates for the Entrance Examination. We are strongly of the opinion that such a limit is both unnecessary and undesirable. We are not convinced that any tangible evil has been proved to result from the absence of such a limit, while we see a clear possibility of such a limit acting as an obstacle in the way of some of the most intelligent and promising young men who generally pass out of the schools at a comparatively tender age. It has been generally observed that such boys do not show themselves to be in any way inferior to students of more advanced age in intelligence or grasp of intricate subjects, and if their physical exercise is carefully supervised, they do not suffer in physique either. The fixing of a limit will either put a sudden stop to the progress of such boys at an impressionable period of their age and expose them to the risk of becoming idlers, or will encourage false representations as to age being made by candidates for the Entrance Examination.

Committee—

Lālā Mathura Dās, M.A., LL.B.
" Shiv Dayal, M.A.
Pandit Ram Bhaj Datt, B.A., LL.B.
Lālā Hari Dās, M.A.
Shaikh Abdul Qādir, B.A., Secretary.
The prevalence of "cram" is undoubtedly one of the greatest evils in the present system of education, particularly in such branches as English, Philosophy and History. Knowledge is looked upon by the students simply as a means for gaining marks, and so they seldom have any desire for knowledge that is not contained in their text-books—which are not always unimpeachable authorities, in Philosophy and History, at any rate—and it is almost impossible for them to show any originality that they may possess, in consequence of the system of examining on the set text-books merely.

The man who desires a pass-degree only must always and everywhere "cram"; but surely it is the duty of a University to provide for the "Honours" man too. At present such provision seems lacking, in this University at any rate. The following suggestions are made with a view to indicate the lines on which that provision might be made and the system brought somewhat nearer to the Oxford model:

(i) The number of text-books set for both the B. A. and M. A. courses should be somewhat reduced.

(ii) The character of the examination papers should then be changed. A certain number of questions, carrying a certain percentage of marks, should be set upon the text-books only, and it should be distinctly stated that a candidate may obtain a pass-degree, but a pass-degree only, by satisfying the examiners in those questions. Other questions should then be set, not upon the text-books merely, but upon the general subject taken up, and it should be stated that a candidate could obtain Honours, i.e., a first or second class, only by proficiency in these questions.
Thus, in an English paper, for example, questions of this sort might be set by giving unseen passages to explain; or questions might be asked upon characteristics, &c., of various authors, some knowledge of whom is generally considered necessary to an education in English literature, or upon the history of literature, and so forth. In Philosophy and History the setting of such questions would obviously be an easy matter, and in Languages something might be done by the setting of unseen passages, &c.

A definite standard of such questions for B.A. and M.A. Examinations would very soon be set up without much difficulty, and in this way perhaps a first class might become a test of real ability; at present it tends to be a test of successful cramming.

(iii) In the M.A. Examination certainly, and possibly in the B.A. also, candidates for Honours should be allowed to offer a special subject, chosen by themselves, in connection with the course they are taking. Such special subjects should either be chosen out of a specified number—which should give ample scope—or might depend absolutely upon the choice of the candidate, considerable notice, say six months at least, being required to be given to the authorities, and the choice being subject to their approval. Thus, in English a candidate might make a special study of some author, or of some period of literature, and in Philosophy and History, and perhaps also in Languages, the system could be easily applied.

It might be advisable to make the attainment of the highest honours dependent upon taking a special subject, as in the Honour School of History at Oxford.

Of course there should be no set textbooks for special subjects; the student must depend upon himself and his teachers. It may be pointed out that if the University becomes a teaching body, i.e., if University lectures are established, such lectures might very easily be directed towards helping students in their preparation of special subjects.
(iv) As a matter of detail, the marks allotted to each question in special subject papers and in Honour questions in ordinary papers should not be stated on the paper. A good student should be able to choose his own questions, and one who cannot should suffer accordingly. As regards Honours questions, it should be possible to obtain full marks on a certain number of questions only, and considerable latitude of choice should be given.
Indian Universities Commission:

Suggestions on some of the points to be considered by the Commission.

In this Memorandum I propose only to state my views in general terms, without entering into details, on some of the points raised by the Commission, leaving a fuller consideration of those points to educational experts who are in a position to lay before the Commission definite and workable schemes on such aspects of the problem of University Education as may have formed the subject of their special study.

Teaching Universities.

The Punjab University is a teaching University in the Faculties of Law and Oriental learning, and maintains in accordance with its statutes an Oriental College and a Law School, which has lately been designated a Law College.

(A) The Law College.

The teaching of law has lately been placed by the University on a sound footing by the appointment of a whole-time Principal, who is a Barrister-at-Law and a graduate of an English University, and by strengthening the staff of Assistant Law Lecturers and Readers. There are two sections of the College. In one the instruction is imparted through the medium of English, in the other through that of the vernacular; and in both the standard and course of instruction are identical. The regulations of the University provide for a bifurcation of legal studies, leading to the Diploma side and the Degree side respectively, the entire course in both cases extending over a period of 3 years.

The question as to whether this three years course should be reduced to one extending over two years is one of great importance, and the Law Faculty, after very full consideration, has recently recommended that this should be done at least on the Degree side, the course being made a post-graduate study. I venture to think that this recommendation is based upon sound considerations and that its acceptance will, besides avoiding an undesirable clashing of studies in Law and Arts, tend to make the teaching of Law in the College more efficient and thorough than has hitherto been the case.

The management of, and supervision over, the Law College are at present vested in a Committee called the Law College Committee, which consists of 6 members including the Vice-Chancellor. This Committee was constituted in 1897, and I have been acting as its Secretary since July 1898. So far as the teaching of law is concerned, the University has, I venture to think, done it best to discharge the obligations imposed
upon it by its statutes by strengthening the Law College in every way in order to meet the growing needs of the Province.

A proposal to establish a Boarding-House in connection with the College has been under the consideration of the Committee for some time past, and one will be established as soon as the Committee sees its way to make it a self-supporting institution.

The Law College of the University sufficiently meets the educational requirements of the Punjab, and the opening of Law classes in connection with any Arts college either in Lahore or elsewhere appears to me to be both unnecessary and undesirable.

(B) THE ORIENTAL COLLEGE.

The Punjab University is bound to maintain an Oriental College under the express terms of its statutes. The Preamble to the Act of Incorporation recognises the following as among the chief objects for which the Punjab University College was to be constituted into a separate University:

(a) The diffusion of European science, as far as possible, through the medium of the vernacular languages of the Punjab;
(b) the improvement and extension of vernacular literature generally;
(c) the enlightened study of the Eastern classical languages;

and it is in part fulfilment of these objects that the Oriental College has been maintained by the University. The promoters of the University movement in this Province appear to have emphasised their desire to see these objects fully carried out, and this could not be done without organising a College Department with a view to impart systematic instruction through properly trained teachers in the classical languages of the East and in the elements of Western science by means of translations from the English language into the vernaculars of the Province.

The Oriental College, therefore, fulfils a strongly expressed desire on the part of the founders of the University, and being the only College of its kind, maintained by an Indian University, in which an organised attempt is made to impart higher instruction in the classical languages of the East, it meets a real want in this country.

How far this College has fulfilled the expectations of its original promoters or advanced the objects laid down among the chief aims of the University, to which I have already alluded, is a question of very great practical importance, and I must say that there is a rather strong impression prevailing among a certain class of persons whose opinions are not without weight that on the whole this College has not proved a success, and that its net result from a higher educational standpoint is insufficient to match the financial burden which its maintenance imposes upon the
University. It is difficult to say precisely to what extent this impression is justifiable, but on the other hand I am not prepared to say that it is without any foundation. That the College supplies an educational need in the Punjab, I think, well established, not only from the number of students we find on its rolls from year to year but also from the number of Oriental teachers supplied by it to the various Arts Colleges and High Schools in this Province and in other parts of India. The growing demand for Oriental teachers can hardly be supplied by any other institution that I know of, and it is manifestly impolitic to abolish this College and to fall back for fulfilment of our needs upon the old marktab and patshala systems, of which the revival would be a questionable benefit from the point of view of modern education.

I am, therefore, of opinion that the Oriental College must be maintained in its integrity. At the same time I think that the institution should be thoroughly overhauled, and a searching enquiry made as to the sufficiency and soundness of the courses of study prescribed and of the methods of teaching followed therein. These are, in my judgement, capable of improvement; and unless in respect of these, the Oriental College keeps pace with other progressive educational institutions in all the departments of knowledge which it has made its own, it will fail. I am afraid, in promoting "the enlightened study of the Eastern classical languages and the diffusion of the European sciences through the medium of the vernacular languages of the Punjab."

I may mention in this place that the last named object, namely, the diffusion of the European sciences through the medium of the vernacular, has not, so far as I know, been very materially advanced by the Readers and Translators who have in past years been appointed to the few endowments which were created for this purpose in connection with the Oriental College. These endowments are of small value and it is idle to expect graduates who look upon them in the light of a subsistence allowance to teach in the general knowledge department of the Oriental College, and at the same time to produce good translations of text books of Western science into the vernacular.

The want of such translations has always been very keenly felt by the University, and it was with a view to supply this want and to promote the production of sound vernacular literature in this Province that in the beginning of 1897 the Syndicate appointed a Standing Sub-Committee charged with the duty of supervising the preparation of approved vernacular books, and made a budget, provision of Rs. 2,000 per annum to meet the expenses incidental to this work. Three text books have so far been translated into the vernacular under the supervision of this Committee, and more would have been taken in hand, but for the fact that owing to financial difficulties the University has
withdrawn the budget grant that had been sanctioned in 1897. I have been acting as the Secretary of this Committee since November 1898.

(C) TEACHING ON THE ARTS SIDE.

The next question for consideration is whether the Punjab University should be made a teaching University in the Faculty of Arts. This question is not free from practical difficulty, though in the abstract a proposal of this kind has its attractions and commends itself to all persons interested in the promotion of sound learning and genuine culture. In arriving at any definite conclusion on this question the Commission will have to take into consideration the resources of the University, the peculiar circumstances of the Punjab, and the existence and number of denominational institutions affiliated to the University which are managed by private bodies in various parts of this Province.

My own opinion, formed after some deliberation, is that the Colleges should be allowed, as at present, to teach up to the B.A. degree for the Ordinary or Pass course (to which I shall presently refer), and that to that extent and for that purpose the University should remain, as is the case now, merely a examining body. It may, however, well assume teaching functions in post-graduate studies as also for the purposes of the B.A. Honors examination.

After the matriculation, there should be, in my opinion, a bifurcation of studies into an Ordinary course and an Honors course, and the present Intermediate examination may with advantage be reduced to a House examination. The Ordinary course should be a graduated course of not more than 3 years, comprising 4 subjects, 3 compulsory and one optional, which a student who has no aptitude or inclination for higher study in special branches of knowledge, should be able to go through without much difficulty, so as to take the Ordinary degree after 3 years' reading in an Arts college. The Honors course should be so framed as to enable a student who takes it up to specialise from the matriculation upwards in one particular branch of learning, and the examination for the Honors degree should be more searching and cover a wider range than is the case at present with our degree examinations. The University might very well undertake the teaching for the Honors course, so that no student should be able to present himself for the Honors examination who does not attend the lectures of the University Professors. In this way, the majority of students who do not hanker after, and are not fitted to achieve, academic distinctions, will go through the ordinary curriculum of the various colleges in the Province and pass the degree examination very much as they do at present, while the minority of earnest learners will be enabled to concentrate their whole intellectual energies on single subjects, and by thus laying the solid
foundation for original thought and deep research will in after years strengthen the ranks of literary men in this country. The present system of college education, while greatly multiplying the number of graduates with a smattering knowledge of several subjects and a thin veneer of Western thought, has failed to produce the men we stand in need of,—men moved by a deep, genuine love of knowledge and equipped with all the apparatus of modern scholarship, who may lead on the literate classes of the country to high ideals of moral and civic duty and breathe new life into indigenous institutions, so as to bring them into line with the more energetic and refined civilization of the present age.

In order that our colleges may produce such men, the institution of a system of University teaching by means of competent University professors seems to me to be urgently called for, care being taken at the same time that for the purposes of the Ordinary degree the University should in no way interfere with the status quo, and should, in fact, try to facilitate, in the interests of general education, the passage of the majority of students through its affiliated colleges.

It will thus be seen that I am in favour of the appointment of University Professors and Lecturers who will teach only for the Honours course, while I would leave the teaching for the Ordinary course to individual colleges. In my opinion it is both impracticable and inexpedient to frame a list of recognised teachers in this Province; and it follows from what I have said above that candidates for degrees should not in all cases be required to receive instruction from teachers appointed or recognised by the University.

CONSTITUTION.

(A). THE SENATE.

The present number of the Fellows of this University is 136. Of this 64 are Europeans and 72 natives of India; 85 officials and 51 non-officials; 85 residents in Lahore and 51 non-residents. The number of Fellows named in the Act of Incorporation is 125, so the Senate of 1902 is by no means unwieldy compared with the Senate of 1882. The circumstances under which the University was constituted 20 years ago necessitated the nomination of a comparatively large number of Fellows, representing the Native States, the official classes, the landed aristocracy, and the educated people of the Punjab, as it was through the helpful influence and co-operation of these that the Punjab University College was raised to the status of a University. The University still stands largely in need of this influence and co-operation, and under existing conditions of educational progress it is, I think, inexpedient to reduce all at once the numerical strength of the Senate. In as much as, however, it is becoming more and more necessary every day, in the interests of sound education, to have on
the Senate persons who are well qualified to advise on questions relating to University education, the time has come when even in the Punjab Fellowships should not be given merely by way of compliment, and advantage may be taken of the elimination by death or otherwise of Fellows to place a reasonable limit on the number of our Senators. In order, also, to remove the impression that a Fellowship is merely a social distinction and carries with it no responsibility towards the University, the adoption of a rule that Fellowships shall be vacated by non-attendance at meetings seems to be imperatively necessary, the more so as it will gradually result in purging the Senate of many amiable persons who only retard the appointment of more active workers in the cause of education.

I may add that I am not in favor of a change being made in the tenure of Fellowships by making them terminable. Such a change, I consider, would not be conducive to the best interests of high education in the Punjab as under such a system the University would run the risk of being periodically deprived of the knowledge and experience of its working acquired by many a Fellow during his tenure of office, resulting in a possible serious interference with the continuity of a consistent educational policy. Let the best available persons be appointed Fellows, and let the authorities be guided in appointing them solely by considerations of fitness for the work to be done by them, but once they are appointed let them acquire experience and gain authority which sound experience gives, and let them serve the University for their lives.

The Act of Incorporation allows the Senate to nominate a certain number of Fellows, and so far as I am aware only 8 Fellows have been nominated in pursuance of this provision. The Senate has not in recent years felt disposed to exercise this privilege, and its non-exercise does not appear to me to have resulted in any disadvantage to the Senate or the University. Any other form of election or nomination does not seem to be very urgently called for.

(B.) THE SYNDICATE.

The Syndicate at present consists of 21 members, including the Vice-Chancellor, and all the six Faculties are adequately represented on it. As 12 of the syndics are actually engaged in teaching, the colleges enjoy a very full share of representation, and Government has on this Board no less than 4 accredited exponents of its views.

(C.) FACULTIES AND BOARDS OF STUDIES.

The Senate is divided into 6 Faculties, each Faculty having its own separate Board of Studies. This division is a sound one, and the Faculties with their several Boards of Studies have, I venture to think, been working to the satisfaction of the Syndicate and the Senate.
I consider that the rule that every member of the Senate must belong to one Faculty at least, in this Province, a salutary one, and that it should not be abrogated, though I am disposed to favour the proposal that each Faculty may be further strengthened, if need be, by adding recognised teachers and graduates with Honors in the special subject of the Faculty.

GRADUATES.

I certainly think that it is very desirable that a register of graduates with their addresses should be formed and kept up to date so that the University may be able to keep in touch with its alumni.

STUDENTS OF THE UNIVERSITY.

If the University can hope to perform such an Herculean task, it should certainly look after the physical and moral welfare of the students of all affiliated Colleges, but I very much doubt if with our present resources and the existing means of control over the Colleges this is at all practicable. I am afraid that for some time to come this University will have to content itself with stating in general terms, which may practically be disregarded, that it expects every College to do its duty in these respects, as anything in the nature of a vigilant watch over the internal administration and economy of the colleges, many of which are denominational, may be resented as an unwarrantable interference with private enterprise.

The provisions for the physical and moral welfare of the students will, therefore, have largely to be left to the various colleges in this Province, but it is both feasible and necessary, in order to foster a genuine University life in Lahore, to organize under the auspices of the University literary and scientific societies and recreation clubs which would bring men of different colleges together and create around them a bracing atmosphere of common educational interests and identical aims of life.

UNIVERSITY TEACHING.

It is to some extent true that many students begin their University course without sufficient knowledge of English to profit by the lectures they attend. But it seems to me that this short-coming has been rather exaggerated. Considering that these students are taught before entering the Colleges in large classes mostly by Indian teachers, who are not well paid and who are not themselves thoroughly well grounded in English, and considering also that the change from school life to college life is attended in most cases by new methods of teaching and new sets of teachers, mostly Europeans, it is not at all surprising that when these students begin their University course they appear to know less of English than they actually do, and being unaccustomed to the lecture of an English Professor, they for the first few months of the 1st year
are unable intelligently to follow them. This defect will be gradually removed by allotting more time and paying greater attention to the teaching of English in schools and by employing better qualified English teachers.

I am strongly opposed to the fixing of an age-limit for candidates for the Entrance examination, as I believe that such a limitation would not only serve no educational purposes, but would unnecessarily retard the progress of students who complete their school course early in life and whose parents or guardians are anxious to prepare them for examinations in regard to which an early age is either a prescribed condition or a ground for preferential distinction. A similar proposal was brought up before the Syndicate of our University last year, and I still adhere to the opinion which I then expressed that the suggested limitation is entirely uncalled for, and is intensely unpopular among the educated classes of the Punjab.

The establishment of a School of Theology will be of no practical good to this Province, and it is possible that the motives of Government, with which the University is identified in the popular mind, may be misunderstood and misrepresented in connection with this scheme. The comparative study of religions is prima facie a very desirable object, but I very much doubt if the existing conflict of religious opinions will allow of such a school being organized, endowed, and worked so as to promote a spirit of toleration and mutual good will among professors of the various creeds prevailing in India. I should be in favour of leaving the religious problem in India for the present severely alone, as it is probable that in trying to unravel the tangled skein of religious questions, the University may find itself landed in difficulties which may detract from its usefulness as an unsectarian educational centre.

M. SHAH DIN.
Hostels should be established in connection with Colleges and High Schools and placed under resident supervision. College hostels, as far as possible, should be under European supervision. Those European Professors who are well known for their genial disposition and warm sympathy with the aims and aspirations of their pupils should alone be selected for the important duties of supervision. The proper provision for board, lodging and the moral discipline of students in hostels should be made a condition of affiliation of Colleges to Universities. Suitable quarters should be provided for the Professors of Colleges. All such Professors, more especially European Professors, should be enjoined to promote social intercourse between the students and themselves. Such social amenities will most assuredly conduce to the healthy formation of character and prove a most powerful means to acquire the English language. For the acquisition of a living language mere book reading is not enough. An insight into a foreign literature does not necessarily signify a thorough knowledge of the language.

This defect has given a plausible handle to some witnesses before the University Commission for criticising the English style of Indian graduates. Interesting, but at the same time instructive, text-books may be prescribed, the power of observation may be strengthened by equipping the mind with the scientific methods of thought, but the English language with which the Indians generally, and the Punjabis more particularly, struggle cannot be efficiently acquired without a free intercourse with the English Professors. In High
Schools a similar system should be adopted, and the teachers should be ordered to develop the conversational powers of their pupils. Mere paraphrasing and giving explanations of difficult allusions can, by no means, accomplish the object. I have personally known many students who were unable to speak even two words in correct English, but who could paraphrase tolerably well.

There is a strong consensus of opinion about reconstituting the Senates of the different Universities. I entirely concur in the well expressed opinion. I shall, however, add that the Managers of important High Schools should also be selected as Senators, because, in the first place, they take a keen interest in educational matters, and in the second they, I submit, are better qualified to know the needs and requirements of the recipients of Primary and Secondary Education.

A European cannot fully realise the difficulties with which a Punjabi child is surrounded. He begins with the Urdu which is not his mother tongue, although closely allied to it, and gradually as he advances in years he is overweighted by the multiplicity of subjects. Those who are conversant with the present state of the Primary and Secondary Education in the Punjab will in this respect bear me out. A drastic reform in these two important departments will most certainly produce better and healthier students.

As at present advised, I cannot approve of the School Final Examination being kept distinct from the University Entrance or Matriculation Examination. In my opinion the present scheme of studies requires a thorough overhauling before any such distinction is to be observed.

There is a general cry against 'cram.' Cramming no doubt deserves a sweeping condemnation; but, as long as public examinations are the sole test of proficiency, 'cram' will be most assiduously resorted to. It is unquestionably true that cramming is much encouraged by various competitive examinations. Professional 'coaches' owe their existence to such examinations. To avoid cramming and to educate the mind small textbooks should be discontinued. The subjects should be so arranged as to excite mental curiosity, and to raise the tone of mind and, in short, to make them
both interesting and instructive. The system of payment by results as the sole method of calculating the grant-in-aid is a further inducement for cramming. Scholarships as at present given by competition prove a strong incentive to cramming.

For the general efficiency of High Schools more Training Colleges affiliated to the Universities should be established, and the teachers of English in Secondary Schools should be thoroughly qualified and able to speak English correctly.

Grants to Primary and Secondary Schools should depend upon attendance, buildings, teachers, discipline and the circumstances of the locality. In my opinion the grants should be more liberal, and sympathetic Inspectors should be deputed to conduct Departmental Examinations in situ.

To sum up, I am of opinion that English has now become the chief classical language of the whole country. To improve the knowledge of the English language and literature there should be a close and intimate connection between the teacher and student. He should not like Dickens' Yorkshire School Masters rule with the rod of iron, but like old masters of our indigenous schools and spiritual guides he should win the regard and esteem of his pupils.
If the College career is to be considered, as in England, as something quite distinct from the school course, a complete separation between the two is advisable, and every institution, which is to be recognized as a College, should be prepared and equipped for teaching up to the B.A. Standard, and should be represented in the Senate.

The close connection between College and School when they are combined in the same institution, especially in large boarding establishments, hinders the development of the College and renders the maintenance of discipline by the school teachers more difficult. There is also a great danger of trouble in other ways, which will readily suggest themselves to those who have had charge of large boarding houses containing boys of all ages.

The disabilities of isolated Colleges are many, particularly as regards participation in—

(i) Inter-Collegiate and University Lectures;

(ii) Use of a University Library;

(iii) Social intercourse between Members of various Colleges;

(iv) The frequent Athletic contests between different Colleges, which form such an important feature of University life.

The B.A. papers in English do not seem to be arranged so as to thoroughly test the candidates' knowledge of the subjects set. Complaints are made.
that they are so lengthy that no time can be spared for thoughtful answers. As the marks are at present allotted, there appears to be little scope for any display of individual taste or originality of thought.

The majority of First Year students enter upon their College career without a practical working knowledge of English. I would suggest that much more care might be devoted to acquiring English conversation in the High School. At present book words and book knowledge appear to be the chief aim.

There is a tendency in some private institutions to be careless in providing the funds necessary for the proper maintenance of the College under their control. Where this is the case an endeavour is made to run the institution on cheap lines, and it is very difficult to maintain a high standard of efficiency.
Punjab.

Note by J. G. Gilbertson, Esquire, M.A. (Edinburgh), Superintendent, Mission High School, Lahore.

I. The University.—I am strongly in favour of a Teaching University, but this, I believe, is not yet possible for the Punjab. Failing this the Affiliation Rules should be so framed as to give the University a greater control over the Colleges.

The Senate and Syndicate need remodelling to give better representation.

I would have Fellows hold their appointment for a limited time, making ability, and time to take an active interest in the work of the University, the main qualifications. A fixed proportion of the whole number should be appointed by Government and the remainder should be elected, partly by the Senate, and partly by the Graduates of the University.

In forming a new Syndicate I would give "Subjects of Study" rather than Colleges the first consideration in representation.

Similarly the members of the Boards of Studies should be appointed with regard to the work to be done, and not, as at present, be appointed simply as the Faculty's representatives in the Syndicate.

II. Examinations.—I believe it would meet the requirements of the Colleges if the Entrance Examination were done away with as a standard of Education, and an ordinary Matriculation Examination were to take its place. The Middle School Examination should also be done away with.

The University should exercise no control over the School in any respect. The School should be absolutely in the control of the Education Department up to its leaving certificate.
I would also like to see the Intermediate Examination abolished. I do not see that it serves any good purpose. In addition I would so modify the regulations for the B. A. as to make it possible for a student to take this degree in three years.

I would also alter the M. A. regulations so that a student should be required to pass in two subjects—though not necessarily at the same time—with the option of taking Honours in either or both of his subjects without prejudice to his taking the ordinary degree if he failed to take his Honours.

The examinations in Arts, and correspondingly in Science, would thus be—

1. Matriculation—
   Minimum age 15 complete years.

2. B. A. and B. Sc.—
   After three years' study.

3. M. A. and M. Sc.—
   After two years' study.

4. Doctor's Degree—
   Five years at least after taking the Master's Degree.
Punjab.

Note by Harkishen Lal, Esquire, B.A. (Cantab), Barrister at-Law, representing Government College Graduates' Union.

I. Teaching University.—It appears that there is a general desire to convert the existing Universities in India into teaching bodies. I submit that the University of the Punjab is, to some extent, already a teaching body, as it directly maintains an Oriental College and a Law School. The present state of things is such that the University of the Punjab could easily be converted into a teaching body. The best Colleges are all situated in Lahore, and could, without much difficulty, introduce an inter-collegiate or combined system of lectures. If the scheme of examinations be slightly altered, we could at once have a teaching University and keep the Mufassil Colleges in efficient conditions. I would humbly suggest that the Middle School Examination and the Intermediate in Arts Examination be abolished and the University course be divided into the B. A and M. A. or Honors Examination alone. The B. A. Examination taking 3 years after the Entrance and the M. A. or Honors course 2—3 years after the B. A., I would confine the M. A. or Honors course to Lahore and the Mufassil Colleges to be recognised to B. A. standard only. The M. A. or Honors to be given for proficiency in one subject as now.

If we adopted this system it would have one further advantage. The spirit of the day in the Punjab is to organise sectarian institutions and to infuse sectarian spirit in the students. By a combined course of studies this spirit would receive a slight check. My meaning would be clear by mentioning that the Punjab has established in the last 10 years or so—

one Chiefs' College,
one Arya College,
a Sikh College,
an Islâmia College, and
a Hindu College.
Besides the various Colleges at Lahore which could organise a combined system of lectures, the University itself could appoint a few lecturers by diverting whole or part of the funds of the Oriental College and increase their number as its funds increase.

II. Sphere of influence.—I think each University should have a sphere of influence defined; and the Viceroy in Council should have the discretion vested in him to alter and vary University jurisdiction as the altered circumstances of the country required. But the various Universities may advantageously recognise the examinations of the sister Universities, to allow candidates for their own examinations.

III. Constitution of the Senate.—The rules laid down in the Act of Incorporation are sound, so far as they go. In practice, however, they have not been followed. The Chancellors have appointed persons to the Senate not qualified under the rules, and appointments have been made as New Year's honors. I fear that the election of Fellows by the Senate has not been countenanced, and it is a fact that with one or two exceptions the Senate has not exercised the right of election. The matters require to be looked into and set right. Further, the right of election should be conferred on affiliated Colleges and the graduates of the University. Proportions to be fixed somewhat on the lines suggested by the Government College Graduates' Union. The maximum number of Fellows to be fixed as the minimum is already fixed, and the appointments to be made terminable on expiry of say 7 years, or continuous absence from meetings say for one year.

IV. University teaching languages.—It is only rarely that students enter upon their University career with sufficient equipment to follow the lectures which are given in English. But it is a general complaint that though the students can reproduce Shakespeare, Milton or other authors by heart very few can express themselves on ordinary affairs in fairly correct English. They do worse in their own vernaculars, and are not capable of doing anything in the classical languages that they may study
up to the highest standard. I submit that these defects arise from—

(1) too frequent examinations;
(2) too large classes in schools, where personal attention of the teachers to composition is impossible;
(3) too many subjects of study in early years;
(4) absence of thorough grounding in their own vernaculars;
(5) reading, writing and thinking about things that much concern us in everyday life;
(6) too much attendance in lecture-rooms in Colleges; and
(7) continuous application to study from early morning to late in the evening.

V. Languages continued.—In my humble opinion every educated man in the Punjab should be taught fairly well three languages—

(1) English.
(2) Vernacular.
(3) Arabic (for Muhammadans) or Sanskrit (for Hindús).

If the University Commission could induce uniformity in writing characters in the School teaching for various languages, say Roman letters, they would enable students and teachers to save considerable amount of time and confer a lasting boon on the community.

The difficulty of imparting religious and moral instruction would be more than half solved if the educated people were instructed in Sanskrit or Arabic as they happened to be Hindús or Muhammadans.

VI. Political Economy.—Another study which does not receive proper encouragement is the Political Economy. It has no place in the present scheme of studies before one enters the stage of B. A., and here also it is assigned only a secondary place, being coupled with History. In my humble opinion sound economic principles should be taught early and more generally. I venture to assert that a considerable percentage of
our ills is due to economic revolution that has taken place and is proceeding fast by the altered state of affairs brought about by the—

(a) change of Government;
(b) scientific discoveries; and the
(c) economic ambition of European races.

I believe that a more general and accurate knowledge of economic facts and principles will have the effect of alleviating our miseries and dispelling suspicion with which people now view all the economic acts and measures of the Government of India. I would further suggest that teaching in this branch of study should have special reference to the economic phenomena of India; and that special chairs should at once be founded in connection with Indian Universities to enable the incumbents to collect and study the economic facts of the country and to generalise truths therefrom.

VII. Examinations.—In this connection I would beg leave to suggest—

(a) That in the language examinations too much stress should not be laid on mere rules of construction, the solution of mythological problems or historical allusions, or the histories of literatures as a correct composition and lucidity of style. The papers should be intended to test more the command on the language than mastery of the text-books.

(b) Uniformity of standard of examinations should be insisted upon and a system of grace marks introduced. Further, if a student fails in any one subject and shows sufficient competency in others, he should be examined in that one subject only to qualify for Pass six months after the date of examination at which he has failed. His promotion should not, however, be stopped.

VIII. Affiliated Colleges.—(c) Though it is not possible to form a list of recognized teachers or lay down any fixed and definite rules for the selection of Professors by various governing
bodies, I would suggest that Indian Professors, employed in Government, Aided and Unaided Colleges should be encouraged to proceed to Europe and to gain proficiency in higher studies and better organisations. In this connection the Indian Government scholarships, now awarded to students for finishing their studies in Oxford or Cambridge, may for a time be diverted to this direction. It is essential, in the interest of sound education in the country, that a class of teachers should be produced who should combine double training of Indian and European Universities.

(b) The spirit of competition in fees in the affiliated Colleges should be discouraged. A fair standard of fees should be fixed; the present standard of fees in the Government College of Lahore being too high, it should be reduced.

(c) Some tutorial system should be introduced to bring the students into closer relation with the Professors and to enable the Professors to take personal interest in the welfare of the boys.

(d) The moral, intellectual and physical deterioration of young men is due mainly to the too rigid system of school life. The schools and Colleges have very inconvenient hours, especially in summer. The students are given an almost unlimited quantity of task to do out of the school hours, they have to devote attention to a number of subjects at an early age, and they receive no personal attention from their teachers or Professors. To remove these defects some modification in the school routine should be made, and corresponding to a tutorial system in College, special instructors for moral and physical training should be employed, whose certificates should be required to enable a student to go up for the examinations.

IX. General.—On other points I concur with the suggestions submitted by the Graduates’ Association of the Government College.