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NESS NO. 1.—The Very REVEREND FATHERE LAFONT, S.J., C.I.E.,
M.I.E.E., Rector, St. Xavier's College, Calcutta.

It might be desirable to recognise the University of Calcutta as a teaching
Teaching University. body on the lines of the London Uni-
versity with, for instance, in the Presi-
dency College, professors appointed by the University and in the other colleges
professors and teachers recognised by the University. But before expressing
opinion witness said he would like to know what qualifications would be
required from teachers and professors in order that they might be recognised by
the University. The President said that before the name of a teacher appeared
in the University Calendar he should show some qualification of degree, or
experience, or experience in teaching. Witness enquired further whether
academic qualifications would be limited to the degrees of a University
and whether the University would be prepared to accept as a qualification the fact
that a teacher belongs to a teaching order. The Jesuits never take degrees,
but are prepared very carefully, and in a manner which is equivalent to any
education that can be given to teachers. Would the training which they receive
in their order be sufficient to qualify them without any academic distinction?

The President said that some qualification should be required, though not
necessarily a degree. Witness said that in that case he is of the opinion that it
would be an excellent measure to have the University transformed into a teach-
ing University with recognised teachers not necessarily qualified by academic
degrees. The mere possession of an academic degree, whether M.A. or B.A.,
does not necessarily qualify a man for teaching.

The centralisation of advanced teaching in certain branches of science,
the establishment of laboratories and the appointment of teachers to whom
advanced students of the University may go, already exists partly in the fact
that the Indian Science Association of Dr. Mohendro Lall Sircar teaches up to
the B.A. degree in Science and to the B.Sc. degree, and that attendance at the
lectures in that institution qualifies a student to present himself for these examina-
tions. What is done in this case might be done in others, so that colleges
which have no laboratories of their own might send their students to other
institutions for the science courses.

Witness is hardly prepared to accept the arrangement that if University
lectures are established not only for Science but for other subjects as well, that it
should be possible for the students of different colleges to take advantage of the
lectures, not only on account of the difficulty of distance, but also on account
of the internal arrangements of the colleges. It would be extremely difficult for a
college to send at one time of the day some of its students to a certain course,
and others at another. It would disarrange the routine of the colleges. It would
be rather difficult to adjust the finances of the colleges. If students are
to pay tuition in one college for part of the day, and in another college for another
part of the day, to whom would they pay their fees? (The President pointed out
that the matter could be adjusted as one of account.) The arrangement would
be more feasible after the B.A. degree, because many of the colleges do not go
beyond the B.A. or B.Sc.

It is desirable that each University should confine itself in the affiliation
of colleges to its political and territorial
Spheres of Influence. limits. Colleges situated in the Punjab
should not come and ask to be affiliated to the Calcutta University. There are
many instances in which colleges far removed from the Bengal Presidency have
been affiliated to Calcutta, when they have a University at their very
door. That is undesirable. Each University should have its local sphere of
influence.

It has been represented that these bodies have become too large. A good
many of the Senators are members of the
Senate. simply because they are distin-
guished persons and not for any special qualifications in educational matters,
in consequence the Senate is burdened with many members who very
seldom attend its meetings, and when they do attend hardly take part in the
discussions, because they have no immediate concern with education.

Membership might be confined to those who have made education the real concern in life, and who have experience in education, either because they have been managing educational institutions themselves, or are actually engaged in educational pursuits. Witness would prefer to the existing Senate a rather smaller and more carefully selected academic body. The Fellows now in the Senate should be eliminated by natural means, by death or absence. It would be hard to deprive a man of his Fellowship now, but the experiment of appointing men not really interested in education, should not be repeated. In this manner in a few years the number of members could be reduced considerably. There would be no objection to elimination by the attendance test. New appointments to the Senate should not be limited to a term of years, such as five years, because if a man is worthy of being a Fellow, he is worthy of being a Fellow as long as he can serve.

The objection to elections is that there is a great deal of unworthy canvassing. Appointment, by competent authority is preferable. If a candidate simply writes to the electors specifying his qualifications, that is hardly canvassing. The graduates do not know enough of the candidates to be able to give an intelligent vote, and the result is that they are led by a few moving spirits who determine the election. The election is therefore a sham. The University life here is not to be compared to that of Oxford or Cambridge, where men know each other. It is the duty of the appointing authority to inform itself as to the qualifications of the would-be candidates. This duty will be performed more satisfactorily by the higher authorities of the Education Department than by the graduates of the University, many of whom do not know each other at all, and whose qualifications even though good at the time of passing their examinations, may have dwindled to almost nothing by disuse, by the neglect of classical studies, or by following a profession in which they are not bound to keep up their knowledge. Witness has met occasionally with very successful students in Science, who, two or three years after the Examination, have lost almost all their knowledge. This is one of the reasons why the B.A. or M.A. degree does not constitute a sufficient qualification for teaching. The results of nominations and of elections in the Calcutta University show that nominations are on the whole more wisely made than elections. There have been mistaken appointments by both methods. All the nominations have not been unimpeachable, nor have all the elections been objectionable. The Senate is rather over-weighted now by reason of a certain number of gentlemen who were appointed Fellows while in Calcutta, and who have had to leave Calcutta and reside in other places. That accounts for a good many absentees.

There are at present twelve members on the Syndicate, including the Vice-Chancellor and the Registrar. That is a good number. Large committees are a mistake. Members of the Syndicate should be resident in or near Calcutta. Mofussil colleges can write to a member of the Syndicate when there is a matter of importance which concerns them, and ask him to interest himself in the matter. Witness has received communications from mofussil colleges when matters of importance were to be discussed before the Syndicate. The complaint that in the election of Syndics by the Faculties, the claims of the teachers are not sufficiently considered, so that there may be a Syndicate in which the preponderating number are not teachers, is to some extent well founded and is due to the fact that a certain amount of canvassing goes on for the election of Syndics. It is, however, hardly possible to compel Faculties to elect in a certain direction. Witness would not dare to advocate the restriction of the field of choice of the Faculties by requiring that a certain number of the Syndics should be drawn from teachers of colleges. The Faculties should be left unfettered. The colleges are pretty well represented on the Syndicate. At present there are four such representatives, *viz.*, the Principal of the Medical College, the Principal of the Engineering College, the Rector of St. Xavier's College, and Mr. K. C. Banerjee. Perhaps the President of the Faculty at the election might call the attention of the Fellows to the fact that it is desirable to

have men actually engaged in education on the Syndicate, and a good many would probably vote in accordance with that hint. The Director of Public Instruction has always been a member of the Syndicate. Asked whether he would not desire to secure that result permanently by the provision of *ex-officio* members, the witness said that the system of *ex-officio* members in such a small body as the Syndicate would not work well. The Allahabad University makes provision for *ex-officio* members, but their number is as large as 19. A Syndicate of 19 would probably in practice be very much like the one there is now. People would, however, absent themselves more readily when they knew so many could and might come, whereas now each member of the Syndicate tries his best to attend the meetings. It would be best to keep to the present constitution of the Syndicate with possibly powers in the Governing body of the University to appoint a few *ex-officio* members. An increase in the number of Syndics would increase the difficulty which arises from the rule that they may receive no remuneration for any work they may do, such as examination work. It would limit further the field of selection of examiners. The rule prevents many teachers from becoming candidates for the Syndicate. It is, however, a wise rule and has been in force for more than ten years.

Then there is an enquiry in the note as to whether the Syndicate ought to have a statutory basis. At present the Syndicate as a committee of the Senate is, in all respects, subject to the Senate. It would be a good thing if in regard to certain points, as for instance, exemptions in cases where students have not quite kept their terms, the Syndicate were made independent.

There would be no objection to mofussil heads of colleges or professors being on the Syndicate, provided they were willing to attend regularly.

If the constitution of the Senate were altered as suggested above, then there would be no harm in having every member appointed to a Faculty. Members who are not Fellows of the University should not be superadded to the Faculties. The Faculties should be, as at present, committees of the Senate without any admixture of persons who are not Fellows.

The Boards of Studies are very useful bodies for advising the Syndicate as to the selection of text-books, but they are somewhat too energetic in that portion of their duties. They are constantly changing text-books. It is most extraordinary to see the manner in which text-books are being changed without any adequate reason. Whenever there is a new edition of a treatise or book the Boards of Studies consider it their duty to amend the list. This is a great hardship both on teachers and students, and it is not always an improvement. The Boards of Studies are pestered by publishing houses who keep flooding their desks with circulars and letters begging them to appoint their editions of this and that work to be text-books for the next examination. This sort of commercial transaction should be discouraged.

If the same text-books were prescribed year after year without change, there would not necessarily be a tendency for the teaching of those books to become a fixed routine. It is the part of a teacher's duty to try and be up-to-date in such matters. The text-book is a canvass which the Professors should embroider. It is not necessary that a student should have the latest edition of everything. To take a case in point. When the latest edition of Ganot's Experimental Physics was appointed nearly all the additions and improvements in the book were marked to be omitted in the syllabus printed in the University Calendar.

The Syndicate is not solicited by the publishers to the same extent as the Board of Studies, although individual members receive circulars. The Syndicate never sets aside the recommendations of the Boards of Studies in the matter of text-books. It is very seldom that any remarks are made, so that the authority is really vested in the Boards of Studies much more than in the Syndicate.

It is necessary that text-books should be recommended absolutely for this reason that the field of science, speaking for that subject, is so vast,

Text Books.

that no single man existing, can be a master of the whole of the field, and if students are left roaming about without a guide they will not know which way to turn their steps. It is therefore necessary to give them some idea of what the requirements will be. This does not necessarily imply that any particular book is to be followed in a slavish manner, but that students and teachers are to be given some idea of what is the extent of knowledge required. A syllabus such as we have does not suffice. It is much too elastic to guide the teacher or the students. The syllabus of the F. A. may be applied so as to include matters which are suitable only for the M. A. examination. Witness is chiefly concerned in the appointment of text-books in the M. A. Some of his colleagues were against it, but he gave the reason that the range of modern science is so enormous that it is necessary to particularise with some definiteness.

There is not much difference between prescribing text-books, and defining subjects and recommending text-books. If the examiners were always careful in making their questions so as not to travel outside the limits of the recommended books, that would be all right, but it is very difficult to get examiners to confine their question within a well-defined circle and this can be secured more efficiently by appointing a good text book, which does not necessarily limit the teaching of the teacher but gives him at least some guidance in his teaching. In reply to Mr. Pedler witness said that when he travels outside the syllabus some of his students stop him. The other day he was led to say something about the polarisation of light, when one of his students informed him it was not in the programme of the examinations. This, witness admitted, is not a satisfactory state of things, but without a text-book both teachers and examiners are in the dark as to what sort of questions will be put to students. These remarks may apply to other subjects, but as witness is only an expert in science, he would not venture to express an opinion decidedly, except in his own subject.

Professors of Science are forbidden to be examiners. The rule is open to objection but, unfortunately, has got some good grounds. ~~There were good~~ reasons why the rule was introduced. ~~It is certainly a deplorable state of affairs,~~ because the best examiners ought to be, and are in point of fact those who teach. The appointment of teachers of other Universities to be examiners is not a complete remedy, because communication between the Universities is so easy that students of the Calcutta University may get to know beforehand pretty fairly the questions intended to be given to them not from the examiners themselves, but from their co-students in other Universities. Each professor has a certain number of set questions which are known to his own students, and if these set questions were communicated from University to University, there would not be much improvement. The names of the examiners are printed in the University calendar. It would be difficult to keep them secret. The suggestion that for the M.A., examiners might be appointed in England is not sound. Examiners appointed in England not being in touch with Indian Universities and colleges, and with the state of affairs in India, may treat the students too much as English students are treated, and that would not work well. The University employs in some cases examiners in England, such as Mr. Tawney, for special high examinations, but there are very few candidates for these examinations, and for ordinary examinations the plan would not be practicable. English examiners might mistake the standard to which Indian students have been educated, and unless they take the trouble to study very carefully the calendar and to acquaint themselves with the range of subjects as taught here, they would not be really desirable examiners. The same objection does not apply to examiners living in England who have, like Mr. Tawney, had Indian experience. It would be disastrous if the appointment of Examiners in England for the Indian Universities in common reduced the University Examinations to uniformity.

Dr. Mookerjee enquired whether it is not a fact that, in spite of that rule to which reference has been made, the papers are actually set by people who are experts and who are actually teaching the subjects of which they are examiners, although not for the examination in which they set the papers.

For instance, for the B. A. Physics, the papers set are by Mr. Macdonald, who although he does not teach Physics in the B. A. classes, teaches Physics in the Seebore Engineering College. In the same way the B. A. Chemistry examiner does not teach B. A. Chemistry, but Chemistry in the Engineering College.

The witness said that the selection of examiners is as careful as it can be, considering the rule.

In many cases these certificates are granted too easily, and the recent Committee appointed by the Senate to revise matters concerning the B. A. course have recorded a decision that the Principal should satisfy himself by proper tests that the candidate has a chance of passing. There are test examinations at the end of every year in St. Xavier's College, and the College does not send up students who fail in these test examinations. It has come to the knowledge of witness that three Entrance candidates who failed in the test examination and were therefore not able to obtain permission to appear from the college, have succeeded in some unknown way in presenting themselves for the last Entrance examination, and one F. A. candidate, who refused to appear at the test examinations, has done the same thing and presented himself from some other college. This shows that there is a certain laxity in granting certificates. The University has certain rules requiring that attendance should be stated and certified. Witness cannot therefore say how the students succeeded in getting admission to the examinations.

Students of the first year and third year who, after the test examinations, are considered unfit to be promoted to the next class, are allowed to go to another college, if they choose, or to come back to St. Xavier's college. A good many simply come back. They are accepted by other colleges, provided they remain in the same year. Some private colleges would perhaps take them in and promote them. A student of St. Xavier's who went to another college, before he could go up for an examination, would have to produce a certificate of attendance from each college where he had attended, and that could not be done until witness had given him a transfer certificate stating the number of lectures he had attended in his college. Witness did not give the four candidates alluded to above such certificates.

The physical welfare of the students can be best advanced by encouraging sports; for instance, by having teams of football and cricket players and encouraging interchange of matches between different colleges. For their moral welfare most can be done by hostels. These hostels are not attached to all colleges, but in many instances endeavour is made to get the students to live in hostels. If possible, some moral supervision should be exercised over students. Witness would approve of a rule that a student must live, either in his own family, or in a hostel or in some place approved of by the University.

Mr. Pedler informed the Commission that a departmental rule of this purport exists in Bengal.

It is highly desirable that there should be an age limit, because there is a tendency on the part of parents and guardians of boys to place them as it were in a hot house and try to prepare them for examinations by dint of cramming long before they are intellectually sufficiently developed to pass good examinations. Students not more than 13 years of age present themselves for the college Department. A boy like that can not have acquired the necessary knowledge preparatory to his entering the University. It is highly desirable to enforce a rule of age strictly and to discourage the production of such monsters. They are monsters over-developed at the expense of their physique; and parents and guardians should be made responsible that a boy at the age of 12 should not be so far advanced. Fifteen is the very lowest limit admissible, especially in view of the fact that most of the Entrance students come to college without a sufficient knowledge of English.

Boys of the college department do not in general know English well enough to understand their lectures. In the case of 80 per cent. of them immediately a word

is used a little out of the way of conversational English, they do not understand it. This is not only witness' own experience, all his Professors corroborate it emphatically. The Matriculation or Entrance examination does not, therefore, seem to be a sufficient test of the knowledge of English required for University studies. The Entrance examination should be considerably reinforced. Too much attention is paid to English literature and not enough to the English language. Boys are very carefully taught literary allusions, and the like, but in simple English composition, grammar and parsing, they are not grounded at all. They are taught to run before they can walk. They may be able to repeat by rote very learned disquisitions about some passage from Shakespeare, but they will not understand what they say. Time after time in the course of lectures on Experimental Science, witness has put questions to his students, and invariably either they do not understand the questions which are couched in the plainest English, or if they do understand, their answers are gibberish. The English of the answer papers in Science is most ungrammatical; the students do not seem to acquire any ease in expressing their thoughts in English. Perhaps one of the reasons for this is that the teachers are not sufficiently conversant with English. Witness has been told that in many cases English is taught by means of Bengali to an undue extent and that teachers are not always sufficiently versed in ordinary colloquial English. The answer to how the Entrance test is to be made more satisfactory will be found in the recommendations of the Reform committee which will come before the Senate on Saturday.

The defect in regard to understanding English disappears to some extent in the college classes. Boys of the 3rd and 4th year have a better acquaintance with English than boys of the 1st or 2nd, but even their English is not improved so far that they are able to understand lectures readily. Lectures in Philosophy must be almost Hebrew to them with the knowledge they have of English. In the college classes they are obliged to speak English much more frequently than before, and they hear English much more frequently spoken. In St. Xavier's College there is a rule that English must be spoken in college, but there is great difficulty in making students conform to it even when they are within the precincts.

Provision is made everywhere for English. Latin is taught in the Presidency College, but Greek is not. St. Xavier's teaches Latin and has prepared a few

Provision for instruction in colleges.

candidates in Greek who wish to go home for further examinations. As a rule Latin is taught only to the Christian students and to such other students as wish to learn it. The Vernacular languages of India are taught in St. Xavier's College by competent moulvies and pundits. In most institutions the instruction in Physics and Chemistry is to a very great extent book-teaching. This is due to the difficulty of providing proper laboratories. In Calcutta the difficulty is partly solved by the Indian Association for the Cultivation of Science which should be aided a little more than it is at present, because it is a very heavy burden on any institution to have to provide proper laboratories, specially if practical lectures are to be delivered. In many colleges there is practically no experimental science. Students take very kindly to practical lectures in experimental science and are anxious to occupy the front benches and secure good seats. Although students are eager to attend such lectures, and find them interesting, they do not in general care for knowledge itself, but only for their diplomas, and they try their luck again and again, until after four or five attempts they secure the coveted certificate. In a class of 150, five or six love knowledge for knowledge's sake, the rest seem bent on acquiring just the minimum of knowledge required to secure a diploma. It is not possible to give individual attention to college students. University teaching should not, like school teaching, address itself to individuals. Witness' idea of University teaching is that competent professors deliver lectures on certain subjects, and that men who are supposed to be capable of benefiting by these lectures, attend them. With the large number of students, tutorial assistance is an impossibility. Individual teaching is not in all cases necessary for practical scientific studies. For certain high examinations like the B.Sc. or M.D., there are practical examinations and therefore individual attention is necessary, but

then the number of students is limited ; for the generality of students witness simply delivers lectures and shews experiments by the aid of projections on a wall, so that the whole of the auditorium can see what he is doing at the table. It would be physically impossible to allow each boy to handle the instruments, there would be no time. Besides if the instruments were put in the hands of novices, they would spoil them. Witness sometimes has 200 and sometimes 250 students in the 1st and 2nd year's classes, and 100 in the 3rd and 4th year's classes. The University might directly undertake the teaching of higher science and the Presidency College might be utilised for the purpose.

[Mr. Pedler said that arrangements already exist in the Presidency College. The students have only to go there. Dr. Mookerjee said the students did not do so because they were allowed to take advantage of nominal lectures at other colleges.]

In the Indian Association for the Cultivation of Science, the lectures are given at such a time as not to interfere with the ordinary routine of the colleges. A couple of such institutions in different parts of the town would certainly be an improvement. About other subjects such as Biology, Geology, Mental and Moral Science, History, Political Economy and Geography, witness has no experience. There is a lecturer for each subject in St. Xavier's College but there is no tutorial teaching in any branch except Mathematics. Students are made to solve problems at the black-board, and the lecturer explains the manner in which they should be done. Work cannot be given to be done at home. There is no time ; students have such a number of matters to digest. There are two great obstacles in the way of tutorial instruction : one, the largeness of the classes and the other the great multiplicity of subjects.

The overburdened course is a reason against the proposal to found a School of Theology. It would have no moral effect, but it would not be objectionable if the study were carried on for a love of knowledge.

Witness is in favour of the absolute abolition of all grace-marks. It would be much better if, when the Board of Examinations meet to consider the marks, they should have the power of simply passing or ploughing the candidates. In one year the Board are very generous in the allotment of grace-marks and in other years they allot grace-marks by certain standards of their own which are a mystery. Students now calculate on getting grace-marks. Mr. Justice Bannerjee asked if witness was not in favour of grace-marks when students obtain a high aggregate and fail only in one subject. Witness said he should prefer the Board of Examinations to settle the matter without the unnecessary complication of grace-marks.

The practice of putting the number of marks to be assigned to each question on the examination papers, is not necessary or useful. It should be left to the examiner's judgment to determine the marking, provided of course that he has a uniform standard for all his candidates. A good many marks ought to be given to book work in Mathematics, because there is so much uncertainty in other work that it is very hard for students to prepare for the possible questions that may be put to him. Sixty per cent. of the marks are therefore rightly given to book work. With regard to the question whether this rule does not lead to cramming, one has to admit that it is impossible to do away with cramming when one has to deal with a race of students who are endowed with the most phenomenal memories. To discourage cram, the questions should be made as practical as possible. In the case of languages the best test is unseen passages. In Mathematics there may be cramming for problems as well as for book work. In regard to Science there ought certainly to be a rule that a certain amount of practical knowledge must be shewn.

It is highly desirable that there should be a Faculty of Science. It would unburden to a very large extent the Faculty of Arts, because all those who would form the Faculty of Science are now drafted into the Faculty of Arts. Instead of creating a new Faculty, one Faculty might embrace Natural and Physical Sciences and Engineering.

All Fellows, including specialists, ought to be capable of being members of the Faculty of Arts.

There is no necessity for having a whole-time Registrar. He would not have enough of work to do, and would be much more expensive than a part-time officer; it would be difficult to obtain a man with the necessary qualifications. A good staff should be secured to second the Registrar by the payment of adequate salaries. The main work falls on the staff which should be composed of good men, for instance, graduates of the University who have some idea of the working of the University. This is to a considerable extent the case at present.

There are regulations for recognised schools which secure that they shall be efficient after, as well as before, being recognised, but there is nothing similar for colleges. It is difficult to say what test could be applied, unless perhaps the submission of numbers in the college and the percentage of failures, somewhat as in the case of schools. The University should have some means of ascertaining from time to time the state of things in affiliated colleges and the progress that is being made, but it is not easy to suggest any means. Even the test which is laid down for the schools is rather a difficult one to apply. It comes too late: the school is not stopped until after it has been bad for several years. If, however, a college is not up to the mark, or is no longer up to the mark, students will soon find it out and leave the college and go to some other institution, so that the mere fact that a college keeps a decent number of students is a fair test of its efficiency. The inevitable evil of cramming again comes to the front, as it is suggested that a college which devotes itself to cramming will not only keep its own students, but attract a good many others. How can one ascertain that a college is a cramming college? It is not easy unless one accepts popular rumour or something of the kind. But a test, and a very serious test, should be applied in every college to all the students. That would prevent cramming to a very great extent. Since the St. Xavier's College has applied these tests it has gained a great deal in seriousness of application to study. If they are applied seriously and the college is rigorous in enforcing the penalty for not passing them, they form one of the best modes of keeping professors and students alike up to the mark. Promotions are stopped and students are withheld from the University examinations unless they shew themselves qualified by passing the tests. These tests can be made to secure better results than the University examinations, which are looked upon as a game of chance. There is not the same element of chance in the College examinations, for there the professors have the advantage of examining their own pupils whose requirements and defects they know. A student is observed for instance, to attend a number of lectures just sufficient to secure his percentage and to absent himself as often as he can. He is marked down as suspicious and will be watched very closely in the test examination. A college that simply makes it a profession to cram the students should be disqualified, but the difficulty is to prove it.

A main reason why the University examinations come to be regarded as a game of chance is that the degrees have a market value. In Bengal they are passports to many things, to some professions, and especially to the marriage profession. Even a failed B.A. is quoted at so much in the matrimonial market, a failed F.A. has another value and so on, and many students have come to appreciate the Calcutta University examinations, as a means to an end, and that end is not always knowledge, but something very different to it. The same may, to some extent be said of the test examination, one cannot prevent the existence of the inferior motive.

Non-Government affiliated Colleges are not inspected by the Government. There should be no objection to inspection by the University. No well regulated college would complain of it. Only colleges who have cause to fear inspection would resent it. That would go to show the desirability of having it. One means of seeing whether a college is being kept up to the mark after affiliation would be an unexpected inspection. All colleges should be inspected as a matter of course, there ought to be no invidious distinctions.

Witness does not believe much in an Honours Course. It is a hindrance to the proper teaching of the Pass Course, and has had the effect of lowering that course. The best teachers devote valuable time and energy to prepare a few men. If they devoted that time and energy in preparing their students generally, it would be far better. If a student obtains 75 per cent. of the marks in any subject, he might be called an Honours student.

Honours Course.

Power ought to be given to the Senate to revoke a University degree in case of conviction of certain crimes. If a man disgraces himself he should be deprived of his degree.

Revocation of Degrees.

Combined lectures are a practical impossibility. Students must belong to one college and not to two. The system would not work well, even when there are a small number of students in each college. It might be left to the authorities of colleges to make combined arrangements, if they found it possible and that it worked well.

Combined Lectures.

The introduction by the Education Department of the High School Examination for European schools has had a bad effect. The idea of the first commission of which witness was a member, was that as many Europeans and Eurasians did not elect to continue their studies in the Calcutta University, it was desirable to have some sort of final test of their scholarly attainments. The standard of the High School Examination is higher than the standard of the Entrance Examination, so that it induces the best students to strive for the school. It operates in this way against the Entrance Examination of the Calcutta University, so that, amongst Europeans and Eurasians it has come almost to be considered as an examination fit only for native students. In this way it has lowered the prestige of the Entrance Examination. Yet, strange to say, some departments under Government do not recognise the High School as a qualification for entrance into those departments, and the University itself requires a verdict of the Senate in each case in which a High School passed student wishes to enter a college. The existence of the two distinct examinations, has not, therefore, been productive of good results. On the one hand it has lowered in the estimation of the public the value of the Entrance, and on the other it has not raised the value of the High School Examination sufficiently to make it a more readily accepted qualification than the Entrance. The Experience of witness is that whenever he tries to get a Eurasian admitted into a mercantile office, the first question is "Has he passed the Entrance Examination." The standard of the Entrance should be raised so high that people could no longer say that it is much better to pass the High School than the Entrance, and then the High School Examination might be abolished.

The High School examination.

WITNESS No. 2—The Reverend Dr. K. S. MACDONALD, M.A., D.D., late Principal, Duff College, and President of the Board of Studies in English.

Witness read a statement, and was then asked a few questions. The following is the substance of his replies.

Paper No. 1 in Part II.

The retention of Fellowships should depend on attendance within one year, if the Fellow is living in Bengal, or two years, if during that time he has

The Senate.

been out of Bengal on furlough or deputation. The numbers of the Senate should be gradually reduced by the course of nature, *i.e.*, by death and resignation, along with the operation of the two years' disqualification rule. Under this rule, some people whom one might wish to get rid of would continue, but some who do not value their Fellowships would disappear. Terminable Fellowships would be an advantage, provided that the Fellow is eligible for re-election or re-appointment by Government, according to the method by which he gained his seat in the Senate. Some Fellows should be elected by the Senate in addition to those elected by the graduates.

The question of languages presents no serious difficulty, because there would be no application unless the party making it knew that there would be provision for examination in the particular language concerned. The University can get examiners in Telugu and Tamil as there are many Madras in Calcutta. It is not from the question of sentiment witness would like it that Bengalis should know Telugu and that Madras should know Bengali. Calcutta has been able to examine students from Nepal in Nepalese. If people from distant parts chose to come and enter the temple of learning in Calcutta its doors should not be closed to them. Some of the institutions have been affiliated to the Calcutta University for nearly half a century and no change should be made with reference to them unnecessarily, unless they wish to ally themselves to some other University. The sphere of influence of Calcutta is recognised and there is no question of extending that influence but of restricting it. The conflict of policy which may arise in the Madras and Bombay Universities, inasmuch as the former recognises vernaculars for higher examinations and the latter does not, has no relation to Calcutta. Witness is not aware of any inconvenience or evil having resulted from the Calcutta University having gone beyond its natural boundaries.

The number should be limited, but not made too small, 100 or 150 would

Constitution of the Senate.

be a good number. No qualifications should be prescribed, except that persons elected by the graduates must be graduates of the University, and that persons nominated by Government should be graduates of some English or Indian University. Non-attendance for a number of consecutive meetings or a continued absence for a specified length of time should disqualify a member. Half the number of Fellows should be nominated by Government and the other half should be elected by graduates of 10 to 15 years' standing. Witness would personally be in favour of two-thirds being elected. Both the nominated and elected Fellows should cease to hold office after five years' tenure. Questioned about canvassing witness said that though it is an undesirable institution, it is bound to be present in connection with every election unless we transport ourselves to some other region where canvassing is unknown. The evil would be minimised if the right of voting were given to graduates of ten or fifteen years' standing, who had gained experience, whose character had been formed and who were fully cognisant of their responsibilities. In the case of all graduates the period qualifying for the franchise should run from the day of first graduation. There should be no unnecessary restriction imposed on the right of election, but the person elected must be a graduate—that must be an indispensable qualification, like the property qualification which is necessary for municipal voting. The electors in general know the repute of the candidates; partly they know it from canvassing. The tendency is to elect only M.A.'s. Nominated Fellows should be graduates of a University or persons who have distinguished themselves in Oriental Languages. Though recognising the difficulty with regard to Jesuits and other experts witness would not relax the rule in their favour, nor in favour of teachers who are not graduates. The class of Fellows required are persons actually acquainted with the work of teaching and who have passed through a University course. The business of the University is highly specialized and needs the advice and guidance of experts. The elected Fellows are graduates, but cannot all be said to be experts competent to guide the University. They do not all come under the classification of desirable Fellows contemplated by witness. There should be a dominating influence of experts, but also men of general culture and common sense. These should be nominated by the Government, for instance Civil Servants connected with administration who would give aid in questions which are of an administrative character and do not relate purely to academic matters. There should be a leaven of administrators unconnected with education to guide the University.

Regarding the reduction of the number of the Senate, the best thing would be to strike out the names of those who have not attended for many years. That would reduce the number to about 150. Many of the present Fellowships have been bestowed merely as a compliment on persons who do no service to the

WITNESS No. 3—MR. SURENDRA NATH BANERJEE, B.A., Proprietor and Professor of English Literature, Ripon College, Calcutta.

The sphere of the Calcutta University is so extensive, that it will be impossible for students from the various distant colleges to come to a common centre receiving the benefits of a Teaching University. The first step that could be taken towards establishing a Teaching University would be to inaugurate a system of post-graduate lectures, of which Calcutta should be the centre. At present there are no post-graduate lectures except the Tagore Law lectures, if that can be so called. It depends entirely upon the lecturer whether a large number of students would attend. A new course under the auspices of the University with good lecturers would draw students. The new classes would take away students from the present classes, but this would be desirable in the interest of higher education and the colleges would probably not object. But where there are professors and men of high academic distinction available in a particular centre students should not be drawn from there to the common centre.

No inconvenience has arisen or loss of efficiency resulted from the absence of recognised teachers. It is in the interest of schools to appoint the best teachers they can afford. Favouritism, especially in this country where public opinion is not strong, might affect the framing of the list of teachers. There would, however, be no objection to the submission of the names of teachers for the recognition of the University. The colleges are as much interested as the University, for the more efficient or more popular the teacher the larger will be the influx of students to the school or college. The colleges ought to employ efficient teachers and for that reason there can be no objection to the submission of names. The University should satisfy itself that the teachers are suitable men. The University would look only to efficiency and not to the resources of the college and the submission of names would therefore prevent poor institutions from engaging incompetent men. But the decision whether A, B, or C should be employed should be left to the colleges.

Sayed Hossein Bilgrami said that it was stated by a witness in Madras that high schools there had gone from bad to worse because the managers had practised a continually increasing economy.

Witness said that he could tell from his own experience in Bengal and of the Ripon College for the last 24 years that the pay given to teachers showed a progressive increase. The head master of the high school in Madras did not understand his duty in economising at the expense of efficiency. University intervention in the matter of the appointment of professors in affiliated colleges would not be regarded as an undue interference by the authorities of those institutions, it would be regarded with the utmost deference as coming from a competent body which is in a position to advise in a matter of that kind. But if a particular name were not approved, then the college concerned ought to have the option of submitting other names and should be allowed to state the reasons for putting forward those names.

No inconvenience has arisen either to the University or to the students from the Calcutta University holding examinations outside the limits of Bengal Presidency or from affiliating institutions outside those limits. No complaint has been heard of any inconvenience to any other University.

Dr. Bourne said that the Ceylon colleges had left Madras and become affiliated to Calcutta because the students found it easier to pass the Calcutta examinations, and that this had inconvenienced the University of Madras. Witness said he could speak of Nagpur students who with very great avidity came to Calcutta on account of the superior character of its University. Dr. Bourne suggested it was because the Matriculation was easier, and Mr. Justice Banerjee, that it was because Calcutta had opened a separate centre for Nagpur.

University. The name of a gentleman who retired in 1893 and went to England is still on the list of Fellows. If Government wishes to confer distinctions it has titles at its disposal. Benefactors should be given honorary degrees rather than Fellowships. The Senate is a business body and people should not be honoured by being made Fellows.

Colleges are not adequately represented on the Syndicate. From 1899-1900 onwards only four out of ten members have been connected with colleges.

The Syndicate.

The Director of Public Instruction is and ought to be on the Syndicate, but he is not actively connected with teaching. The Principal of the Presidency College is not a member of the Senate; he is usually the Registrar, and has no right of voting. Private colleges have large educational interests and are inadequately represented; only two members or even one in the years named. The reason that the Faculties do not elect teachers is that they themselves are not suitably constituted bodies. It is difficult to define, on the spur of the moment, what are the interests requiring to be represented. Questions of conflicting interests between private and Government colleges might easily arise. Distinguished men in private colleges have not put up for election to the Syndicate chiefly because no one has wanted to elect them, and not because they would, if elected, be precluded from being examiners. If it were understood that private colleges would be represented in a certain proportion they would take care to send their best men. At the Conference of Colleges the Principals could easily select a representative, or they might be represented in rotation.

Two-thirds of the members of the Syndicate ought to be connected with colleges and the election should take place once in three years. If election were once a year then a man, as soon as he had gained some experience, would be thrown out and the University would lose the benefit of that experience, in the event of his not being re-elected next year. The members of the Senate might hold office for six years and during that time there might be two elections for the Syndicate. All the members of the Syndicate should be elected as at present, there should be no Government nominees. The number should be raised from 10 to 12 and there should be eight members connected with teaching and four members unconnected with teaching. The Director of Public Instruction would come in the latter category. The proportion should be fixed by legislation. Subject to re-election all the Syndicate would go out together. It is important that the best men should be re-elected again and again.

The manner in which text-books are selected is capable of considerable improvement. If the Faculties had been associated with teachers there could not have

Text-books.

been the same difficulty as regards the selection of text-books. Witness is not acquainted with the internal working of the University, but as a teacher himself he can say that the manner of selecting text-books is capable of considerable improvement. Referring to the three English prose text-books for the B.A. Examination, witness said that they are too many and long and that students are not in a position to go through them in the way they ought. One of these books should certainly be cut out. Teachers are not unanimous, on all points, but they are unanimous as regards the too great extent of the text-books. If heads of colleges were consulted in selecting books it would be much better, their opinions could be threshed out and conclusions arrived at that would be far more satisfactory.

Referring to the subject of History witness said that in the Entrance Examination there are elementary Histories of England and India; for the First

History.

Arts' Examination elementary Histories of Rome and Greece and for the B.A. Examination absolutely no History unless the students take it up as a special subject. This is a regrettable circumstance; especially as the student of English literature ought to be acquainted with the History of England in order to properly understand that literature. The Life of Milton is appointed for the B.A.; it is connected with the Puritan movement in England and the teachers find it difficult to explain the book because students are absolutely ignorant of the development of the history of the Puritans; what little they know in the Entrance class they have forgotten. History should be introduced into the compulsory course.

The advantage of terminable Fellowships is that life Fellows are left to stagnate. In other public bodies, such as the Corporation of Calcutta and other Municipalities, there is no life tenure and they are working very well. Even if two-thirds are elected the terminable character of the post should not lead to loss of independence. There may be some little risk of this but the balance of advantage is in favour of terminable Fellowships.

Terminable Fellowships.

If inspection were carried out to any very large extent it would give rise to friction. Frequency of inspections would be resented. Private colleges would not like a control of that kind, they would think that they ought to be trusted. The efficiency of colleges can be found out from the results of the examinations. A high percentage of failures from year to year should make a college liable to be withdrawn from affiliation. If proprietors of colleges are told to do this, that and the other thing, then as the will of Government is supreme they must do it. Nothing, however, has occurred showing the need for such interference. If the private colleges were given fuller representation it might be better, but even so it would not be liked.

Inspection.

As regards combined lectures, witness said, when he was a boy at the Doveton College, there were combined lectures for boys of that college and of the Martinière College; but the experiment was not successful. Students of the Ripon College attend lectures of the Indian Science Association after college hours. Something might be done in this respect in subjects like Science where the classes are not too large.

Combined Lectures.

Examination papers are too long and are often drawn up by inexperienced men. Questions are put which ought not to be put: catch questions—questions which lead the students to cram.

Examination Papers.

There are young students in the colleges. In the Ripon College there are two exceptionally brilliant students; one of them 13 years old and the other 14 years old. If a limit of age were brought into force it would be attended with demoralization, for it would induce students to overstate their ages. Supposing records were regularly kept of the age of students from the date they entered schools five or six years would elapse before that system would be useful. Generally students come to the colleges at the age of 16 or 17.

Limit of Age.

In the Ripon College examinations are held monthly and at the end of the year. Students who fail in them are not as a rule kept back; except in the case of the Entrance Examination. On the last occasion 30 out of 80 were kept back. In the case of the Entrance Examination it is necessary to certify that there is a reasonable chance of success. Test examinations should be insisted on. The University might lay down the rule that a candidate may not present himself for examination unless he has passed his test examination.

Examinations.

The fees in the private colleges are Rs 3 and Rs 4. This is not adequate. Limited fees might be tried in Bengal on the following scale:—

Fees.

Rupees 4 for 1st and 2nd year's classes.
,, 5 for 3rd and 4th year's classes.
,, 6 for Law classes.

There might be a danger that colleges in order to undersell one another would introduce free studentships and extra scholarships. In the Ripon College really meritorious students are sometimes admitted at half fees. The Ripon College participates in the Government Scholarships given on the result of the University examinations.

There should be a whole-time Registrar having regard to the increasing importance of the University. The Principal of the Presidency College works as Registrar and the College sometimes suffers. In the last ten years

Registrar.

there have been six Registrars and on account of these changes the efficiency of the office has distinctly suffered. A whole-time officer would do more work and would derive experience which would be of great service to the University.

The work is very heavy during examination time. The whole-time Registrar should be paid R700 or R800 a month and not allowed to do any other work.

He would look after the interests of the University. There is a great deal to be done besides examinations. He would have to suggest new ideas. If he were the right sort of man he would be able to do much good in that way.

WITNESS NO. 4.—MR. KRISHNA KAMAL BHATTACHARYA, B.A., B.L.,
Principal, Ripon College, Calcutta.

The witness said that in a general way he agreed with the evidence of Babu Surendra Nath Banerjee.

Many of the members of the Commission must be aware of the existence
of the pamphlet written by Mohesh Chandra
Narayana with reference to ancient

Historical Retrospect.

Sanskrit places of learning. It was circulated at the time it was published, and witness has no doubt that copies may be obtained. The pamphlet is sufficiently exhaustive, and the only thing witness wishes to add is with regard to the contention that the present method of teaching Sanskrit in the Universities compares unfavourably with the ancient method by the pundits. Witness would not agree with that. The present method is in many respects equal to the ancient method and in some respects it is superior. In the ancient places of learning or *tols* the teaching was not so regular as it is in the colleges. The student and his preceptor no doubt lived together, and a mental and moral discipline resulted from their constant companionship which is absent from the present system, but as regards carefulness, minuteness and regularity of teaching, the European method now followed is in many respects superior. In the *tols* there was no division into classes, no register of attendance and hardly any preparation for the lesson. The pundit was supposed to carry everything in his head and he gave his daily lesson without preparing for it, whereas at present every competent professor carefully prepares his lecture and enters into minutiae and details which were never considered in the ancient places of learning. Witness could not conceive any way in which direct relationship might be established between the University and these places of learning. He could not say whether it would be desirable that the Sanskrit titles examination should be held by the University instead of by the Government. With regard to the question whether the graduates in Sanskrit are as a general rule as profound scholars as the class of pundits who teach in the *tols*, it must be remembered that many of the pundits are specialists in particular subjects. For instance, one of them may be very profound in one particular branch of the Indian system of philosophy and another in grammar. If their learning with regard to these subjects were compared with that of the graduates, the latter could stand very little chance, but as regards general knowledge a first class M.A. in Sanskrit is a good scholar, and not inferior to a pundit. In matters of literary criticism the M.A. would be superior. Sanskrit in witness' college is not always taught through the medium of English. Sometimes the help of English is sought to make a point clear, but ordinarily the teaching is through the medium of the vernacular, *i.e.*, Bengali. It is seldom that the college has a student who does not understand Bengali. The advantage of teaching Sanskrit through the medium of Bengali is that many students do not understand English sufficiently well, but if they did have a sufficient knowledge of English, then it would be advantageous to teach through that language, in order that students might practise their English and because many things can be explained in English which cannot be expressed in Bengali. Witness often himself explained Sanskrit rules in English. There is very little previous preparation of their daily work on the part of Sanskrit or any other students. The reason is chiefly that boys flock to the colleges simply for the sake of examinations, and that very few of them study for the sake of knowledge. The ultimate object of most is to make provision for earning a livelihood. The Sanskrit examinations are fairly difficult. The number of failures has not been very large, because examiners deal with Sanskrit students leniently, although the questions are difficult enough. Witness would not insist upon a classical language as a compulsory subject either for the B.A. or the Entrance. His opinion in this respect has somewhat changed from that which he held some years ago. Sanskrit is rather too difficult for the majority of the students to study it to any effect, together with another difficult language such as English, and other subjects in addition. If a vernacular were accepted in the place of Sanskrit, it would be a great relief to a large majority of students. The modicum of Sanskrit learning which students possess when they pass the F.A. is hardly appreciable. It is insufficient to affect their general culture, except perhaps in giving them some little facility in writing their own vernacular and some little

liking for such portion of Bengali literature as is based upon ancient Sanskrit learning. The vernaculars have been greatly developed, and it is possible that men of culture might be produced even if the vernaculars were submitted for Sanskrit. The introduction of Sanskrit words into Bengali which proceeded for a number of years has since the advent of Babu Bunkim Chunder Chatterjee, been checked. There has been a re-action.

Greater scope might be given to Sanskrit by reducing the number of other subjects, but it would not be wise to abandon Mathematics or any other portion of the F. A. course.

Fellowships should be terminated not by the efflux of time, but if a Fellow does not attend the meetings or does not take sufficient interest in University matters. The number of Fellows should be limited: 100 would be quite sufficient. Witness has not considered how the present Senate should be reduced. He has no objection to Fellowships for life, subject to the attendance test. As to the suggestion of Mr. Justice Bannerjee that the limiting of the Senate to 100 members would not leave sufficient scope for the honest ambitions and aspirations of deserving graduates, witness said it should not be a matter of ambition for graduates to become Fellows of the University. The Senate is a business body appointed to direct the studies of the province, and the more experienced a Fellow is, the better he is qualified to perform his duties. If a Fellow did not attend six consecutive meetings, he should cease to be a Fellow. That is the only tangible means of measuring his interest.

The powers of the Syndicate ought to be definitely fixed by legislation, in order that it may be made clear how far those powers extend. Such details as deciding a case of exemption might be left to the Syndicate, but it should not be made the final authority in every case. Some means should be devised for securing better representation for the affiliated colleges. The affiliated colleges might appoint delegates and these delegates might be empowered to elect members to the Syndicate. Subject to this, all the members of the Syndicate should be elected by the Senate or by the Faculties, always supposing that the Government retains its present powers to nominate a certain number of members to the Senate. Delegates for some colleges might have two votes or more than two votes, and of some colleges only one vote; the distribution would be a difficult matter. The college delegates should be chosen from amongst the members of the Senate. Those colleges which teach only up to the F. A. standard should be permitted to elect delegates.

There does not appear to be any objection to the present rule that every member of the Senate must be a member of one faculty at least. With a reformed Senate there would be no Fellows incompetent to serve in a Faculty, and as regards the existing Fellows the present practice has not worked any inconvenience.

Judging from the results in prescribing text-books, it would seem that many of the members of the Boards of Studies do not go through the whole of the books which are prescribed under their names. Either they have not the time or the inclination to go through the books.

There is no particular objection to adding recognised teachers and graduates with honours in special subjects, to the Faculties.

Many of the private colleges, at least, have not sufficient funds to appoint Professors in some subjects, in scientific subjects for instance, and if the University could appoint Professors in Science so that the students from any affiliated college might attend their lectures, that would be a distinct gain to such colleges. It would be specially advantageous if the University would appoint Professors and appliances for the B.Sc. course. Those who attended the lectures would have to pay fees, but the fees would not suffice, and unless the University could give assistance, Professorships could not be instituted. It was suggested to witness that students might pay fees to, and attend lectures at, existing institutions that have laboratories. Witness said that the fees in existing

institutions were often prohibitory, and the University should charge smaller fees. For the purposes of a combined lecture system, a student might remain enrolled in a particular affiliated college, whilst attending lectures in special subjects in another college and going to University Professors for science lectures.

It would be very desirable to have regular periodical visits of colleges by the University, whether these were liked by the colleges or not. The inspecting authority should examine matters such as the condition of the library.

For the purpose of inspection selected Fellows should be deputed by the Syndicate. There would not be any objection on the part of the colleges to the Director of Public Instruction being deputed to inspect them.

There are abuses connected with the transfer of students from one college to another. There are some rules relating to transfers, but they are departmental rules and do not apply to private colleges. Transfer rules such as have been published by the Director of Public Instruction ought to be prescribed by the University.

There is a rule in the Calcutta University defining the number of lectures a student must attend before he is allowed to appear for the F. A. or B. A. examination. Witness is not aware that boys succeed in evading the rule. Cases have been detected in which students who were not present had managed to get themselves marked present by the assistance of some comrade, but when a student was detected in this he was punished severely. The students have to attend sixty-six per cent. of all the lectures delivered in the college during the academical year. The rule is different for candidates who have failed and go up a second time. They need only attend during six months, and the time at which they will put in the six months is left to their option. If a student from one college joins another college, it is necessary to take into account the number of lectures which were delivered in the first college and the number of them which he attended, and to these figures must be added the number of lectures delivered in the new college, and the number of those at which the student attended, respectively.

WITNESS NO. 5.—MR. J. S. SLATER, Principal, Civil Engineering College, Sibpur, and Officiating Director of Public Instruction, Bengal.

The University might begin by the teaching of Science in all its branches and with well equipped laboratories sufficient to accommodate all the higher students in and about Calcutta. In order that the teaching should be thorough the University should also have Science in the Entrance and F. A. examinations of a practical character. The University laboratories should not be used for the training of F. A. students. Colleges ought to be able to afford the outlay necessary for elementary teaching, but they cannot be expected to go to the expense of equipping laboratories for more advanced instruction. The proposal would not, exclusive of the endowment of chairs, cost less than 10 or 15 lakhs of rupees. This includes the teaching of Physics, Chemistry and Geology. The proposal is made to supply not to create a want. Such facilities as now exist are utilised. For Science to be of any use it must be taught practically, and for that there must be laboratories. One of the things Indians are lacking in is the faculty of knowing how to do things themselves. The examinations should be so arranged that unless candidates avail themselves of the facilities offered at the laboratories or at their own institutions they will have no chance of passing. One of the conditions should be that however well a man may do in the theoretical paper, unless he passes in the practical examination he will be rejected. At present the course in Science in the M. A. degree enables students to pass whether or not they fail in the practical course. The general knowledge required and the curriculum laid down are not enough to pass the second stage in the South Kensington course. There should be a separate minimum for each section of the practical examination. This would not reduce the numbers who take up Physics and Chemistry. The Bengali is very fond of laboratory work.

Witness does not know where the 10 or 15 lakhs are to come from. They may be obtained partly by aid from Government and partly by gifts. The University might also do something. In support of the proposal to put Science on a sounder basis it is only necessary to refer to the rapid commercial progress Germany has made solely by her training in Science. There is an enormous amount of knowledge to be gained which would lead to trade and commerce if only men were properly trained.

As it is composed at present, the Senate is a very unwieldy body and as matters now stand it will be very difficult to remedy this defect. Nothing short of a thorough reconstruction of the Senate will do any good. Witness therefore thinks it is the duty of the present Fellows in order to facilitate matters to place their resignation in the hands of the Chancellor. Witness would not bring any pressure to bear but if only nine or ten failed to resign, the Chancellor would be in a position to declare that the Senate should be dissolved and reconstituted. Supposing all the valuable Fellows were to resign and the ornamental Fellows were to remain, the disintegration would be very very rapid.

Gentlemen such as successful doctors and lawyers have in the past been appointed Fellows. There should be some kind of Honorary Fellowships which might be conferred on men who are not acquainted with educational matters in order that they should not interfere with the working of the University. They should have no authority to vote. They might come on the Senate, if they are teachers, but only as teachers and not as successful doctors or lawyers. Successful doctors might be useful members of the Faculty of Medicine, but they would not be better qualified than medical men in the colleges. Men who are not engaged in teaching ought not to be able to veto the decisions of men whose business it is to teach. Similarly witness would exclude engineers not engaged in teaching from sitting in any body which regulates engineering courses. Under this proposal ten Fellows would be left out of the existing Engineering Faculty of 23.

The Entrance, F. A. and B. A. examinations are governed by certain fixed rules in the Calendar. In the B. A. under the head of Mathematics, an examiner must set

Low ring of the mathematical standard.

questions aggregating $\frac{3}{5}$ ths of the total for book work and $\frac{2}{5}$ ths for easy riders. The result is that Bengali boys with their excellent memories can learn their book work by heart and can pass on it. In the Honours portion of the B. A. the amount is 50 per cent. for book work and 50 per cent. for problems. That means that a student can pass in Mathematics by answering half the questions in book work, he need not touch anything else. The result has been to lower the Mathematical qualifications of a B.A. These rules have been gradually brought in; witness does not know how or when. The reason is probably to be found in the market value which attaches to the B. A. The F. A. having been lowered until it has lost its market value, the B. A. has to follow suit in order that the less clever students may pass and repay their families for their education. These restrictions should be entirely removed. There is no use in a boy learning book work only. Nothing is definitely laid down in the London University examinations about the proportion of marks to be assigned to book work and to problems, but in papers the witness has seen the examiner asked a question on the book and gave a rider on it. Teachers of Mathematics in India have great difficulty in getting students to work out problems. Witness has experienced this difficulty with B. A's. in the Sibpur College. The result is that Mathematical training as represented by a B. A. in Honours means practically nothing at all. Witness does not think that the disinclination to work at problems is due to very hard problems being set at the outset.

Text-books.

The prescribing of text-books, and portions of text-books is an abominable practice.

Age limit.

Witness would revert to the old system and give an age limit of either 15 or 16.

There should be no text-book in the Entrance Examination. The teaching

Teaching of English.

of English without a text-book is being tried in the scheme for the bifurcation of studies,

the first examination for which will be held next January. Under that system there are no text-books whatever. The method of teaching English is to select a well written History and a well written Geography and to use them as the medium of teaching English. In this way boys will learn Grammar and the meanings of words, and incidentally History and Geography. Bright articles from daily papers are translated from Bengali into English and articles in Bengali papers are translated into English and are given to the boys to re-translate. What effect this system will have on their knowledge of English remains to be seen. Some system of the kind should be enforced in the Zillah schools and boys made to use their dictionaries. Witness does not think there is one dictionary among five thousand Bengali boys. Under the new system pupils and teachers will have to use a dictionary. There will be some difficulty until trained teachers are available. That is the fundamental difficulty running through the whole of education in Bengal.

The Syndicate may be elected as at present by the various Faculties. There

The Syndicate.

should be a rule that none but Fellows actually engaged in teaching or who have

teaching experience shall be eligible for election. By "teaching experience" is meant practical teaching in an affiliated college. Witness does not think that difficult cases on the border line would be likely to arise.

In Government schools in the mofussil there are about 13 or 14 masters ;

Pay of teachers.

the lowest master gets about Rs. 20 a month and the highest gets about Rs. 300

or 400. Witness does not know what teachers get in private colleges in the mofussil.

Mr. Pedler said they expect to get a Professor in a private college on Rs. 40 or Rs. 60 a month. They sometimes advertise for an M. A., strong in English, on Rs. 35 or Rs. 40.

The process of selection ought to guarantee that every good school is affi-

Recognition of Schools and affiliation of Colleges.

liated, but unfortunately some bad schools also obtain recognition. They get together

a staff for the purpose of affiliation and when affiliation is granted that staff is dismissed and another and cheaper one engaged.

There ought most certainly to be periodical inspection of colleges and of all schools recognised by the University. Witness would not mind a University delegate inspecting the Engineering college. The University recognises schools apart from the Director and has sometimes overridden the opinion of Inspectors. It will not be of much use to allow the University to have inspecting power if it does not use the power it has now with the better result. A reformed University might do some good.

The course of study for engineering is fairly good, but it is a little old and requires some modifications. Proposals are now ready to lay before the Faculty of Engineering to effect this alteration. The main change proposed is to make the examinations a little more practical. Since the course was drawn up the Sibpur College has had very excellent Physical and Chemical laboratories added and it is now fairly well equipped for practical work. The F. A. is the qualification prescribed for entering the Sibpur College, and as a matter of fact it attracts a fair number of B. As. but no M. As. The course consists of four years' theoretical and one year's practical work. For some years B. As. were allowed a concession. If they had passed the Science portion (B course) of the B. A. they were put in the second year class, but witness found in a few years that this did not answer. For instance, a B.A. who had passed with Honours in Mathematics failed in the first year's examination. After 8 or 10 years, the college has reverted to the original plan, that is B. As. are accepted but are given no concession.

Some steps should be taken to secure that the qualifications in engineering should be the same in all the Presidencies. The standards of the examinations are all fairly high. The Sibpur College standard was moulded by Government on the model of Cooper's Hill. The result is that the examination is a rather severe one. The reason that Bengalis go to the Poona Engineering College is because the course there is easier. At Sibpur pass marks are 50 per cent. on the total and 33 per cent. in each subject.

The difficulty at Sibpur is that at whatever stage the students enter, whether at the F. A. or B. A. stage, they do not know English. Witness believes that when he first joined the Engineering College (it was then a branch of the Presidency College) the Entrance boys knew more English than the F. A. boys do now. The only reason witness can suggest is that 27 years ago there were still teachers who had learned English from Englishmen and that since then the teaching article has been deteriorating year after year.

Witness is not sure whether he would prefer terminable or life Fellowships. A Fellowship should be terminable if the holder shows no interest in the proceedings of the University. The Registrar might take a note of the attendance of the various Senators, and if a man was habitually absent and showed he did not care about the proceedings, then his name might go up before the Syndicate to be struck off. Fellowships should be subject to an attendance test.

WITNESS NO. 6.—THE REVEREND J. MORRISON, M.A., D.D., Principal,
General Assembly's Institution, Calcutta.

Witness read a paper (Paper No. 2 in Part II) on the study of English and Theological degrees.

With reference to the remark contained in the beginning of his statement witness said that the Syndicate decide that grace marks should be given. The
 Grace Marks. Syndicate assign grace marks in the F. A. upon the reports of examiners, merely to bring up the percentage of passes. They assume that the percentage of passes should be fairly steady from year to year and keep it so. For the B.A. degree the examiners do the same.

The University should not prescribe an English text-book. Teachers spend their time over the peculiarities of language and historical allusions contained
 Text Books. in these books. If there are no text-books there may be some cramming of manuals but the study of general idiom is better than that of the linguistic peculiarities of a single book. Something might be done by better papers. For instance questions on historical allusions might be cut out if, however, questions were asked on the subject matter of the text-book the students would learn it by heart.

With reference to the remarks in his statement witness said that the comparative study of religions is the highest
 Theological degrees. of theological studies and implies a fairly exact knowledge of one or two religions. It is a study that would be likely to be surrounded with great difficulties in a country like India, and should be the last subject to be put upon the curriculum for a theological degree. There should be optional and parallel courses of study for members of different communities. Should he desire it there would be nothing to hinder a Christian qualifying in the Koran or a Mohamedan in the Christian Scriptures, the matter being looked at purely from a scholarly point of view.

History has been separated in the B.A. Committee's report from Political Economy, so that it will be more thoroughly
 History. studied.

The curricula are not subject to frequent radical changes. Any member of the Senate can ask the Syndicate to bring forward a question of change in
 Changes in the Curriculum. the courses of study. The Syndicate sends it on to the Faculty where the proposer supports his scheme. The Syndicate may refuse to pass the matter on, but such a course would be exceptional.

Witness said he did not quite understand what is meant by a teaching University. If it means that Professors of Colleges should be recognised by the
 Teaching University. University, and should therefore be Professors of the University, that would have his hearty support. The President explained that the University, supposing it had resources for the purpose, might directly undertake teaching in certain subjects, for instance it might provide instruction in certain branches of science by which students from all colleges should be allowed to profit. The witness said that a slight experiment in that direction had been made in the Science Association which has not proved a success in so far as the number of students are concerned. Such lectureships in the ordinary subjects of the F. A. and B.A. course would probably not be a success, but they might succeed very well and supply a want in the case of special B.A. and of M.A. subjects. The University could not at present undertake the payment, as it requires funds for a good library, etc. Except for M.A. students a great difficulty would be the number of lectures which make it difficult for students to attend at different places. If the method were introduced, the Barrow lectureship on some subject connected with the Christian religion might be made over to the University.

There is no objection to the University satisfying itself from time to time as to the condition of colleges by
 Inspection of Colleges. a regular system of inspection. Two members of the Syndicate or the Director of Public Instruction might be deputed for the purpose. No one would object to that. Such an inspection

is desirable in some cases. Colleges have been required lately by the Department to inspect the messes of students and satisfy themselves as to their surroundings. That should be a University matter also. There are objections to the Madras rule that students should reside either with their relations or in a hostel or in some place approved of by the University or college authorities. Very poor students going up to the University are obliged to live in miserable lodgings and it might be a very great hardship on them to refuse to recognise their lodgings. Places of bad repute may exist in the neighbourhood of hostels as well as of private lodgings. The police should get rid of such houses from the neighbourhood of hostels.

The effect of the Honours Course has not been to raise the general standard of learning. It has had the effect of lowering the standard of the pass degree.

Honours Course.

Students here have more to study than in Scotch Universities. They have to pass in a great many subjects in the F.A. and in three subjects in the B.A. If the Entrance Examination age were raised, it would lessen the number of lectures required for the B.A. degree. At present in Scotland the ordinary B.A. degree can be secured with 700 lectures. Here a student requires nearly 3,000 lectures, that is to say four times as many lectures as in Scotland. The defect could be overcome by keeping students longer in schools and teaching them English thoroughly. Students are too dependent upon their Professors. Regular exercises are given in the General Assembly's College, and are returned corrected to the students. No tutorial instruction of the kind which obtains at Oxford is given to ordinary students in a Calcutta college. If a student comes with a difficulty he is helped so far as the Professor has time. At a lecture a student is encouraged to ask questions. In a large class the average boy does not like to get up and state his doubts before the remainder of the students, nor are such interruptions by the students many.

University teaching.

More provision should be made for the representation of educationalists on the Senate.

Constitution of the Senate.

Without increasing the number of the Syndicate materially it might be made a representative teaching body. The composition might be somewhat as follows:—the Director of Public Instruction, the Principal of the Presidency College, a representative of the aided colleges, a representative of the unaided colleges, two members of the Faculty of Arts, the Principal of the Medical College, one member of the Faculty of Medicine, two members of the Faculty of Law and one representative of the Faculty of Engineering.

Syndicate.

The Senate is too large, but the reduction should be left to natural causes. At the last meeting of the Senate there were nearly 100 present. That is a rather large body to discuss University matters. The appointment to Fellowships might take place less often, and it might be a condition that those who have some actual experience, five or seven years in a first grade college, should have the preference. There should be an attendance test.

Senate.

Witness prefers life Fellowships. A man elected for a term of years cannot help having the next election in view and would cultivate what would be popular rather than be strict in keeping up the standard.

Fellowships.

The University should have the power of taking away the degree of a graduate convicted of a criminal offence. The power should be vested in the Senate, Syndicate or Chancellor.

Cancellation of degrees.

There should be no need to appoint non-Fellows to the Faculties, for a man who has taught in a first grade college for 10 years and is recognized as a good Professor and an authority on his subject ought almost necessarily to be a member of the Senate. If that is not possible, outside men may be added to the Faculties.

Faculties.

Representing as he did a Mission College in which religious instruction is given, witness desired to say that the position of such colleges had been strengthened by the minute of the Viceroy, in which he said that he would be glad if the number of such colleges giving regular religious instruction were increased. It would be desirable, from the point of view of such colleges, that this Commission should also put on record some such statement and that it should encourage them in other ways. The religious instruction is given to everyone; it is compulsory and forms part of the regular college routine. The college authorities take a book of the New Testament and go through it carefully, and they give lectures on general religious subjects such as sin in connection with the fall of Adam, etc., but they make no attempt to make the teaching distinctly Christian. They do not teach Christianity as an *ism* nor do they set themselves to lecture *ante* anything. They teach what they themselves feel to be true and important. They never have objections from students to this instruction, but they sometimes encounter opposition from guardians and parents at times of strong feeling. It passes away immediately. None of the students consider themselves martyrs in any way or feel aggrieved. On the other hand, many parents and guardians have over and over again expressed the strongest sympathy with the rule. They would not like their sons to become Christians, but sympathise with students being made to receive regular religious instruction. Witness would like the Commission to record once more something like the statement in the minute of 1859 that the position of Mission colleges in the eyes of Government is quite independent of the religious instruction given in them. Occasionally witness feels that the question of religious instruction is being interfered with by the University. A short time ago the University showed an inclination to intervene in cases where colleges came down upon students who were irregular in attendance at classes for religious instruction. Some students were kept back from going up for examinations, but non-attendance at religious instruction was not the only cause; it was a contributing cause. Colleges like that of the General Assembly are the only colleges that can solve the question of religious and moral training.

The grant-in-aid system is not sufficiently recognised as an integral part of the policy of the Government in regard to higher education. It has been theoretically recognised by the Government, but grants-in-aid are given on a very meagre scale to such colleges as witness represents. Witness considers that the Government has given a very inadequate grant to the hostel of his college, when compared with the amount they spent on the hostel for the Government institution.

Grant-in-aid System.

WITNESS NO 7, MR. A. C. EDWARDS, M. A., Principal, Presidency College, Calcutta and Registrar of the Calcutta University.

Witness read a written statement (Paper No. 3 in Part II), which he supplemented by the following evidence :—

The reasons why the proportion of B. A. to F. A. candidates in the Presidency College has increased are :

Details regarding the Presidency College.

- (1) the number of second grade colleges that have been opened, and
- (2) the fact that the Presidency College does not take any third division passes from the Entrance. The rule is not rigidly enforced.

The fee in the Presidency College is Rs. 12 a month and in the F. A. classes in the Ripon College, Rs. 3 a month. Students think it worth while to pay the higher fee for the better instruction.

It is impossible for students to get much, if any, individual instruction in the Presidency College as the classes are very large.

In Science classes there is no practical work for the F. A. In the 3rd and 4th year classes for the B. A. degree practical work is compulsory for those taking up Honours in Physical Science and Chemistry; many men who take up the Pass courses for the B. A. in these subjects also work practically.

Professors have to devote so much time to lecturing that they have no time left for correcting exercises or paying individual attention to the students. Eighteen hours a week lecturing is what the Professors are supposed to do. At this time of the year it is about 12 hours but when the full classes are sitting it is about 18 hours. Exercises are not given to students at any fixed periods, occasionally they are set, but not so often as witness would wish. There ought to be a special professor appointed for essays, correcting exercises and work of that kind.

Mr. Pedler observed that in the last 10 years the strength of the Superior Educational Service had been reduced from 47 to 27 and that it is therefore very difficult to keep up a proper staff of Professors.

It appears some times that owing to the transfers, and again when the classes are dismissed for the University Examination and the whole of the work has to be rearranged, that Professors have to take up fresh subjects without enough preparation. The Professors of Science have assistants but no other Professors. There is a Junior but not an Assistant Professor of Mathematics.

The arrangement of lectures is made by witness as far as possible in consultation with the Professors concerned. The work has sometimes to be changed suddenly and then there may not be time for consultation.

The dates of terms, examinations, etc., are not inconvenient but it is inconvenient to be obliged to close the college during term time for the University Examinations. Private Colleges are not closed in this way and thereby the Presidency College is at a disadvantage. It loses a month in the year. The remedy is to have a special building for examination purposes.

There are no lady students in the Presidency College now, there were two lady students at the beginning of last year. One went up for the B. A. Examination but was unwell and did not go through it; the other unfortunately died.

In the third year A. course there were 64 students at the end of last year; in the third year B. course and the B. Sc., there were 88 students including 16 for the B. Sc. In the fourth year. A course there were 94 students; in the fourth year B. and B. Sc. courses there were 112 students, including 13 for the B. Sc.

The management of the hostel is fairly satisfactory. Witness does not see his way to making it more satisfactory under existing circumstances. The hostel has a Native Superintendent who lives on the premises and an Assistant Superintendent. There is also a Board of Visitors of which witness is President. Witness occasionally visits the hostel. Whenever he has gone there he has always found it in good order. Once or twice last year the drains were not in good order. Arrangements were made to put this right. The late Head Master of

the Sanskrit aided School is now Superintendent and the Assistant Superintendent has been at his work for sometime. The Board of Visitors elect their own colleagues and the Director approves them. The enforcement of habits of cleanliness and neatness in the hostel is left to the Superintendent. It is one of the rules of the hostel and it is the Superintendent's duty to see the rules carried out. Witness has generally found the rooms in good order. Some of the Professors visit the hostel, but not very often. There is no fixed rule about the frequency of visits by the Visitors. The rule of former years, that one of the members of the Committee was appointed as visiting member for the month, is not now enforced. There are 17 Professors in the Presidency College excluding demonstrators. The number on the Board of Visitors is limited to 11. There are no European members now on the Board. Doctor Ray, Mr. Das Gupta, the Head Master of the Hindu School and the Professor of Sanskrit are among the members. There was a European Professor on the Board last year. European Professors are not acquainted with hostels and the ways of their inmates, and that sometimes leads to difficulties. The Superintendent sees that the rules are observed and any serious breach of a rule is reported to witness who has sometimes had to expel boys. He expelled a boarder not very long ago for habitually coming in late at night without giving a satisfactory account of himself. He expelled another boarder not very long ago for striking one of the servants but afterwards commuted the punishment to a smaller one. All minor breaches are dealt with by the Superintendent. Gates are closed at 9 P.M. when all outsiders must leave the premises; the roll is called immediately afterwards. Witness does not think that the surroundings of the hostel are quite as they should be in all respects. There are some bustee lands on the east side which are occupied by disreputable characters. When necessary witness communicates with the police in regard to undesirable neighbours. There is a medical officer attached to the hostel who visits the place every day. He does not enter any remarks in the visitors' book. It is part of his duty to see that the hostel is kept in a sanitary condition. On the whole the health of the boarders in the hostel is good. There have been two deaths during the three years witness has been in office. Witness cannot say how the boarders compare with students who are not boarders in the matter of success at University examinations. When he spoke of difficulties arising from European Professors visiting hostels, witness was thinking of a case where a European Professor suggested the introduction of music in the hostel. Witness did not think that was very suitable. As a matter of fact music is forbidden by the rules.

The percentage of pass marks in English should be raised from 33 to 40 per cent. Under existing circumstances this would greatly increase the number of failures. In 1901, 4,239 candidates out of 6,135 would have failed if the pass mark in English had been 40 per cent. and of these many passed in the second division.

Witness' proposals for removing the present congestion in the Entrance Examination are—

Entrance Examination.

- (1) A school final examination in English only.
- (2) Two Entrance Examinations a year.

No student should be admitted to the Entrance unless he has passed the final school examination in English. The main purpose of the examination is to weed out the students who have an insufficient knowledge of English. A candidate who passes the school final or preliminary examination in English would have again to pass the matriculation in English. A candidate who passes the English portion of the matriculation would not have to appear again in English provided he passed in the other subjects within a year. The school final Examination if only in English, would not be accepted throughout the Province as an effective school final examination, but witness would only regard it as a sort of preliminary examination for the University. The scheme would be an advantage to students because they would have a double chance of passing the matriculation in the course of one year. Those who fail in English should be allowed to appear again six months later to be examined in English only.

Those who pass in English would appear six months later in the general examination. Witness had not considered the question whether the scheme would make it necessary for students to join at the different periods of the year. It may be necessary and this may entail doubling the F.A. examination also. That may become necessary in any event. The present number of candidates for the F.A. is 4,000. It will not be possible to deal with such large numbers at one time. It was pointed out to witness that the proposal would affect fundamentally all college arrangements.

It is very desirable that there should be proper buildings for University examinations at all centres. A certain portion of the fees might be appropriated to a Building Fund, and the Entrance fee rate of Rs. 10 might be raised. The University appoints centres for examinations where there are a large number of candidates and a centre is asked for. If there is a Government school or college at the centre the examination takes place in it and in default in a private college.

The centre superintendents are selected by the Syndicate and choose their own subordinates. The dislocation of college work, due to the holding of examinations in schools and colleges exists not only in Calcutta but throughout the Presidency. If there are half-yearly examinations one might be held in the long vacation and the other in the cold weather.

With reference to witness' remarks about test examinations and certificates (page 13, Part II) Mr. Justice Banerjee inquired whether witness would approve of a rule that the Head Master should be required to certify that from the results of test examination as well as class examinations held at least once a month, that the student has obtained not less than 25 per cent. of marks. Witness said that so much detail would be rather difficult to enforce. Examinations take a good deal of time and arrangement. The personal equation of the Principal giving the certificate would be a difficulty not easy to surmount. Twenty-five per cent. would mean a different thing to different Principals.

In 1880 there were about 16 Professors of English in the Bengal educational service, whereas now there were about 6. In 1880 one or two of these Professors were Indian gentlemen but the bulk were Englishmen. Six men can hardly replace 16. The places of the higher grade Professors have been taken by lower grade men. There are now mostly Indian Professors of English. Witness could not say how many of the Indian gentlemen who had replaced the 16 are graduates of English Universities. Mr. Pedler said he thinks that there are 12 graduates of English Universities in the Provincial Service. Such a great diminution of Government aid can hardly fail to cause a lowering of the standard in English in the country generally. It is most desirable that more Professors and Head Masters and certificated teachers of English from England should be employed in schools and colleges. Vernacular education in the lower classes of schools seems also to militate against the improvement and spread of a knowledge of English in the educational institutions and in the country generally.

WITNESS No. 8.—MR. P. K. Ray, D. Sc., Professor of Philosophy, Presidency College, Calcutta.

The Calcutta University might be converted into a teaching body on the same lines as the London University, if funds were forthcoming. In that case, and even if the University is continued on its present lines an officer, to be styled the Principal, should be appointed, to be the chief executive officer of the University. He would assist in the general government of the University and would also do some of the work now done by the Registrar. The general functions of the Principal would be quite different from those of the Registrar who is the recorder and the custodian of the records, seal and other property, of the University.

The Syndicate and the Registrar often change, the Principal should be a permanent salaried officer. He should inspect colleges to see that the rules are carried out. He should be a high officer, and should be to higher education what the Director of Public Instruction is to general education. He should not be inferior in status to the Director of Public Instruction. He should be above all party influences and his pay, position and prestige must be such as to ensure this. The Vice-Chancellor cannot be always in Calcutta, and the Principal is specially needed during his absence. The relative position of Chancellor, Vice-Chancellor and Principal should be the same as they are in the London University. The Calcutta University was founded on the lines of the London University, it has developed on similar lines and, therefore, if it is to be reconstituted, it should be reconstituted on the same lines.

The present Fellows should remain but should no longer have the privilege of governing the University, a new Senate should be formed as was done in the case of the London University where the needs and conditions were not dissimilar.

The University should appoint Professors in those subjects in which there are no Professors in the affiliated institutions. The University might also appoint Professors to lecture on post-graduate subjects. Such lectures ought to be open to the graduates on conditions to be determined by the Senate. By this means the University may directly become a teaching body, provided that funds are forthcoming, either by private endowments or by Government grants. The fees are required for other purposes, such as the founding of libraries or University scholarships to be given to B. A.'s and M. A.'s

A list of teachers might be useful and desirable and in it would necessarily be included the teachers in the present affiliated institutions. The Senate might appoint other teachers of its own and add them to the list.

The present classes are very large and tuition classes would therefore be very useful in the Colleges in Calcutta. There should be recognised tutors for the purpose as is the case at Oxford and Cambridge. Distinguished graduates of the Calcutta University might be usefully employed to do this work. They should hold small classes containing not more than ten students. Backward students might be prepared for their examinations by these lectures. The Principals of Colleges should have the option of enforcing instruction with a tutor. The results of examinations are bad chiefly because there is no such system of tuition. The present teachers give lectures to classes containing 100, 150 or 200 boys and, therefore, are unable to attend to individual boys. The tutorial lectures might be given in the morning, evening or at night in the hostel or any other convenient places. Residence is not a necessary condition of the tutorial system. Students as a rule live within the radius of a mile or half a mile from their Colleges. They could easily come in the morning at about eight. Lectures might be held in the tutors' houses. This system ought to have been introduced in Calcutta many years ago.

For the purpose of these lectures it would be desirable to have hostels attached to the Colleges; but that is a question of funds. In the Presidency College there is no accommodation for any Professor to live on the premises.

As regards the sphere of influence, there is no necessity for any local limit. Calcutta had at one time a College in the Punjab; even now it has Colleges in Ceylon.

Sphere of Influence.

On the question of Government the Calcutta University might follow the example of the London University with the exception that the Calcutta University

Government of the University.

might be satisfied with only some Standing Committee instead of three. It might be called the Academic Council, and should consist of the Chancellor, Vice-Chancellor, Chairman of Convocation, certain members of the Senate returned by the Faculties, and one or more members added to it by the Senate. It would correspond with the present Syndicate.

Membership of the Senate should be founded on special or general qualifications. It should not be terminable but for life. The present Fellows should be

The Senate

allowed to continue but should not all be members of the Senate. A certain proportion of the members should be appointed by Government, a certain proportion by Convocation, and a certain proportion by the Faculties. One or more might be returned by the Principals of Colleges in Calcutta affiliated to the University. In the London University there are 54 Fellows. In the Calcutta University there need not be more than 50 in addition to the Chancellor, Vice-Chancellor and the Chairman of Convocation. The Principal of the University need not be a member of the Senate.

The Academic Council should take the place of the Syndicate. The Faculties should be reconstituted on the lines of the London University and consist

Syndicate and Faculties.

chiefly of teachers who may or may not be Fellows.

The Convocation should consist of all registered graduates of a certain standard as in the London University.

Convocation.

(Reads extract from the London University Calendar.) In Oxford and Cambridge graduates and Fellows are now practically the governing body. In Calcutta also the graduates should have great connection with and power in the University. The Convocation should elect their own Chairman and return a few members to the Senate.

The Senate should be the supreme governing body. The distinction between the old and new Fellows would

The Senate (continued).

be that the former would not necessarily belong to the Senate. The new members would have life appointments. In case of a vacancy a member would be returned by the authority by whom his predecessor in office had been returned. The old Fellows would have the privilege of getting Calendars and other publications. They would not be renovated and would be allowed to die out. They are now in many cases merely ornamental Fellows. In this matter the noble example of the London University should be followed by the Calcutta University. Witness has no advice of his own to give to the Commission on this point, but he would ask them to do what the London University has done.

There should be two kinds of teachers, one set appointed by the University and another appointed by the affiliated colleges. The teachers should certainly be

Teachers.

represented in the Government.

The Faculties should be only advisory bodies. The Board of Studies should appoint various courses of study and the Senate should regulate them ultimately as

Faculties and Board of Studies.

in the London University. The Board of Studies should be principally composed of teachers.

As regards "societies and common pursuits which bring men of different colleges together", the Calcutta University Institute should be utilized for that

Calcutta University Institute.

purpose. It was started by Lord Lansdowne and aided by Government.

There are no regular test examinations and no control over the F. A.'s and and B. A.'s except those belonging to the Presidency College. That difficulty would

Control over Studies.

be met by tuition classes. It could then be seen whether students are well prepared. Witness said that if he had a number of tutors under him he would make them conduct classes and correct exercises. Teaching varies very much

in different institutions, according to the qualifications of tutors and the intelligence of students.

The Calcutta University ought to recognise a higher degree than M. A., something like the Doctor of Philosophy in America and Germany. At present there is only the degree of Doctor of Science. If research is to be encouraged it ought to be encouraged not only in Science but also in Literature and Philosophy.

The Madras course in Philosophy is much higher than in Calcutta; this matter was noticed in a report submitted by Dr. Mukherjee who remarked that the pass Philosophy standard in Madras was equivalent to the Honours standard of Calcutta. The pass B.A. standard in Calcutta ought to be at any rate as high as the Madras standard.

Vernaculars should be more amply recognised. Madras has done well in that line. There should be three papers instead of two in languages, *i.e.*, two papers in classical languages and one in the vernacular language. The Calcutta B.A. pass standard is much too low. Witness would not admit that the reason the Madras vernaculars have declined whilst Bengali has developed is that in the former case students are allowed to study the vernacular as an alternative to a classical language.

Private Colleges should be placed, as far as possible, under the management and control of duly constituted Committees instead of single individuals.

An individual may found a College, but he must delegate his ownership and all powers to a duly constituted committee. He should not be allowed to carry it on as commercial speculation for personal gain. He may be remunerated for his work, but must not be allowed to take profits. There should be a periodical inspection of all affiliated Arts, Medical and Science Colleges by officers appointed by the Senate, or by the Principal of the University. Without inspection there can be no surety that the rules of the University are properly carried out. In affiliating a College not only the qualifications of its existing teaching staff should be considered, but also the capacity of the College to maintain a highly qualified staff. The same remark applies to schools.

The University ought to open a library for the use of all graduates under certain conditions to be determined by the Senate. The privilege might be extended to undergraduates, but they do not need it so much as they have the College libraries. Without a University library graduates have no chance of prosecuting their studies. There is no building accommodation for the purpose: Mr. Pedler at one time utilized the Senate Hall. There is plenty of money at the disposal of the University—five lakhs or more—which could be expended on a building to be used as an examination hall, and as a library. It should have been done 20 years ago.

The Calcutta University ought to give scholarships, as is done by the London University, on the results of B.A. and M.A. examinations. The Calcutta University does not spend much of its savings from fees in encouraging learning, for which purpose it was originally established. Scholarships should be awarded on the results of B.A. Examination to encourage study for the M.A. Examination, and on the results of the M.A. Examination for the D.Sc. or Prem Chand Scholarship Examination. These scholarships might be life long should funds allow, as in the case of the London University. Without such scholarships research in Philosophy and Philology is impossible. By their means Indian Philosophy and Buddhist Literature might be resuscitated and Sanskrit Literature revived. There is much scope for literary as well as for scientific research. For the purpose of Tamil literature there was at one time a University at Madura.

The status of teachers might be improved by registering them and forming an association of teachers with the Viceroy, Lieutenant-Governor, or other high officer as its President.

Dr. Bourne.—There is a Teachers' Guild in Madras.

Mr. Mackichan.—In Bombay there is a Teachers' Association.

Mr. Pedler.—One was started in Calcutta two years ago but it did nothing.

Witness.—Such an Association might with advantage discuss methods of teaching, general principles of education and the teaching of special subjects. The success of the institution would depend upon the interest which its members took in the matter. It could do very useful work in discussing and improving the methods of teaching which are at present antiquated. The methods of teaching Geography, History, Logic and Philosophy require to be improved.

The pay of teachers should be raised. There are now full professors on R150, that is the lowest grade in the Government Colleges. It is quite inadequate to help professors to keep up their studies. The professors remain on this pay for many years. The professor of Arabic at Patna only draws B75. The pay of Professors in Germany is about R300, but they have to work only two hours or a few hours in the week, whereas in Calcutta the professors have to teach for three hours every day. Professors might receive a portion of the fees. In the London University there are lectures on almost all subjects and a syllabus of those subjects and of the fees is drawn up. Besides his examination subjects witness learnt other subjects in those lectures. Such a desire of learning subjects other than those prescribed ought to be developed in the students. Students could find time to attend such lectures if refreshments were provided on the college premises. At present students take their breakfast at 9-30 in order to attend Colleges which they leave at 4-30. Between these hours they are starved for want of refreshment. If this provision were made students would be able to attend College from 8 o'clock to 8 o'clock. The refreshment rooms should be under the direct supervision of the College authorities who should look after the quality supplied. Rates should be fixed. There are such refreshment rooms in Burlington Gardens in London.

In a letter to Mr. Pedler, dated the 25th March, Dr. Ray said that he had overlooked an important matter which he wished to bring before the Commission.

University Press.

The Calcutta University, like the Universities of Oxford and Cambridge, ought to have a press in which it should bring out its own series of text-books and other publications. These would greatly add to the income, in addition to providing suitable books. A press would also enable the University to print the *theses* which the candidates for the D.Sc. and the Prem Chand scholars and others may write.

WITNESS NO. 9—MR. W. BILLING, M.A., Officiating Principal, Hughli College.

The Entrance Examination is almost a failure. Students coming to the college are often utterly unable to understand the professor's lectures. Under-graduates attending the B. A. classes are now inferior to the students of 10 or 15 years ago as regards their knowledge of English. The English text-books of the Entrance Examination should be done away with and students should be asked to translate vernacular passages into English, to write original essays and letters in English, and to paraphrase unseen English passages. Papers ought to be drawn up by Experienced European teachers, who should guard against cramming. The main reason for the deterioration is that the teaching in the mofussil schools is not so good as it used to be. This is not due to the size of the classes but the deterioration of the teachers. In Government schools the classes may not exceed 40, and that is quite large enough. But the mischief does not lie here so much as in the inferior quality of the teachers. Generally speaking, the pay of the lowest teacher in a private school is Rs. 20 and that of the head master not more than Rs. 40. In Government schools the lowest teacher draws from Rs. 20 to 25 and the head master between Rs. 75 and Rs. 100. The teachers possess the magic letters B. A. or M. A., but some of them are worthless. They would never become good teachers. For this reason there ought to be trained teachers. English teaching should be colloquial especially in the lower classes. Text-books for the Entrance Examination should be done away with in order to stop cramming. Students learn the subject by heart by means of keys. The key-writers forestall the examiners by embodying the answers to all possible questions in their books. Students commit to memory without understanding. Witness has often seen this in his own class. It is very hard to set a paper which will test this. Papers in English should be set by two or three experienced Europeans and an Indian might be associated with them, though on the whole witness does not think that this would be advisable. For an essay a subject should be selected which has not been included in any of the books on model essays. Some of the boys from mofussil schools come to stop in the hostel attached to the witness' college at examination time and he can judge from the conversations he often holds with them that they know nothing about English. On his questioning them "Are you comfortable?" they make no reply. Their want of comprehension may be partly due to their not being familiar with the accent of an Englishman. But the same thing occurs in the case of students in class. They take down notes, prepare them by heart, and can reproduce them, but are puzzled if they are asked about any particular portion of the subject. That shows that they do not understand the notes. In the B. A. classes the students are almost as bad as when they enter the colleges. To remedy this defect the English standard of the Entrance Examination ought to be raised. Students exercise their memory to the utter neglect of their brains. The quantity of work to be done for the Entrance Examination is not too large.

This should be conducted by the Director or some one man and not by a committee. It would be easy to deal with one man who is an educationist; one who is not an educationist would be worthless. He would not be able to advise on the internal economy of the college. Parents may make useful remarks and witness encourages them to talk to him, but real inspection should be done by an expert.

Annual examinations are held of the first and third year's students. No boys are kept back, otherwise the college would be emptied at once. No test examinations are held of the second and fourth year's classes. The only qualification required is one of character. If a certificate of fitness were required it would injure Government colleges, for private colleges would give the certificate too easily. Witness has never been inside a private college, but his information is that there is very little discipline to be found there. The rule of transfer-certificates is not applicable to private colleges. There are no regular periodical class exercises in the college but exercises are given by professors. Exercises corrected by witness are returned to the students. In classes containing 60 or 70 students it would be difficult to set exercises. There ought therefore to be a larger staff of teachers.

The introduction of the Honours examination has not in the least tended to raise the standard of instruction in colleges; nor has it tended to lower the standard of the Pass degree.

Honours Course.

Generally there is a proper selection. It would be well if English textbooks were not taken so exclusively from regular classical authors who have been annotated.

Text-books.

Students rely too much on their teachers; they do not and will not work themselves. The proportion of students in English classes who possess dictionaries of their own is about 1 to 5. Dictionaries are rarely used. The nature of examination questions has tended to foster cramming. They require candidates not to understand, but to remember. As an instance of the absurd questions put to students in examinations witness related that in the F.A. examination students were once asked to give a sketch of the Masque of Comus. It was wrong on the part of the University to appoint text-books about authors instead of the authors themselves. The pass standards in subjects like English are not sufficiently high. It is not advisable to assign a certain percentage of marks to book work and a certain percentage to other matters. But at present candidates do not expect to get any marks for original works such as composition. Boys in classes cannot answer any questions that are not capable of being answered from keys. If students were told to work for themselves, instead of relying on the professor the result would be that they would not work, and would be plucked, and then the professor would be called upon to explain the cause of the heavy percentage of failures. Hence professors are obliged to work in the manner that suits the students. If professors did not work in this fashion there would also be the fear of students going elsewhere. It is a fact that the useful notes by a professor of one college are often circulated by his students to those of other colleges.

Students' work.

Hostels should be such as to attract students and the fees should be low enough to permit poor boys to come in. Witness has two hostels—one for Muhammadans and the other for Hindus—under his personal supervision. The Superintendent of the hostels is paid from Rs. 12 to Rs. 18 a month during a certain portion of the year; in the next month he will only get Rs. 3-8-0. The amount is calculated at eight annas per head of boys in the hostel. The pay ought to be increased. The Superintendent is not a teacher but second clerk to the witness. There is a general complaint that there is too much discipline in the hostels. Witness insists on the maintenance of proper discipline. The students are looked after as regards getting up in the morning, going to bed, leaving the hostel at night and expenditure. It is not right that the students should look upon the Superintendent as a man to whom they may issue orders and whom they may expect to serve them.

Physical and moral welfare of students.

Representation of colleges.

Mofussil colleges ought to be represented on the Senate.

WITNESS NO. 10.—LIEUTENANT-COLONEL G. BOMFORD, M.D., I.M.S.,
Principal, Medical College, Calcutta.

Speaking generally the present curriculum of medical study is not satisfactory. The curriculum was established a little more than ten years ago with an idea of improvement on one particular point, namely, to try and break up the subjects, so that students should not be learning everything at once. It was intended that they should first get rid of their preliminary scientific studies, and then go on to study anatomy, and then their final subjects. The scheme has failed in that object. Students still study everything together and the junior subjects are continued right into the senior years. The intention is that students should study for five years, the last two years of which should be devoted to the practical subjects of medicine and surgery. Instead of that, even in the fourth year, they may be still learning chemistry and anatomy, and possibly even botany.

Medical curriculum.

As a rule students entering on medical studies have or soon acquire a sufficient knowledge of English. Some of them, however, do not know English as a live language, and although they may be able to quote Shakespeare they cannot understand what is said to them. On the whole, however, they know English wonderfully well.

Knowledge of English.

All F. A. students are not admitted to the Medical College. A great many 3rd division F.A.s are excluded so that the college does not get the dregs of the F.A.s. These students cannot be taken because the college is not large enough to hold them. The college now has on its roll about 500 civil students, 100 military students, 20 lady students, and a good many casual students.

The Entrance Examination should be so arranged as to satisfy the requirements of the Medical Council in England. The difficulty is Latin. The Medical Council demand English, Latin, Mathematics and one other subject, such as Greek or French. If students take up Latin for the Entrance they cannot take another voluntary subject and cannot therefore fulfil completely the requirements of the Medical Council. The Entrance Examination should be so far improved, that it can eventually be made the test of preliminary education instead of the F.A. The time now spent in the F.A. might then be devoted to Botany, Zoology and Chemistry.

Preliminary qualification.

The President remarked that if students passed the Entrance Examination at 15 they would become qualified practitioners at 20. Witness did not think that would matter as the students are very precocious. It was not however his intention; during the first year of preliminary scientific study the students should not be considered to be medical students.

There would be no objection to drawing being made compulsory in the Entrance for medical students except that there is a danger of trying to teach too much. It is essential that the students should know English, and then, having made up their minds that medical study is their line, they should be given an opportunity of passing in such subjects as botany and zoology. Then they should be taught Anatomy and Physiology, but not before finishing the preliminary science subjects. There should be no overlapping. They should not be permitted to go on to Medicine and Surgery until they have done with the first M. B. subjects. This is the system in England and it is what was intended by the present curriculum.

In England and other countries of Europe although expert teachers are employed, they do not necessarily teach a particular branch all their life. They sometimes change. For instance, the man who taught witness Physiology, afterwards taught him Pathology, and is now teaching Medicine. It is desirable, as a general principle, that a professor should confine himself to one branch, so that he may become expert in it. Physiology, however, is a subject a junior man teaches and if he were kept at it always he would become stale. The fact that he had taught Physiology in his younger days would be an excellent point in his favour when he came to teach Medicine; in the same way the fact that a man had taught Anatomy in his younger days would be an excellent point in his

Medical Professors.

favour when he came to teach Surgery. A man cannot teach Medicine without practical experience, but he may begin to teach Physiology from the very day he gets his degree. In the same way he might teach Anatomy directly he passed, but not Surgery. In the teaching of subjects like Physiology and Anatomy, younger men would probably be better because they are fresh and enthusiastic. On the other hand, elder men must teach subjects in which experience is necessary. They pass from the one to the other.

Witness does not approve of the purely scientific subjects being taught in the Medical College. He would be glad to have Botany, Zoology and Chemistry off his hands. Chemistry should be taught up to a certain point before students come to the college. They would afterwards be taught Medical Chemistry.

It is essential that there should be teachers as examiners. Examinations at present are most unsatisfactory in subjects like Zoology and Physiology. Students are asked questions out of the scope of what they have been taught, and sometimes questions showing ignorance on the part of examiners. Outsiders might be associated with the teachers. Physiology is a large subject and the Medical College does not pretend to teach the whole. The examiner does not know what questions to ask. Witness would like to have books to set the standard for such subjects. Even then the examiner may pick out some odd corner of the work. Examiners try to think of questions that students are not likely to know. They test the student's ignorance rather than their knowledge. Examiners are appointed by the Syndicate with the guidance of witness. On one occasion witness proposed that he should examine in Physiology because he could not get an examiner. He said he would take no fees, but the Syndicate would not have it, because of the rule against members of the Syndicate examining. [Dr. Mookerjee said that witness must have misunderstood]

Witness would prefer that medical students should be examined separately rather than by a general board dealing with all examinations in the subject.

Overlapping is largely due to a student who fails in an examination going up in the following year for that examination and the next one. The college sometimes prevents this by refusing promotion. But apart from this there is some little overlapping in the construction of the course. Even if a student passes in the preliminary scientific examination he is kept back if he does not pass the test examination in the college subjects.

Witness would like the scientific subjects to be taught outside the college, and the present preliminary scientific subject to be made really the Entrance Examination, the students being antedated as medical students by one year so as to leave five years as the length of the course.

As regards Latin, students going to England are merely warned to study it. Very few students who come to the Medical College know Latin. Some who come from St. Xavier's College know it. It is a great help to them. Witness would like Latin to be compulsory so as to bring matters into line with the Medical Council requirements in England. Many of his students have however gone home and been admitted into colleges without fulfilling the requirements. In the case of natives of India, or other orientals whose vernacular is other than English, a classical oriental language may be accepted instead of an examination in Latin. Witness has never had this from the Medical Council themselves, but has seen it published. Apart from university students, witness accepts students who have passed the Entrance, as casual students. They work with him perhaps for three years and then go home to finish their education.

The combination of M. B. and L. M. & S. is very unsatisfactory. Every student goes up for both. They are very much the same and a candidate who is examined in March for the M.B., in April goes up for the very same subjects again, that is to say, he has two shots, and if he misses one he may get the other. The difference between the examinations is very slight. There is some difference in the number of marks, 50 per cent. being required for the M. B. and

40 per cent. for the L. M. & S. and there is no Zoology in the L. M. & S. The University might abolish the L. M. & S. and have the M.B. only. In actual life and practise it is an advantage no doubt to a man to have an M. B., but very often some of the best practitioners have only the L. M. & S. It is of course in general the best students who get the M.B. degree. The M. B. should not be made any harder; it is hard enough already, and might with advantage be made a little bit easier. The college might perhaps give the L. M. & S. The L. M. & S. is supposed no doubt to take the place of a qualification such as is given by the College of Physicians and Surgeons. Last year seven candidates went up for the M. B. and three passed. About 50 or 60 out of 150 students were admitted to become Licentiates. The standard of the L. M. & S. is distinctly lower than the M.B. The percentage required is less and examiners are more indulgent. An examiner thinks he might ask anything of an M.B. There was a time when the passing of the B.A. examination was insisted upon as the preliminary for taking the M.B. Witness had the greatest objection to this because it had a tendency to supply comparatively old men who had failed in other subjects. The result was that the worst students were B.A.s and the college is still clogged to a certain extent by old men, failures in other branches. Witness would like, if it were possible, to have a limit of age or at any rate a limit of a fixed number of years after the Entrance. Young men are excluded on the ground of want of room and hopeless persons from some other faculty are taken and taught Medicine when they do not want to learn it. The college is a refuge for the destitute.

A knowledge of French enlarges the horizon of the medical student; a knowledge of German still more. Witness personally only wants students to know English at the period of matriculation and perhaps a little Latin. He did not want Indian students to learn English as a classical language. Perhaps it would be better for them to learn a classical language, but a thorough knowledge of English should be taken as the test of culture. Witness would not approve of a separate Entrance Examination as it would tie the students down at too early a stage.

The M.B. should be left, as it is an examination in both Medicine and Surgery, and it might be called the M. B. and B. S. The M. D. on the other hand should be purely Medicine, and there should be a corresponding M.S. or M. Ch. degree in Surgery. It is impossible for any man to be proficient to a high degree in both these subjects. The London University gives an M. D. in Hygiene. Witness thinks that must be a curious sort of degree, but London does curious things which other universities do not. Witness would have for Hygiene a Diploma in Public Health (D. P. H.). The question had arisen whether Mental Disease should be included in the M. D. degree. It ought to be included and a course in Lunacy should be compulsory.

Surgery should be separate. Midwifery might be added to either Medicine or Surgery. The main point is that the subjects should be separated. Nobody should be expected to be proficient in Medicine, Surgery and Hygiene at once. Witness would not be in favour of giving the M.D. without a separate examination.

Witness doubts whether the standards for medical degrees practically vary much throughout India. As an examination test, the Calcutta standard is quite up to the London standard, but the students do not profit so much by the instruction. Possibly the Calcutta standard is higher than that at Bombay; it may be too high. The actual practical knowledge of students depends on the opportunities there are of teaching them. At present what is wanted is improved facilities for making teaching more practical. Students cannot understand theories without seeing things done practically. There is practically no physiological laboratory, but through the benevolence of the Government of India one is about to be provided.

It is not a fact that professors of the Medical College take no part in medical examinations; the restriction is that they must not be teachers in the subjects in which they examine. The President of the Faculty is supposed to moderate all the papers, but that is not possible.

Teachers as examiners (continued).

A teacher always recommends a text-book, but it is not a good thing for the University to prescribe text-books.

Text-books.

Witness has the greatest dread of text-books being introduced into the Medical College. It is undesirable to bind teachers down to the exact course; they should adapt themselves to circumstances and the intellects of their students. For others it is essential that the teachers should examine..

If the university is to be a teaching university witness would like it to teach certain special subjects, and to begin with

Teaching University..

to provide a much-needed professor of Physiology. If the University could take up the teaching of Botany, Zoology and Chemistry, so far as it is not merely medical chemistry, that would be a very good thing.

If Botany could be taught by field work it would also be a very good thing, but in Calcutta it is impossible. The teaching

Teaching of Botany.

of Botany at the Medical College is good. The students see a large number of plants at the Botanical Gardens.

The Medical College is affiliated to the University in name, but is really affiliated to Writers' Buildings or the Government of Bengal. This was a matter of

Control of the Medical College.

particular consequence so long as the control of the college was in the hands of the Director of Public Instruction who was a man imbued with university ideas. A few years ago the Government altered this arrangement, and the control of the college was taken away from the Director of Public Instruction and put into the hands of the Inspector General of Civil Hospitals. That was a mistake; it practically disaffiliated the college from the University. One of the qualifications of the Inspector General of Civil Hospitals is that he knows nothing at all of Bengal. An officer is always brought from another province, and the chances are that he knows nothing of medical education or of the Bengal students. The students feel this considerably and have not confidence in the Inspector General in any way. The rules of the college are made by Government, and the test examinations settled by them. The other day, for instance, Government raised the requirement of the test examinations from 20 to 40 per cent. against the advice of the Council of the College, which consists of all the Professors. They recommended 30 per cent. A want of real knowledge of the subject was exhibited by the Inspector General of Civil Hospitals, who added, when he raised the number of marks, that 40 per cent. was a very low standard. Witness wished to be controlled by the University. Government has unconsciously taken the college a little too much into its own hand.

The greatest care must, however, be taken that men, who have been brought up from their youth in English

The Medical Faculty.

medicine, should be represented on the Faculty. Witness does not wish to depreciate the work of the Indian graduate on the Faculty, but it is essential that there should be a strong English Medical Faculty. On the Faculty at present there are himself, Colonel Harris, Professor Dyson, Dr. Prain the Botanist, and Major Gibbons. There is no Professor of Surgery on the Faculty. Every Professor of the Medical College should be *ex-officio* a member of the Faculty. It would also be a good thing if the Principal of the Medical College could be *ex-officio* President of the Faculty. Witness did not say this because he was Principal, but he could see that nobody understood the wants of the students on the one hand, and the wants of Professors on the other, as he (witness) did. It would also be very desirable for the Principal to be *ex-officio* a member of the Syndicate. It does not usually happen that the Principal is a member. The case of witness is quite exceptional.

If the University were prepared to make the L. M. & S. over to the college, they might also make over the whole

M.B., and L. M. S. (continued)).

of the preliminary examinations, and simply examine for the M.B. and B.S. allowing the college to send up students when they consider them fit to pass the M.B.

Dr. Bourne.—In Madras the University has deliberately prevented medical students from taking the preliminary science subjects outside the Medical College, by insisting on their attending in the dissecting-room while learning Physics, Chemistry and Biology.

Witness.—I disapprove of that.

Dr. Mackichan.—The opinion was also expressed in Bombay that the Medical College professors should have the training of their students from the very beginning, and the reason given was the sooner a student begins to look at cases in hospital the better.

In making the proposal to leave the conduct for examinations for license and certain preliminary examinations to the Medical College witness assumes that the college will be again affiliated to the Director of Public Instruction.

The general public will continue to have the same confidence in the L.M. & S. as at present if it is given by the Medical College. The L.M. & S. is an anomaly. It is called a degree but is not treated as such. The L.M. & S. should be given by the college for five years' satisfactory study. Witness would leave the public to judge between an L.M. & S. given by the Medical College and any other college that might spring into existence. Witness does not approve of registration even in England. He would let any person practice, if people are silly enough to employ them. Registration is absolutely impossible in this country at present. The Campbell Medical School is improving its standard and becoming more English, in the end it will be fit for affiliation; not so the private schools.

Witness would have the Faculty of Medicine include recognized teachers in the Medical College even if they did not happen to be Fellows of the University, so as to strengthen the expert opinion.

One Saturday a month is quite enough to ask members of the Syndicate to give to the University, and it would be hard to expect them to go round inspecting the different colleges. Witness would be glad to see the Syndicate at any time in the Medical College.

Witness has not considered the question of Fellowships being terminable or for life. The Senate should consist of senior rather than junior men.

WITNESS NO. 11.—MR. W. H. ARDEN WOOD, B.A., F.C.S., Principal, La Martinière College, Calcutta.

Witness presented a written statement (Part II, Paper No. 4) which he read to the Commission.

Science Teaching.

Witness brought forward three main points with regard to Science teaching:—

- (1) There should be proper provision for a continuous course of Science.
- (2) Practical work is not sufficiently recognised.
- (3) The percentage of marks required for a pass is not high enough to show thoroughness of work.

With regard to the third point witness said that he began to be satisfied with a paper when a candidate had got something like 40 per cent. of the marks. He had examined in years past in Chemistry and Physics in the F. A., and his constant feeling then was that he was passing students who really knew nothing of the subject and who ought not to have been allowed to pass.

With regard to the first point witness said that there should be some examination in general elementary Science in the Entrance Examination, otherwise it cannot be ascertained that schools have done their work. Such an examination has lately been introduced by the University of London into its Matriculation, and also forms part of the Oxford and Cambridge Junior Local Examinations, which include a very excellent practical examination. A school which prepares candidates for the University ought to have a laboratory, and if it has, then it will be possible to examine in practical work. The fact that study is carried on in English is a difficulty. The knowledge of English possessed by Entrance candidates is quite inadequate. The standard of passing in English ought to be raised. An examiner in English at the present Entrance Examination had remarked that candidates were reproducing exactly wherever the text they had read formed an answer to the question, but were hopeless where they had to put their own ideas in English.

Too much has to be done in the B. Sc. course. Under present conditions it is not possible to expect more than two or three subjects. With so many subjects a satisfactory standard cannot be maintained. If there were a better pre-University course more could be done. If there were a proper subsidiary course up to the F. A., students might begin to specialise after that examination. Chemistry and Physics should be included in general education. As things stand now, Chemistry not being compulsory in the F. A. Examination, students may come up to the Science course not knowing anything of it and that would be a permanent difficulty in their way. There would also be men of different standards working together and this would increase enormously the difficulty of effective teaching. If students did nothing else but Science after the F. A., and the work in the laboratory was good, in two years they would learn a great deal, but they could not cover a course that would make the degree a good one. If the University start from the degree and mean it to be of a certain standard, they must work down from the degree. Unless, however, something can be done to improve the instruction of junior students, it is better to defer their Science studies until they can be taught in well-equipped colleges. In colleges of the University there ought certainly to be adequate instruction and proper laboratories. Up to a certain point the basis of teaching Science as a part of a general education and the teaching of Science for specialisation must be common, and students must begin with a certain elementary knowledge of Physics and Chemistry. If students were properly taught those subjects, it would have a great effect. The examinations in Science should be partly practical and a candidate should not be allowed to pass unless he qualifies in the practical part. As regards the large number of candidates, if arrangements can be made for teaching 7,000 candidates, then they can also be examined. At present witness does not think there is any practical examination in Science in the London Matriculation Examination. There is a practical examination in the London Intermediate, and in the local examinations held by the University. (Dr. Bourne remarked that there is a practical examination in

the examinations of the Science and Art Departments, in which the candidates are more numerous than in the Calcutta Entrance.) If the problem of making education really satisfactory is to be solved, the University will have to face the difficulty.

If moderators, instead of merely seeing that questions do not go outside the text-books prescribed and are not too hard, would also see that the questions are a test of intelligent knowledge, they might do a great service. Looking over calendars witness saw many questions of which the answers could be got straight out of the prescribed text-books, and sometimes perfect answers are given, which, however, are no guarantee that the subject has in any way been digested. The practice of setting rigidly text-books or parts of text-books is much to be deprecated. If a teacher is competent to teach his subject, it is rather impertinent to tell him what book he ought to teach it out of. He would have his own methods and his own ways. Witness would define subjects by syllabi. If a teacher took into consideration the syllabus and looked at the papers of previous years, there would be no difficulty whatever in preparing students. It ought to be possible to prepare a definite syllabus which would suffice for a number of different teachers. It is true that M.A. questions might be put in an Entrance syllabus, but examiners would understand that, and the standard is generally known. Other Universities get on without prescribing such text-books. The Cambridge Local Examinations are defined by a syllabus. The Professors in teaching the subject should advise the students as to their text-books. If the University prescribes a definite text-book and rules that that is the text-book out of which students will be examined, they put temptation in the way of a student with an excellent memory to learn it off by heart, and also tell the teacher that instead of lecturing on his subject he should sit in his chair and talk about the book. That is the natural result of prescribing text-books, especially in this country. If it is admitted that it is necessary to prescribe text-books, then it is an admission that the teachers are incompetent. Witness would not prescribe text-books though in certain cases something might probably be said for recommending them, especially to prevent students from buying cheap bad books. It should be left to the teacher to use or refrain from using the book recommended. New editions of text-books should not be prescribed so frequently as they are. That is another evil arising out of the prescription of text-books. If text-books are prescribed, they ought not to be always changed, unless there is a very good reason for doing so.

Teachers actually engaged in teaching are not sufficiently represented on the Boards of Studies. For example, witness is on the Board of Studies in Chemistry and always makes a point when any question arises as to changing books to consult the men actually engaged in that particular subject in the Presidency College and at Sibpur. It would be much better if such Professors could be actually present and give their advices. No teachers in Chemistry of the Presidency College are on the Board of Studies nor is the teacher at Sibpur. The suggestion to allow teachers to be placed on the Faculties without being Fellows, hardly seems to be necessary. The end would be gained if teachers were properly represented on the Boards which have to do with prescribing courses and selecting text-books. The exact manner in which teachers should be so represented is a practical question. All such technical questions as courses for examination for Science degrees should be discussed by experts. Education is very unfortunate in this respect that everybody's opinion is as good as everybody else's.

There is another subject related to Science which is not sufficiently recognised by the University, namely Geography. The study of this subject has been revolutionised within the last 20 years. Other Universities recognise it as one of the subjects for higher degrees. The accepted view is that Physical Geography must form the basis of all geographical teaching. Geography has ceased to be a mere memory subject and has become almost a branch of Science. Looking over the papers in Geography set in Indian Universities, witness noticed that the questions appealed in general to the memory.

After witness had read his statement about European and Eurasian students,
Anglo-Indian Students. Syed Hossein Bilgrami asked him whether
the Doveton College did not especially
exist for the instruction of European and Eurasian candidates for degrees.
Witness replied that the institution was founded for students of European extrac-
tion, but that the college classes are now mainly filled by native students.

WITNESS NO. 12.—THE REVEREND A. PATON BEGG, M.A., Principal, London Missionary Society's Institution, Bhawainpur.

The best policy for the Calcutta University to pursue in regard to teaching is to co-operate with the Education Department for systematising teaching in schools and colleges. The University as a corporate body should not undertake teaching but should encourage the foundation of special lectureships on subjects not easily dealt with in separate colleges.

Teaching University.

The time has come for the Government of Bengal to make the training of professors and teachers for schools and colleges an essential part of the work of the Presidency and Provincial Colleges. Government should gradually start colleges entirely of that character. Thoroughly trained professors would be useful not only in teaching the students but also in instructing them in the art of teaching. It is due to the pupils of this country that Government should bring to bear upon their educational work the best experience in the principles of the art of teaching that are practised in Europe. Indian youths have ability and assiduity for work. Their ideas of instruction should be remodelled. At home a man serves his apprenticeship as a demonstrator and assists in the teaching of scientific and other subjects. Here at present the sole idea seems to be for teachers to pass students through examinations. They do not understand what it is to really train students. Students have no idea of higher education. They seem to think that professors should practically study the subjects for them. Professors summarise the subjects for students and the latter memorise them in order to pass the examinations. That is an evil which cannot be cured only by an outcry against cramming. The remedy lies in having systematic training for both teachers and professors. Even some of the European professors do not know the art of teaching properly. For this purpose Government should convert their colleges into institutions for training teachers and professors, at the same time gradually withdrawing from the direct work of education. Until this is accomplished, Government must maintain one or two colleges of high standard as models. The University, in the course of a few years, should enact that no teachers will be recognised who have not received the certificate of a training institution. Then high schools and colleges, both affiliated and otherwise, would find it absolutely necessary to possess on their staff men who had gained certificates either locally or in Europe. In Scotland those persons only are appointed teachers who have obtained certificates from Normal Schools, because it is believed that they alone are fit to undertake teaching in a school. Witness has no knowledge of the teaching in Government Colleges, but he has had access to Missionary and Native Colleges and has seen that there is no trained teaching in them. Trained teachers should be rewarded with certificates or rank in Government service, and if they go to mufassal colleges, mufassal students will not flock to the Calcutta colleges. Government are anxious to withdraw from direct education especially in the mufassal for financial reasons. They should, therefore, instead of running two separate educational institutions have one only which should be devoted to the training of teachers. There are well situated provincial colleges at Dacca, Krishnagar, Hooghly and Patna, which would be good centres for training teachers. At present teachers are enthusiastic in passing students through examinations; that enthusiasm ought to be turned in a different direction by making them associate with men who have a thorough conception of the art of teaching. Witness remembers that students of the First Arts or Entrance Examination often came to him to ask for material to memorise. They asked him to translate and explain grammatical points and write them down so that they might commit them to memory. Their only object was to pass the examinations. Old Pandits and Moulvis complain that now students will not study the languages but prefer the newer class of Pandits who know English fairly well and who can help them to memorise notes of translations and grammatical points. The old Pandits had a truer conception of the art of teaching.

Trained Teachers.

Witness has been watching the examinations in Calcutta for 15 years and

Cramming.

his experience as a paper-setter is that the way to fight the evil of cramming does not lie in drawing up a paper deliberately to exclude the possibility of students passing by what they can learn by heart. Such a paper would be a monstrosity. The difficulty is that the most obvious is the most difficult to explain, and it would be hard on all but the best students to require them to exercise their minds and their faculties over such a test. Witness once set a paper in the Entrance Examination in such a way as to elicit brain work from the students, and that paper was adversely criticised. Thoughtful students, however, answered the questions in a satisfactory way. In a previous year a distinguished gentleman had set a paper asking simple questions. Students wrote several pages of answers full of so many mistakes that most of them should have obtained *minus* marks.

The English of the students is very imperfect. The evil may be diminished

Knowledge of English.

if English is studied in a rational way as is contemplated in the new scheme of the Education Department. It may yield a better class of matriculates. With the rapid extension of English education which began 60 years ago, too many teachers were accepted who had no knowledge of the vernacular of the students. There should be a rigid requirement of a thorough knowledge of both English and vernacular languages on the part of all teachers and professors. To make a student's knowledge real, his teacher should be a bi-linguist who can exercise the student well in translation and retranslation. In the case of places like Madras where there are as many as five languages, there should be separate language colleges. In the first half of the last century many missionaries were opposed to teaching English generally, but the tide turned rapidly and perhaps too strongly; from the beginning the education in English has not been thorough. It remains to be seen what will be the result of the new welding of the English and the vernaculars. It is a most democratic measure and will open up higher education to the lowest classes. It is the most weighty and statesmanlike step that could be taken. As a matter of fact English is little used as a medium in High Schools. Witness is acquainted with Native Christian teachers who know English as well as their own language, but use the vernacular in teaching in the class. Entrance students think and calculate in the vernacular, and translate the result into English. In the case of subjects like Algebra and Euclid, English is used for the technical terms, and Bengali for the common and linking words.

Witness has attended the meetings of his Board regularly and can say from

Boards of Studies.

personal experience that its work is fairly satisfactory: there is always some room for discontent in regard to the choice of books. In this connection it should be remembered that account has to be taken of the facilities for obtaining books. Sometimes excellent books can not be had at all or can not be had for a reasonable price. These points are not taken into consideration by thoughtless critics of the action of the Boards of Studies.

When there is a recognised body of teachers it will be useful for the

Faculty of Teaching.

University to have what might be called a Faculty of Teaching, from which the Senate should be largely recruited in course of time. The office of teacher should rank higher and be made more attractive than it is at present.

Government constituted the Senate at first by selecting men who were

The Senate.

either engaged in the work of education or who had distinguished themselves in Government service in various capacities. The later appointments have not all been successful. Government appears to have considered them suitable for men to whom no other distinction could be given. The time has come when the Senate should be more and more exclusively a body of educationalists. His Excellency the Viceroy has been rather holding back in appointing members of the Senate, because it seems to be overweighted at present; but there is danger in overlooking the just aspirations of younger men in the educational service and non-Government colleges who might have been appointed to the Senate during the past two or three years. Merely ornamental members will gradually

drop out and in time the Senate will be more largely recruited from the body of young and active men who are engaged more or less directly in the work of education. The Senate is really not unwieldy; it is only so on paper. Witness would not suggest that the number of members of the Senate should be artificially or mechanically limited. It is necessary to look forward to the time when there will be a considerable increase in the number of colleges, and the Senate will require a large number of practical educationalists. Those members who do not come to the meetings or who leave or remain out of the country may be asked whether they would consent to have their names removed.

In order to acknowledge the liberality of benefactors the University should call them members of the Senate and not Fellows, for Fellowship generally carries with it the idea of scholastic acquirements of a particular character. In the London University they do not talk of Fellows, but of members of the Senate. Terminable Fellowships are open to objection in the case of elected Fellows. Government should revise its list from time to time and consider whether there are useful men who ought to be added to the Senate. Witness is satisfied with the present work of the Senate.

There should be an increase in the number of members of the Syndicate only if its work necessitates it. Otherwise it is not necessary to have a large Executive Committee. The educational element is sufficiently represented and the men who do most of the work of the Syndicate are practically in touch with the colleges and have the interests of education at heart. Witness would not be opposed to there being certain *ex-officio* members of the Syndicate, for instance the Presidents of Faculties and the Director of Public Instruction. This is rather supposing the Syndicate should come to be recognised as a representative body of more definite standing than it is at present. Now it is merely the Executive Committee of the Senate. There need not be a statutory basis for its recognition. It would not be wise to make it a body on too wide a basis of public support, because it has a good deal of delicate work to do, such as the appointment of examiners.

Examiners are appointed by the Syndicate in a satisfactory manner and there has not been any detrimental interference by the Senate. If the Entrance examiners who are first appointed as assistant examiners, prove to be reliable and impartial, they should be continued and promoted to the grade of head examiners in the F.A. and B.A. examinations.

Witness has been a Tabulator for three years. In each of the last two years there have been four Tabulators, two for the F.A. and B.A. and two for the Entrance. Witness described the *modus operandi* of the Tabulators and said that some tabulators prefer that each of the two Tabulators should independently tabulate and compare their results to see if they agree. That seems to be the most accurate method and the best guarantee for the tabulating work being done in a satisfactory manner. By working conscientiously and carefully, it is witness's personal experience that the Tabulators succeed in bringing out the Entrance results without any mistake. When the Tabulators' work is completed it is sent in to the office.

Moderators are appointed by the Syndicate for the Entrance examination. For the F.A. and B.A. examinations the examiners themselves are Moderators. In the Entrance Examination grace marks are awarded without reference to the actual answers of the candidates themselves. They are awarded when the results of the examination indicate that there has been some peculiarity in the papers. The matter could possibly be arranged by a permanent bye-law, but it would not be wise to do this, because the students would get to know the rule. Grace marks are not given to make the number of passes uniform every year, but to correct any unfairness in the papers. About 100 boys out of 2,000 or 3,000 passes get grace marks.

The re-examination rules were introduced when witness was the head examiner for the Entrance Examination. If a student fails in only one subject

there is a presumption that it may be due to some clerical oversight on the part either of the examiner or the talbulators. The papers in that subject are re-examined by the same examiner to see that no clerical mistake was made in the first instance either in assignning marks or in copying out the figures, *e.g.*, writing 62 for 26, or 3 for 7, and so on. A number of such cases have been discovered.

Head Examiners re-examine 5 per cent. of the answer books of sub-examiners to see that they are properly marked. This check is found to be of great value.

It has been suggested that the difficulties arising from the size of the Matriculation Examination might be lessened by holding the examination twice a year. It would be difficult for the schools, as they would have to maintain two Entrance classes. Colleges would experience the same difficulty. There is also no necessity for two examinations, as the present system can be worked quite well.

A School Final would not relieve the matriculation. What is needed is test examination to make the students work during the term. They are led away by the temptations of city life and hope to get through or escape the annual test. The form of certificate should therefore state that the candidate has passed two out of three test examinations. Promotion from the 1st to the 2nd and from the 3rd to the 4th classes should be made on a similar basis. Colleges are not strong enough to do this without the help of the University. The pupils would go to the colleges where the tests were least severe.

The Calcutta University although modelled on the University of London has no Faculty of Theology. In other Universities it is the main Faculty. Similarly, in olden days Pandits and Moulvis gave tuition in this subject to the Hindus and Mahomedans respectively. It would be impossible to combine such divers interests as those of Hindus, Mahomedans, Christians, Parsis and others in one Faculty. The University might, however, form separate Faculties in Theology. Something is done at present to recognize the Hindu religious doctrines and philosophy. There are the Sanskrit Colleges and Lectureships in the Vedanta. The University should confer theological distinctions. All the Protestants in India should unite in one Faculty. There is a movement at present amongst Christian Missiconaries in India to combine theological teaching. This is done in China. Mr. Howard wrote a paper at witness's suggestion, and it has been a source of great discussion on the subject of theological training in India. Witness has secured opinions from different parts of India, and especially from Madras, suggesting that a body of Senators should prescribe courses of study in different parts of India according to the circumstances of the provinces. There are ordained Native Protestant Ministers in this country who have received high education. They hold responsible positions which require much intellectual and spiritual training. The number of these men was—

21 in 1851	461 in 1881
47 „ 1861	1,797 „ 1891
225 „ 1871	1,090 „ 1901

making about 1,100 ordained Ministers. There is no recognition of their studies except by their own societies. The time has now come for more adequate recognition being provided for their training and qualifications. Degrees should be conferred on them by the University. Madras friends of the witness, instead of approaching the University at once for the recognition of Theological Faculties, prefer to try in the first place to make a joint body, as was done in England, of all Protestants, Presbyterians, Wesleyans and Baptists to confer theological distinctions. This was decided in the Calcutta Missionary Conference. There should be a Doctor's degree attached to each Theological Faculty. The President remarked that the University would have to treat the matter from a strictly scholarship point of view and asked whether a Mahomedan would be allowed to take a degree in Christian Theology, and so on. Witness replied that the highest degree would be conferred by a Board of the Theological Faculties and that to attain it the candidate would have to show a knowledge

of other religions than his own. The President asked whether witness was sure that eminent Hindus and Mahomedan scholars would be willing to serve on Boards of this kind. Witness said that at first there might be some difficulty with the more rigid Mahomedans, but that much of this rigidity had passed away. Witness added that the time has come when Pandits and Mahomedans ought to recognize that scholars ought to know something of the history and development of other religions than their own. The Danish Government gave a Charter to the Baptist Missionary Society in this country to confer degrees in any subject of learning. So it might be possible for the British Government to recognise Christian theology by means of this Charter. The Missionaries should then have a Senate representative of all the different Protestant Missions in India. Whether the Charter given by Denmark lapsed on the transfer of the government to Britain is a question of Law.

WITNESS NO. 13.—MR. H. STEPHEN, M.A., Officiating Principal, Duff College, Calcutta.

Witness read a written Statement (Paper No. 5 of Part II).

The defects in the method of study are due not to mental incapacity on the part of the students but to habits largely encouraged by the system of examinations to which the teaching is constrained to conform. More marks should be given to composition and translation and the method of training for these purposes must be improved. Much depends on the course of reading. It is to some extent the duty of the Syndicate to teach examiners how to examine. This may be done by rules and general instructions and partly by model papers.

The present class of books prescribed in which students are made to read long chapters dealing with elaborate criticisms has a tendency to some extent to make students cram, but it is impossible to avoid books in which there are allusions and criticisms. It is not, however, necessary to go minutely into them all. What is necessary is to understand the general drift of the book. Books which consist almost exclusively of criticisms should not be placed in the hands of students, but occasional criticisms can not be avoided. Witness finds that students of the first year class do not care to read any thing in the way of English literature beyond their text-books. They are very fond of allusions and are taught to believe they must be contained in every paragraph and sentence and they are never satisfied until they are dissected. Much time is wasted in this pursuit which contributes very little to the main object of understanding English and appreciating good literature.

The better course would be to prescribe some classical books and a much larger extent of comparatively easy reading. Even in the lower classes the range of reading should be wider, simpler and more continuous. It is too scrappy. Mr. Justice Banerjee asked whether the reading of a larger extent of matter is not less conducive to the acquisition of a foreign language than the more careful and exact reading of a limited quantity of matter. Witness said he would have a combination of both methods. Exact reading to some small extent should be combined with extensive reading of a simple and fluent character. Witness is not sure that the precise reading should be less in proportion in the lower classes, there is perhaps a temptation to read at first in too general a way. Archaic books should not be studied until the B.A. and then only to a limited extent, as, for instance, one of the simpler plays of Shakespeare.

In Philosophy the syllabus system is better than the system of prescribing text-books, because Philosophy is a subject which can hardly be learnt from a text-book. The introductory portion can only be learnt from direct contact with a teacher, and the teacher ought to be left free to teach the subject, especially in the earlier portion, without being hampered by a text-book. He would naturally recommend books as adjuncts to his teaching. The course of instruction should be regulated by a syllabus and the teacher should follow that syllabus very closely and explain all the topics in his own language. The teacher might at the end of his lecture refer the student to a passage in some favourite book and might instruct the student to read and understand this book supplementary to his own lectures. It is not desirable that all teachers should be required to follow exactly the same method of teaching. Greater freedom should also be exercised in examining, and examiners in many cases should be allowed to give a choice of questions. This would supply a remedy for defects and mistakes and would also enlarge the scope of teaching. The system presupposes a knowledge on the part of an examiner of the different possible methods of teaching that may be followed, and for that reason there would be no objection to the University recommending two or three or more books to the teacher, but they should not be prescribed. Prescribing is the main evil. There is a danger that students might think that as all these books are recommended the examiner would be at liberty to set questions that could be answered only out of them, and so they might read all the books. But this danger is not insuperable. It would be

understood that the examiner and teachers should be guided mainly by the syllabus. Teaching with the help of a syllabus and without any text-book being prescribed would render it necessary for the Professor to prepare his lectures before commencing to deliver them. It would impose considerably more responsibility on colleges and on teachers.

Witness could not say whether the constant changes in the M.A. curriculum are due largely to the action of the Senate.

The Senate and the curriculum.

He has been a member of the Senate only some two or three years. Perhaps the teaching element should be better represented in the Senate.

WITNESS NO. 14.—MR. E. B. HAVELL, A.R.C.A., Principal, School of Art, Calcutta.

Witness read a paper (No. 6 in Part II) on Art teaching.

The standard of work in the Entrance is very much lower than in the vernacular mastership examination. In the present year there was a considerable decline in the number of candidates in drawing. Up to two years ago, although drawing included both model and free hand, the model part was not insisted on. Last year witness made it effective, and the result is that the number of candidates has declined considerably this year. The proportion of failures last year was very large.

In reply to Sayed Hossein Bilgrami witness said that the main reasons for the decline of the artistic sense in India are, firstly, that art influences are entirely left out of account in the educational system, and, secondly, the monopoly of the Public Works Department in the erection of public edifices. It cannot be attributed to any considerable extent to the introduction of German aniline dyes. The deterioration of the public taste makes the introduction of such dyes possible.

Mr. Justice Banerjee enquired whether in so far as Hindus are concerned, spiritual development may not induce indifference to matters artistic. Witness explained that by the spiritual part of human nature he did not refer to religious sentiment. By "spiritual" he meant the higher æsthetic and imaginative faculties.

By exhibiting illustrations the teaching of Art may be combined with instruction in other subjects. For instance, in teaching Indian History of the time of Shah Jehan, an illustration of the Taj would be a fine subject to show to the students. Botany again might be illustrated by a pretty garden in the school compound.

WITNESS NO. 15.—MR. J. VAN SOMEREN POPE, M.A., Director of Public Instruction, Burma.

Witness presented a written statement (paper No. 7 in Part II) on which he was examined.

Witness would like to see the teaching taken away from the mofussil colleges and brought down to the centre where the University has its habitation.

Teaching University.

Syed Hossein Bilgrami enquired whether without so drastic a change the post-graduate teaching might not be concentrated. Witness replied that this forms a small portion of University life and that he would be sorry were the B.A. students excluded from the advantages of the reform.

Syndics should not necessarily be connected with colleges. There would be no objection to a Syndic coming from a college, but he should be regarded not as

Composition of Senate and Syndicate.

representing his college, but as representing the cause of education. It is not the right of any college to claim any position on the Syndicate. It is not a case for representation of colleges. Men with college experience ought to be the best men, and any man who has shewn himself keenly interested in education and whose advice and opinion on education are sound, no matter what college he belongs to, would be sure to be elected. Witness could not readily answer the question whether he had heard of canvassing for the election of Syndics. He had been out of touch with these things for a long time. He is not in favour of the election of Fellows by graduates because it may lead to a great deal of canvassing.

Dr. Mackichan.—Every election is attended with that evil. Would you give up the elective system for the world altogether?

Witness.—I think you can minimise the evil and I am in favour of minimising it.

Old graduates of recognised ability and interested in education might perhaps be given the right to vote for the election of members of the Senate. It would be necessary to be very careful about granting suffrage to graduates of 10 or 15 years' standing, because one may not know what they have been doing in the interval.

If Burma had a University of its own, the Senate would have to be a small one: it might contain 50 or 60 members.

Need for a University in Burma.

For a University like that of Calcutta, Bombay, or Madras, 100 would not be too large a number. Witness would prefer to see all the Syndics appointed by the Faculties. Assuming that Burma is to have no University of its own, there would be no practical use in having special representatives in the Syndicate for Burma. A man from Burma could not attend. The same remark would apply to additional Burma members of the Senate.

There is an Educational Syndicate in Burma which has nothing to do with Calcutta. A certain number of the officers in it are *ex-officio* and the rest of the members are appointed by the Lieutenant-Governor. There are 24 or 25 members and they represent the different phases of education, and that is all. They do not practically take any interest in education.

The mischief is not that the Calcutta Senate has overlooked the special needs of Burma, but that they do not understand those needs. Considering the wide interest of the Calcutta University it is not possible for them to adequately legislate for Burma whose people, habits and customs are widely different from anything found in Bengal. It is said that there are only a small number of schools and colleges in Burma, the reason is that there is no University to foster education. There are two colleges, one affiliated up to the B. A. and one up to the F.A. It is true that the number of candidates from these colleges is very small, but the number is increasing every year, especially for the Entrance. There are now about 200 boys presenting themselves from Burma for the Entrance Examination, and it is the opinion of witness and the opinion of all those who have been working in the cause of education in Burma, English and Burmans, and especially Burmans, that Burma ought to have a local University and that the numbers would be largely increased if such a University were founded. With the present small number of students it might not be possible to keep the standard

of such a University very high, but it would be fixed as high as is needful for the Province and gradually raised. They would not allow the standard to be so low as to bring reproach on the name of the University. There is no Medical College in Burma at present, but they could have one to-morrow. There is an Engineering School which is growing gradually, and it is hoped that in time it will be very much larger than it is now. The medical students are supposed to get their training in Calcutta, but it is unfortunate that the boys who go either to Calcutta or Madras, invariably come to grief. The girls have done well. Students studying in Calcutta go to a hostel in connection with the Medical College Hospital. The Medical Service of Burma is recruited from India. Men from Madras, Bengal, the North-Western Provinces and Bombay go to Burma as Assistant Surgeons in the Uncovenanted Medical Service and the hospital assistants are the only Burman subordinate medical officers.

The President enquired whether it would not be better to defer starting a University until the material is got together, *i.e.*, until the Arts Colleges are stronger and a Medical College has been started. Witness replied that the conditions are now ripe for taking steps for starting a University in Burma. The Educational Syndicate was originally appointed to be the nucleus of a future University, and the other day the Secretary of State, in connection with the Rangoon College, asked what steps they were taking for fulfilling the object for which they were originally constituted. A beginning might be made with the Entrance Examination. In the case of Burma it will be best to start with a University and then a Medical and other Colleges will follow.

The following are statistics of college students in Burma for the year 1900:

F. A. Examination—

	...	...	Number of candidates.	Number of passes.
Rangoon College	...	...	59	22
Baptist College	...	...	5	1

B.A. Examination—

Rangoon College	10	} There were more the previous year.
Baptist College	2	

A considerable proportion of the candidates, who go up for the Entrance, have the intention of going on with their studies. The college at Rangoon is full. There are more than 30 boys studying for the B.A.

Dr. Mookerjee remarked that the Calcutta University started with 12 colleges and a Senate of 40. All the colleges were teaching up to the B.A. The President said the nearest approach to Burma was the Punjab University which had five colleges before the University was established. Witness said that if Rangoon obtained a University it would not develop on the lines of Indian Universities. They had a scheme of their own.

With regard to the proposal of witness that vernaculars should be taken up as an alternative to classical languages in the higher examinations, the President remarked that the point had been made that the educational value of classical is greater than that of vernacular languages. Witness replied that a language like Tamil could be studied in a scholarly way. Mr. Justice Banerjee said that the classical languages embody a larger and more varied extent of literature, and that when it is necessary to coin new words to convey a new sense, it is desirable to derive them from Sanskrit when such words exist in that language. Witness said that this had already been done and that the vernaculars had been Sanskritised to an enormous extent; there is, however, a good purely vernacular literature in Bengal. Dr. Mackichan remarked that where the classical languages have been encouraged there has been great development of vernacular literature. Witness would like to see Burmese recognised alongside of Pali. The Pali work for the B.A. is absolutely ridiculous at present. Pali is the religious language of Burma and is therefore studied in preference to Sanskrit. The Poongyis know Pali only. There is much Pali literature in Burma, but people do not now care for it.

WITNESS NO. 16—MR. KALICHARAN BANERJEE, M.A., B.L., Professor of Law,
City and Ripon Colleges, Calcutta.

It is not practicable to make the Calcutta University a teaching body under existing circumstances. University teachers may, however, be appointed for special subjects that are not generally taught in the colleges, and only such teachers should be appointed as would be looked up to by the students more than the ordinary College Professors. The question of University Professorships has been already tested in connection with the Tagore Law Professorship. The original object was to deliver lectures on abstruse subjects, but now lectures are given on ordinary subjects of law, they are compilations of what may be found in the text-books on the subject, and are therefore not greatly valued.

If there are no men engaged in teaching in the sphere of the Calcutta University who may be regarded as models in their department, that is due to the fact as students in the colleges they had not themselves the benefit of teachers who were versed in the art. Trained teachers, so far as the real art of teaching is concerned, cannot be prepared by simply starting schools for that purpose. In so far as certain mechanical processes are concerned teachers can be taught in such schools, but beyond that they must receive inspiration from teachers at whose feet they have an opportunity of learning.

Witness has not had much experience of higher science teaching; in so far as Arts are concerned, students do not often attend classes in the college, they study privately. Many B.A.'s do not join a college for their M.A., because they cannot afford to pay fees, and have sometimes to provide themselves with the means of livelihood. If there were eminent professors in the University to impart higher education it would be a great gain—men like Alexander Duff, of whom people would be proud as University Professors. Existing colleges do not spend much money upon the higher branches of study. Private classes are held by individual professors out of college hours in their own homes. This will be to some extent changed now, because the University has lately decided that no college shall claim M.A. candidates unless they have attended lectures in the college and paid fees. The University should make better provision for higher education than does the Presidency College. The Presidency College was at one time manned more strongly than it is now, and then students of other colleges sought to avail themselves of the notes of the Presidency College Professors. If that state of things could be re-introduced by the University it would be a very great gain. Private colleges cannot be expected to do this. Government must supply funds. They might also be generous enough to make their college accessible and available to the students of other colleges by reducing the fees. Government charge a fee of R12 in their college. Students who cannot afford to pay that sum monthly cannot avail themselves of instruction there.

Syed Hossein Bilgrami enquired whether witness thought it desirable that Government should give high education in charity. Witness said he should object to such education being designated charitable.

There are some graduate scholarships and they are limited to the Presidency College. A student must pay R12 a month there for two years in order to be eligible for such a scholarship. They are for R50 each. Witness knew of a case in which a student of another college passed first in the B.A. Examination, but had to forego the scholarship because he was not able to join the Presidency College. He went up from his own college and passed first. His college gave him no scholarship. The F.A. scholarships are tenable at any college. The graduate scholarships are derived from a private endowment which belongs to the Presidency College. Benevolent friends of University should endow it with such scholarships.

There is a suggestion that the members of the Senate should be persons qualified to advise the University on questions relating to higher education, and so a distinction has been drawn between those who may be useful to the University in this way and others who are not likely to be so useful. In a country like India there ought to be on the Senate gentlemen who, although they may not be able to advise the University on questions of higher education, will be useful, by their identification with the University, in creating an interest in University education in certain communities. For example in the Punjab University there are different classes of Fellows. In one class are included Chiefs and Nobles at whose instance the University was started. There are communities in India which are backward in education and required to have representation on the Senate. Then there must be gentlemen on the Senate who belong to other provinces lying within the jurisdiction of the Senate. Though they cannot attend the meetings of the University they will take an interest in University education and promote it in those provinces.

The system of election, so far as the Calcutta University is concerned, should be given a more extensive application if indeed it should not entirely supersede the system of nomination. The elective system has been partially introduced within the last few years and the graduates are now given the right of electing Fellows to the University. A comparison of elected with nominated Fellows will show that the graduates have not been less discriminating than the Government in the discharge of their duty. The system of nomination has not given satisfaction for the most part. These nomination lists have been defective by way of omission not only with regard to Indian gentlemen but also in regard to European gentlemen. For instance, a gentleman living in the Andaman Islands was put on the Senate while professors of private colleges, including Missionary colleges, who could any day be useful to the University, were left out. Some of these omissions have been supplied by the graduates. Some of the Indian gentlemen who should have been appointed Fellows of the University long ago and who have been overlooked, have been returned by the graduates. The system of election is not perfect; but it shows that the graduates are not less discriminating than the authorities who nominate. All those who have been returned by the graduates have taken very active interest in the proceedings of the University. There is no determination on the part of the electors to elect any special class of gentlemen as Fellows. There is a suggestion that the graduates elect Fellows from among the lawyers; that is a fact, but most of these lawyers have had experience of education, have kept up their interest in the cause of education, understand educational questions and are capable of suggesting means for the supply of educational needs. They are men who understand something of the educational problems of the country. The term "educational" must be taken in an extended and not technical sense. In the case of nomination appointments are made to the Senate by authorities who have little or no acquaintance with the professors of the different colleges attached to the University. Names could be mentioned of some gentlemen who have been overlooked for a series of years by the University, though they were recommended by people who knew more about them than the authorities who had the nomination in their hands. Mr. Stephen of the Duff College should have been a Fellow of the University long ago, but he was overlooked from year to year. He could not be elected because he was not a graduate of the Calcutta University. Gentlemen connected with the General Assembly's Institution and the Duff College were not made Fellows while those belonging to the Presidency College have been Fellows for a long time. Persons not in touch with Government Colleges have very little chance of being made Fellows by nomination and therefore the system of election is an improvement on the system of nomination even in so far as the appointment of Fellows for colleges is concerned.

Fellowship should not be made terminable to a greater extent than is at present the case; care should be taken to appoint proper persons in the first instance. There should not be a hard and fast rule about attendance. Such rules are

applicable to the Boards of Studies, but are not dignified enough to be applied to the Fellows of the University. On a Board of Studies if a person absents himself for two years his appointment is cancelled. The limit of two years in that case was fixed in order to enable members of the Board to go to England on furlough. Apart from the indignity, another reason why the rule should not be made applicable to the members of the Senate is that it would inflict hardship on such members as cannot attend meetings on account of their residence in distant places where they form links between the University and certain classes of people. They might be called Honorary Fellows.

Most of the graduates take to Law as a safeguard against future contingencies, but they are not all anxious to become members of the Bar unless necessity forces them to do so. Some prefer the educational service. B.L.'s cannot be appointed Munsiffs right off under the rules; they must have two years' practice in the High Court; but the proportion of B.L.'s who become Munsiffs is very small. There is a tendency in some minds to depreciate B.A.'s as much as possible. On account of their circumstances some B.A.'s are obliged to accept low-paid appointments. Employers sometimes take advantage of the poverty of B.A.'s and offer them humble salaries. Those who understand the value of education should encourage B.A.'s as much as possible instead of making capital of their poverty and necessity. If in respect of a vacant post there are applications from Entrance candidates and F.A.'s and B.A.'s, preference should certainly be given to F.A.'s over Entrance candidates and to B.A.'s over F.A.'s, otherwise there would be no encouragement to students to take up higher studies.

The constitution of the Syndicate should not be placed on a statutory basis. The suggestion is that without imposing statutory rules it is not possible to secure adequate representation to Government or to colleges. But there is no necessity for the suggestion, for there have been no cases in which Government officers who are willing to serve on the Syndicate have been put forward and rejected. The same is the case with college professors. Taking a case for illustration, the Director of Public Instruction has been put forward year after year and has been returned on every occasion. Father La Font is a case of a college professor put forward and returned from year to year. Most of the college professors prefer being out of the Syndicate so that they may not be disqualified for examinerships. There is a rule of the Senate to the effect, that the Syndicate, having to appoint examiners, should not select any of its own members. The rule, however, works harshly in some cases, for sometimes members of the Syndicate have to become examiners without remuneration. Persons have no right to think that they will not be elected and there is no reason to hang back on account of that belief. Mr. Pedler gave instances of some professors who had not been elected. Witness said that the reason must have been because they were not known to be taking an interest in the University, for instance, by attending the Senate meetings. The electors may think that the Director and one professor sufficiently represent the Government. Missionary colleges generally put forward a certain person to represent them. Private colleges similarly put forward a representative. Mohamedans and Beharis also claim to be represented. If there were a statutory basis for the Syndicate, then all those who fulfilled the statutory requirements would come on to the Syndicate apart from their personal fitness. Hence there should be no hard and fast rules on the subject. The choice should not be restricted to educationalists in the technical sense but should include men who have other qualifications. The Syndicate should not be without educationalists, but the existing system has always given a sufficient proportion of them. Placing the Syndicate on a statutory basis would be a leap in the dark; the safer course is to have properly constituted Faculties and election from year to year. No case had been made out for interfering with the existing arrangements. The above remarks apply to the Calcutta University only.

The Boards of studies have satisfactorily discharged the duties assigned to them. The Syndicate is a check on them, and is not bound to accept their recom-

Graduates.

Syndicate.

Boards of Studies.

mendations. Sometimes it sends them back to the Boards for reconsideration. The Boards are sufficiently representative.

It might be sound not to have all Senators on the Faculties. The Faculties should not contain persons who are not on the Senate, if a man is valuable enough for a Faculty he should be put on the Senate.

Faculties.

Register.

It would be an advantage to have a register of graduates.

Certificates.

Certificates should relate to something more than mere attendance.

The minimum age should be fixed at 15, and by way of a check against falsification of age stringent rules should be laid down requiring schools to record

Age limit.

the correct ages of boys on admission.

Many students having a deficient knowledge of English cannot profit by the lectures in colleges. To remedy this defect the standard of English in the

Knowledge of English.

Entrance Examination should be raised.

Grace marks are sometimes regarded as things to be condemned. That is wrong. The object in giving grace marks is to allow those candidates to pass who

Grace Marks.

ought to pass. Two classes of Moderators are appointed, *viz.*, Moderators of questions and Moderators of results. Results in the Entrance Examination are moderated by 4 out of the 55 representatives in Arts on the Syndicate including the Director of Public Instruction. (Mr. Pedler said he invariably recorded his objection to the system.) Grace marks are not meant to show favour but to do justice to the candidates. They are given under the following circumstances. (1) Sometimes it happens that two examiners in one subject are given separate parts of the paper to correct and it is found that a candidate is short by one mark of the minimum pass marks. In that case equity demands that the grace mark should be given. (2) Under the pre-University system they did not insist upon passing in every subject, but under the University system they insist upon a certain standard of knowledge in all subjects. When a student has a high aggregate one grace mark is given for every five above the minimum aggregate up to a small total of two, or three, etc., varying in different examinations. (3) When there is something exceptional about the papers that are set and complaints are made by persons in regard to them. Such complaints generally originate with the students and are taken notice of if they are forwarded to the Syndicate through the Principals of Colleges or Fellows of the University. No notice is taken of complaints appearing in newspapers. In case of such complaints grace marks are allowed to everybody in consideration of an exceptional paper. Complaints of exceptional papers are made as soon as the papers are out and before the results are declared. Exceptional papers may mean among other things that questions have been set outside the prescribed course. (4) When the percentage of passes is extraordinarily below the suspicion may arise that the result does not accurately represent the requirements of the University and then papers are re-examined or grace marks given in order that no injustice may be done to candidates who ought to pass. The maximum of grace marks is five. (5) Tabulators are instructed to place before the Board any exceptional cases that came under their notice while tabulating, and they are considered by the Board each on its own merit. In allotting grace marks the examiners who have examined the particular papers are present and are consulted. In some cases the examiners themselves bring to the notice of the Board cases in which the Board ought to grant grace marks.

The system of re-examination is an excellent and wholesome one although it may delay the results a little. As an

Re-examinations.

example it may be stated that sometimes students are in the habit of leaving a number of blank pages after completing an answer to a particular question with a view to write the answer to another question in them, which however is not written for want of time or some other

reason. After these blank pages comes an answer to another question. In such cases it sometimes happens that the examiner having come to the blank pages believes there is no written matter beyond and does not examine the next answer. In such a case students are protected by the system of re-examination. Sometimes the total marks are reversed, *e.g.*, 72 is written for 27; these are clerical errors, but they require to be guarded against and the system of re-examination is a wholesome check on them. Such mistakes are not necessarily due to the carelessness of examiners and cannot be eliminated by getting rid of examiners who make them.

The University should inspect the affiliated Colleges. If the University were to fix a minimum fee and make a rule so as to ensure proper fees being charged, then provision ought also to be made for a certain limited number of free students.

For some years past there has been a dread of philosophy in the minds of the students. The University has not succeeded in popularizing the study. The first reason is that no foundation is laid for the study in the F.A. class. Students do not begin until the third year, and that puts them at a disadvantage. In former years there was an elementary book in philosophy in the F.A. class. The system of lecturing has also deteriorated. The present lectures are abstracts or compilations of certain books. Students are not required to make their own notes at the lectures but the notes are dictated to them. The result is that they do not assimilate the subject and in the examination they mechanically answer questions according to their notes and often give irrelevant answers. The object of the syllabus is to indicate what are regarded as the essential portions, and the object of the text-book is to show how deeply they are required to be studied. If these principles were intelligently appreciated and followed there would not be so much dread of the subject.

The teaching of Law in Bengal has never been satisfactory, but of late there has been some improvement owing to the University having ruled that no candidate may join the Law class until he has taken the B.A. degree. Formerly candidates were allowed to begin the study of law when they were in the third or fourth years' class and they took no interest in their law studies. In the law course there are 8 groups of subjects; 36 lectures are delivered in each group and students must attend 24 out of each set of 36 lectures in order to entitle them to appear at the examination. It is impossible to properly study all the subjects in this two years' course of lectures. A disastrous feature of the rule is that as soon as the students have attended 24 lectures they do not care to attend the remaining 12 and are satisfied with private study. To cure this evil there should be an examination at the end of the first and second year, and unless students pass the first year's examination they should not be allowed to enter the second year's course.

There is no objection to the study of comparative religion forming a portion of the higher philosophical course, but such a thing as a faculty of Theology is neither practicable nor desirable. The University as such has no religion and a theological degree should not be dissociated from religion, nor would it be accepted as of any value by the co-religionists of the graduates. It would not be possible for the Board to agree to any course of studies in regard to Theology. As an instance, when books were prescribed for the "Evidences of Christianity," as an optional subject, objection was taken to certain pages and chapters.

WITNESS NO. 17.—MR. M. E. Du S. PROTHERO, M.A., Director of Public Instruction, Assam.

Witness presented a printed statement of the points of his evidence (Paper No. 8 in Part II).

Witness is in favour of converting the Calcutta University into a teaching University in the same way as the London University was altered by the Act of 1895.

Teaching University.
If the colleges are made integral part of the University there will be no need for University Professors and Lecturers. Even European University Lecturers often lecture to empty benches. The rule will have to be altered which leaves the management of the University entirely in the hands of the Fellows. The present system of election by Faculties to the Syndicate should be replaced by some system which will give the constituent colleges of the University more power in its actual management.

The colleges should be represented on the Syndicate, especially the Representative of Mofussil Colleges in the mofussil colleges. They have practically no representatives at present. They might be allowed to appoint a representative in common, who need not necessarily be one of their own body. The rule which requires the members of the Syndicate to be resident in or near Calcutta should be repealed. It should be understood that the representative of the mofussil colleges should be an educationalist.

Dr. Bourne.—One or two officials of mofussil colleges have admitted that they wish to have representation on the Syndicate in order to secure a proper percentage of examinerships. Is that the case, or is there any other reason for it?

Witness.—I have never heard that reason put forward.

Dr. Bourne.—It was put forward in Bombay.

Witness.—The distribution of the loaves and fishes is very fairly carried out at present. An instance of the interests of mofussil colleges, which are at present neglected, may be found in the distribution of centres. That is a point which is continually coming up. The University are often abolishing centres. In Assam the University wanted to abolish Shillong as a centre for the Entrance Examination. This would have almost entirely put an end to the work of the Welsh Mission among the Kasias. Mofussil colleges have their own experience of the needs of students, and therefore they should have a voice in the determination of University rules. The heads of mofussil colleges might come to an agreement amongst themselves and appoint one man to represent their interests, who would be an *ex-officio* syndic. The Syndicate should be given a statutory basis and it should be declared that amongst the members of the Syndicate some one man must represent the affiliated colleges in the mofussil. The heads of mofussil colleges should make the election whether they are Fellows or not. If necessary the privilege might be confined to first grade colleges. The other members of the Syndicate would be appointed much in the same way as they are now.

Witness would not be in favour of extending the principle and granting similar representation to first grade colleges in Calcutta. They have enough members of the Senate to look after their interests. Most of the Calcutta colleges, like the Metropolitan Institution or the City College, have their representatives in the Senate.

Dr. Mookerjee.—Most of the Principals of the Calcutta Colleges are members of the Senate. They have some representatives on the Syndicate, for instance, Father LaFont.

Dr. Bourne.—It appears a somewhat lopsided system to elect some syndics by non-Fellows and some by Fellows.

Witness.—You have to patch up your machine as best you can. If, as Mr. Slater suggested, the whole body of Fellows were to resign, then there would be a clean state.

Another way of improving the Syndicate would be to declare that the heads of first grade colleges ought to be on the Syndicate.

Mr. Pedler.—We have 15 first grade colleges in Calcutta and about 25 outside.

Witness.—It would be very hard to fix any proportion of educational experts to be members of the Syndicate, but unquestionably it would be a good thing if it could be done. In the Allahabad University certain gentlemen are put down as *ex-officio* syndics. That would be desirable in Calcutta.

It would not be necessary to increase the number of members of the Syndicate. The main point is that there should be one man to represent the interests of the mofussil colleges on the Syndicate.

In his printed note witness has said that the ideas of "Free trade in Education" and "Non-interference with Private Enterprise" however laudable in some

Recognition of Schools.
 respects are carried to too great an extreme under the present University system. Almost anybody is at liberty to start a college or school and get it affiliated or recognised. The evil is not so bad in the case of colleges, but even in this case the enquiry as to suitability of place and qualifications of staff is altogether insufficient. In the case of colleges witness has been consulted in a few instances about the desirability of affiliating second grade institutions and his advice has not been disregarded by the Syndicate, but his evidence relates more particularly to schools. The pressure of insufficiently prepared candidates arising from the indiscriminate recognition of schools tends to reduce the standard of the examinations. As an instance witness referred to the small primers of Greek and Latin History to which the examination for the First Arts is now confined. Although it is always contended that the study of a period of History is much more beneficial than mere outlines, yet the narrowest outlines of Greek and Roman History are at present prescribed. In the methods of recognising schools the tendency of the University is to neglect local advice and to ignore the effect upon existing institutions of recognising a school coming up for recognition. There was a case in Assam in which a school was recognised by the University in the teeth of the advice of Dr. Booth, the Director of Public Instruction. Again a school has been warned by the Syndicate for insufficient results which was recognised in 1896 when witness was Inspector of Schools at Patna, without the slightest reference to the Inspector of Schools. The names of these schools are given in the printed note. Witness has inspected the Assam school himself and supports his predecessor's opinion that it was quite unworthy of recognition. Witness is not aware of the reason why the Syndicate acted contrary to the recommendation. The University do not act up to their own rules sufficiently. The President enquired whether it is necessary for the University to interfere in the matter, and whether it could not be done by the Director. Mr. Pedler said that the Director has not the right to visit private schools. Witness continuing said that they very often do not consult the local authorities, and if they do consult the local authorities they do not always follow the advice they get. The Directors of Public Instruction would be willing to undertake the work of recognising schools if the University entrusted it to them. The rules for the recognition of schools are good enough if they were carried out, particularly the second point with regard to the influence of new schools on existing institutions. The evidence of the Inspector of Schools should be taken in the case of private schools applying for recognition. Witness has never had any difficulty in inspecting any private school which he wished to visit. Such schools submit to inspection if it is not claimed as a right.

Witness.—In Assam there is a fixed scale for Government schools. In private schools the head master very seldom gets more than Rs. 40 to Rs. 50; the second master may get Rs. 40, and the third say Rs. 35. The salaries in Assam are higher than in Bengal. In aided schools the rates are rather higher. A minimum rate of pay is being established for aided schools in Assam. It is a question whether the nominal rates are always paid to the teachers. Witness has known cases, as an Inspector of Schools, of teachers signing a receipt for a greater amount than was paid to them simply to enable the grant-in-aid to be drawn.

The remedy for the existing state of things lies in cutting down the number of institutions, in rendering affiliation rules more stringent, and in strictly enforcing the rule that a school must pass at least 20 per cent. of the candidates that are sent up. Enquiry into the efficient state and equipment of schools should be more strictly enforced, and advantage should be taken of the percentage rule to weed out inefficient schools.

Improvement of Schools and Colleges.

Colleges ought to be periodically inspected on behalf of the University. They would submit to such inspection, if it were done tactfully. Witness has never had any difficulty in inspecting any college or school that he wanted to see. The rule of inspection should be a universal rule.

The minimum age for the Entrance Examination should be fixed at 15, and the pass marks raised from 33 to 40 per cent. The Registrar discovered in the last examination that 70 per cent. of the candidates got less than 40 per cent. of the maximum marks in English. That is a proof in itself that the system is in need of urgent reform. It does not follow that 70 per cent. of the candidates would fail if the marks are raised from 33 to 40 per cent., provided they are warned. Mr. Edward's suggestion for holding a preliminary examination in English every six months would appear to be a very useful one. The English examination should be made more colloquial, or perhaps more based on every-day English. The Allahabad University has a *vivá voce* examination in English for the Entrance Examination. The Calcutta numbers might perhaps be an obstacle, but at all events the examination in English should be altered and more composition in the form of letters and essays introduced. There should be greater strictness in the granting of certificates of fitness to go up for all three examination—the Entrance, F.A. and B.A. At present every head master has to certify that each boy coming up to the Entrance has a reasonable chance of passing, and this is interpreted in the most lax manner.

Several departments insist on a boy having gone up for the Entrance as a condition precedent to entrance into those departments, and therefore many boys go up without the slightest hope or intention of ever passing the examination. All they have to do is to pay Rs. 10 and produce a Registrar's certificate. That is the explanation of the point, to which His Excellency referred, of the small percentage of passes on the number going up for the Entrance Examination.

The President.—Is not the reason why a failed Entrance is accepted as a qualification in some cases, because it implies at all events that the head master certified that the student had a chance of passing?

Witness.—That is the most likely reason. I have known a head master to say that a boy who had failed in three subjects in his test examination, had a reasonable chance of passing the Entrance. When a head master has a direct interest in the number of boys he sends up, it is not difficult to obtain a certificate from him.

Mr. Pedler.—The former practice was that the test examination for appearance at the Entrance might be held in December or January, and the session used to end in March. If a student was allowed to go up for the Entrance Examination which was held in March, he then had to pay fees for January, February, March, April and May to his head master. If he was not allowed to go up, he was not obliged to pay these fees. Therefore, there was a direct incentive for a head master to allow a student to go up for the examination. The inducement has been reduced by causing test examinations to be held generally in January or February.

It would be excellent to introduce a departmental school-leaving certificate, such as is undertaken by the Scotch Education Department. At present a considerable proportion of mofussil candidates for the Entrance have no intention of proceeding to a college.

Dr. Mookerjee.—As regards the recognition of schools you stated that the Syndicate in recognising new schools has not always been mindful of the interests of

Recognition of Schools—*contd.*

old schools. Have you noticed that there is a substantial difference between the rules for the affiliation of colleges and the rules for the recognition of schools? At page 96 of the Calendar there is a rule for colleges, but in the case of schools there is no such provision. Do you think there ought to be a similar provision?

Witness.—Unquestionably so. Compared with colleges, schools are very much nearer to one another and very much greater in number.

There are two colleges at present in Assam. The Gauhati College, which is a Government College, and the Murari Chand College in Sylhet, The

Assam Colleges.

Gauhati College is sending up candidates for the First Arts for the first time this year. Both Colleges are second grade colleges. These colleges have well equipped hostels attached to them. The Government of Assam is considering the necessity for building quarters for the European Principal of the Gauhati College, so that he may be in constant charge of the hostel. There are very good buildings at Gauhati with plenty of space and air. The library is deficient. The students have a cricket-club and play foot-ball constantly. Their physical health has been very good, taking into consideration that Gauhati is rather an unhealthy place. The Sylhet College has not as well equipped a hostel as witness would like to see; it was founded by a local zemindar.

The inspection on the part of the University that has been suggested would be a very good agency for keeping colleges up to the mark. The University

Inspection of Colleges.

might appoint an inspector of their own, or they might accept Government inspection. The latter would not be popular. The inspection should be carried out regularly, as a matter of course.

WITNESS No. 18—MAHAMAHOPADHYAY NILMANI MOOKERJEE, M.A., B.L.,
late Principal, Sanskrit College, Calcutta.

Witness was questioned on a written statement (Paper No. 9 in Part II) which he read to the Commission. The following is an abstract of his replies.

When Sanskrit *tols* are situated near the students' houses they are not fed at the *tols*, but in their own homes. Rich men's sons do not go to the *tols*.

Paragraph 1,* Historical Retrospect.

Centres should be fixed for University teaching on the lines of the *tols* and different Professors appointed to different centres. When Training Schools turn out

Paragraph 2, Teaching University.

a number of good teachers the University should see its way to give licentiate certificates and form a list of Recognised Teachers. Attendance at the lectures of such teachers should be made compulsory; unless a student has secured a certain percentage of attendance he should not be allowed to present himself at the examination.

Asked what he meant by the premier University, witness said he meant the University which was first in rank and whose jurisdiction was most extensive.

Paragraph 3, Sphere of Influence.

His remarks had special reference to Allahabad and Lahore. The Allahabad University should not be allowed the privilege of affiliating colleges located within the jurisdiction of other Universities. The standard of the degree of the Calcutta University is higher than that of the Allahabad and Punjab Universities.

It would be difficult to diminish the number of the Fellows to 120 all at once. The present number must be reduced by efflux of time. The present Senate

Paragraph 4, the Senate.

should not be discharged. Only a limited number should be elected and no nominations should be made until the reduction is effected. The number has in fact been considerably reduced. In appointing Fellows, graduates should be called upon to make four nominations, out of which one would be selected by the Chancellor. This system would reduce canvassing; it would be more difficult and there would also be less temptation. Mufassal College Professors could not be present at meetings in Calcutta and would, therefore, be useless Fellows.

Boards of Studies should always consist of those who are specially qualified in particular subjects. In saying that Boards are indiscriminately constituted

Paragraph 6, Boards of Studies.

witness means that no regard is paid to the special qualifications of particular members.

A register should be maintained of graduates higher than the B.A. The M.B. degree is higher than B.A. as it carries special qualifications, the B.A.

Paragraph 7, Graduates.

and B.Sc. are about on the same level. The B.L. is higher than the B.A. Graduates of the Calcutta University would object to outsiders being given degrees in their University.

Witness was questioned on his statement that no age limit should be fixed for the Entrance examination. He admitted that boys of 12 are not fit to

Paragraph 8, Age limit.

begin a college course. Sometimes boys of 13 or 14 pass into the University. Mr. Pedler read an extract to show that in Madras a boy of 11 years and 9 months had passed the University Examination. Witness said that that was exceptional. In Calcutta a student of 12 had appeared at the Entrance Examination that year, but did not pass.

When students are required to study a number of subjects at once they cannot devote sufficient time to study them all properly. This circumstance accounts for

Paragraph 9, Multiplicity of subjects.

their superficial knowledge. Cramming used absolutely to be discouraged in *pathsallas*. Memory was, however, cultivated in these *pathsallas*, because religious

* The references are to the paragraphs in witness' written statement.

texts had to be learnt by rote ; such study added not only to the student's knowledge but also to his religious merit. Indian students are not deficient in intelligence ; but they are obliged to cram, because they cannot understand and master so many subjects, and yet they must pass their examinations. It is necessary to reduce the number and curtail the extent of the different subjects of study prescribed for the Matriculation Examination, with the exception of English. In olden days on festive occasions or meetings students were encouraged by their elders to speak and carry on disputations in English. The elders did not understand English, but they derived pleasure from hearing their boys converse in that language.

Witness expressed the opinion that, considering the position of the students, the first book of Euclid is enough for the Entrance Examination.

Mathematics.

There should be a larger book of Indian History. Formerly Morrison's History of India was prescribed ; it is a very interesting book and its English is good. English History is too difficult for entrance students to understand. By studying better books on Indian History students would get a better knowledge of English, which is the key to all the rest of the knowledge that they will secure. The boys find Indian History much easier than English History.

History.

Two years ago an attempt was made to have bifurcation at the F.A. Examination, but nothing was done. Each expert wanted special prominence for his own subject. Such a bifurcation should be made in order that there may be more time to devote to the study of English.

Bifurcation.

After the entrance vernacular languages should only appear as an alternative course for students going in for professional studies, such as law, engineering and medicine.

Vernaculars.

The present arrangements for translating from the vernacular are very unsatisfactory. The practice is to translate an English passage into Bengali in order that it may be re-translated from Bengali into English by the candidates. It is very difficult to translate a selected English passage into literal Bengali or any other vernacular ; and unless it is literally translated it is difficult to compare the re-translation into English with the original English passage. If, on the other hand, the translation is free it is difficult to assign marks to the performance of the candidates by comparing the translation with the original English passage.

Dr. Mackichan said that the same system is followed in Bombay, where it is an utter failure.

Mr. Justice Banerjee said that the remark of the witness that there is no subject of study in which the crammer and the key-maker are so much in requisition as Sanskrit is a very serious indictment against the teaching and the examiners. Witness said that Sanskrit grammar is not properly taught to students in schools. They learn it at haphazard by jotting down notes. The University requires a good Sanskrit grammar. Grammars written in Bengali would not be useful to students whose vernacular is other than Bengali. Grammars written, by Englishmen, like Messrs. Wilson and Max Müller are not fit for text-books. There is at present a proposal before the Board of Studies on the subject. The well-known rules of grammar should be written in simple Sanskrit, and the explanations given in English.

Sanskrit.

In pre-University days some very good students did very well in one subject and were deficient in others. There was the case of a gentleman, named Kalachand Dass, who gained 80 marks out of 100 in English and only 9 marks out of 100 in Mathematics ; he was allowed to pass and obtained the senior scholarship. He did very well at the Calcutta High Court and became one of its distinguished pleaders. The late Mr. Woodroff was strongly in favour of passing candidates on the aggregate marks obtained by them, and of doing away with the minimum in each subject.

Pass on aggregate marks.

WITNESS No. 19—MR. J. S. ZEMIN, Principal, Doveton College, Calcutta.

Witness presented a written statement (Paper No. 10 in Part II), and was examined on it. Before beginning to read the statement he said that although the Commission were not taking evidence on schools and school teaching he would like to say a few words with regard to the education given in European schools, because it is very intimately connected with University education. In fact the circumstance that very few European and Eurasian boys go up to the University is entirely due to the sort of education that is at present in vogue in the European schools.

There is a regulation in the Code which enabled Schools to send up candidates for the senior Cambridge Local Examination, instead of their going to the High School Examination. The Senior Cambridge course has now been introduced in St. Paul's School, Darjeeling. It is equivalent to the F.A. or High School in difficulty. Government has laid down that any school that sends up pupils to the Entrance Examination only cannot be recognized, under the Code of Regulations, and is not eligible for a grant.

Mr. Pedler remarked that the Code does not say this exactly. In the European School Code the grant is an attendance and not a result grant. The work of the school for the previous two or three years is considered and the attendance grant is given without reference to the passing of Entrance, High School or Middle School Examinations.

Witness said that if a school sends up for the Entrance Examination and also for the High School or Middle or Primary Examinations it is eligible for the grant but not if it only sends up for the Entrance Examination. The High School Examination standard is slightly higher than that of the Entrance but is not recognized, and boys possessing its certificate are often asked by employers if they have passed the Entrance. Even the Public Works Department recently in advertising for clerks stated, as regards their qualifications, that they must have passed the Entrance Examination. That was felt to be a grievance. Mr. Pedler said it was merely a mistake of the Department and was not likely to occur again.

In the High School Examination there are only two compulsory subjects—English and Arithmetic—with a number of optional subjects, whereas in the Entrance all subjects are compulsory, except drawing. A student cannot, however, pass on compulsory subject alone—he must take up three voluntary subjects.

Some of the students of the Doveton College go into the public service, some follow professional careers and others enter mechanical employment. A very small proportion take the B.A. degree. There are six students in the college for next year's F.A., two of whom are natives. There are no students this year in the third year's class. This year there are two Europeans and three natives for the B. A. Examination. At no time during the history of the institution have there been more than 30 students in the college department.

Sayed Hossein Bilgrami said that when he was in this school, the college classes were pretty full though not as full as those of other colleges. They probably contained more than 60 students excluding those in the entrance class. A lot of these students were Europeans and Eurasians. Dr. George Smith was then the Principal.

The High School Examination is harder than the Entrance because of the high percentage of marks that is required to pass it. The English in the examination is fairly difficult. The Examiners are appointed by the Inspector of Schools with the sanction of the Director. The examination is held at particular centres. The Examiners are almost all Europeans. There is no oral examination. In the Entrance Examination the questions are generally very simple and for European students the English questions are much too simple.

At present a European boy is 18 years old when he passes the High School Examination; he would then take two years for his F.A., two more for his B.A. and a year and a half more for his M.A., if he is of average intelligence. He

would thus be nearly 24 years of age before he became an M.A. If, on the other hand, he appeared for the senior Cambridge Local at 15 he would probably finish his University course at 21. That he takes more years in the former case is not because the course is superior but because the High School Examination causes great delay in his career. At present most schools take the High School Examination because Government encourage it; otherwise it would not be used. St. James' School has sent up students to both the High School and Entrance Examinations.

Mr. Pedler said that the London University Examination was discontinued because the boys who appeared for it averaged only two a year.

There is a standing rule of the University that no candidate may take his M.A. Degree in English, whose mother tongue is English; it has precluded several European students from taking the M.A. Degree who wanted to take it in English. Dr. Mookerjee remarked that the reason for the rule is that vernacular languages are not recognized for the M.A. Mr. Pedler said that the European and Eurasian students had not taken advantage of the other subjects which they might take up for the M.A.

The High School Honours Examination is held after the High School Pass Examination. Very few students have, up to the present time, gone up for it. The examination was never held until last year when there were a few students only. At the age of 18 European and Eurasian students think that their education is finished; and they do not think that the Honours Examination gives them any advantage. No effect has yet been given to the Government proposal of 1895 that the High School Honours boy should be considered equivalent to a B.A. for Government appointment.

European students generally do not like to go to colleges for higher education. There is no college for Europeans alone.

Mr. Pedler said that in the course of his 23½ years' service in the Presidency College as a Professor there were certainly not more than a dozen European students. The college is open to them as to others.

Sayed Hossein Bilgrami asked why the Doveton College is not more exclusively used by Europeans and Eurasians. Witness said that although the College had been endowed for Christians native students were admitted to it, in an increasing proportion. The number of Anglo-Indian boys going up for the University Examinations is much smaller than the number of natives. Native students would be excluded from the Doveton College if Government gave it a larger grant. With its own resources it could not get on without the native students. It only receives a small grant from Government at present.

In his written statement witness deprecated an age limit because of the difficulty in determining the age of native students. Mr. Pedler explained that the following system obtains in all the schools in Bengal. When a boy 5 or 6 years old joins a school his age is taken down on the statement of his parents or guardians, when he leaves one school to join another he always carries with him the statement of his age with so much added for the period that he has been in the school he is leaving. Theoretically that is a perfect system of recording his age. Witness said that in that case he should certainly think an age-limit very desirable and that 15 would be a good limit.

In his written statement witness said that Fellowships should be withdrawn in the case of (1) habitual non-attendance or (2) well established indifference. Mr. Justice Banerjee asked whether you could test (2) except by (1). Witness was inclined to think you could not. Neither an Anglo-Indian nor a Mahomedan gentleman had ever stood as a candidate for election to the Senate.

The English test is in urgent need of reform. It would not be a sufficient guarantee of a candidate's knowledge of English, if he were stopped from appearing at the Entrance Examination, unless he satisfactorily passed the test at the

hands of his Head Master. One could not rely upon the rule being properly carried out.

Many schools have been recognised, which ought not to have been recognised because they cannot be controlled. As regards the affiliation of colleges the University insists upon a certain standard before granting affiliation. Witness knows that this is done, and has seen, from the Minutes of the University, cases where affiliation has been refused. Regular inspection of schools would be very advantageous. It might be conducted by the Department and report made to the University. This would apply to private schools which are not now inspected by the Department.

In the school department of the Doveton College there are always some Anglo-Indian students, as well as the non-European element. There is a class for infants in which instruction is given from the lowest standard.

Doveton School.

WITNESS No. 20—MAHAMAHOPADHYAY HARAA PRASAD SASTRI, M.A., Principal,
Sanskrit College, Calcutta.

Witness presented a printed statement,* part of which he read and on which he was questioned.

* Paper No. 11 in Part II.

The Sanskrit Titles Examinations are held in different centres under the Registrarship of the Principal of the Sanskrit College. The centres are at Dacca and other places. They are about 24 in number. For these examinations questions are set at the Sanskrit College and distributed to the different centres. Candidates do not also come up to the University, because they do not know English. They learn Sanskrit through the vernacular.

Mr. Pedler said that the examinations are conducted by the Principal of the Sanskrit College under Government orders. If any trouble arises, the Director of Public Instruction is responsible for putting things in order. Various local Sanskrit associations contribute towards the cost of the examinations.

It will be better to leave the examinations under Government than to have an oriental side to the University.

There should be three distinct classes of Sanskrit men in India, viz. :—

- (1) Indigenous pandits who will study Sanskrit without English for the purpose of religion, philosophy, Hindu law, ritual, and so forth.
- (2) Hindu students of the University who will study Hindu poetry, Hindu history, and the ancient Hindu life in India along with English.
- (3) A body of experts who will study Sanskrit and English in the same breath, be engaged in higher teaching, conduct research in archæology, antiquities, and the ancient literature of India, and be, generally speaking, interpreters of European thoughts to the Pandits, and of ancient Indian thought to Europeans.

The University should take care of the last two, and the first should be left in the hands of Government. The third are the select of the second. The Calcutta Sanskrit College is the only college in all India where both English and Sanskrit are taught from early infancy. The Sanskrit College at Benares takes care of oriental learning only. The titles given on the results of examinations are the names of the subjects plus the word *tirtha*, which meant teacher, e.g., *Nyayatirtha* meant teacher of *Nyaya*. Higher titles given by the Calcutta Sanskrit College are *Shastri* and *Saraswati*. The title of *Mahamahopadhyay* is different; it has no connection with examinations, and is granted as a title of honour by the Government.

The knowledge of Sanskrit and Arabic which boys get in the schools and colleges is necessarily superficial, for they study only a few books. Having to study a good deal of English, Mathematics, and other subjects along with Sanskrit or Arabic as their second language, they cannot study the latter thoroughly and critically, and therefore their imperfect knowledge is ridiculed by the old school of pandits. The reproach is certainly well deserved.

There are two classes of Sanskrit M. A.'s: one class comprise those who receive their full training in the Sanskrit College—they are very good men—and the other those who, after passing their B. A. from other colleges, come to the Sanskrit College to receive M. A. instruction there—they are not so good, as they are not very well grounded. It would be a very good thing if the University would admit as M. A.'s those who have obtained titles at the Sanskrit Titles Examination if they fulfil the requirements of the M. A. Examination so far as the knowledge of English goes. Or a separate degree might be given to such students to differentiate them from ordinary M. A.'s who have received a more general education. The Mathematics would be the stumbling block if a general training were required (Mr. Justice Banerjee thought that a man who could study the *Nyaya* philosophy would be able to tackle Mathematics).

Witness has not much idea of what a Teaching University would be like, never having seen such a thing except the Samajas where students are taught, granted titles, and fed. It would, no doubt, be feasible to concentrate science and post-graduate students in Calcutta in the same way as Sanskrit students are collected at the present time.

There would be no objection to the submission of the names of teachers to the University before they are considered qualified to teach in colleges. The University might in future distinguish between "Recognised Teachers" according to the subjects in which they are qualified to teach.

No suggestion could be offered by witness as to how the present Senate should be reduced. It might be left to the operation of natural causes and the non-attendance rules by which the Mufassal Fellows who can never attend would be disqualified. Representation of colleges could be secured by election.

The constitution of the Syndicate may be regulated by bye-law. The Director of Public Instruction as *ex-officio* member would sufficiently represent Government as Government, and the representatives of Government colleges would represent Government as proprietors of those colleges.

The qualification to sit on the Board of Studies should be some years' teaching experience or some original research or the writing of books. Members of the learned professions who are authorities on literature would be very useful members of the Board of Studies. They would soften the experts.

The keeping back of boys sometimes causes them to deteriorate. Ten or twelve years ago, if a boy of 13 was ready to appear at the Entrance Examination, the rule enforcing the age limit of 16, which was then in force, prevented him from appearing, and the result was that he was kept back for three years and idled away his time. In the case of precocious boys whose rapid progress in their studies could not be anticipated in the beginning of their career, it would be impossible to regulate and distribute the course of studies over a certain number of years so to avoid the contingency of their idling away their time on account of the age limit.

There should be a rule compelling boys to write English exercises. Without such a rule, they do no writing and are unable to express their thoughts in the English language. Teachers should teach subjects to the students not in the old traditional way, but in a way that will make them feel interested in what they are taught. There is a want of good teachers, and of a good dictionary from English into Bengali and from Bengali into English.

Witness does not agree with Mr. Nilmani Mukerji that there is difficulty in finding a good Sanskrit grammar. The best is Issur Chandra Vidyasagar's Kaumudi. It has been translated into several vernaculars. In the Sanskrit College Panini's grammar is taught. Witness does not know whether any Sanskrit grammar has been translated into Tamil or Telegu, but in Bombay Dr. Bhandarkar's books in English and Sanskrit have been extensively used. Answers to questions in Sanskrit should be written in vernacular or English, but not in Sanskrit. The Madras University prescribes higher and stiffer books, but allows the students to answer their papers in English. While in Madras for the M. A. and B. A. they answer questions in English, in Calcutta they do so in Sanskrit. To give answers in Sanskrit, students must have considerable knowledge of Sanskrit composition, which is very difficult and requires an extensive acquaintance with Sanskrit grammar. Question 4 at page 63 of the Calcutta University Calendar "give a summary of a *sloka* in your own words in Sanskrit" could be answered by students committing to memory passages in a key. There are wonderful keys of Sanskrit books, containing all the slokas in plain Sanskrit.

When witness was first appointed examiner for the B. A. in 1885, he was instructed to prevent cramming; he therefore introduced questions which could not be explained with the help of keys, with the result that they were not properly understood by the students. In certain cases keys are written by professors of colleges themselves. The standard of Sanskrit in the Calcutta University is high enough, but the examiners are very lenient because they do not want to make Sanskrit a fatal subject. They wish candidates to pass if they pass in other subjects. About 65 per cent. pass in Sanskrit. The examiners are not, however, lenient in the M. A. and B. A. Honours Examination. Generally, examiners exhibit leniency by overlooking spelling and small grammatical mistakes, but they do not give any marks in cases where candidates have written a wrong answer or have written no answer at all. Correctness of language is generally taken into account. Spelling mistakes are sometimes not taken into account, because they are regarded as mere clerical slips. In one examination witness found the word "Krishna" spelt "Keshto" by about 50 candidates. Out of these 50 students, 34 failed and the rest just got through. A reduction of marks was made in their case by reason of the mistake. The University has given no instructions to the Sanskrit examiners to be lenient. Sanskrit students rarely use any grammars or dictionaries. They depended upon their professors. About 20 per cent. of the Sanskrit students work well.

It would be better to allow students to pass examinations by compartments.

Examination by compartments. They should be examined only in the subjects in which they have failed on the previous occasion. The examination by compartment could be so arranged as not to interfere with the arrangements of classes in schools, because they would be only for the purpose of examining candidates in those subjects in which they had previously failed.

WITNESS No. 21—MR. J. CHAUDHURI, M.A., LL.B., late Professor of Physics and Chemistry, Metropolitan Institution, Calcutta.

* Paper No. 12 in Part II.

Witness presented a written statement,* on which he was questioned.

In recommending the establishment of a Residential University witness did not mean to suggest that all colleges should be concentrated in Calcutta. The

Residential University.

University should make a general rule that students should reside in places which are under college supervision and are approved of by the University. For this purpose, there should be a system of inspection.

The system of three general examinations (Entrance, F. A., and B. A.) is unlike that which prevails in other Universities. At Oxford and Cambridge the

University course.

intermediate examination is in subjects needed for the degree, not a miscellaneous examination like the F. A., in which the students must take up English Literature, Sanskrit (or other classical language), History, Physical Science, and several branches of Elementary Mathematics. The age limit for Entrance might be fixed at 15 or 16, and the standard of Matriculation raised to the level of the London University. Students, after entering the University, might then choose their own subjects. The first examination in Arts should be preliminary to the degree examination. There should be a bifurcation of examinations after the Entrance; that would not be too early. In the Entrance examination should be included Elementary Physics, Chemistry, and Elementary Mathematics. The F. A. should be a preliminary examination to the degree examination in order that students may have facilities to learn those subjects in which they desire to obtain their degree. In the case of young students, the choice of optional subjects should be left to their parents or guardians. Professors in the colleges should also suggest to young students what subjects they ought to choose, as is done at Oxford. The college principals ought directly to look to the interests of the students from the time of their admission. The present practice is that students do not see the principal, but the clerk of the college.

Text-books should be done away with in the F. A., and college tutors should, as at Oxford, guide the reading of students.

College tuition.

Even with 300 or 400 students in a class, the tutor can take care of every one of them. He can manage it by appointing certain times when they may see him privately in batches. He should only work in the college for two hours every day, so that he may be able to see his student privately at other times.

For elementary practical instruction in Science, simple apparatus worth not more than Rs. 10 or Rs. 12 is sufficient; a few test tubes and an ordinary

Teaching of practical science.

spirit lamp would not cost more than that. Similarly, elementary students do not require a very extensive apparatus in order to measure specific heat. At Oxford some of the students are taught practical science in the Museum. Here Government should provide laboratories for the use of more advanced students of science.

At one time there were well qualified professors in each of the big mofussil colleges. Now that they are supported by local and private funds, this is no longer the

College professors.

case. Even in mofussal Government colleges there has been considerable deterioration in the teaching staff.

Mr. Pedler explained that the reason is that formerly these colleges were officered by members of the Indian Education Department. Colleges like Krishnagar, Rajshahye, and Hooghly are now officered by members of the Provincial Service.

Fellowships should be made terminable, and if a Fellow is found not to take an interest in the University, he ought not to be re-elected.

Fellowships.

The value of a Pass degree at Cambridge or Oxford is not higher, judging by the examination standard, than the Pass at Calcutta, but it is higher if one takes into account the training and intellectual growth derivable from an

Comparison between Calcutta and the English Universities.

English University. Many students go up to Oxford and Cambridge without any intention to work, so much latitude ought not to be given to students in Calcutta. Owing to the better training, many students who fail here would take honours at home.

In witness's family there are six brothers; they are all M. A.'s and all of them went to England. One was plucked several times in the F. A., and was therefore sent to England earlier. He took a good degree at Edinburgh, and is now in the Indian Medical Service. Here no career would have been open to him.

In examining papers at Oxford or Cambridge the examiner merely records the general character of the paper without assigning definite marks. This is a better system than the Indian one for higher examinations.

Except in the Presidency College, there is not in Calcutta sufficient practical science training or a sufficient supply of appliances for such training. The University should supply the deficiency. There is no objection to large science classes if the colleges will undertake and properly carry out the tutorial work.

Teaching of science.

WITNESS NO. 22.—The REVEREND A. B. WANN, M.A., B.D., Professor of Philosophy, General Assembly's Institution, Calcutta.

The witness presented a written statement to the Commission (paper No. 13 in Part II) on which he was questioned point by point.

After witness had completed reading his first point Mr. Pedler put the following question:—You say that the
Teaching University. Presidency College competes on rather unfair terms with other colleges and you mention that after the F.A. it draws away the best scholars from certain other colleges. I suppose you are aware that scholarships which are given on the results of the F.A. are open to be held in any college whatever.

Witness said he was aware of that.

Mr. Pedler.—How can it be said that the Presidency College takes away the students from the other colleges unless it is that the teaching at the Presidency College is better than at the other colleges?

Witness said he had not raised the question of teaching.

Mr. Pedler.—You admit that scholarships are open to be held in other colleges. I think you should modify your evidence then. It is not based on facts.

Witness said he was quite willing to alter his statement so far as a verbal amendment is concerned, but he wished to point out that four students passed the F.A. from the General Assembly's Institution and were now reading in the third year's class of the B.A. in the Presidency College. The Institution is interested in these boys especially in one of them who had been in their School Department since childhood. They said that they left because of the superior science equipment and because they had a chance of getting a scholarship in the B.A., *i.e.*, one of the endowed scholarships given on the results of the B.A. examination to students of the Presidency College.

The proposal of witness is that the Presidency College should become a University College for the teaching of Science and that direct control should be under the University and not under Government. He would like to see the Presidency College stand with regard to Science in something like the same relation to the University as the Medical College in Medicine. The controlling authority is not of so much importance as that the College should especially devote itself to Science and to M.A. work. It should give up Arts subjects below the M.A. and be the College for Science degrees. A number of colleges are not properly equipped to teach Science efficiently and, amongst others, this is the case with witness' own institution. As far as the B. course of the B.A. is concerned their teaching is tolerably efficient, but when it comes to facing the B.Sc. with a thorough practical course of teaching, they are not properly equipped. Such colleges should give up teaching Science and no College should be recognized for the Science degree until it has a proper equipment. The disposal of the present Art professors of the Presidency College would be a difficulty; some of them might be utilized for teaching the M.A. students. It would not be possible for the University to pay what the Government now pays for the Science teaching. The Government must continue to find the funds. It is not essential to the scheme that the Government should cease to control the College. The main changes proposed are (1) that the College should be the sole Science College, and (2) that it should give up teaching below the M.A. If another college arises competent to teach for the Science degrees the matter should be separately considered.

Mr. Pedler mentioned the case of the Indian Association of Science and also said that the Presidency College was at present being raised to the position of an Honours College.

The sphere of influence of a University should be confined to a province or
Spheres of influence. a group of provinces. A college should not be affiliated to two Universities. All Universities require to be strengthened by the hearty co-operation of their colleges. It should not be left to a college to look about for the University

whose examinations it is easiest to pass. Ceylon is a difficulty. Local opinion might be consulted with regard to it. All Ceylon colleges should be under one University.

The majority of the Senate should be teachers, or in other words colleges should elect the majority of the Fellows.

The Senate. The large colleges should have one or two representatives. This includes Government colleges. It would be impossible to give every college a representative of its own; so there will have to be a selection. Witness does not consider himself qualified to speak on what should be done in Law, Medicine or Engineering. In so far as Arts Colleges are concerned the majority of the representatives should be appointed by colleges. Taking the number of the Senate at 100 there might be 50 members of the Arts Faculty, that being the largest and most important. Of these 30 should be appointed by the colleges, 10 direct by Government and 10 by the graduates. In the election of representatives by the colleges it would be necessary to recognize the fact that colleges differ in the matters of size, reputation, age and success. The same representation could not be given to all colleges. Colleges above a certain size might appoint one representative, and smaller colleges might be grouped. This system might remove three or four members of witness' college who are at present on the Senate. Mofussil colleges should be permitted to appoint representatives in Calcutta. There is no reason why colleges at Dacca and Patna should not appoint members of the Educational Department of five years' standing in Calcutta. If they appointed one of their own staff they would be disqualifying themselves if he did not attend. If a Fellow represented a college he must fulfil the condition that he must be a teacher of five years' standing. Being that, it does not matter to what college he belongs, so that there might be half a dozen members from one college and none from another. Witness would not leave the matter of representation to the Government as at present. The general opinion seems to be that the Government has not exercised their right of nomination as wisely as they should; otherwise the University might be in a sounder state. The colleges should be the backbone of the University, and direct representation on the Senate is one of the best ways to secure their co-operation. Appointments should be made for a term of five years.

To reduce the Senate, in the first place attendance at meetings ought to be compulsory, and those who do not attend should be put on a list of Honorary Fellows, and the remainder left as active Fellows. Honorary Fellows should not be members of the Senate for voting purposes. Suppose the number of active Fellows then left was still too large, one-fifth of the active members should retire each year by ballot, and if they are not re-elected in the new election, they should also be put on the list of Honorary Fellows.

Witness has not considered the question as to whether there should be a Faculty of Science. It is certainly more important than Engineering. As the University has instituted Science degrees it would be a reasonable thing to institute a Faculty to watch over them.

Witness sympathizes with the desire of the Mofussil Colleges to have an *ex-officio* member of the Syndicate, but if the Senate is constituted as proposed, then Mofussil Colleges will be well represented there, and if the Syndicate is elected by the Senate in a manner corresponding to the composition of the Senate, they would also be represented on the Syndicate. Fellows elected by the graduates would also desire a nominee on the Syndicate. If the Senate number 100 and the Syndicate one-tenth of that number, that will give ten and with the Director of Public Instruction; 11. There is now a Syndicate of ten.

There should be a trifling annual contribution payable by the graduates for the purpose of keeping up the register of graduates. It might be commuted by a single payment.

Graduates.

Sixteen is the age at which a boy may be expected to leave school after a thorough course. A limit of 16 would practically mean 17 for some boys. That

Age limit.

would not be too old. The 16 limit would affect a considerable portion of the Entrance class unless boys changed their age declaration. When in doubt the tendency is to fix too low, this rule would reverse the tendency.

Schools are not dealt with stringently in the matter of certificates for examinations. The Entrance results illustrate this fact. The General Assembly's College keeps back about $\frac{1}{3}$ of those who present themselves and on an average about $\frac{2}{3}$ of those sent up succeed in passing. The new form which states that so many passed the Entrance out of so many on the rolls is an improvement on the old rule which stated that so many passed out of so many sent up. Students are promoted from the lower classes without being properly prepared and clog the work of the whole school.

A percentage of 50 should be required in English on the present basis of examinations. Witness had with him the first paper set in the last Entrance Examination which covered over three pages and was far too long for any student with an ordinary memory to answer. Paraphrasing at the Entrance stage is not suitable. Translation from the vernacular into English and from English into the vernacular, and original composition are much better.

If, as witness proposes, the University prescribes a larger text-book, the nature of the questions set would have to be altogether changed. The setting of 400 pages of the text-book instead of 100 pages would not stand in the way of thorough reading and learning. Students need not be taken over the 400 pages critically with explanations of allusions, idioms, obsolete words and so forth, but they should study the reading of English. Thoroughness must be attained by constant drill in composition and grammar. Students must be made acquainted with the elements of style not in a critical way, but by the study of good authors. It would be quite possible to settle on a series of text-books for successive years of about 400 pages long. A boy could be taken through such a book easily in two years. A book like Lamb's Tales from Shakespeare is suitable for the Entrance. It might be better for each school to have its own way of teaching, or, if it is thought that there would be difficulty in carrying out such a system, one book might be prescribed for one circle, and another for another. Witness would prefer that each school should be left free. Mr. Stephen gave a list of authors to be read for the Entrance with which witness agrees.

Witness was not a teacher in Calcutta when the Honours course was introduced, and he cannot therefore say whether this institution has tended to lower the standard of the Pass course. The Honours course gives good men a chance of doing well. Any good student ought to be able to take Honours in one subject. If a man who does not go in for Honours obtains an unusually high aggregate he should be given Honours. The year before last a student from Nagpore gained an aggregate of over 60 per cent. in the B. A. That is a big percentage and if Honours were given in such a case it would encourage good men.

There should not be a minimum in any subject, except English. Witness was not prepared to say what should be the aggregate for a pass. Grace marks should not be given merely because of a large percentage of failures. They are required when a paper is too long or too severe or goes outside the syllabus.

Inter-collegiate lectures in the M. A. between two neighbouring colleges should be permitted. Colleges should be periodically inspected by the University. A college ought not to be a source of gain to those who maintain it. It ought not to be more than self-supporting and teachers ought to get a decent living wage, and if that cannot be done without raising the scale of fees, the fees should, if practicable, be raised. It would be better if all colleges were endowed. College education cannot be expected to pay its way in India. An Indian college student pays a fair fee for what he gets as compared with the fees paid by students in other countries. It is better to charge a higher fee and give good teaching than to charge a smaller fee and give bad teaching.

WITNESS No. 23—MR. G. C. BOSE, M.A., F.C.S., M.R.A.C., Prineipal,
Bangabasi College, Calcutta.

Mr. Bose presented a written statement (Paper No. 14 in Part II) on which he was examined.

When a certain number of questions are set, with marks written against each of them, a candidate who answers all the questions indifferently, getting a mark here and a mark there, manages to get through, but the boy who answers one or two questions very well gets plucked because he does not travel over the whole paper. By reason of the marks being strictly and exactly apportioned the examiner is obliged to be guided by the quantity rather than by the quality of the work.

(b) Rigid apportionment of marks.
* Conduct of examinations.

On the statement of witness that too many examiners are appointed, Mr. Pedler remarked that with 7,000 students to be examined if you reduce the number of examiners largely enormous time would be required to examine all the papers and thereby the college and school courses would be affected. Witness said that that difficulty could be met by holding the examinations during vacation, so that teachers and professors who are appointed examiners would have more time at their disposal. Mr. Pedler said that generally answers are examined mainly in the vacation period. Witness said that he was an examiner for the F.A. that was then going on and was instructed to submit his marks by the 23rd of April, whilst the Bangabasi and most other private colleges did not close until the 31st. It is another question whether it would be hard on the students to be examined in the middle of April. The details could be arranged by the University authorities. In witness' time the Entrance examination was held at the end of November, and the B.A. in the last week of December or first week of January. The University might go back to these old dates.

(c) Number of examiners.

Witness is connected with education both as a professor and as manager of his own college, and from his experience he would say that an outside examiner not connected with the colleges or with the University might set a paper which would disappoint both a conscientious teacher and a hard working student. For instance the questions might not be well distributed over the course. Witness is aware that persons teaching for, say, the B.A. may examine for the F.A. and M.A. and that persons who have previously been engaged in teaching may examine. He does not approve of persons, who have left off teaching for some time being appointed examiners. It is said that the pupil of the teacher would have an unfair advantage, but the present system does not get over this difficulty if the examiners have been recently teaching. The balance of advantage is in favour of allowing teachers to be examiners without restriction. As an instance of the evil resulting from teachers being examiners, Dr. Mookerjee related the case which occurred in 1890 when certain examination papers were published in the newspapers practically identical with those which were afterwards set in the examination. The Committee of the Senate who inquired into the matter found that the examiners who had drawn up the questions had carelessly dictated notes to their students in such a way as to lead them to expect questions of a particular nature. The explanation of the examiners was that they were performing two distinct duties when lecturing at one time and setting a paper at another. Witness said that the present system does not remove the risk. As an instance of the bad sort of questions put by non-teachers, he instanced the absurdly simple question set in the botany examination which was then in progress, namely—"Define the various forms of leaves."

Witness gave the following instance regarding discourtesy to examiners.

(g) Discourtesy to examiners.

Ten or twelve years ago he was an examiner for the Entrance, and as such had according to rule to be present in the Senate House on the day of examination. As a case of urgent nature in his house required his personal supervision, he

could not go out, and therefore wrote to the Assistant Registrar to excuse his absence, but the latter officer wrote back insisting on his going to the Senate House as the rules required it. Correspondence went on till 4 o'clock on that day when it was peremptorily stopped by the witness. On the other hand, as an instance of courtesy on the part of University authorities, witness remarked that on the previous day as he was engaged in preparing his written statement to be placed before the Universities Commission he could not attend the Senate House. He, therefore, wrote to Mr. Edwards that his non-attendance might be excused and Mr. Edwards did it with the greatest pleasure. Witness knew of other cases where the Registrar had insulted examiners for coming a few minutes too late as if they were so many school boys.

It is not necessary that there should be a permanent Board of Examiners, but there should be as few changes in the body of the examiners as possible in order to maintain the principle of continuity.

(h) Permanency of examiners.

It is objectionable to have threats of punishment to examiners in the printed rules. Witness does not object to the rules, but they ought not to be published.

(i) Threats of punishment to examiners.

Huxley's Introductory Science Primary should be removed from the list. Witness prefers "Roscoe and Harden's Chemistry for advanced students" to

Text-books.

Newth. The want of fixity in the literature course presses hardly on students who have failed at the previous examination. There is a rule that half the text-books of the previous year should be retained and only the other half cancelled to make room for new books; but that rule is not strictly observed.

With reference to the fear expressed by witness that the new scheme of education in schools on a vernacular basis might interfere with the acquisition of a thorough knowledge of English, Mr. Pedler said that under the proposed system there would be seven years' study of English. Witness would prefer that as far as possible instruction from the beginning should be in English though he admits that a good deal of the explanation must be given in the vernacular, as for example in the rules of arithmetic. It will be useful for the students to read history and geography in English though explanations are given in the vernacular.

Knowledge of English.

Witness commented on the bad pronunciation of English which is taught in the schools.

The reduction in the number of the Senate may be left to nature. A revolution is not required nor should the University be deprived of new blood for a considerable number of years. Membership of the Senate not be confined only to those who are practically engaged in teaching.

The Senate.

Certificates for Entrance, F.A. and B.A. examinations should state that the teachers certify that in their opinion the students have made sufficient progress to enable them to appear at the examination with a chance of success.

Certificates.

There should be no statutory rule for inspection; but inspection would not be objected to if conducted by the Director of Public Instruction or other suitable person. Should inspection be placed on a statutory basis, unsuitable persons might be appointed to inspect institutions. This would be open to grave objection and cause great resentment. Inspection by the Director of Public Instruction or some officer of the University might be periodical.

Inspection of Affiliated Colleges.

WITNESS NO. 24.—The REVEREND H. L. NANSON, Principal, Bishop's College, Calcutta.

Witness read a written statement (paper No. 15 in Part II) on which he was examined.

Witness agreed to the proposal, as explained by the President, for the recognition of teachers by the University, on the understanding that it would not prevent the employment in the college of a

Recognition of teachers.

member of the Oxford Mission if he were qualified to teach History, Science or whatever is required, up to the University standard.

The President stopped the witness in reading his proposal to make the text-book simpler and shorter, and said that more than one witness had suggested that

Text-books.

it should be made simpler and longer. Witness said that the experience in schools is that so many technicalities of language, etc., have to be taught that a whole year in the Entrance class is taken up in getting through the book.

Endeavour is always made to guard against boys being promoted to the Entrance class who are not fit to be in it.

Pre-University training.

In a collegiate school, like the Bishop's College, the students are constantly in touch with the European Professors, and generally they have a good knowledge of English. The boys who come from the Mission school have a decidedly better knowledge of the language than the boys who come from a school where they have not been much in contact with Englishmen. It is quite possible that in other schools there are boys in the Entrance class who are not fit to be in that class, because parents are very liable to remove their children if they are not promoted, and a Head Master always has that threat hanging over his head. Much greater strictness is required. The age limit for Entrance should be 16. Such a limit would allow of much better grounding in the lower classes.

Unseen passages for translation from Latin into English should be given greater importance. The time that is

Latin.

allotted to the doing of unseens is quite insufficient. The student can pass without touching the unseens simply by learning by heart the book work. Students who have absolutely no knowledge of syntax or versification and the like, pass the examination solely on what they have learnt by heart.

The University should exercise a greater degree of supervision over the colleges, so long as the supervision is not of too meddlesome a character. In some

Supervision of colleges.

ways it would be more satisfactory if an officer were appointed by Government to exercise this supervision. If, however, the supervision is to be exercised by the University then the supervising authority must be a University official.

It would be an advantage if the University were to make rules for the residence of students. The general moral

Hostels.

condition of Calcutta makes it imperative, if regard is had to the higher interests of students. The private colleges would be the difficulty. Many of these colleges are run as a matter of speculation, and those who run them, should be compelled to look after the higher interests of the students they attract. In a college where it is a case of pure financial speculation, very little consideration should be shown. Asked whether he would make residence at the hostels appointed by the University compulsory, or whether he would leave some latitude to the parents or guardians to select proper places if they so chose other than the hostels appointed, witness replied that it would be difficult in Calcutta to secure satisfactory lodging houses, but students might be allowed to live with their relatives. Very unsuitable persons are often put forward as guardians of a boy. Whatever rules are made must be strictly enforced, because the means of getting out of them are innumerable and all kinds of shifts are resorted to. It would be difficult for the University to enter into any delicate question as to who is or is not the proper person to be the guardian of a boy, and that would possibly be a reason for

making residence in a hostel compulsory. The proposal assumes that the hostels will be under proper control. If they are not, they are just as bad, if not worse than the lodging houses themselves. There must be over them some one who has the power of ruling and keeping in order a body of young men. It is remarkable that the Government does not do more in the way of residential colleges. At Poona the Deccan College is a residential college and it is a very great success.

Mr. Pedler.—I think I may safely say it is the policy of Government to have hostels attached to every college when the money is forthcoming. We put a certain amount apart for building hostels, but funds have been limited for the last few years.

Witness.—One cannot but feel that the surroundings of hostels are often very different to what one would desire to see.

Mr. Pedler.—Now and again undesirable people come to live near hostels, but the police authorities try to move them away. One can only act according to law, and sometimes it is difficult to work the rather lax provisions of the law.

WITNESS NO. 25.—MR. N. N. GHOSH, Barrister-at-Law, Principal, Metropolitan Institution, Calcutta.

Witness read a statement (Paper No. 16 in Part II) and was questioned on it.

To ascertain whether a college is kept up to the mark no regular supervision is necessary for periodical statements setting forth the names of the Professors will serve the purpose. The University might, however, inspect colleges with a view to ascertain their efficiency as regards buildings and surroundings, whether these are healthy and whether there are commodious and suitable places in which lectures are given. The University should see that a college is doing its duty as regards the physical and moral welfare of its students for which it takes a certain responsibility. This should apply not only to private but also to Government colleges.

The private colleges in Calcutta did not take any responsibility for the residence of their students, until recently by certain orders of the Government they were required to certify that the boarding houses in which students live are fit places to live in.

Mr. Pedler.—The only orders of Government are that if a college wishes to receive a student who has a Government scholarship or wishes to send up pupils for Government scholarship examinations it must follow certain rules.

Witness.—As a matter of fact we all send up pupils for examinations for Government scholarships.

It would be well to introduce a rule requiring students to reside either in a hostel or in some place fixed by authority provided the place may be approved by the college; the University might insist on ideal conditions which it would be difficult to satisfy in the case of poor boys who can only afford to live in a poor style. If the college authorities are held responsible for the moral surroundings and the sanitary conditions of the places where their students reside, that would be sufficient. For these purposes witness would not object to the periodical inspection of colleges by the University. Some private institutions are housed in unsuitable buildings, and this is not desirable.

Witness would approve of raising the standard of English in the Entrance provided some other subjects are removed from the course. Physical Geography and the science primer might be omitted. The course in English was reduced on account of the introduction of other subjects. The subject selected in English should be interesting. At present the text is dull and didactic and the English is too hard. In fixing the books English has been made a secondary object altogether.

For the B. L. there should be two examinations, one at the end of each year, instead of only one examination as at present. The centralising of legal teaching in Calcutta as is done in Madras and Bombay would not mend matters, because if there is no examination held at the end of every year boys will not care to attend lectures. They will attend nominally to have themselves marked off. At one time there was a central college for the study of Law attached to the Presidency College and then the state of affairs was just the same as the present; attendance was merely formal. As for the advantage claimed for a central college that legal teaching would be controlled by the Judges of the High Court and members of the legal profession, whereas it now appears to be in private hands, it may be contended that it is no more in private hands than the Arts teaching, because the subjects of examination are determined by the Faculty of Law which includes judges and lawyers. In those Law colleges where there are large Law classes there is no tutorial supervision or anything beyond the attendance at lectures. That is not sufficient to make good lawyers, but no mere change in the administration will be of use, unless more examinations are introduced. Students can get through the course prescribed with six months reading and they therefore do not care to attend lectures for two years. They read, when they read at all, a few months before the examination. If boys are

examined twice and they pass both examinations, it may be presumed they have learnt their subject properly. The system of apprenticeship is of some value, but it defers entry into the career until too late. If this were remedied by making two years' apprenticeship concurrent with study, the former would not be thorough, because students would be preparing for their examination. A student can read Roman Law, which witness is in favour of restoring, even if he does not know Latin, though a knowledge of Latin is a great advantage. If a book such as Hunter's Roman Law is read that will be quite sufficient for all practical purposes. When witness was studying Roman Law, he managed to read the Institutes of Justinian without much knowledge of Latin.

The Histories of Rome and Greece should be read for the Entrance Examination, because boys do not read Grecian and Roman history after they leave school whereas they generally do read the Histories of England and India. Besides

History.

the Histories of Greece and Rome have more charm than the practical histories of countries like England and India. The students at present know nothing of the Histories of Greece and Rome in the lower class, and are therefore unable to understand the simplest allusions to Roman or Greek History or mythology.

Witness would practically abolish the rule which requires a minimum in every subject. Or, at any rate, the subject minimum should be very low and the aggregate

Marks.

minimum higher.

The present system by its insistence on a number of subjects encourages superficiality and cram. In the higher examinations an option is allowed to the candidates, but the option is not large enough. If he selects the A. course in the B. A. the candidate is bound to take Philosophy, and very few boys care for that subject. In the B. course he is bound to take up Mathematics. Although he may be good at Natural Sciences and not good at Mathematics, yet he must take up the latter. In Physics he would require some Mathematics, but in such subjects as Botany and Geology he would not.

Under present conditions a teaching University is not likely to be a successful experiment. If Government, with all its resources, has not been able to get a sufficiently large number of competent teachers, it is not likely that the University will succeed in doing so. The financial resources of the University cannot be such as to enable it to assume the management of schools and colleges by the appointment of teachers.

Teaching University.

Age Limit.

There should be an age limit for the Matriculation of 15 years.

The Senate is a little too large, and no one should be a member of the Senate who is not able to take a part in the deliberations by condition of residence or any other condition. Witness has not any decided opinion as to whether Fellowships should be forfeited by non-attendance at meetings, but he would not object to such a rule. Fellowships might be made terminable. The experiment might at any rate be tried. This is assuming that the re-appointment of fellows would depend not on the manner in which they have given their vote, but simply upon regularity of attendance and the interest they have shown in and the amount of time they have been ready to bestow on University deliberations. If it were made a condition of re-appointment that the fellow should support a particular cause, that would be unfortunate. Any system that tends to impair the independence of Fellows would be open to grave objection.

The Senate.

Government Professors.

The present system of appointing Professors in the Government colleges for only five years is harmful, and is one reason why these appointments are not so attractive now as they used to be. The appointments should be for life, subject to dismissal, as in the Civil Service. The Government should appoint distinct men for teaching and the inspection of schools. Sometimes it is a great loss that a teacher who is experienced, should be suddenly withdrawn from teaching and made an Inspector of Schools. It is a loss alike to the service and to the students.

Mr. Pedler said that the point had been taken up.

It is a fact that the colleges are not adequately represented on the Syndicate, but there is nothing in the rules to prevent it. The rule that no member of the Syndicate shall be an Examiner deters some men from serving on the Syndicate. There is no harm in members of the Syndicate being Examiners. They may be trusted not to abuse the confidence that is placed in them.

The Syndicate.

The election of members of the Senate by graduates does not work satisfactorily. There have been all the evils of canvassing. Sometimes good men have been elected, but that is more by chance, than of necessity. Some good men have also been kept out. If graduates are to have any voice in the elections of Fellows, the power should be subject to conditions, for instance, the electors should be graduates of high standing and certain qualifications should be required of the Fellows to be elected.

Election of Fellows.

For schools recognised teachers would be a very desirable institution and there should be some sort of license in teaching, but for colleges a man's degree and general reputation ought to be a sufficient test of his ability to be a teacher or professor. There would be no objection to a rule that a college which appoints a teacher should submit his name to the University in order to satisfy them that he is competent to teach in the subject for which he is appointed, provided that the rule is worked in a reasonable spirit. The evil is more likely to arise in Government colleges in consequence of the large supply of professors and the transfer arrangement than in private colleges which are tied down to a limited number of teachers.

Recognised Teachers.

The Metropolitan Institution has no endowments. It depends entirely on fees. It has the advantage of a decent library and a decent building for which it has to pay no rent.

Metropolitan Institution.

It is difficult to say whether the fees charged for students are quite adequate. It must be more or less arbitrary. The Metropolitan Institution charges Rs. 4 for the B. A. and Rs. 3 for the F. A. Some students complain that they are not able to pay these amounts. In missionary colleges the fee is Rs. 5, but for boys who are poor they lower the rate and some boys are admitted free. As regards fees the Metropolitan Institution stands now on almost the same level as aided colleges. At one time the fee for the B. A. was Rs. 3 and for Law, where it is now Rs. 4, it was also formerly Rs. 3. It should not be raised higher than Rs. 5 and the right should be reserved to the college authorities to make reductions in certain cases. In reducing the fees of students in the Metropolitan Institution regard is had not only to the poverty of the boys but also to their merits. If there are intelligent students who are really unable to pay the full fee they are taken at lower rates. Endeavour is made to maintain the traditions of Vidyasagar who admitted many more free boys than are now accepted. The number of absolutely free students is now extremely small. Vidyasagar's son under the agreement has the right to nominate ten free students. There are not more than five or six free students in the whole college. The total number of boys in the college department is somewhere about 500 to 600. Absolutely free studentships have been stopped for the last three or four years, but there are several students on reduced fees.

Fees.

WITNESS NO. 26—MAULAVI SYED SHAMS-UL-HUDA, M.A., B.L., Tagore Law Professor.

The University should be a teaching University and the Act of Incorporation should be so altered as to enable the Teaching University. University to establish colleges, and appoint Professors and Lecturers. At the same time having regard to the funds at the disposal of the University and to the vast area over which the influence of the University extends, it may not be practicable for the University to take upon itself the whole burden of the higher education of the people of the province. The University ought to have colleges of its own and should establish one or two model colleges near important centres. If model colleges were established a large number of other colleges would benefit by their example. The Presidency College might be converted into one of the model colleges of the University. If it were so converted there are a great many alterations which witness would suggest. It should be reconstituted more on the lines of the colleges at Oxford and Cambridge. Residence should be insisted upon, the professors should be very eminent men and, except for oriental languages, they should as far as possible be European professors. The college should not be situated in a place like Calcutta, but at some more quiet place where there would be less distraction; a place more favourable to the growth of University life. There is of course a financial problem involved in the proposal. Witness does not know whether the University has sufficient money for the purpose, but the Government might hand over a college like the Presidency College to the University authorities with the necessary funds to be remodelled on the new lines. If the Government comes forward to help the University with money, it should certainly have a voice in the administration of University affairs. It has now undoubtedly a strong voice, but if it pays more money it may require a still stronger voice. If a college such as is suggested above were established the charge upon the students would necessarily be higher than at present in the Presidency College. People would not grudge the money for a college like this which would be able to give as good an education in India as students receive when they go to England.

It would be very useful to have a list of recognised teachers, but the difficulties standing in the way of such a scheme are very great. Teachers in colleges and schools are either men who have temporarily joined as teachers and who desire to take up some other profession, or men who have adopted it as a permanent employment. Men who take to teaching as a mere temporary occupation would not care to go through a preliminary training and generally the better class of students in a University would not consent to go through any course of training for teacherships. Again proficiency in teaching cannot be learnt. A student when he reads with his professor learns the art of teaching to a certain extent, and the qualities of a good teacher like those of a good advocate or a good physician come by experience. That is to say as a man gains experience he gets greater efficiency as a teacher, but when fresh from college he is not altogether ignorant of the art. If the University keeps a list of recognised teachers, recognised because of their high degrees or other qualifications and if those who do not belong to this list are not admitted as teachers in affiliated colleges, such a list would still be of no use without a test of the merits of the men whose names are put down in the list and that test could only be applied by some sort of examination for which special training would be required. It would not be worth while to do this. The only way the matter can be controlled is to insist that professors and teachers employed in schools and colleges shall be well paid, the authorities who have appointments in their hands will then see that they get the best men for their money. The rule should be extended to private colleges because cheap teachers and professors like cheap doctors do a great deal of harm.

The connection between the University and its affiliated colleges is at present of a most casual character and the mere fact that the University of Supervision of colleges.

Calcutta has colleges affiliated to it at Jaffna shews how slight the connection is. At present the University has practically no control over its affiliated colleges. Without unduly interfering with the details of the management, the University should have general supervision over all colleges affiliated to it. This supervision should be vigilantly exercised with a view to ensure (1) efficiency in teaching, and (2) the maintenance of discipline. Every University should have a staff of competent Inspectors whose duty it would be to go round and see all the colleges, examine their records, ascertain whether any rules had been broken, see whether the conduct of the students was good, whether the teachers were kept up to the mark, whether the rule about the pay of teachers was being enforced and other details. For these purposes special Inspectors should be appointed. The Director of Public Instruction has not time to attend to these matters. As to whether such supervision would be considered too great an interference witness would reply that if the University is content to be a mere examining body then it would be, but not if it makes itself responsible for teaching. The Inspectors would gain the fullest confidence, provided competent men were appointed upon adequate terms. Witness is not very well acquainted with the state of University finance. Want of money may render the proposals impracticable, but finances permitting the University should have its own inspecting officers. They should be both in point of learning and position at least equal to the best professors in the best of the affiliated colleges, otherwise they would not command respect. The University would not require very many of such officers. Two men would be enough on a salary of Rs. 1,000 to Rs. 1,500 each. If these Inspectors could not inspect all the colleges, they might commence with the Arts Colleges which are the most numerous. The President of the Faculty of Law might inspect the Law Colleges and the Presidents of the other two Faculties might for the time being inspect the other professional colleges.

Another matter in which supervision ought to be exercised over the colleges is in regard to the size of classes. In many colleges the classes are too large and the result is that the professors are not able to give anything like personal attention to the requirements of particular students, nor can they exercise any influence over the lives of their pupils. If the boys come more into personal contact with their professors there will be improvement not only in their teaching but also in their character. It is a misfortune that often colleges, at least private colleges, are established for the purpose of gain. In such colleges there will always be the temptation to have as large classes as possible, and as few teachers. The University should see that classes were not too large for a single professor and that professors devote a certain amount of individual attention to the students. When witness studied in the Presidency College the classes were too large. In the Presidency College a limit is set, but even so the numbers are larger than they should be. There should be a distinction between teaching in schools and colleges, but it is only a question of degree. A boy in school requires more personal attention than a student in college, but both classes require some attention.

At present the University only looks to the condition of a college when it asks for affiliation, and it generally happens that a very bright prospect is held out before the Syndicate and Senate. But once affiliation has been granted this prospect gradually fades and at last disappears. The continuance of affiliation should depend upon continuance of efficiency which should be secured by periodical inspection.

The University of Calcutta should have its own sphere of influence and not affiliate any college outside the limits of Bengal, Bihar, Orissa and Assam. The time has come for both Burma and Ceylon to have their own Universities. A great deal of inconvenience is caused to the Calcutta University by having examination centres in Burma and Ceylon.

Education is very cheap in this country and there would be no harm if the University took a little more from the students than it does now in the way of fees.

Spheres of influence.

Higher fees.

for appearing at examinations. Colleges might also charge higher fees. Dr. Mookerjee said that if the rates were raised to the Madras limit the University would get an additional income of Rs. 45,000 to Rs. 50,000. Witness said he would go even higher. The increase might also keep away students who have little chance of success, but on that point witness has not any very pronounced view. Witness would charge Rs. 20 for appearing at the Entrance instead of Rs. 10. In schools the fee is often one rupee per month, which seems ridiculously small. In private colleges the fee is Rs. 3 or Rs. 4, which is also very small. Witness does not know what is the contribution by the State in this country for higher education per head. The State is gradually withdrawing its assistance and leaving education to private colleges. Mr. Pedler said that the State in Bengal is paying quite as much as it did formerly but the amount is now spread over a larger area.

Making all allowances for partiality for one's own professors witness thinks that the Presidency College in his time had a much stronger staff than now. Then there were excellent men, now complaints are heard that the gentlemen appointed from English Universities are not the very best graduates of those Universities. Mr. Pedler said that this statement might have been true a few years ago, but gentlemen who have joined the Department within the last year or two have been very good men indeed.

There has been an increase in the number of Indian Professors. The Government distinction between the Indian and Provincial Educational Services is unsound. An Indian gentleman drawing Rs. 300 a month may be teaching the B.A. class, he may be transferred and another gentleman put in his place drawing Rs. 800 a month. If the Rs. 300 man is not good enough he should go; if he is as good as the Rs. 800 man, he should get the same pay. The analogy with other services does not arise. There higher appointments are given to the men on higher pay. The salaries were too low in the Provincial Service. The rate is not adequate when for the same work a much higher rate is paid to another man. That naturally causes dissatisfaction.

The present number of the Senate is rather large, and Fellowships have too often been given as a matter of compliment. In future no one who is not a graduate of an Indian or European University should be appointed a Fellow, the only exception being in the case of distinguished oriental scholars. Witness recognises that this would cut out the Jesuits. It is necessary to cut out a few desirable persons in order to cut out many undesirable ones. The exception in the case of distinguished oriental scholars is based on the ground that in an Indian University special care should be taken of the requirements of Indians. The Chancellor might for special reasons make exceptions in the case of distinguished persons, but the general rule should be insisted on.

The graduates should be allowed to fill up a certain proportion of vacancies under the rules which are now in force in the Calcutta University; provided that two-thirds of the vacancies are filled by men actually engaged in education.

Witness is not in favour of making Fellowships terminable by the mere lapse of time. Even if Fellows are eligible for re-election the principle will still be open to objection because the Fellows would take no real interest in University matters. It was only after some years of experience that a man aspires to take an active part in University affairs.

The difficulty in the way of an attendance test is that there are in the Senate men of eminent position who are thoroughly competent and who put in an appearance when necessary, but who cannot attend all the ordinary meetings of the Senate. Whether it would be desirable to make Fellowships depend on attendance under these circumstances is a moot question. For instance, in the Faculty of Law the President of Faculty would be either an Advocate or a Judge of the High Court or a distinguished vakil. A man like that would find it impossible to attend all the meetings of the Senate, and if attendance is to be insisted on

it should not be in the Senate, but at meetings of the Faculty, because a distinguished lawyer might think he might be of no use when the question before the Senate was in regard to a matter in which he had not much experience.

Witness would not have the Senate more than 100 strong. That number should be reached by natural causes even though this may entail the appointment of no new Fellows for a number of years.

Size of the Senate.

Syndicate.

No change is needed, the reform of the Senate will improve the Syndicate.

It is desirable to adhere to the bye-law that every member of the Senate shall be a member of a Faculty. In future no Fellow should be appointed who is not fit to serve in a Faculty. Non-Fellows should not be appointed to Faculties or Boards of Studies.

Faculties.

A Register of graduates might be kept for the purpose of better regulating the election of Fellows. It is not necessary to levy a small sum from graduates for keeping their names on the Register. The payment of a small sum of money would not be an indication of interest in University matters. The question is not, however, of any importance one way or the other.

Register of Graduates.

Consistently with the maintenance of efficiency and a proper level of qualifications, the various interests ought to be properly represented on the Senate, Faculties, and Syndicate. For instance the Muhammadans would wish always to have a Muhammadan on the Syndicate.

Representation of Muhammadans.

For honorary degrees the existing provisions were sufficient. There is the power of conferring the honorary degree of LL.D. Other degrees such as the B.A. and M.A. should not be thus conferred.

Honorary Degrees.

Witness is not in favour of multiplying examining bodies. There is a suggestion that certificates are somewhat loosely given and that there should be a strict test examination by the school authorities before the students are sent up. This could be an examining body within an examining body.

Students of the University.

The anxiety on the part of the University to show a smaller percentage of failures is unintelligible. If a hospital said it would not take bad cases for fear of increasing the percentage of deaths, it would be entitled to no body's sympathy. [Mr. Justice Banerjee remarked that the hospital admits to cure, the University often to kill]. Boys are entrusted to the University not for the purposes of examination only. The University ought to see to their teaching. Witness would, however, approve of a certificate that from the progress made by the student in the class during his one or two years' time of study the master thinks he is fit to go up, but not a mere test examination at the end of the year to find out how many should be sent up and how many should be withheld. Class exercises should be given and from the results kept throughout the year it should be decided whether a boy should go up or not. At present class exercises are practically ignored in both Government and other schools.

Great stress should be laid on physical exercise because health is a matter of first importance. In some places the authorities have gone to the other extreme and it is all play and no work. Boys take more interest in football and cricket than they do in their studies. Legislation by the University is not therefore required for encouraging physical exercise, but some limit ought to be placed on the time a student may devote to physical exercise.

Physical exercises.

Witness is not much of a believer in lectures and moral text-books. For moral influence one must depend largely upon the surroundings of a boy and upon his family. Students who do not live with parents or guardians should be compelled to live in boarding houses, or lodging houses specially licensed for the purpose and under the supervision and control of the college authorities. The residential

Moral training.

rule should be enforced only in the case of those who do not live with their natural guardians. By "guardian" witness means father, brother, uncle, or a person intimately connected with the student and who takes an interest in his welfare. Boarding houses should be attached to every college, because a large number of boys live in unhealthy places, take unhealthy food, and are surrounded by unhealthy society. That is a thing which the University ought to try at any cost to prevent.

Moral training also depends largely on the personal influence of the teacher. If teachers exercised more personal influence over their boys, they would be better behaved than now. In India reverence for teachers is inculcated by the religion of the people, and in no other country do students consider reverence for their teachers to be more incumbent on them. Unfortunately this feeling is gradually disappearing, and one reason is that professors do not take any personal interest in their boys. The higher duties of a professor are not appreciated or understood. Professors and teachers feel a general interest in passing a large number of boys for their own credit, but of personal interest there is little or none.

Age limit.

Witness is in favour of our age limit of 15 or 16.

A knowledge of too many things is expected from students at the Entrance Examination. Witness would insist upon a better knowledge of English, but would reduce the course in Mathematics, History and Geography. Entrance students ought not to be required to show more than an elementary knowledge of History and other subjects. To a student going up for the Entrance Examination a choice of studies should be allowed. English and a second language should be compulsory, and the student should be left to choose one or two other subjects. There should be a more complete system of bifurcation for the F. A. Examination. Candidate should not take up more than two subjects. This will enable the students to devote more time to their studies in English than they are able to do under present conditions. The study of a large number of subjects tends to superficiality, and that is one of the greatest defects in the present educational system. For the B.A. witness would introduce Jurisprudence as one of the optional subjects both for Pass and Honours in the A Course. Dr. Mackichan remarked that a similar regulation had existed for a number of years in the Bombay University and that the universal opinion was that it had injured the B. A. Course and should be removed from it. Mr. Justice Banerji enquired whether Sanskrit or Arabic would not be helpful to the Law student in his legal studies. Witness replied that there is very little left for Sanskrit or Arabic scholars in the law books. He said this with a feeling of regret, but people must adapt themselves to present conditions. A student who has not taken Honours in any subject should not be allowed to go up for the M.A. Examination in that subject. No sooner has a student passed the M. A. than the question whether or not he has taken the B. A. with Honours becomes irrelevant, and therefore he would say that one who wanted to go up for a higher degree ought to be compelled to take Honours in that particular subject. A student who had not taken Honours in Jurisprudence should not be allowed to take any degree in Law.

Law.

A better Law College is needed; a College where distinguished lawyers would lecture would be a move in the right direction. The present B. L. course is mainly professional. The duty of the University lies more in the direction of teaching Law as a science. In the Law examinations greater importance should be attached to Jurisprudence and to other important branches of Law than to special Indian enactments, as for instance, the Limitation Act. If a man has learnt the science of law it will not be difficult for him to acquire its practical use. There should be one paper in the examination with books.

Language of Text-books.

To ensure greater proficiency in English no book in History, Political Economy or Mental and Moral Science should be adopted as a text-book which is not written in good English. The University could with great profit to itself

take the publication of these books into its own hands and entrust men of eminence with the preparation of books instead of leaving it as a matter of speculation to private enterprise.

The question of pronunciation is a matter of very great importance and it is only by insisting upon efficient teachers that it can be improved.

Pronunciation.

Witness is not in favour of establishing a school of Theology. People cannot remain neutral with regard to religion.

School of Theology.

Questions should be so framed that candidates cannot pass merely by the exercise of the memory. There ought to be more than one examination every year

Examinations.

and the number of examiners should be reduced to ensure greater uniformity in working. The system of Head Examinerships is not sufficient for the purpose. If practical the same examiners should look over answers to the same questions. If a student passes in three subjects and fails in one subject, he should be allowed to go up for an examination in that particular subject six months later, but greater efficiency should be expected from him. If the pass marks were 30 he should be required to obtain 40. In order that the same examiners may look over the answers to the same questions the papers must be split into parts.

The duties of the Registrar have become very heavy, and having regard to the suggestion that there should be more than one examination in the year, witness would strongly recommend a whole-time Registrar. Even under present conditions he would make the same recommendation.

Registrar.

WITNESS NO. 27.— MR. C. R. WILSON, M.A.B. Litt., Principal, Patna College.

The President having explained the meaning of the proposal regarding recognised teachers witness said that it would interfere with the control of the principal of the college. If the principal employs inadequate men the remedy is to disaffiliate the college. The University might claim to be entitled to see that the conditions under which a college was affiliated are kept up. But one can have no confidence that the University will be a better judge of the qualifications of a teacher than the head of a college. It is undesirable that the University should interfere with the colleges in this matter. The University fails to do its primary duties and tries to help itself out by taking upon itself this grandmotherly interference. It assumes that its examinations are not a sufficient test of the merits of teaching and tries to remedy this by assuming new functions. If a college six months after affiliation changes the staff it had when it was affiliated and appoints incompetent men the remedy is disaffiliation. The University should have some means of enquiring into such a matter. But witness is apprehensive of any interference with colleges in the selection of their teachers.

The restriction of the spheres of influence does not appear to be a matter of very great importance. As witness objects to any supervision for the present distance is no obstacle. It would tend to weaken a University if a college that lies within its natural sphere of influence affiliated itself to another University, and it would not be desirable if a particular University raised the standard of its examinations that some colleges that are not well maintained should leave it and go to some other University where the degrees are cheaper. Witness is not, however, aware of the difficulties which give rise to this question and is not in a position to say anything on the point.

In the Senate there is a large majority of members whose appointments were given as a matter of compliment. They have no qualifications that entitle them to be Fellows. There are about 80 of such. Of the remainder, 60 are teachers and some 50 men of learning. About half the 110 live in Calcutta. The Senate needs a more definite constitution and the qualifications of members should be prescribed.

The Vice-Chancellor should as a rule be elected from the heads of colleges, and if the University is strict in its affiliation all colleges should have the privilege. No head of a college has ever been made Vice-Chancellor of the Calcutta University. This does not tend to the dignity of learning; learning is degraded in the persons of its representatives, the teachers. This is one instance amongst many of the way education is regarded in this country. It is not given that consideration which it ought to receive.

Appointment to the Syndicate should be by nomination either by the Chancellor or the Vice-Chancellor rather than by election. Elections always give the wrong man. Witness has not considered what the total number should be. If the expenses of mofussil members are paid there is no objection to abolishing the rule that members of the Syndicate should be resident in or near Calcutta. It is very desirable that a member of a mofussil college should be able to come to meetings of the Syndicate or Boards of Studies. It is possible to overcome the argument that the Syndicate should be small executive body and therefore that its members ought not to be scattered about, by appointing sub-committees for urgent matters.

Appointments to the Faculties might be made by the Syndicate. More power should be given to the Syndicate.

Witness is opposed to the election of Fellows. The best men are not elected. It is true that the best men have not always been nominated, but the system of nomination can easily be improved. If endeavour is made to improve the

system of election by rules, there will still remain the abuse of canvassing. Witness hopes that there is not canvassing either direct or indirect by people who wish to be nominated Fellows.

Honorary Degrees should be conferred by this University on graduates of other Universities, but without the power to vote. To take a case in point : Mr. Justice Trevelyan has gone home to Oxford where he is now reader in Indian Law; Oxford confers upon him the honorary degree of M.A. The advantage of being a member if you have no voice in the constitution of the Senate is that you have the honour and prestige.

Colleges showing persistently bad results in the examinations should be disaffiliated. The colleges ought to hold test examinations to weed out the inferior students. The examinations must be improved so as to render it impossible for colleges to show good results by cramming. The form of certificate must be altered. The colleges will then improve their test examinations, in order to avoid disaffiliation.

Syed Hossain Bilgrami pointed out that a college which keeps back pupils and shows good results might be worse on the whole class than another sending up a large proportion of the students and showing inferior results. Witness said it would be necessary to take account of this, but that it is very desirable to reduce the number of candidates who appear at the Entrance Examination.

Recently the Education Department has taken a retrograde step; it reckons the merit of a school by the percentage of students in the school that pass on the number in the school. Witness considers that a wrong basis, and in the Patna High School has refused to allow those students to go up who there is no reason to think are likely to pass. It is desirable not to promote to the Entrance class any body who is not considered fit. If 50 dullards and 50 good boys are put into the Entrance class the teaching of the 50 good boys will be injured.

The members of the Senate should be residents of Calcutta if they are expected to take any important part in the deliberations of that body.

The Director of Public Instruction, Bengal, should be an *ex-officio* Fellow. Other Directors should not since they could not attend the meetings. By granting Fellowships as a matter of dignity more harm than good is done to the usefulness of the Senate. There should be a new *ex-officio* list based on the utility and service to the University of the persons concerned.

The head of a College is always Vice-Chancellor at Oxford and Cambridge. High Court Judges are not necessarily useful Vice-Chancellors. Out of 20 Vice-Chancellors who have held office since the establishment of the University nine were from the rank of High Court Judges. The management of the University would be much better in the hands of a Vice-Chancellor who is the head of a College than in the hands of a Judge of the High Court.

Transfer from one school to another should not be allowed without the orders of the Syndicate with a view to strengthen the position of head masters who are at present powerless. When witness detains boys in the Entrance class they want at once to be transferred. Witness does not much care if they leave his school as his salary does not depend upon their fees; but the position of the head master of a private school is different; if he detains his students, and they ask for transfer his school will suffer. Until this is put an end to the test examination will be a farce.

The system of class exercises, on the aggregate of which should depend the sending up of boys to the Entrance Examination, would work well if a sufficiently large staff were available. That system is adopted in the Patna Entrance class. Working under that system, the school has recently sent up 19 candidates detaining 17.

The University cannot supervise the physical and moral welfare of students without unduly interfering with the duties of the Principals of colleges. It is their duty to look after the physical and moral welfare of their students. If they are not competent to do that they should not be in their places. The President remarked that visiting a college would not be undue interference. Witness thinks it would be if colleges are told that they must do this or that. Such grandmotherly interference is to be deprecated. Hitherto there has been no necessity for such interference. If a college is going wrong there should be an enquiry and if necessary it should be disaffiliated. The President suggested that milder measures might first be tried and that inspection would make colleges come up to the mark. Witness said that the present University of Calcutta is not likely to succeed in any such attempt. It has already quite enough to do in carrying out its present functions, and it would be unwise to throw a further burden upon it. That it has not been successful in discharging its existing duties is evidenced by the appointment of the Universities Commission. If it is unable to do a few things, it would be unreasonable to ask it to do more. If the affiliated colleges do their duty, it will not be necessary for the University to interfere in such matters. All that is needed is to strengthen the hands of college principals and to improve their position. So far from effecting that improvement, the present proposals would tend to lower the position of the principals of colleges which is already low enough. The University should make stringent rules of affiliation and insist upon those rules being complied with. If necessary there may be periodical inspection for this purpose.

The Calcutta University Institute was founded by Sir Pratab Chandra Mazumdar and was supported by Babu Ram Mohun Roy and others. Witness was for many years Secretary. In his days students came in numbers, but teachers would not take an interest in the institute. Much might be done through it if senior members could be induced to support it. In witness' time about 500 students belonged to the institute.

In case the University were to become a teaching body, it should have teachers not like the professors in the Calcutta colleges, but like those at Oxford whose duties have been defined by statute. They have to give instruction to the students and contribute to their advancement by generally working for the University and conducting original research. The salary of Oxford professors is £600 a year or Rs. 750 a month. They lecture twice a week for 21 weeks mainly on subjects relating to original research or on the lines of study upon which students should proceed. They are not like mere tutors.

With reference to the suggestion that the number of matriculation examinations in English should be increased to four or five a year, the President enquired whether this would not make it necessary to divide up the school classes. Witness explained that the schools at different centres would be examined at different times and would have to begin their terms at different times. The schools of the centre would be obliged to send up their students to the college of that centre, and the terms of that college would be adjusted with reference to the date of centre Entrance Examination. The President observed that at Patna F. A. might wish to join the Medical College at Calcutta, and that numerous difficulties of a similar nature might arise.

Witness first put in a paper written by Babu Jadunath Sirkar. Professor of History in the Patna College (supplement to Paper No. 17 in Part II) and then read his own remarks on the subject (pages 87-89, Part II). He laid special stress on the following points:—

- (1) Unsuitable text-books prescribed in schools by the Department. Witness read extracts from the books illustrating (a) mistakes in grammar and (b) misleading and objectionable statements regarding British rule in India.
- (2) The need to select text-books which offer a good model of English style.

- (3) The need for bifurcation and the reduction of the number of subjects in the F.A. Examination and for allowing candidates to pass in their subjects separately in the B.A. Examination. These changes could allow an adequate time to be devoted to subjects such as History.

There is a strong feeling on this subject. It is most discreditable to the University to call upon the Professors of colleges to act as Superintendents without giving them any remuneration for the work. The Department forces them to do the work without remuneration.

Mr. Pedler.—For the time being they have not to perform their ordinary duties.

Witness.—The examination duties are very much more onerous than their own duties.

Mr. Justice Banerjee.—Many centres have been opened on the application of college authorities who have promised to superintend the conduct of the examination.

Witness.—That is not my experience. I have not known of any professor who does not complain.

Mr. Justice Banerjee.—But their ordinary duties are stopped.

Witness.—That is the principal grievance; they want to perform their own duties, but they are prevented from doing so.

The examinations should be held more frequently and should be limited to Calcutta or a few other centres, and the University should provide a special building of its own for examinations and lectures by University Professors.

Mr. Pedler.—The Government of Bengal has ruled that it is the bounden duty of the Education Department to help the University by every possible means in its power, and for that reason the services of college professors have been placed at the disposal of the University for a certain period of the year. I fully admit that it would be well if the University paid some remuneration. There are certain grievances, but I cannot admit that the thing is quite so bad as it is painted.

Dr. Mackichan.—In the Central Provinces the professors superintended the examinations, but no complaint has been heard from that quarter.

Having read his complaints regarding changes in the College staff (see page 89 of Part II) witness said that he felt strongly on the subject. In History there had been four changes in a year, the last change being the return of the original professor. The professors in other subjects had not been changed. History is treated as of no account.

Witness was once teaching Political Economy in the Presidency College when he was summoned to sit on a jury. On his return when he was going to teach the Political Economy class he was told by the bearer that his class had been changed and that he was to go upstairs to teach English. From teaching Political Economy to the third year's class he was ordered to teach English to the second year's class. A Professor can take no interest in his work if it is changed in this manner. In the Presidency College there is no common room meeting and professors are never consulted about the distribution of work. At Patna witness always consults his professors. In the Presidency College witness was frequently ordered to teach subjects without being consulted on the matter. Witness did not want to blame any body, but he would ask the Commission whether these changes are not such as to take all heart out of one's work. Witness does not remember the time of the year when these changes were made.

Dr. Mackichan.—Is it not an essential part of the system that professors should be consulted? Is there no common room meeting?

Witness.—I understand it is impossible in the Presidency College to consult professors.

Dr. Mookerjee.—Why?

Mr. Pedler.—There are twenty-three professors; to consult them all would be a tremendous task. At certain times of the year these changes are inevitable.

Mr. Wilson.—I say they are not inevitable.

Mr. Pedler.—Owing to the time of our examinations, one-half the number of professors would not do any work and the other half would have to do the whole work unless these changes were made.

Witness.—I leave it to the Commission to consider that point.

Mr. Pedler.—Put it in the way in which it ought to be considered.

Witness.—I put it from any point of view—first as a professor and then as a principal.

The Government might make more use of their scholarships. They should assign a certain number to particular Government colleges and utilise them for high proficiency in some one subject as is done at Oxford and Cambridge. The scholarships are now open to all students. They are simply given on the results of the University examination. Government scholars should be obliged to study for honours, some do not at present. The scholars should be the strength and mainstay of the College. The Government do not look after their own colleges first as they should.

On the 24th March Mr. Pedler made the following remarks on certain of the questions raised by Mr. Wilson :—

Mr. Wilson, Principal of the Patna College, in giving his evidence on Saturday before this Commission, referred to some changes in one of the professorial chairs of that College from June to the end of last year. I would have asked him a few questions on the point, but the presence of one gentleman on that day who was interested in the question prevented me from doing so. The whole series of changes in the Patna College took place under the following circumstances: The Senior Professor of English in the Patna College had typhoid fever and two relapses, from which he nearly died. He was sent to England in April on medical certificate, and the College was closed from that time on account of the hot weather vacation until the end of June. His absence necessitated another professor being sent in his place. At this time also one of the professors in the Presidency College who was teaching English had had a difference of opinion with the Principal. The matter went up to the Lieutenant-Governor, who ordered that that gentleman should be sent away from the Presidency College. This opportunity was taken in June to send him to the Patna College, where a professor was wanted, and in his place the second Professor of English (Babu Jadu Nath Sircar) was transferred from the Patna College to the Presidency College. Professor A———Chatterjee, from one of the smaller Colleges (B———College), was put in Professor Sircar's place. Shortly afterwards the Principal of B———College suddenly broke down, and was invalided; hence Professor Chatterjee was sent back from the Patna College, and when a new man (Professor H———) was sent out from England and as Mr. Wilson insisted on having Professor Sircar back in the Patna College, a new Professor was transferred to the Presidency College, and Professor J. Sircar was restored to the Patna College. It will be seen that two changes were due to illness which we could not prevent, the third was produced by Mr. Wilson wanting a substitute for Professor Sircar, and the fourth change was caused by the latter gentleman being sent back to his original place. I say this to correct the impression created in the minds of the Commission by the way in which Mr. Wilson placed the matter of these changes before them. It is true we always take our best men for the Presidency College from the mofussil colleges.

I shall refer to one or two other points to which Mr. Wilson referred. He said that young men coming to the Presidency College from Oxford or Cambridge complained that they found themselves subordinate to the orders of the Education Department. It is true professors in colleges are required to obey the orders issued to them by the Principals of colleges, and it is expected they will do what the Principal may ask them to do. Then as regards another point. About the year 1894-95 a circular went round in the Presidency College in which it was proposed there should be a College Council Meeting to discuss various matters. I was then a professor of the College. I approved of the idea, as did most of the other professors. The matter was discussed by

Government and disallowed, as it was found difficult to provide for the cases of particular individuals who could not be given any voice in the Council. The working of colleges, etc., in Bengal is different from that in small provinces. In Bengal there are eleven Government colleges in which there are constant changes,—one man gets sick, another man goes on deputation, and the Education Department is constantly called on to make sudden arrangements. Once on Friday I received instructions to spare a certain professor from his work in the Presidency College on Monday morning; and this at once disarranged the whole of my programme in several colleges. I had to make a number of concurrent changes to take that professor away from the Presidency College. Then Mr. Wilson said a good deal about routines being changed without notice. When I was Principal in the Presidency College, I know it used to take me sometimes two days to arrange the whole routine. There are so many bifurcations, and so many cases of sections and classes and so on that you cannot arrange the thing offhand. Your arrangements must be suitable for all. Mr. Wilson said that in the Presidency College he was once suddenly confronted by a bearer who said, "This is not your class; your class is upstairs." When I was Principal, I used to consult some of the senior professors and then issue out a circular in an order book for the information of various professors as regards alterations in the routine, and a copy of the new routine was sent to each professor concerned. The routine is made out by the Principal, assisted by the head clerk. Mr. Wilson was Principal of Patna College, and complained of the state of things in the Presidency College. I was in favour of the scheme of having a College Council with this exception, that the professors ought not to discuss matters from a personal point of view. They should discuss preliminaries as to what each professor ought to lecture on, etc. The working out of details ought to be left to the Principal; it takes him generally two days or more to arrange them. The preparing of time tables involves much trouble. Mr. Wilson said that professors were not allowed to work in the Presidency College for a long time. I was twenty-three years and a half in the Presidency College; Mr. Eliot was only in one college in Bengal during the whole of his service in the Education Department, and Mr. Tawney was only in one college; Mr. Wilson has been in three colleges, and in each case he has been transferred on promotion; Mr. Little has been in one college only; Dr. Boise has been in one college only; Dr. Macan was in one college.

President.—It is very desirable that professors should be consulted. What is the practice in Bombay and Madras?

Dr. Bourne.—In Madras they are consulted on all matters. The routine has not been changed during the last ten years, as there was no necessity to do so. There have been no changes in the routine ever since I have been in the country.

Mr. Pedler.—One reason for our changes is that the examinations of the University are held in February and March. The second and fourth year's classes complete their work in January, and do not resume it until the end of June. Under these circumstances, if you do not change the routine early in January, then practically half the number of professors have no work at all to do for six months and the other half have to work very hard. Hence arrangements have to be made to equalise the amount of work among all the professors. When I was in the Presidency College, everybody knew what changes were going to be made.

Mr. Justice Banerjee.—This is the result of examinations.

Mr. Pedler.—Yes. Then Mr. Wilson complained that professors of colleges were not remunerated for their superintending work in the University examinations. Educational officers have to carry out this work on behalf of the University according to the desire of the Government of Bengal.

Dr. Bourne.—They are remunerated in Madras; everybody is remunerated on the same scale.

Mr. Pedler.—I think the Calcutta University may do it now. Formerly the University could not afford to do it.

Mr. Justice Banerjee.—Patna is not the only centre outside Calcutta.

Mr. Pedler.—There are many centres, and these are usually arranged on the special application of the localities concerned.

President.—I do not think there is very much in it.

WITNESS No. 28—MR. H. R. JAMES, M.A., Professor of English Literature,
Patna College.

* Paper No. 18 in Part II.

Witness was examined on a written
statement.*

Witness admitted that the result of his proposals for raising the standard in English might result in fewer passes and ultimately in fewer candidates presenting themselves for examination. That will not be a bad thing. The increasing numbers in the Entrance Examination have rendered that examination difficult to manage. In fact it has got out of hand. It has become very difficult to conduct the examination because the number of candidates has been getting more unwieldy year after year and decade after decade. The University started with a low standard in 1857 and it has not been raised since. The time has come when it may be done.

One result of the low standard in English is that the professors of English in the Colleges have to teach English composition to College students and correct their exercises. That is not the work of College professors, but of school teachers. College professors should teach students English literature which is entirely different from English language. When a professor of English is appointed in England he does not understand that he will be called upon to do school work. The work of the professor is not higher or less difficult than that of the school master, but it requires different qualifications and a different training.

The present colleges are not fitted for the disciplinary work which should be expected of them. Professors should enter more into the lives of students outside the college. The exercise of such influence is not part of what is ordinarily regarded as the duty of College professors, but it is nevertheless very desirable that they should accept it as part of their work.

WITNESS NO. 29—MR. ABDUL KARIM, B. A., Assistant Inspector of Schools.

Papers No. 19 in Part II.

Witness read portions of a statement* and was questioned with respect to them.

In reply to questions regarding the portion of his statement dealing with the increase in the number of High schools, witness said that there is a spirit of rivalry among the people of Barisal to run educational institutions against one another. The rivalry extends to colleges as well as to schools. Both the colleges established at Barisal have an adequate number of pupils, but their finances are insufficient; hence they cannot be well equipped. They are housed in mat and thatched buildings which are not at all suitable for the purpose. At the time when witness visited them one of them was teaching up to the F.A., and the other up to the B.A. The former had, however, since been raised to the B.A. standard, and both are now first grade colleges. The discipline in both is far from satisfactory. A few pupils belonging to one of them have since become teachers in some of the schools. Their behaviour is anything but desirable. It borders upon impertinence and insubordination. Government had on one occasion, on account of a breach of college rules, to withdraw from one of these colleges the privilege of competing for Government scholarships.

Questioned with reference to his remarks on the Chitrakote school, witness said that the recommendations made on behalf of the school were not disinterested and were devoid of good foundation. The departmental officers had visited the place and seen it with their own eyes, whereas the Syndicate had not seen it before giving their decision. Dr. Mookerjee said that Mr. Slater, a member of the Syndicate, had visited the place personally and supported the application of the school authorities, and that the application would not have been granted if Mr. Slater had not personally inspected the place. Witness said that Mr. Slater had never inspected the school, as far as he knew, and that there was no occasion for Mr. Slater to go to a remote village of this description. Similar occurrences take place in regard to other schools.*

In private schools, both aided and unaided, the teachers are poorly paid and the instruction inefficient. Matters are not so bad in Government schools, though here also there has been deterioration. Their condition is, however, much better than that which obtains in private schools. Private schools are in some cases started by individuals as a commercial speculation, in others they are maintained for reasons other than gain. Private schools in villages are profitable.

Only graduates of the University should be eligible to be Fellows.

The Senate.

Exception to this rule should not be made even in the case of Oriental Scholars; they might be granted honorary degrees. Individual exceptions might be made in favour of gentlemen such as Father La Font. No Muhammadan gentleman has stood as a candidate for a Fellowship, for the reason that the Muhammadans have seen from the manner in which Fellows have been elected in previous years that it is hopeless to expect election. Even Hindu candidates who are not in touch with the voting public have no chance of being elected Fellows. Witness has talked with several eminent Muhammadan graduates on the subject of election, and especially to Mr. Abdur Rahim, a Presidency Magistrate, an M.A. of the Calcutta University in English and a gentleman who had a distinguished University career; they are all of opinion that it would be simply hopeless to stand for election. The same is the case with Anglo-Indians. There are some Anglo-Indian graduates such as Mr. Wheeler and Mr. Pringle, the Premchand Roychand scholar, who are eligible for election. In order to admit of the reform of the Senate being carried out, the present members should resign *en bloc*. Granted that a few might refuse to

* In a letter to Mr. Pedler, dated the 27th March, Mr. Abdul Karim said that he had been informed by Mr. Slater that the latter had never been to Chitrakote, but had noted in favour of the school on seeing a plan of the locality.

join such a movement, they would not be able to do any harm on the new Senate. Such resignation need not be regarded as a slight on former Chancellors and Fellows. The present Senate has been appointed on principles which, though considered sound at one time, are admittedly no longer suitable. This solution would be preferable to the issue of a cancelling notification by the Governor General in Council. Fellowships should be life-long or not terminable until after at least ten years.

Members of the Syndicate should hold office for two or three years and be eligible for re-election. The same member should not be re-elected several times, so that other Fellows may be given an opportunity to prove their usefulness to the University.

The Syndicate.

As an instance of the unfair conduct of the Board of Studies for History, witness said that he had written a history which was approved by competent authorities as suitable for use as a text-book, but the members of the History Board did not take it into consideration.

Board of Studies for History.

It is advisable for students to live in hostels or boarding-houses, even though their parents live in the vicinity of the school or college, in order that they may come under the beneficial influence of teachers and professors. In England people who can afford to keep their boys at home are in the habit of sending them to Boarding Schools. This is done because it is understood that the personal example of preceptors and teachers has a powerful influence in the formation of the boys' characters. With honourable exceptions such influence is likely to be better than home influence. Witness is afraid that, as a rule, home influence is bad. He had not the knowledge to enable him to say this as regards Hindus, but, so far as his own community is concerned, he would like boys to go to the Aligarh College instead of remaining at home. Their mothers are incapable of training them in a proper manner and spoil them by excessive fondness. Witness pointed to Mr. Beck as an instance of a Principal who had a deep influence for good over his pupils. He said that his remarks on the subject of home influence applied to schools as well as to colleges.

Hostels and home influence.

The pronunciation of English is very bad among Indian students. They cannot shake off the bad habit contracted at school in spite of their efforts to do so. Students do not learn their subjects for learning's sake, but only to pass their examinations. They do not pursue any general reading and confine themselves to their text-books. There is a mechanical reading to serve the purpose of examinations. Notes are crammed without being understood, and only the memory is cultivated. These defects are partly to be attributed to the multiplicity of subjects which the pupils have to study.

Defects in the methods of study.

WITNESS No. 30—MR. J. N. FARQUHAR, M.I.A., Professor of English Literature,
London Missionary Society's Institution, Bhawanipur.

After reading his written* statement, Witness, in reply to questions put to him, regarding his proposal to abolish text-books in the Entrance Examination, said that, if the examination is carefully conducted, it will be possible to reduce to a minimum the evil which is experienced in Madras, in the absence of text-books, of the cramming of idioms and phrases. An unseen English prose passage should be set and candidates asked to explain it in English and translate it into their vernacular. The text-books must contain many matters on which it is not necessary to concentrate the attention of the student; they may be neglected if the book is not to be the subject of an examination, but must all be memorised if it is a prescribed text-book, lest questions should be set on them. In the case of an unseen passage, obscure allusions and difficult idioms may be neglected and candidates asked to translate the piece and explain simple questions of grammar which arise from it. Candidates for the Percy competition at Aberdeen and for the Scholarship Examinations at Oxford University are examined in unseen passages. The responsibility for the present evil does not lie with the examination; if text-books are prescribed, the examination must be conducted on certain lines. Schools should use their own text-books, but the University should not prescribe them, because, if it does, students will inevitably look more to the matter than to the language. Lads in the Entrance class do not like the idea of a professor teaching them the language; they would look upon him as a fool if he did anything, but give them full notes of each sentence in the text-book. The system of examination is responsible for this attitude on the part of the students, and therefore it ought to be entirely changed. There should be text-books for the F. A., but both in that examination and in the B. A. they should be simpler than those now set. It would be an excellent thing if an oral text could be included in the Entrance Examination, but it would hardly seem possible. Simple dictation would be possible, but not very useful. It would at present be very difficult for students to write down in their own words the substance of a passage read to them. They might be trained to do it, and it would be a very useful training. It would be a great matter if the pronunciation could be improved, but it seems hardly possible while boys are taught by Bengali B. A.'s. In the first year's course everything has to be dictated; students from the country do not understand a single sentence.

The utilitarian view that is taken of education is a great evil, and it exists among parents and guardians as well as amongst students. The general aim is to pass the examinations and not to develop the powers. Witness constantly preaches to his class on the subject. It is true that teachers sometimes encourage this spirit. It is hardly possible for them to do otherwise in the Entrance class.

Witness is not particularly well acquainted with the constitution of the Senate, but he shares the opinion of a great many people that it is too large, and that it ought to be much more under the control of teachers.

Witness has never considered the question whether colleges might admit their own students, the first general test being the F. A. In reply to Mr. Pedler, witness said that, supposing a low grade college had one test and a high grade another, then in the case of transfers the high grade would not accept the test of the low grade college.

No Mission College would object to the periodical inspection of colleges by some body on behalf of the University. They would welcome it.

It is very desirable that the University should interest itself in the residence of students. Something might be attempted in the direction of the Madras rule. Much remains to be done for the social life of the students.

WITNESS NO. 31—MR. A. F. M. ABDUR RAHMAN, KHAN BAHADUR, Barrister-at-Law, Judge, Small Cause Court, Calcutta.

Witness read a printed statement* and questions were put to him in the course of his reading.

* Paper No. 21 in Part II.

In recommending the employment of a proportionate number of Muhammadan Professors, witness said that, although at one time it was difficult to get qualified Muhammadans, at present there are many with qualifications equal to those of the Hindus. Muhammadans who are equally qualified with Hindus should be pushed forward. A reasonable number of them ought to be engaged as teachers for the purpose of teaching and training their own youth.

Syed Hossein Bilgrami observed that the need for such special arrangements depends on the number of Muhammadan students. In the Presidency College, for instance, there are very few Muhammadan students. If special Muhammadan Professors were engaged for them, it would be tantamount to a separate Muhammadan College. Witness said that there should be a proportionate number of Muhammadan Professors. If there are 20 Professors in the College—European and Hindu—then there should be a reasonable proportion of Muhammadans; the number might be fixed from the point of view of population.

In the interest of their education the Muhammadans should be given to understand that, if they are well qualified, they will be equally entitled with others to occupy chairs in the Presidency College. Witness does not suggest that a qualified Muhammadan would not be appointed under existing conditions, but desires that, where a Hindu and a Muhammadan gentleman are found equally qualified, the latter should be given the preference, if there are not a proportionate number of Muhammadans on the staff. This would be in accordance with the principle adopted by Government in the expression "the minority must be represented" which is used in the Indian Councils Act. That principle means a fair representation of the different classes of the community. It is adopted in connection with Municipalities and Local Boards and should also be adopted in regard to education. In accordance with this principle Muhammadans should be appointed not only in their special subjects, Arabic and Persian, but also in general subjects. There was once an appointment to be made in the Presidency College and the choice lay between two candidates, one of whom was a Hindu and the other a Muhammadan. The Muhammadan gentleman had passed his B.A. in honours, but having unfortunately obtained a few marks less than the Hindu gentleman, the latter was appointed.

The President observed that in the Legislative Council certain interests have to be represented, while in making appointments in the Presidency College teaching qualifications alone have to be considered. Witness, while granting this, said that having regard to the increasing number of Muhammadan graduates a reasonable number ought to be engaged by the University in order to encourage education among classes which, being backward in education, are doing their best to advance themselves. Muhammadan graduates may expect and ask for comparatively large salaries, but they will have to be satisfied with what is offered to Hindu graduates. Mr. Pedler said that the Muhammadans will not be content with the salaries that Hindus are content to accept.

The University could not compel a Hindu proprietor of a private institution to employ Muhammadans; but in the list of recognised teachers that should be maintained there should be a certain percentage of Muhammadan teachers.

The degree taken by a student is not a certain criterion of his ability to teach. The authority which makes the appointment should select those who are likely to make the best teachers. For instance, a person who has been connected with the Education Department for a long time will be able easily to find out from conversation which candidate would make the best teacher. If this were done, a Muhammadan graduate might have a better chance than under a system which relies solely on degrees.

The term of appointment for future Fellows should be for five years in

The Senate.

order that the expectation of being re-elected may act as an incentive to good

work. At present many Fellows do not take an interest in the affairs of the University, but they cannot be subjected to the test of re-election, because when they were appointed by Government it was never understood that their Fellowships would be terminable. Gentlemen appointed for five years would be above any consideration which might interfere with their independence. The attendance test might be substituted for terminable Fellowships.

With regard to the contention of the witness that a certain number of Muhammadan members should be admitted to the Senate, the Reverend Dr. Mackichan said that he understands that the Calcutta University recognises no such distinction between religion and race, and that there is only one standard to be applied to all. If it were held that a certain proportion should be of one race and religion and a certain proportion of another, it would be in conflict with the fundamental principles of the University. Witness submitted that this is not the case. He has collected statistics to show that a few Muhammadans have been appointed Fellows to represent Muhammadan interests, and he asks that Government should now appoint a larger number because the Muhammadan element is inadequately represented on the Senate. Their adequate representation is necessary in the interest of the education of the Muhammadan children.

The objection to the system of electing Fellows would not be done away with by the representative of Muhammadans by nomination. The main objections are threefold: (1) When the University confers the privilege of its franchise on the graduates, each of them looks forward to avail himself of it, but if it can be shown that some sections can have no chance of benefiting from it, that detracts from its value. (2) Canvassing is practised to a degree which is simply disgusting. (3) The gentlemen on whom the franchise is conferred are inexperienced graduates whose judgment is too immature to enable them to judge of the fitness of their nominees. There would not be the same objection to the elective system if the franchise were restricted to graduates of some standing, and it was laid down that a certain proportion of Muhammadans should be elected.

The interests of different classes of the community should be taken into

The Syndicate.

account in electing members of the Syndicate. The number of Syndics should be

increased to twelve to admit of two Muhammadan members being appointed. Colleges are properly represented on the Syndicate, but there is not a proper representation of the interests of either the Muhammadan community or of the Government. The Muhammadans have special interests to safe-guard in the Syndicate, for their education requires special treatment [*vide* page 503 of the Education Commission Report]. The Syndicate has to look after text-books, the moral, physical and intellectual training of students, and multifarious matters in which Muhammadans are interested. Text-books in Arabic and Persian, examiners and scholarships are special instances. Recommendation No. 9 of the Education Commission has also to be carried out, and this is a matter in which the University as well as the Government is concerned.

Questioned why he advocated that the Entrance instead of the F. A.

Preliminary qualifications for the Medical degree.

standard should be adopted as a preliminary test for admission to the Medical

College, witness said that the step would materially help those Muhammadan students who desire to take a Medical degree. For 100 Hindus who pass the F. A. only 5 Muhammadans pass. Many of the latter have great pecuniary difficulty in reading up to the F. A., and then they have to decide whether they can afford the five years' Medical course or shall go up for the B.A. The rule has operated harshly. At present there is a dearth of Muhammadan Medical men, and lately Colonel Hendley had to import a Muhammadan Medical Officer from the Punjab to fill an appointment in the Civil Department. Instead of requiring the F. A. there should be a higher standard for the Entrance. This would not, for Muhammadan students, necessarily involve a longer period at school.

A Muhammadan boy does not usually pass his Entrance Examination before he is 15 or 16, as he has to go through a preliminary course of Persian and Arabic before he takes to English studies; that is not the case with a Hindu boy, and therefore he can appear at the Entrance Examination at the age of 12 or 13. Witness has, therefore, recommended that the minimum limit of age for appearing at the Entrance Examination shall be 15, and he thinks it will be a gain to the Muhammadan candidate if the Entrance test is made sufficient to enable him to join the Medical College.

Age limit.

The standard of Arabic and Persian for the B.A. and M.A. has been reduced by a majority of the members of the Board of Studies for the year 1903, [*vide* page 212 of the Calendar for 1901]. Witness was a member of that Board and opposed the reduction, but there being a minority on his side his opposition fell to the ground. There was a Muhammadan gentleman among the majority who supported the reduction. The reason of the reduction was alleged to be that, the boys having to study many subjects, it is physically impossible for them to acquire great proficiency in Persian and Arabic in the short space of time which is at their disposal, and that, therefore, it is better to cut down the course in those two languages. Witness is grateful to the Hindu member of the Syndicate who, taking equal interest in the education of Muhammadans and Hindus, supported the minority who opposed the reduction. Owing to the present constitution of the University and to the large number of subjects that boys have to learn in a short space of time, the study of Arabic and Persian languages has suffered.

Arabic and Persian.

WITNESS No. 32—COLONEL T. H. HENDLIEY, I.M.S., C.I.E., Inspector General,
Civil Hospitals, Bengal.

Witness presented a printed statement (No. 22 in Part II).

The Inspector General of Civil Hospitals and the Principal of the
Calcutta Medical College should be
The Senate. *ex-officio* members of the Senate. The
Inspector General is responsible for the appointment of all Assistant Surgeons
and it is therefore imperatively necessary that he should know something about
their educational course, for although he is guided by the Principal of the
College in making selections still the final responsibility rests with him.

The Medical Faculty should be so constituted and arranged that all
The Medical Faculty. members may actively participate in the
work of the Faculty. Fellows residing at
a distance ought to be consulted on important questions, as is done in the
Asiatic Society and in Clubs. All the members of the Faculty should not be
actively engaged in teaching. The experience of men who, like Colonel Joubert,
have been teachers will be of great use to the University. A strong medical
Faculty is required for the Calcutta University. Sixty would be too large a
number. What is required is a good working Faculty.

It is not the case that young officers joining the college as teachers work
there for a short time only and then leave
Staff of the Medical College. to the great disadvantage of the college.
There are men in the service who having once attached themselves to a college
as teachers have not left it for many years. Sometimes teachers in the Medical
College are sent to superintend Vernacular Medical Schools, where a higher
standard of teaching is required. It would not be an advantage to have a
separate body of professors in place of recruiting the College staff from the
Indian Medical Service. It would not be possible to get such good men. The
Indian Medical Service is composed of highly trained men who have in many
cases pursued their studies up to the age of 27 or 28. They have passed more
than the ordinary series of examinations and are picked men.

The proposal for the vacation of membership of the Senate at the age of 60
is to equalise Indians and Europeans. An
Vacation of Fellowship. additional five years by re-election is pro-
posed and that gives a sufficiently advanced age for retirement.

Owing to retirements and transfers, there is sometimes no member of the
Medical College on the Syndicate. The
The Syndicate. Principal of the Medical College should be
an *ex-officio* member, in addition to him there should be another medical
member who might be a practitioner.

Both systems of governing the Medical College have been tried, namely the
Director to be the controlling officer and to
Control of the Medical College. consult with the Inspector General, or
the Inspector General to be the controlling officer and to consult with the
Director. In all matters relating to the subject of Medicine the Director of
Public Instruction and the Inspector General of Civil Hospitals have worked
harmoniously together. In such a highly technical business as medical educa-
tion it is desirable that the control should be in the hands of a medical officer.
The change may at first be somewhat irksome to the members of the staff.
Again the Inspector General is responsible for the appointment of the men who
are trained in the College. The Medical College could not at present be placed
under the control of the University authorities, but the suggestions of the
University are always welcomed. The College must be under the control of the
Government which pays for its up-keep and provides employment for most of
its graduates.

It is very desirable that there should be an interchange of examiners, for it
is very important that the examiners
Conduct of Medical Examinations. should not be connected with the students.
At oral examinations there should be two examiners, one belonging to the college
and the other an outsider. The difficulty lies in the great distance between the
examination centres. An endeavour has been made to equalize education by a
single set of rules for the four centres of vernacular education.

There are mainly failed Entrance and F.A. students in the vernacular schools. This is not a disadvantage, the extra reading does the students good, and the result of this influence of the University has been an improvement in the students in the Vernacular Medical Schools.

The medical fees are very much lower in the Calcutta University than in Madras. Last year the Government of Bengal raised the annual fee from R72 to R96, working on the principle of supply and demand.

A complaint having been made that the present minimum test proves rather hard upon the candidates witness has consulted some authorities who are strongly of opinion that it is not at all too hard and must be adhered to.

Sanitation will progress more rapidly if the minds of students are cultivated by University education sufficiently to appreciate the benefit of sanitary measures.

It is unnecessary to coach medical students in the elementary knowledge of sanitary science because it is necessary for them later on to study the subject thoroughly as a part of their curriculum. There is however no objection to requiring a preliminary knowledge of sanitation for medical students, if the knowledge is imparted in elementary English. An elementary knowledge of sanitation should be given to the students of the Vernacular Medical Schools.

The effect of University Education on the health of young men is a matter that requires careful consideration. M. A.'s will generally be found to be weaker than B. A.'s. Before a student is allowed to read for the M.A. Examination it would be well to physically examine him to see if he is fit for the task. The President remarked that the University has to find a place for the scholar who may be delicate or a cripple. The witness replied that he suggested the measure in the interest of the candidates themselves. Students even die from the double burden of overwork and a large family. It is a favourable circumstance that different kinds of physical exercise have been introduced. Especially up-country, sports such as foot-ball, gymnastics and cricket have found favour with the student class. The pursuit of games has not gone too far in Bengal in general, though it may have gone too far in some individual schools and colleges.

The Hostel system is very advantageous. When witness went to Nuddea he was very much impressed with the old Indian system of study. He saw Sanskrit boys repeating their grammar in the primitive way and looking happy in living the simple life of the *tols*. A good deal might be done to encourage such simplicity of living.

As far as possible University Education should aim at something beyond the mere passing of examinations. Leisure time should be given during which teachers may take student to Museums, etc., and teach them something about the world. One beneficial thing that the University could do would be to institute a degree in teaching.

In connection with Arts and Economic Education a specially important matter is the encouragement of the study of drawing. The subject should be made compulsory. Encouragement might also be given to a technical side of education; something rather different from the present engineering course but which should teach the students to be something more than mere draughtsmen. It has been suggested that the University should send representatives to the Schools of Arts in order to keep them up to the mark and to equalise training in them.

WITNESS NO. 33.—MR. BRAJENDRA NATH SEAI, M.A., Principal, Victoria College, Cooch Behar.

Witness presented a printed statement paper (No. 23 in Part II) on which he was questioned.

With reference to the proposals of witness with regard to original research

Research.

Dr. Bourne enquired whether the facilities for original work which now exist are fully utilised. Witness said that the present facilities are small though they have been somewhat increased of late years. He then read extracts on the subject from page 6 of the statement. There is need of specialists, museums, laboratories, collections and apparatus for the purpose of original work. Such laboratories, appliances and professors as exist at present, are utilised to some extent, but it is not possible to utilise them further in the absence of skilled and expert guidance on the part of specialists. These are at present wanting. No student is capable of advanced work in the field of research without guidance from master minds. Research does not come by intuition. There are laboratories in Cambridge for the departments of Geology, Bacteriology and many facilities for original research and post-graduate study. Here there is no physiological laboratory or natural history museum in connection with the Medical College. A physiological laboratory is now in contemplation. It is not possible that there should be any research work in the field of biology or of natural history without such museums, collections and laboratories. There are already some Indians working in the field of research, for instance Dr. Bose. If others had had so good an opportunity they might have done as well. Whatever opportunities have been given to students genuinely and fully have been utilised to a far greater extent than could be expected from a backward University like that of Calcutta. Most Indian students who have been placed in charge of laboratories or have had access to laboratories have done good work. Questioned by Dr. Bourne about research classes witness said he had heard of research classes in Europe. Work in Continental Universities is far more advanced than in English Universities. All University education in the Universities of France and Germany is in the nature of advanced study which leads to some sort of original work after graduation. Research class is a very common term in America. What are called the earlier stages of University education on the English model, are comprised in the secondary stage of education in France as well as in Germany and practically speaking the secondary schools of the Continental system cover a great part of the course of a British University. A most promising field of original research for Indian students lies in the direction of Indian Philology and Ethnography. With better opportunities much good may be done in this field. If Indians were appointed to the Archæological Survey of India, that would afford them some opportunities. The Indian Professors of Sanskrit have not done original work in these departments because they are wanting in elementary education in Philology. There is no chair for Philology in Calcutta. It is utterly neglected. Students must have a training in Philological Science before they can enter on Philological work. He believed that with the exception of Dr. Hoernle and Dr. Steyn there have been no trained Philologists in the Indian Education Department. If Doctors of German Universities were appointed occasionally, much good work might be done. Witness is not acquainted with Dr. Thibaut's work.

There is not adequate teaching for the M.A. subjects in the colleges in Bengal. This remark applies even to English. For the most part the professors are ignorant of early and middle English. They have a smattering of Anglo-Saxon, they know nothing of Pre-Chaucerian English, and they know very little of Tudor English other than Shakesperian. In the M.A. standard there is a smattering of Anglo-Saxon English which is discreditable. Oxford classical scholars are not the proper persons to teach English, trained English scholars are needed.

M.A. Teaching.

All affiliated colleges whether Government or non-Government should be periodically inspected on behalf of the University.

Inspection of Colleges.

There is a hostel attached to the Cooch Behar College. Boarding houses should be attached to every college, and where that is impossible provision should be made for the control and supervision of the students' lodgings, not merely in the interest of health but also in the interests of morals and discipline. The Cooch Behar Hostel takes in 100 out of a total of more than 200 students. The remaining students live with their parents and guardians.

Hostels.

Witness read the remarks on private colleges at the end of his statement. It is not possible to go back on past history and abolish all private colleges, but in future no college which is run on a commercial basis should be affiliated to the University, and some fundamental change should be made in the existing colleges.

Private Colleges.

In the Cooch Behar College there is no test examination for the B.A. classes and the percentage of passes is calculated on the number of students sent up, which means practically the whole class. Last year the college showed the best results in the Province, beating the Presidency College. The reason is that the students work very hard. The college authorities prescribe class exercises and oral examinations, and the classes being smaller it is possible to pay greater attention to the individual students. No fees as charged; the college is maintained by the Maharajah.

Instruction in the Cooch Behar College.

Witness referred to the remarks at the top of page 11 of his statement as indicating why students depend too much upon their teachers.

Dependence of students.

Witnesses read the observations at the bottom of page 10 of his statement regarding Syllabi and Text-books. He said that the professor in his capacity of tutor should guide students in their studies, and draw their particular attention to certain books they should read, but he should not read a book line after line and word after word. Students should be allowed some scope for thinking for themselves. Books must of course be used. Without books neither Philosophy nor any other subject can be learnt in these days, but the question is how to use the books. It is absolutely necessary as a basis to go through certain books especially in subjects like Philosophy, but it is no good reading dry compilations. Students must go to the fountain head which will inspire them with enthusiasm for the subject, and will show how discovery and research are to be achieved. In the case of Physics and Chemistry there should be a syllabus and insistence on practical work.

Text-books.

There should be a bifurcation of studies in the F.A., and a bifurcation lower down in the schools, in which there should be a literary and a modern side.

Bifurcation of Studies.

The bifurcation might take place in the 3rd class of the present school department. The principle of bifurcation is the elementary principle of modern educational systems in all civilised countries. The root of the present evils in the Indian system is that there is no bifurcation. Many persons are constitutionally unfit for literature, though they are clever in other respects and may shine in other walks of life. In the 14th or 15th year it would be possible to make a forecast of the line a boy should take. The choice should be exercised on behalf of students by parents or guardians.

WITNESS No. 34.—MR. E. D. ROSS, Ph. D., Principal, Calcutta Madrassa.

Witness presented a written statement (Paper No. 24 in Part II) to the Commission. After he had read it he was asked a few questions.

He said that many of the benefits that might be derived by the students living together in the Madrassa Hostel are lost from the fact that the inmates attend several different institutions. Some go to the St. Xavier's College, some to the Presidency College and some to the Madrassa.

Hostels.

Alternative C. Course for Muhammadans.

The history of Islam is now practically ignored and should be prescribed as the fourth subject of the proposed C. Course, it should be learnt from English and Indian sources. A portion of the *Akhlāk Nasiri* the best book of Persian Ethics might be read as a fifth subject. Elementary Mathematics, not including Conic sections, might be an alternative for the fifth subject. The B. A. Course should make the Muhammadan as well equipped as the European student.

History.

With competent teachers there should be no serious objection to their examining their own among the general body of students. There may be some danger that, without imputing any dishonesty, the students of the examiner might have some advantage over other students. In Germany the examinations come to very little, the professors themselves judge whether their students are good enough to pass.

Examiners as teachers.

The methods of teaching languages in the Indian Universities would certainly admit of improvement. There are different languages to which different rules would apply. The teaching of English is one thing, the teaching of Arabic and Persian another. Perhaps the method of teaching Arabic is the most defective of all. Students do not learn to read or write simple passages of ordinary Arabic. The best grammars in Arabic are the English and German grammars, which have received a certain addition of light from having passed through the west. One of the best books of grammar is hardly known to students here whilst it is the text-book at Oxford and Cambridge and is used all over Europe. Here they read the Sharimula which is a very inferior work. Throughout the whole Arabic Department of the Madrassa a change in the books is absolutely necessary.

Study of Arabic.

In the Anglo-Persian Department the teachers are men who have either succeeded or failed in the M. A. In the Arabic Department, a great many of the men have only taken the Arabic side of the college departmental examination.

Staff of the Madrassa.

WITNESS NO. 35.--THE VERY REVEREND A. NEUT, S.J., Professor of English Literature, St. Xavier's College, Calcutta.

Before reading his written statement (Paper No. 25 in Part II) witness said that his remarks would refer only to two points, *viz.*, a Teaching University and the Matriculation Examination. As regards the former, he thought that it would be an unmixed blessing if it placed a check on the ever-increasing number of students who are trying to obtain some kind of certificate or diploma of the University. He then read his statement in full and was examined as follows :--

The Government and other employers should not depend on the University diploma but should use their own tests. There are some posts in Government service for which really high degrees should carry value; but when to require, even for minor posts such as those of Sub-Inspectors of Police, certificates of Entrance or F. A., is to carry things to an excess. It would not be impossible to find other tests such as the suggested school final examination which would not be a University affair.

Witness referred to certain papers relating to a former scheme of making a Teaching University in Calcutta. Mr. Pedler afterwards placed these papers before the Committee [see Catalogue of Miscellaneous Papers].

The course in the Teaching University should include the B.A., B. Sc., M.A., and higher and special degrees. There should be specialisation for the B.A. There should be an examination for admission to the High Schools, and in these schools the candidates should study the present F.A., and part of the present B. A. course. They should then matriculate. Two years should be added to the school course. This would bring the University much nearer to the European idea. The student would enter college at the age of 19, and up to that time would be under school discipline. The length of the course in the Teaching University should be settled by the University. The schools would have to be reformed. The scheme could not be worked with the schools as they now are. Some of the colleges would become schools. They might be called collegiate schools and should be more of the nature of English public schools.

President --One result would be that you would have in these schools students who have wives and children.

Witness.--Even in the present schools you find such students.

It would be better to confine the University course strictly to one centre, but that would have to be done slowly. That centre might be in Calcutta which is not very unhealthy, and which has some advantages, such as the Indian Museum, technical establishments and other facilities for teaching practical science. There is some danger in Calcutta as regards discipline, but that would be diminished by the proposed scheme.

Mr. Pedler.--In the immediate neighbourhood of Calcutta at Sibpur, the student's discipline is excellent; there is no such thing as boys going beyond the bounds.

Witness remarked that in a paper he had sent up (see volume of reports from colleges on discipline, etc.), he had suggested a Matriculation scheme. Through an oversight he had omitted Oriental classics. In the revised European code there will be a final examination on the lines witness has suggested, and he does not therefore now wish to urge the consideration of his scheme.

Witness said that he had stated in a pamphlet placed before the Commission (see Catalogue of Miscellaneous Papers) that the alleged dissatisfaction with the European code exists only in the case of one-third of the domiciled community. As soon as the Cambridge Local does not give the successful results hoped for, similar dissatisfaction will be expressed with regard to it. It is not a suitable test and does not compare with an examination requiring a separate test in English. It is possible to pass the Cambridge Local with a very few subjects; it is not at all an extensive examination.

Witness fully endorses the complaint that the present European School examinations do not obtain sufficient recognition. He has suggested to the Educational Department the different ways in which that recognition should be granted. He addressed a letter on the subject to that Department on the 5th June 1900 and is patiently waiting for a reply.

Nomination by the Governor General in Council should be the only method of appointing Fellows. The Government must, however, resist the temptation to give appointments as a matter of compliment. The non-attendance rule should be enforced, but not against existing Fellows. Election of Fellows leads to considerable abuse in the matter of canvassing. Witness does not think that the same abuse exists with regard to nominations; the authorities must be above such temptation.

Appointment of Fellows.

The Boards of Studies sometimes comprise members without sufficient qualifications. A lawyer is not necessarily an authority on History and Geography.

Boards of Studies.

A rule should be strictly enforced to the effect that notice of new books to be proposed should be given before the day of the meeting and that such books should be circulated beforehand among the members if they are new publications. At present the members of the Board of Studies go to the meeting without knowing what is going to be proposed. On going there they see a pile of books lying on the table. One of them says, picking up a book: "this will do; I think, have you seen it?" Another replies: "No, it looks too big, take this one." If the members of the Board were informed beforehand of the proposals that were going to be made, it would obviate the random selection of text-books, some of which turn out to be unsuitable.

Text-books.

Witness has seen several instances in which Fellows have put forward their own works; that is a reason why some Fellows wish to be on particular boards. Sometimes the book proposed has not even been published. Publishers sometimes send their books to be placed on the University table for distribution to the members on the day of the meeting.

For Physics and Chemistry and other branches of Science, some prefer text-books and others do not: witness is not prepared to speak for these branches.

Syllabi versus Text-Books.

But with regard to Mental and Moral Science, he strongly endorses the evidence of Mr. Stephens. With an appointed text-book the teaching of this subject is a farce. If questions in the examination are all confined to the text-book, different systems cannot be examined. If there is a single text-book, the syllabus becomes meaningless; if the two agree, teachers and students will confine themselves to the former. With rare exceptions students do not read any books beyond those prescribed. Under the syllabus system the Professor must have a knowledge of various books on his subject and must give to the student a summary of the systems expounded in the books and may, if he likes, refer the students also to a text-book which he favours. The student will not be able to confine himself to one book; he will have to read opposing arguments and weigh them and will be forced to reason. The examiner also must be a good man; he will rest questions on the different arguments and will see how the students defend their systems. In the prescribed book system the students learn page after page by heart. Under that system a good student may do well if he also reads other books, but that comes to the same thing as before. For junior students the Professor must give the necessary guidance and assistance. It is not essential that he should use any text-book.

To the argument that without text-books you cannot safeguard the students against the idiosyncracies of examiners, witness would reply that the University should be wise enough to employ good examiners.

WITNESS NO. 36.—MR. E. M. WHEELER, M. A., Professor of English Literature and Philosophy, Bangabasi College, Calcutta.

After reading his written statement (No. 26 in Part II) Mr. Wheeler, in answer to questions put to him, said: The University will be able to fulfil its function as a teaching body if it gets a good library and laboratory and first-rate librarians and demonstrators.

Witness is at present lecturing to an M.A. class in Comparative Philology, and himself only studied it in the same way. University teaching for the M.A. A University Professor for Comparative Philology to lecture to the M.A. students would be a great improvement. The M.A. classes are very small, and there is no reason why even the mofussil students should not come to Calcutta for the short M. A. course.

Witness cannot say whether the present hostel system is a failure from his personal knowledge of two hostels only. It is essential that one or more of the teachers should reside in the hostel. The Calcutta hostels have not done much to foster a true collegiate life because the professors do not take enough interest in them.

The students of the colleges come together a good deal, the mess system encourages their association, and notes are circulated round the colleges. But it is different in the case of teachers and the private colleges feel their isolation greatly. If the Presidency College took the initiative in this direction the whole problem would be solved. Private colleges have not the necessary status. If the Presidency College were to form itself into a focus or centre of teaching life it would do immense good. If the professors were accessible other teachers would be able to go to them for much-needed advice. Similarly, with regard to the Mission Colleges. During his three years in a private college witness has felt his isolation acutely. There is little intercourse between college and college. There are senior members of the Calcutta University Institute. But there is little to take them there. The older members do not use the institute as a club, but are supposed to give lectures, etc. It is not a success. The whole thing is weak, though it is difficult to point out any special flaw. There, again, if the professors of the Presidency College, would take greater interest in the institution it would work much better. Some few have devoted much time to it, but it is not taken up by the professors generally. The institution has done some good and should not be abolished, but it could be greatly improved.

Before a rule regarding recognised teachers is framed it should be considered whether any cases have occurred rendering such a rule necessary. Witness is not aware of any such need in so far as the Calcutta private colleges are concerned. He cannot speak about mofussil colleges. The Bengali student is a terrible critic. He knows when a teacher is able to interest him. It is possible that the student may look to passing rather than to knowledge. Witness does not think that any Calcutta college would try to pass candidates by giving them instruction by cheap teachers. The rule would only aim at and press on private colleges. It would be invidious to make a rule which could only apply to a particular class of colleges. Sayed Hossein Bilgrami remarked that the rule might be useful in Government colleges also. Witness said he did not object to University inspection in itself, but to a rule which *could* only apply to private colleges. It would not be possible for the University to judge a man appointed in Europe. If the degree is to be the only test then no rule is necessary. Witness heartily agrees that the University should exercise more control over colleges. They do not feel that they are an object of sufficient interest to the University, but the proposed rule would not remedy this.

Although some graduates who are not engaged in teaching take an interest in the University, the time is not yet ripe for the franchise, because at present election goes entirely by canvassing. On the whole fit men are elected, but they are not elected in the right way. Men with the highest degrees are not always elected, but the election secures men with good qualifications. It is a humiliation for such men to have to canvass at all. They have to make a directory and either go round personally or send their friends to the electors asking for

votes; and on the day of election they again send reminders to the electors so as to make sure that the votes are not transferred in the meanwhile to somebody else. The matter could be arranged without so much personal canvassing. Witness has sometimes received letters and personal visits from candidates for his vote; but has not as yet voted for an incompetent man, and on the whole the result has not been disastrous. Generally six or seven candidates come forward, but some of them withdraw when they see that their opponents have secured a majority of votes, and ultimately only two or three remain to seek election. The best men of those who compete eventually get themselves elected, but possibly the best men do not stand.

Very few candidates pass the Entrance Examination under the age of 15.

Age limit.

In 1901 out of over 3,000 who passed only 365 were less than 15 years of age. Witness found that in his class of about 100, 24 passed under 16 and only 2 under 15. The younger lads are often the best. An age limit may be a hardship to some precocious boys, but it is a greater hardship to many others to be unduly pushed on in their studies. Witness was ready at the age of 11. The limit was then 16. He did no work the next year. The limit was removed and he passed his examination. Unless the course of school education is altered an age limit will not by itself effect any good. Mr. Pedler said that the course in Government and aided schools had been graduated, so that the students cannot reach the entrance standard until they are 16.

It is stated in paragraph V of witness' statement that out of 3,000 who pass

Matriculation and School Final.

the entrance examination about 1,000 do not proceed further. Witness explained that the figures were derived by rough calculation from the Calendars. The B.A. figures are even more startling. Students who pass the entrance ought to have the intention of proceeding to a degree. Mr. Justice Banerjee pointed out that account must be taken of those who go in for a professional degree. Witness considers that a school final might relieve the Entrance Examination of half its candidates.

There should be no English text-book for the Entrance Examination. Students have phenomenal ability in learning by heart. The teacher should guide his pupils

English text-book.

through a course of reading. If he has to follow a University book he teaches nothing. There would, again, be no keys to text-books which are not prescribed for the examination. It is not the principle of text-books which is wrong, but the abuses which spring out of it.

The regulation excluding from the M. A. Examination in English candidates

M. A. in English.

whose vernacular is English should be abolished. He can take English for the B. A. and the Prem Chand scholarship, but not for the M.A. Mr. Justice Banerjee said that the underlying principle is that for the M.A. a classical language is required and that for a person whose vernacular is English it is not a classical language. Witness said that classical English is classical for an Englishman. The examination would not be much easier for a European or Eurasian than for a Hindu B. A. Many would take the M.A. in English but for this restriction. They do not take it in other subjects.

The standard of Latin in the F. A. is ridiculously low; curiously enough it is

Latin.

lower than in the Entrance. Not long ago the Senate altered the entrance course without reference to the F. A. In the Entrance unseent and grammar are prescribed, and not in the F. A. The F.A. can be passed by learning the book work. No one fails in Latin in the F. A. The subject is badly taught in Calcutta.

Comparatively few students have any real aptitude for Mental and Moral

Mental and Moral Sciences.

Science. Witness has taught the subject a good many years and is sure of it. No subject creates a greater sense of oppression at the B.A. Examination. This may be due to the nature of the examination and the text-books. The course is miscellaneous and the syllabus laconic and hard to understand. The students

simply cram the books. They are at first keen on the subject, but this is soon crushed out of them. Partly it is the inherent difficulty of the study and partly the defects in the course. Students have a taste for the subject except the psychological portion, which forms a large part of the course. Very few teachers who lecture on the subject have ever seen a psychological laboratory. The disciplinary value of the study lies mainly in the logic. Witness would give an option between Logic and Psychology and Logic and Ethics. This should be in the interests of thorough study; some students have great aptitude in certain branches, but it is difficult to help them because the lectures most suit all.

The Bangabasi College teaches both A. and B. course. Students sometimes oscillate between the two. They take up one course and after a short time change their minds.

The time for teaching the B.A. courses is too short. It only allows of 14 months' actual instruction. Two and-a-half months are taken by the examinations and there are four months' vacation in each year. It is possible to get through the English course after a fashion by carefully abstaining from developing the subjects of interest. Dr. Mackichan remarked that the interval for the examination is too long; it is shorter in Bombay and Madras.

It is difficult and invidious to give instances of defective questions in the examination papers. Want of care is the gravest defect. This year the first book of "Paradise Lost" was set in the F. A. examination. The first of a list of words given for explanation was not contained in the first but in the second book. The cause of the mistake is that the two books are bound together in one volume with a glossarial index.

With regard to witness' objection to the mark system for degree examinations, Mr. Justice Banerjee enquired whether the examiners could be trusted without such a system. Witness replied that the examiners would do better if greater discretion were allowed them. They are not efficient with a mechanical system, they might be with a sensible system. If competent examiners cannot be obtained for the degree examinations there would not seem to be much use in holding them.

Witness objects to the comparative study of religions being introduced into the curriculum. The study of religions without considering their truth or the reverse is harmful. The Natural Theology in the present course is a different matter and is a suitable subject. It would be very dangerous to introduce the subject of Comparative Theology among Indian students.

Students who have failed in one or more subjects should not be required to attend lectures on these subjects again; it is a great waste of time. It would, in fact, be best to excuse them from re-examination in such subjects, and allow them to pass subject by subject.

There is no rule to prevent examiners setting papers which cannot be answered by cramming, but previous papers form a sort of precedent.

It is a curious anomaly that in alternate years the English to be done by the candidates who have failed in and are going up again for the B.A. Examination is heavier and lighter. Next year the plucked candidates will have to read through practically half the whole course in four or five months. Witness does not exactly understand how this happens.

The University prescribes not only a standard English work, but a particular publisher's edition. The general impression among teachers is that the influence of publishing firms is greater than it ought to be.

Every one is confident that a large number of candidates will get grace marks, and but for them the number of failures in English would be much greater.

Grace marks.

Combined lectures are quite impossible below the M.A. For M.A. students they are highly desirable. Here, again, the Presidency College ought to

Inter-collegiate lectures.

take the lead. If the Presidency College will combine with any one else, the other colleges will soon follow suit. No proposals on the subject have been made to the Presidency College; they should come from that college. For the Honours B. A. the great difficulty in the way of combined lectures would be accommodating the routine of the colleges to one another; they are so far apart.

There is too much lecturing and too little tutorial work. More, however, is being done than teachers get credit for.

College teaching.

In the Bangabasi College there is a good deal of tutorial work. There are regular class examinations. During the present term they are held weekly. This rate cannot be kept up throughout the year; the staff is insufficient for the purpose. It would be a great improvement. The need for the large number of lectures is due to students coming up with so little knowledge of English that teachers have to read out the books word by word. They should be able to lecture on the subject, expecting the students to master the language with little assistance. Witness spends half an hour in each day's lecture on questions regarding the previous day's work. That is tutorial instruction. It is sometimes difficult to understand the difficulties of the students. Sometimes they have been mystified by the keys. If teachers took a little more care in the personal direction of their students the latter would not resort so much to keys. Witness finds it possible to influence students in this direction.

Private colleges are not looked on with much favour, but it is not quite fair to condemn them unheard. One of the witnesses has said that the discipline in

Private colleges.

private colleges is bad. Such a remark was uncalled for, if not the result of personal experience. Witness thinks that the accusation is unfounded. The discipline in the Hooghly College, where witness was for some time, is good, but not better than in the Bangabasi College. An individual college should, if necessary, be condemned; but not a whole class of colleges without justification. There would be no objection to a rule that no private college should be affiliated which exists for the sake of profit. But it may be a mistaken assumption that there is a profit. In the Bangabasi College there is sometimes a loss, never a profit. Witness does not think that a business man would start a college as a commercial speculation. At present the Bangabasi College is solvent, but yields no profit. The proprietor does not make out of it the equivalent of a professor's salary. He has put money into it.

Biology is taught in the Bangabasi College by a professor with English training. The college contributes to the Indian Science Association next door to it.

In the matter of discipline private colleges have the advantage that they know their men better than can be the case in a Government college. Professors in the Presidency College cannot have such close personal relations with their students as the staff of a private college, and the latter can achieve by influence what the former must do by rule. The difference lies in this that in the private college all are natives with community of interest and blood. At the same time, witness is willing to admit that a European can acquire great influence, and that natives may disagree and belong to different classes. Students of the same class all know one another.

It is possible for a college to be self-supporting if it has not to keep up a laboratory. In Oxford most colleges have no laboratory. Without a laboratory a college can support itself even without the fees of the law students. The Bangabasi College is not in part maintained by surplus fees from the school. This was the case until three years ago.

The salaries of the professors in the Bangabasi College are not hopelessly inadequate, but there are no prospects. It would of course be pleasant if they

could be raised. The staff includes a junior professor on Rs. 100 a month who was offered a post on the same amount in a Government college. Witness knows of cases in which professors have accepted small salaries in a spirit of self-sacrifice, but he cannot say that this is specially the case in the Bangabasi College.

The rate of fees charged is Rs. 4. That is normal. The rate is reduced in the case of students known to be very poor. There are few such students in the college.

After they pass the F.A. all the best students in the Bangabasi College go to the Presidency College. Last year four stayed because they were personal friends of the witness. That was phenomenal. It is partly because of the twelve foundation scholarships. It would be a great boon if such endowments were given to other colleges.

The Bangabasi College would not like to ask for assistance from the Government because it values its independence. There could be no objection to inspection by the Director, but by an Inspector it would be resented. The college wants to show what it can do without foreign assistance.

There is an impression that if severe discipline is exercised students will go to another college. A fairly strict discipline tends to popularise the Bangabasi College. A good many students are sensible and like it. Promotions are not stopped from year to year. No private colleges will accept students from another college without transfer certificates. The transfer system is a necessary evil. Transfers in the middle of the term are allowed, but are not common.

WITNESS NO. 37—MAULAVI SAYED WAHED HOSSAIN, B.A., B.L.,
Pleader, Judge's Court, Alipore.

Witness presented a written statement on which he was examined (Paper No. 27 in Part II).

Witness would be in favour of a Teaching University with its own staff of teachers; but the difficulty is to establish such a University where the colleges are scattered all over the country. Students would find it difficult to come to a central place from different parts of the mofussil. Supposing the University were to undertake a course of higher instruction, say, the M.A. course, the mofussil students might come to take advantage of better teaching in a central place. The University might also undertake the teaching of Law. That would make it self-supporting, because in Calcutta the number of Law students is so large that the colleges in which there are Law classes derive an income from them.

Fellowships should be terminable after four or five years, and those fellows whose term of office has expired should be eligible for re-election or re-nomination. Such of the fellows as have absented themselves for a certain term should be made to go out.

The number of members belonging to the Law profession preponderates in the Syndicate. It can be reduced by giving representation to colleges. Witness has no fault to find with those who belong to the legal profession as regards their ability. The most eminent men generally belong to that profession. The Lawyers preponderate on the Faculty of Arts, not because they are lawyers, but because they are either good Arts men or are elected for some special reason. There should be an increase in the number of Syndics, so that heads of colleges and professors may come in.

Witness would object to the keeping of a register of graduates and to the levying of a fee for registering a graduate's name. It would keep out graduates who have no income from which to pay their fees. If a fee must be charged, there should be exemption in the case of such persons as have no income. A fee of one or two rupees a year is certainly not much. But there are cases in which brilliant scholars have left college to secure employment, because they have no fees to pay for the B. L. lectures.

These should be under the supervision of colleges, and the Registrar should visit them once or twice a year, so that the colleges may look after them more diligently.

There should be college parties and picnics in order to relieve the monotony of college life.

Boys of 12 or 13 may be allowed to appear at the Entrance Examination. There are some boys of exceptional powers at that age and they should be allowed to proceed with their education. Witness does not think that boys go up because their fathers and mothers wish them to pass the Entrance at an early age. Unless the boys themselves show a development of brilliant parts, no one will urge them to take promotion and pass early. Boys generally do not like to take promotion if they are not up to the mark. In the case of boys of 12 or 13 they are generally found to possess exceptional abilities.

Witness read statistics from his paper to show that the great majority of students pass above the age of 15. Dr. Bourne pointed out that the figures refer to passes and do not show the number who failed. Mr. Justice Bannerje remarked that it may be reasonably expected that boys who are hurried will show a larger percentage of failures than those who appear at the examination after a longer training. Witness admitted that boys below the age of 15 ought not to be hurried in their preparation.

He would allow every boy to specialise more or less after the Entrance.

Witness would include Bengali and Urdu up to the F.A. as they are sufficiently developed to find a place there, but not in the B.A. or M.A. Referring to the arrangement of subjects for the F.A. proposed in the written statement (see Part II, page 152), witness said a boy might have no aptitude for Sanskrit or Persian, and would therefore take up Bengali or Urdu in the Entrance. In the F.A. it would then be very difficult for him to take up either Sanskrit or Persian. If the course were divided as proposed by witness instead of taking up languages, he would take up the other course—English, Mathematics, Physics and Chemistry. If strong enough in languages, he would take up the first group, the only difficulty being whether he would take up Sanskrit or Persian. If Bengali were allowed, he would take up Bengali. For the B.A. he need not take up any second language, because he has the option of Mathematics or History. It might seem strange to have a graduate without a knowledge of a classical language, but what is the practical effect of giving a knowledge of classical language to a graduate. Witness read up to the M.A. in Sanskrit, but after a short while forgot it all. He is sorry that he wasted eight years of his life in studying Sanskrit. The same thing occurred with 95 per cent. of the graduates who took up a classical language. Witness took up Sanskrit in his B.A. and M.A., because there were no good Persian teachers in private colleges and because he lived far away from the Madrasa College.

Alluding to his complaint regarding the defective teaching of Sanskrit and Arabic Grammar, witness said that up to the Entrance Examination general grammar might be taught. After that in the case of Sanskrit, Panini's grammar might be introduced, and divided in such a manner throughout the course that the students might acquire a mastery over it; that is to say, certain chapters should be read in the F.A., certain other chapters in the B.A., and when the student reached the M.A. he might finish the course.

Sanskrit Grammar.

WITNESS NO. 38—MR. MAHENDRA NATH RAY, M.A., B.L., late Professor,
City College, Calcutta.

Witness read a written statement (paper No. 28 in Part II).

Witness admitted that his proposal for raising funds for a Teaching University was to take the fees of candidates going up for examinations and use them for the purpose of Professorships. He did not see anything particularly unfair in that unless the fees were so raised as to tell heavily on the boys concerned. Looking at the matter narrowly it might be considered unfair for an undergraduate to have to pay for post-graduate study, but looking at the thing more broadly it is not an improper use of the funds. If possible, the expenditure ought to be borne by the State. If that is not possible it must be borne partly by the State and partly by students' fees. These are the only ways in which the University can increase its income. Even at the present time the charges for the examination of M.A. candidates are very largely borne by the fees of candidates for the lower examinations. Private endowments would be forthcoming for the establishing of Professorship, provided Government attached some reward to the offer of any large sum.

Witness was not prepared to suggest what the number of the Senate should be. He had thought of some number between 100 and 200. A non-attendance rule is desirable, because it may diminish the number.

The present area of selection for Fellows to be elected by the graduates is perhaps too large. He would welcome any attempt made to reduce the sphere of selection, but has no definite suggestion to offer. The question whether a certain proportion of Fellows to be elected should be teachers and professors depends on how many of the total number are. If the qualified graduates are given power to select a very small number of Fellows, their choice ought not to be restricted in any way. If, however, the number of Fellows to be appointed by elections becomes considerable, then the question must necessarily arise as to whether rules should not be made for the representation of different interests in an adequate manner.

The evil of canvassing exists all over the world. Wherever there are elections there must be canvassing. Canvassing may be honourable and dishonourable, but in some form it must exist. Witness' experience is small, but as a voter he has very often been approached by candidates. The canvassing is made not on the ground of merits or qualifications, but generally more on the ground of personal interests. He has heard of gentlemen spending money and hiring carriages. Such cases are not frequent. They are not desirable. Endeavour should be made to control moderate canvassing in such directions as possible, but it must be left mainly to the good sense of the electorate and of the candidates. Some eligible persons are deterred by the need for canvassing. It is considered a great honour to be a Fellow amongst people belonging to the Education Department and also amongst professional men. There are amongst nominated Fellows gentlemen who should not have been appointed.

The Boards of Studies are too large. In the Board of which witness is a member, the History Board, there are 16 members, and it is not always easy to find 16 experts in History. The maximum number for the History Board is 16. The maximum number is reached in all the Boards except Chemistry and Biology. In this way there is an admixture of experts and people who have no business on the Boards. As regards the suggestion that the Boards of Studies should be elected by the Senate rather than by the Faculties, it is to be feared that if there cannot be confidence in the Faculty of Arts, neither can there be confidence in the Senate. If the number of members on the Boards was reduced, the composition would no doubt be improved.

In illustration of the evils arising from appointing examiners who are not teachers witness instanced the question on "Paradise Lost" mentioned by Mr. Wheeler, and a question in the Conics paper set from a portion of the subject expressly excluded from the course. If a teacher were appointed examiner, it is possible that his pupils would have some advantage over the pupils of other colleges even if he taught as he ought to teach and examined as he ought to examine, but the present rule does not altogether remove this difficulty. For instance, witness was once appointed to set the B.A. papers in Mathematics and under the rules he could not take the B.A. class. It so happened that a year before he had taken the B. A. in these particular subjects and candidates wanted to know what notes he had given to students of previous years in order that they might get some idea of what he would be likely to expect from them.

These matters cannot be prevented by mechanical rules. It should be left to the good sense and judgment of the examiner to see that his duty in teaching his subject properly does not interfere with his duty of setting papers. Witness gathered from the study of books that if at Cambridge tutors in particular subjects are appointed examiners they give up coaching. That could be managed, because there is no lack of specialists and able men in that University, but here able and qualified men are not as plentiful as blackberries, and therefore if, by a mechanical rule, a very large number of experts are excluded, it does not really improve matters. It is a question of weighing one evil against another, and the opinion of witness is that it is better to leave things to the consciences of teacher-examiners than to appoint paper-setters who set questions outside the course.

The evil practice of grace-marks is also necessitated by setting papers outside the course.

Colleges should be required to employ teachers on adequate pay. Cases such as the Jesuit Missionary College or the Fergusson College at Poona where teachers accept nominal salaries or no salary at all because of their devotion to the cause of education can easily be differentiated from cases nearer home where people serve on small salaries, not because they devote their lives to the cause of education, but because they cannot find better employment elsewhere. The suggestions witness has made are rough, and any such rule must be drawn up with care so as to exclude cases of genuine devotion to the cause of education. Although it may be looked upon as undue interference, the time has come in the interests of education when a minimum scale of pay ought to be prescribed. Such a rule may not be found anywhere else, but this country is peculiarly situated and has evils for which there is no precedent. Witness' knowledge is limited to Bengal, but he believes there is no differentiating feature in other Provinces. Wherever there is trading in education these evils must arise.

Witness was looking into the civil list for Bengal the other day, and he found that in three Government Colleges in Bengal—Chittagong, Krishnagar and Rajshaye, the Principal, a native gentleman, draws in one case Rs. 300 a month, and in the other two of Rs. 250. Necessarily his mind went back to the time when Sir Roper Lethbridge was Principal at Krishnagar and Mr. Bennet at Rajshaye—and he found that what used to be spent on each Principal in those days is nearly the same as what is now spent on the whole tutorial staff.

There has been a sensible reduction in the pay of the tutorial staff in some of the Government colleges. The low pay offered in private as well as in public educational institutions has the effect of drawing away from the Education Department the best of the graduates. Education is quite as important as the executive and judicial work and is not nearly so well paid.

In Government Zillah Schools reduction has taken place in the salaries of the teachers and in private schools the state of affairs is deplorable. In one Government Zillah School the Head Master draws Rs. 400, in another Rs. 300, Rs. 250 in five, and in 11, Rs. 200. In the remaining Government schools the pay is less than Rs. 200 per mensem. The pay of the Head Masters of Government High Schools is inadequate, but it is very much higher than in the

case of private unendowed schools where the Head Master draws a pay of Rs. 50 which in all probability is often not paid in full. The pay of the lowest teacher in a Government school is Rs. 20. That is not adequate. In a school of which witness is Secretary in Howrah the minimum pay is Rs. 25 ; that is still inadequate and there is the greatest possible difficulty in getting on Rs. 25 a competent man who can be entrusted to teach the A B C or the first book in reading in the infant class. Often the English pronunciation of teachers on these low salaries is horrible, and what the little boys learn in the way of bad grammar and bad pronunciation from these teachers takes a very long time to correct. There it is that the evil takes its root.

If practical the University should inspect schools as well as colleges.

WITNESS NO. 39.—MR. SARAT KUMAR MULLICK, M.D., St. Francis Hospital, London.

Witness presented a written statement (paper No. 29 in Part II) on which he was questioned.

The exclusive selection of members of the Indian Medical Service for the Professorships in the Medical College is not in the interest of the students.

The Indian Medical Service and the Medical College.

- (1) The limitation of the field may prevent the selection of the best men.
- (2) The Professors may not have acquired any special knowledge of the subject.
- (3) Not having received special scientific training, the Professors cannot impart such training to their pupils.

Witness does not wish to do any injustice to the Indian Medical Service. There should be an open competition to which members of that service should be admitted on the same terms as everyone else. There should be open competition as in Europe. At present no one knows anything about it until the appointment is made.

It is not possible for the Indian Medical Service officers to have the requisite special training, especially in these days of high specialisation.

The Medical College should be under the control of the Medical Faculty of the University which should make the appointments. At present the Medical Faculty is undermanned and not sufficiently representative.

Control of the Medical College.

Colonel Bomford has said that there is not enough room in the Medical College, and that it is therefore necessary to exclude some students. If the University is to be a Teaching University, it may recognise more than one Medical College. There are two medical institutions now in Calcutta—the Calcutta College of Physicians and Surgeons and the Calcutta Medical School which might be recognised after a rigid and proper test as regards teachers and appliances. The passed students of these institutions take up private practice. The diplomas of the institutions are a sort of certificate for the public.

Recognition of Medical Colleges.

This is rendered possible by the absence of any general registration in India. Such registration is absolutely necessary. The matter is now before the British Medical Association. The difficulty arises from the indigenous systems of medicine. The notion is to have a Medical Act, recognising all systems. The suggested Medical Act would exact from each of these systems a certain standard. Witness is not quite sure whether Homœopathy can be included in the scheme, as there is considerable conflict between the Homœopathic and Allopathic Schools of Medicine. They would have to come to a compromise. The system would involve a General Medical Council in India on the same system as in Great Britain. This General Medical Council would have the control of medical registration and would frame rules from time to time regulating the practice of medicine. If they proceeded to register practitioners belonging to the Ayurvedic and Yunani Schools, they would undoubtedly have some representatives of these schools on the Council. If the indigenous system were excluded, their practice would not be an offence. Even in England the system of registration does not exclude anybody from practice. The only privilege given by registration is the power to grant a death certificate. Unregistered practitioners can do what they like, except that their death certificates are not recognised.

General Registration.

The students of the Calcutta Medical College and of the Presidency College should attend the same classes in Physics and Chemistry for Medical students. Physics and Chemistry. If the classes become too large, they can be split up. There are classes now in Edinburgh and London of 200 or 300 each. That is simply for general exposition, and as

regards the practical part, where individual instruction comes in, the classes are split up into sections of 15 or 20. For the higher examinations, such as the B. Sc., there ought to be special classes. There is little difference between ordinary Chemistry and the Chemistry required for the M.B. or L.M. and S. Medical students would require a few special lectures on some portions of Organic Chemistry, and the ordinary students could also attend these lectures with advantage. The technical part of Medical Chemistry is taught later on in the Medical Classes.

Much injury is done to medical education in India by the various Professorships being mixed up. A Professor in Madras actually delivered lectures from a well-known text-book *verbatim*. This was not the fault of the Professor, because he was suddenly transformed to a special chair for which he had no special knowledge or experience.

Although research, properly speaking, cannot be taught, students should be prepared for conducting research. Preliminary knowledge can be imparted and the spirit roused. Every student should be taught to handle the microscope and prepare sections.

UNIVERSITY OF MADRAS.

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WITNESS No. 1.—The Hon'ble the Reverend W. MILLER, M.A., LL.D.,
D. D., C.I.E., Principal, Madras Christian College.

It is highly desirable that the tendency should be more and more towards making our Universities teaching bodies.
Teaching Universities. At the same time it is important not to forget how largely the several Universities, and perhaps especially that of Madras, are at the present moment teaching bodies, through the connection established by the affiliation of colleges. The University of Madras is not as much a teaching University as it ought to be, and as it might probably become, but it is an unfair statement to say that it is a mere examining body. At the same time it is very important to keep in mind the interests of mufassal colleges. Perhaps we have too many of them, but it is a most excellent thing that there should be centres of light and learning in various parts of Madras. Too much concentration is a thing to be deprecated, and it would be a great calamity if the whole five or six thousand undergraduates were concentrated in Madras. The goal of higher educational efforts in Southern India, to be attained in the distant future, should be the maintenance of a University not only in Madras, but also at Bangalore, at Trivandrum, at Hyderabad, and possibly some day at Tanjore.

At the present time the thing to be done is to concentrate the higher grades of teaching in Madras, for example, the teaching for the higher degrees, such as the M.A., and, if it is ever established, the M. Sc. It is a moot point whether even the teaching for the B.Sc. should not be taken up in its highest branches by the University rather than by individual colleges. Anything tending towards original research ought also to be concentrated in Madras. There ought to be a thoroughly good University library, the existing one is insufficient. Most of all there should be connected with the University laboratories of all kinds, physical, chemical, biological, etc.; in fact all the apparatus for the practical teaching of modern science in its highest branches. Such laboratories cannot be supplied in any individual college, unless it has practically unlimited funds, and even if the colleges could meet the necessary expense, it would be a criminal waste of money to set up a dozen where one ought to be sufficient. This does not apply to laboratories for the lower kinds of practical work. Students going in for higher degrees or for original research should probably be collected in a single college. They should not be combined with the Presidency College.

It is desirable to have teachers recognized by the University, but difficult to make an arrangement that will not clash with the affiliation system. The ideal to work up to is that every instructor in any of the colleges that make up the University should be fit to be a recognized University Professor. In London, what the system secures is that a man cannot be placed on the list of recognized teachers until he shows his qualifications. In the abstract this is a sound principle, but it would be difficult to apply it.

The creation of a defined sphere of influence and the placing of local limits on the right to affiliate colleges are matters which can only be carried out slowly. For instance, at the present moment, the Central Provinces and Burma must be allowed to affiliate themselves to some existing University. The day will come when both will have Universities of their own, and in Ceylon there are already good materials for constituting a University. Some Ceylon colleges have transferred themselves from Madras to Calcutta, the only one remaining will fall out under the rules as it is not sending up candidates. With regard to schools the matter is of greater importance.

Spheres of influence.
Size of the Senate:—The Senate is undoubtedly too large, and would be even if all its members were efficient. The difficulty of reducing numbers is great, but the maximum of the Senate should not exceed 120, unless it is to be made a merely consultative body. Fellowships should be terminable, and should be held only for five years.

The Senate.
Attendance:—Two consecutive absences without explanation should put a man off the list. If a man takes the trouble to explain that he was sick or had some other important engagement, he should be dealt with leniently.

Constitution of the Senate:—Should be left entirely to nomination by the Governor-in-Council and election by the graduates. In some Universities the Senate elects Fellows. That might be kept in view for the future, but at present with one exception the rule should be left as it exists in Madras. No bachelor may vote till 20 years after he has been a graduate. This is excessive and the period for all graduates should be not less than 10 or more than 15 years after taking the first degree. Votes should not be taken from those who now have them, but in future there ought to be a permanent rule that no man should vote until, say, 10 or 12 years after he has taken his first degree. Two Fellows may be elected by the graduates yearly; one every year by the Arts graduates, and one in rotation by the other faculties, Engineering, Law, and Medicine. Graduates should only vote for their own faculties. If the five years' rule is adopted, then the total number of elected Fellows will be automatically fixed at 10. It would not be advisable to complicate matters by laying down that the elected must bear a certain proportion to the nominated graduates. There has been much canvassing connected with the elections, but it is doubtful whether this can be avoided under any system. The votes are recorded under proper precautions and there are no complaints of dishonest voting. The elected Fellows of the Madras University compare very favourably with the nominated Fellows. Perhaps there are men who are not the best for our purposes in both lists, but there is at present no reason to say that the election has specially had that result. In the case of the Senate losing a valuable Fellow by rotation, the Governor-in-Council would no doubt re-appoint him. It may be desirable to allow the Syndicate either by rule or by custom to inform the Government that a certain Fellow is going out and that it is desirable that he should be re-appointed.

The Senate in Madras have acted upon the whole very wisely in the appointment of the Syndicate, and if all the Universities in India have been as well

The Syndicate.

advised, there is not perhaps any need for change. The only fault in the past has been a slight tendency to neglect the legitimate claims of colleges under private control. At the same time there is no guarantee that the Madras University will continue to appoint men who may be regarded as good representatives of education, and it is therefore perhaps desirable that the constitution of the Syndicate should be more defined than it is at present. And in other Universities there may be a greater practical need for regulation. If there is to be any definition, some use should be made of it to connect colleges more closely with the University through the Syndicate, though it is difficult to say exactly how this should be done. In this University there has been a very fair representation, as the Principals of the Presidency and other leading colleges have always been on the Syndicate. At Allahabad, representation has been secured by making the Syndicate far too large. It consists of 19 members. The Madras Syndicate has nine members and it ought not to be increased beyond 10 or 11. In order that the different interests may be represented a law might be made that the Senate should elect one or two Government servants, one or two representatives of aided colleges, and so on. The members should be all elected, not *ex-officio*.

It might be an advantage to lessen the size of the Faculties by abstaining from appointing every member to some Faculty, but it is not clear how some

Faculties and Boards of Studies.

Fellows could in practice be altogether left out. The only change required in the Madras rules regarding the Boards of Studies is that instead of being "empowered" to consult specialists, they should be "recommended" or "instructed" to do so.

A register of graduates should be compiled and kept up to date. A small fee should be charged for registration, say, Re. 1 per annum, which might be

Graduates.

compounded for Rs. 10 for life.

It is suggested that the small percentage of passes would seem to show that in some cases certificates are granted too easily by the colleges. In all probability certificates are granted too easily, but this is not the case to anything like the extent to which the percentage of failures in this University might lead one to suppose. There are many things which lead to failures in examinations at Madras. For instance students have a bad habit of studying so hard for the last fortnight as to make themselves absolutely silly

Students of the University.

and stupid. They sit up by night and go to the examination physically incompetent to answer the papers. Again if students after looking at an examination paper think it is too difficult they get disheartened and hundreds may leave the examination hall who might have answered the paper if they had honestly tried to do so. It is also necessary to take into account that after all the efforts the Senate have made to secure good examinations, there is still much uncertainty about the results and practically the college that gives the certificate does not know what the real standard is. In one year it is practically much higher than in another, and the natural result is that colleges become more liberal than they ought theoretically to be in giving certificates.

Although capable of improvement there is, speaking roughly, little to be said against the courses and standards of the Madras University. What hampers education is that a boy comes up from school very poorly trained and without having acquired the proper habit of study. This is not specially the case with regard to English, the knowledge of English for understanding and conversing is fairly sufficient. It is the general training that is at fault. The defect is largely to be ascribed to the premature pressure of public examinations, which have been ruining education for many years in Southern India. Against the advice of the Education Commission, and against the instructions of the Government of India, public examinations have been maintained for boys of about 12 or 13. Special blame attaches to the secondary examination which, though not theoretically compulsory, has in practice become so. This is partly due to the evil influence of foolish parents who think that passing is the one thing needful for their boys. Teachers yield to this pressure and the consequence is that instead of boys being educated and trained to think in the schools, they are merely prepared to pass examinations. They come up to the colleges with a wrong attitude of mind, and if that ever gets corrected it takes a long time. If the lower secondary examination were abolished, it would make it possible to have boys really trained, and if they came up to college from the schools with properly trained minds they would be competent to profit fully by our University system as it stands, and the whole University education would be 50 per cent. the better. The evil is not one with which the University can deal directly.

It has been suggested that without departing from our principles of toleration and respect for all the great religious systems in India, we may make provision for a school of Theology, to promote the comparative study of religion. It is highly desirable that there should be such a school and in a complete University it must have its place. But the time has not yet come, and it would be most inopportune to do anything of the sort for many years.

The greatest practical difficulty in our Universities is how to get good examinations. The Syndicate has tried very hard for many years past to get good examinations, and its efforts have been attended with a very large measure of success, so far as the degree examinations are concerned, with a smaller measure for the First Arts Examination, and with still less for the Matriculation Examination. The failure is largely to be accounted for by the large numbers to be dealt with, by the untrained minds of the candidates and by such other external causes as have been referred to above. It must also be admitted that in spite of all efforts the standard varies too much. This is the case even in the degree examination, in which a respectable measure of success has been obtained, it is more so in the B.A. Examination and still more so in the Matriculation Examination. There are too many unexplainable failures, and, though not so many, a large number of unexplainable passes. The defect is often spoken of with exaggeration, but there is a real foundation for the complaint. The Commission could hardly confer a greater benefit on education in its practical side than if it would devise a wise and good system of moderation. Moderation has been very slightly used in Madras. It is a very difficult and dangerous subject and very susceptible of abuse. It may result in too great leniency and in corrupt leniency. The little that has been done in Madras has been due to the efforts of the witness; the majority of the Syndicate having a greater belief in the infallibility of examiners. The efforts of the witness would have been more pushing and perhaps more successful, if it had not been for his lively sense of the dangers of the

system. Nevertheless some wise system is one of the greatest desiderata in the practical carrying out of University examinations.

In Madras a rule was passed many years ago under which a student may fail to a certain extent in one subject out of three, provided he has done well in others. There are Boards of Examiners for English, Physics, History, Chemistry, etc. They are entitled and expected to look over the marks and compare the results, and to make the marks as fair as they possibly can. Some years ago the witness tried, though unsuccessfully, to carry out a further scheme by which the Chairman of each Board should examine the marks as a whole.

The personal equation of examiners is a main cause in the variation of the standard from year to year. Some have a higher, others a lower standard. There is a tendency for the several Boards to try and get a uniform percentage of passes out of each examiner, but there has not been any attempt at getting a uniform percentage in different centres.

These defects form a strong argument for the abolition of the Matriculation Examination, the main difficulty of which lies in its unwieldy size. It would not be advisable to allow colleges a free hand in matriculating their own pupils. The granting of a school-leaving certificate, which the University might accept with or without a supplementary examination, is the direction in which the cure might be applied. The University would then charge a fee for matriculation. The school-leaving examinations might be held in different centres under the superintendence of the Inspectors of Schools.

The rules of affiliation in Madras are on the whole good and sufficient.

Affiliated Colleges: Fees.

Since 1877, when affiliation first became a reality, the University has done much good and it is on the way to do more. There is, however, one important defect in the rules. They do not provide for the fees to be charged in colleges. The consequence is that for some years past there has been an amount of under-selling going on between the colleges which has done a great deal to demoralise students and to damage education. All colleges should not of course charge the same fees, the stronger colleges should be able to and ought to charge a higher fee than the weaker ones. In 1877 and for many years afterwards, all that was necessary in this direction was done by mutual arrangements which were established and confirmed by the authority of Government, so that the University did not need to interfere. But this has not been the case for the last 10 years. The result has been disastrous, and unless some means are found to make co-operation in this matter between colleges real and effectual both students and colleges will be entirely spoiled. A minimum fee should be prescribed beyond which each college should go as far as possible. It is the case that colleges try to attract the best students from one another by means of scholarships, etc. The University is probably the best authority to see that there is some proper arrangement about the fees charged.

It must be admitted that our machinery for testing whether the affiliation

Supervision.

rules of the University are properly carried out is not in complete working order. Nevertheless the Madras University is steadily on its way to make affiliation what it ought to be, except on this one point of fees. Under the rules of affiliation, the University has the power and the right to find out by means of inspection by its representatives whether the different colleges affiliated to it are fulfilling the conditions under which they were affiliated. The means of carrying out this rule are still somewhat imperfect; but the theory is right and it may be hoped that the practice will also become right. The University requires that colleges should provide places for their students to live in. The rule is new and has not yet been enforced, but the power to do so exists, and it is to be hoped the practice will follow. It is most desirable to have some means of collecting information on this point, but how to do so is another question. There is no reason to believe that any scandalous cases have occurred, and the condition of the Madras colleges does not call for any stringent measures. It is desirable that the Syndicate should have Inspectors who should make investigations which might be periodical. It might be made a condition of affiliation that colleges should be subject to periodical inspection.

The principle is certainly right, but in the Madras Presidency it cannot

Inter-collegiate Lectures.

for physical reasons be largely carried out. The colleges are too far apart. It should

be encouraged for the higher classes where the number of students is not very great and where the colleges are near together.

The main defects have been mentioned above. The rules for recognizing schools are deficient inasmuch as provision is not made for fees. Unfair competition and the rush to pass are making the boys more and more masters of the situation. The witness presented a printed note containing his views regarding schools generally.

Schools.

It is not desirable that the higher examinations should be held twice a year. The subjects are already divided into groups. Theoretically a perfectly hopeless candidate ought not to go up again on the following year; practically it would be difficult to judge; he might be unwell. It cannot be said that the proficiency and mental capacity of a student who passes an examination by instalments, that is, one subject in one year and another in another year, and so on, is less than that of a candidate who is able to pass in all three subjects in one examination. Very often the most sensible students deliberately say they will study two out of the three subjects one year, and that next year, they will take up the third subject. The system has done much good among the Madras students. There is no great danger that a student who takes up his third subject in the second will have forgotten the other two subjects when he goes up for examination. What most commonly happens is that he passes in English the first year, and as English is used every day he is not likely to forget it.

There are many reasons for the option allowed to students of taking a vernacular instead of a classical language for the B.A. degree. The subject

Conduct of Examinations.

Classical and Vernacular Languages. has been very largely discussed. One reason is that many persons in southern India would not admit that Tamil is not a classical language, and the same applies to a lesser extent to Telugu. The same cannot of course be said of the vernaculars of other provinces which may also be taken up, but the point is not important. Sanskrit has a special claim for North Indian students, but it does not follow that it has quite the same claim on students of the South. It certainly has a claim even in southern India to be acknowledged as being an important medium of education, and it is so acknowledged and is very largely and increasingly studied. English, however, is the classical language for all Indian Universities, and it takes the place of Greek and Latin in England

Classical and Vernacular Languages.

WITNESS NO. 2.—MR. S. SATTIANADHAN, M.A., LL.M., F.S.S., Professor of Mental and Moral Science, Presidency College, Madras.

Witness presented a written statement on which he was examined.

It is very desirable to have two courses—the Honours course and the ordinary course. The Honours course should be differentiated from the Pass course not

Honours and Pass Course.

supplementary to it. The A. and B. courses of the Calcutta University do not go far enough in the direction of specialization. Honours students should begin to specialize after the F.A. Examination and should confine themselves to one subject of which they should gain a deep knowledge. This would be similar to the arrangement which obtains at Oxford and Cambridge. A student for the B.A. course has at present to take up English and a second language, and one of a group of sciences. If an Honours Course were introduced the Pass students would take up the same subjects as at present but the examination in Science would be less comprehensive. The Honours student would confine himself to his own subject and the examination in it would be more comprehensive and more difficult. At present the standard in Moral Science is higher than that of the Pass course for the B.A. of the London University, and very much higher than that for the ordinary degree of the Cambridge University. The standard is fixed by a syllabus; there are no prescribed text books. It is too difficult for the average candidate and not wide enough for the advanced student. With the present high pass standard students do not get sufficient time to assimilate what they learn. The effect of lowering it would not necessarily be to increase the number of graduates; the examination would be made more searching though less comprehensive. The F.A. course would give sufficient general culture to the Honours student.

Mental and Moral Science is not so popular as it used to be, because it is not considered paying for after life. Those students who do take up **Mental and Moral Science** acquire a great liking for it; and the Presidency College has turned out some very good students. It is not because of the syllabus system that the subject is unpopular, for that system obtains in other branches. There is no demand for teachers in **Mental and Moral Science** in schools, whereas for **Mathematics and Science or English**, there is a demand. History is now becoming a very popular subject. (It was pointed out that last year **Philosophy** took the second place with 195 graduates. This year the number fell to 170.)

This should be abolished and a school leaving certificate might be accepted as a test for those entering on a collegiate career. Failing this test the colleges might decide for themselves.

The **Madras University** has been illiberal in accepting the certificates of other Universities, e.g., the **Oxford and Cambridge Local Examinations**.

A long vacation should be instituted on the lines of that at **Oxford and Cambridge**. Students would not idle away their time during it. They could not afford to do so.

It is not necessary to exclude altogether the non-educational element, but only those who take little or no interest in the **University**, and do not attend meetings regularly. There is a feeling that the **Senate** is too large and has very little to do with the actual working of the **University**, and that most of the work falls on the **Syndicate**. Power in the **Senate** is thus centralized too much. The **Syndicate** might be enlarged or, better, **Committees** might be formed which would advise, but would not have executive power.

Rules regarding the residence of students in college hostels have been in existence for the last three years; they have not yet been enforced, but a number of hostels have been started and a good deal has been done. A visiting officer might be appointed who would inspect affiliated colleges for the purpose of seeing that they fulfilled the conditions of affiliation.

University lectures should be given in the higher branches of study. The lectures should be given in **Madras**, and to those students who have taken a degree. It would injure the **University** for the **Government** to have their own examinations. The **B.A.** should be the general test, and if necessary the **Government** could have supplementary examinations.

The organization of a scheme of **University extension lectures** would have the effect of keeping the **University** in touch with the masses. Such lectures in the vernacular in large centres would become popular in course of time. Some of the graduates could be utilized for this purpose, and the different colleges made lecturing centres. Voluntary lectures of this nature are held in some places by graduates, but it is not done on any systematic basis. The lectures might be on **Science**, vernacular literature and **History**.

A register of graduates should be kept and a small fee levied from every graduate for being allowed to vote.

In large colleges much of the **F.A.** work is in the hands of the assistant teachers. **F.A.** instruction should be more tutorial in character than the lecture work of the **B.A.** classes.

Note.—On the following day **Dr. Bourne** referred to a remark made by **Professor Sathianathan** that he was not aware that the **Syndicate** had taken any action in regard to the bye-law relating to hostels, and that this was an instance of the way in which the **Senate** is kept in the dark. **Dr. Bourne** said that the **Syndicate's** action was brought to the notice of the **Senate** in the annual report of the **Syndicate**.

WITNESS No. 3.—The REVEREND FATHER J. D. W. SEWELL, S.J., Manager,
St. Joseph's College, Trichinopoly.

As far as possible every University should be a teaching University, but

Teaching University.

in the case of Madras there are insuperable difficulties in the way of making such a change. A number of widely scattered colleges have been affiliated to the Madras University. It seems impossible to bring them together and without doing so it will be difficult to have a teaching University. These colleges have been started and maintained at considerable expense to the societies and persons who have instituted them, and it would be impossible to ask for their removal to Madras or to any other centre. It would be, however, possible to begin with the M.A. degree examination in Madras. It would be necessary to have a University college for the courses in the M.A., or some existing college such as the Presidency College might be used for the purpose.

The University should take a direct control over teaching by having a list of

Recognized Teachers.

recognized teachers. This indeed exists already, for a college before its affiliation has to submit a list of teachers to be approved by the University. These teachers could not very well be changed without the fact coming to the notice of the University. No annual return of the lectures and teachers is now made to the University; it was proposed, but it was considered that there was already sufficient supervision exercised by the University. There would be no difficulty in requiring that teachers should be individually recognized before they are allowed to teach in colleges. Some control might be assumed, as at present there is no check on colleges except the threat of disaffiliation.

The Senate is a very unwieldy body and needs to be reformed. The

The Senate.

appointment of Fellows has been chiefly by nomination, and members have been nominated on account of some special distinction, or because the Government wished to reward them for services to the State. They have not been appointed on account of educational qualifications or for any educational benefit the Senate would derive from them. This has been a mistake. The Senate should consist of persons who are either directly or indirectly concerned in the welfare of the University. The Senate should elect some of the Fellows itself; the election by graduates, as it is conducted at present, is a very unsatisfactory method. A number of persons are nominated by members of the Senate and their names submitted to graduates, who in most cases are not acquainted with the merits of the persons they elect, and chiefly go by what they are told, and thus a good deal of canvassing goes on. It might be a good arrangement if the Fellows were elected by graduates in Faculties; it would give the Faculties something to do: they have very little to do at present and are hardly ever consulted in any matter.

In regard to the constitution of the Syndicate, bye-law 91 of the University

The Syndicate.

calendar restricts the election of members to persons resident in Madras. That may have been necessary when the law was made, but the time has come when election can be extended to Fellows resident, say, within 12 hours' railway journey from Madras. That would not only bring Fellows belonging to the Trichinopoly College within the rule, but also Tanjore, Bangalore, etc., or, in other words, the first grade colleges. No difficulty in matters of urgency need be apprehended, for urgent business might be settled by telegram.

The number of members of the Syndicate might be increased a little, but not very much. Nineteen members would be too much.

An age limit does not appear to be necessary at present. There are not

Age limit.

many students, who present themselves for examination under 16. There are a few cases of boys of 12, and these are too young. A clever boy might appear at the age of 15. It might in some cases be a hardship if the limit of age were fixed at 16, especially in the case of poor students. Even in the case of rich ones it would be considered so, for many people wish to send their sons to England, and therefore like to get them through the Madras University as soon as possible. It does sometimes happen that a boy who passes his Entrance Examination at a very young age deteriorates afterwards. Boys who are very

brilliant in school deteriorate when they come to college. This is due to cramming; they have too many subjects to get up, and study becomes a matter of mere memory.

The programme of studies should be simplified, the examination made more searching, and students required to possess a greater knowledge of English. **Matriculation Examination.** In the majority of cases they have not a sufficient knowledge of English to profit by the instruction given them, and they are never able to make up for it. A remedy would be to make the English test for the Entrance examination more simple and more varied than it is now. It should not be so much of a technical examination as it is at present, but rather a test to see what the students can do in the way of composition. It would be very difficult indeed, to have a *viva voce* examination for the Entrance, so long as the numbers of the candidates are as large as they are at present. It is also, for the same reason, very difficult to have a uniform standard. It would be a good thing to institute a school-leaving certificate for those who are going in for a University career, as it would prove that they were prepared to receive higher instruction. English and a second classical language and a knowledge of elementary mathematics should suffice for the Entrance Examination. The enormous size of the Matriculation Examination should, if possible, be very much reduced. The Government have made this examination the test for entrance into the public service. It would be a good solution of the difficulty if each college were to hold a Matriculation examination for itself, and students called upon to pay a fee to the University in order to be enrolled. The syllabus system rather than that of prescribed text books should be applied to English, and might be extended to other subjects. Students learn up their notes entirely by memory. The examination should be made to appeal more to the understanding than to the memory. If 60 per cent. of the marks in any examination paper were assigned to book work it would be a direct incentive to cram. This would certainly apply to Euclid which boys sometimes learn by heart.

The First Arts course as at present constituted is to a certain extent of the nature of school rather than college work, **University Courses.** but this is not altogether the case. A good deal of the time in the F.A. course is spent by students in learning to understand English. Nothing would be gained by adding a year to the time for Matriculation.

The range of subjects might be enlarged in the First Arts course. There should be optional subjects such as Mathematics. As regards the B.A. course the option is large enough already, though it is not desirable to reduce the number of subjects. Honours men might take one subject only in the B.A. examination. Their culture would be broad enough if they were properly instructed. In Physical Science allied subjects such as Mathematics must be studied. It sometimes happens that students do not know what optional subject they would like to take up, and they frequently change from one to another. The object before students is not culture, but merely to pass so as to get into Government employ. The system of cramming in Madras commences from the very beginning—from the time a student learns his A, B, C. One cause of this is that too much detailed knowledge is expected of students and too many subjects are prescribed. Students have not time to learn and have to commit everything to memory.

There is no inspection by the University of affiliated colleges. The **Affiliated Colleges.** Director of Public Instruction occasionally visits first grade colleges, but such visits are by no means of the nature of an inspection. The St. Joseph's College has been inspected about twice in twenty years. The inspecting officer walked through the college. A regular inspection of colleges is not necessary. There is a college report sent in every year to the Director, but it is not checked except by the results of examinations. There should always be a large number of students in any one institution undergoing collegiate education for such education to be productive of real good. What are called colleges in India are often only high schools with one or two extra classes added. It is not necessary to have 15 first and 40 second grade colleges, but in the Presidency of Madras as they have been started and have sufficient students, they should be allowed to continue.

The statement that colleges undersell one another, has not been proved. It used to occur to a considerable extent

Fees.

when there was a rule regarding the levy of minimum fees. It used to be the custom for a student to join a college and when he found that he could get cheaper education elsewhere to leave it. The system of fixed minimum fees to be levied on students has never been tried in any Province of India except Madras, where it was tried for 20 years and proved a failure.

There are two hostels belonging to the St. Joseph's College, and a boarding house which has been in existence for some years. Attached to the boarding

Hostels.

house are two feeding establishments which are kept by Brahmins, who, though not in the pay of the college, are allowed the privilege on condition that they feed the college students at certain rates. There are three other hostels in the town, to which students can go, and they can change from one to another. Those that are attached to the boarding house are under the supervision of the college authorities, that is to say, the college undertakes to see that the students do not defraud the hotel-keepers. Some students live in the compound of the hostel and have rooms rented from the college and they are under some slight disciplinary control. There are certain simple rules which the students have to observe. These hostels are confined to college students in so far as residence is concerned, but outsiders may eat there. All the college students are bound to let the Principal know where they live, and if they have friends in the town there is no objection to their living with them, but if they have none the Principal can exercise a veto as to the house the students live in.

In regard to physical exercise and recreation, students have to attend a course of gymnastic exercises weekly, and there is also football and cricket. The

Physical and Moral Welfare.

college authorities labour under great difficulties in regard to out-door exercises, for there are no *maidans* except at a distance of two miles from the college. Control over the moral conduct of those students who live on the college premises or in hostels is exercised, and the college has a Prefect of Discipline who looks after them. There is also a doctor who attends the students, and an infirmary for those who are slightly ill. The non-Christians however usually go to the station hospital, which is not far off. In regard to vaccination, no student can be admitted to a college unless he has been previously vaccinated. This is a Government order. The eyesight of students is not affected so much by excess of study, as by reading at night with a bad light.

The college does not hold test examinations before sending students up for examination, but there are monthly examinations very much on the lines of the

College Tests.

University examinations. It does sometimes happen that when a student is stopped from going up for an examination, especially for the Matriculation, that he goes up privately by applying for and obtaining an exemption certificate. The fact of his having been refused permission to appear by a college is not known to the authorities who grant the certificate in question. No student of the college could go up for the F.A. Examination, if the Principal of the college refused him permission, unless the University consented to this course.

The proposal to make provision for a school of Theology to promote the comparative study of religion, is premature.

Theology.

The use of cribs, keys, and abstracts of text-books is far more common than is wholesome. It is probably the case that sometimes students never look at

Cramming.

their text-books, but do all their work out of eribs. One way to counteract this tendency would be to abolish the use of text-books. In the case of history the use of books of abstracts, etc., is more pardonable. There are many dates and names which must be learnt by heart. If examiners were to put questions more searchingly than they do at present, it might check the evil. The method of asking questions might to a certain extent be altered so as to make them less technical and more easy to answer. Model essay books are used in this Presidency.

It is very difficult to answer the question whether there is a code of honour amongst the students in the St. Joseph's college such as exists in an English school.

Public opinion among students.

There is probably such a code to a certain extent. When a student is found to have done something mean or low, he is not boycotted or looked down upon by the other students. This is due partly to the fact that students are not sufficiently acquainted with one another to know each other's shortcomings, and partly it is because they do not seem to think that any such action is required of them.

WITNESS No. 4.—MR. A. CHATTERTON, B.Sc., A.C.L., M.I.C.E., M.I.M.E.,
Professor of Engineering, College of Engineering, Madras.

In Madras for many years past there has existed an Association of the colleges attached to the University for the promotion of athletics. It is now

Physical Exercise.

known as the Madras Athletic Association, and it grew out of an association formed for the promotion of gymnastics. The Association has done much to bring students of different colleges together, and as regards the promotion of athletics it has been very successful, in fact so much so that some persons have said that too much time is being given to cricket and football, and other forms of athletics.

In certain cases the combined lecture system might be introduced with great advantage. The Engineering and the Presidency Colleges are situated

Inter-Collegiate Lectures..

within 200 yards of each other, and it would be an advantage if students of the Engineering College in Physics and Chemistry went to laboratories and attended lectures in the Presidency College. It would relieve the staff of a large amount of work, and the students would get better instruction in the Presidency College where there are specially qualified men to teach them. In the Engineering College the Professors are Engineers and not specialists in Physical Science. Arrangements of a similar kind should be introduced wherever practicable.

In some classes of the Engineering College the Matriculation is the Age limit and the Matriculation Examination. Entrance test, in others the F.A., and in others the B.A. Examination. The

majority of the students who have only passed the Matriculation have not a sufficient knowledge of English to profit by the lectures in the college. It would be a help if there were an age limit, and 16 years would be the best to adopt. It might seem to be a hardship in some cases, but in the long run it would be advantageous to very precocious boys to keep them back. As regards Matriculation subjects, Physics and Chemistry might be omitted as the work the boys do in those sciences is useless. It is very desirable to encourage the study of more English, and every student before he matriculates should show that he has read a number of English books suitable to his age. There is the difficulty of the use of cribs, but masters of schools could ascertain whether the boys had really read the books. The abolition of Physics and Chemistry would give more time for the study of English literature. Some B. A.'s cannot write a dozen lines of English correctly. As regards understanding, Madras boys are better than those who come from the mufassal.

It is not desirable that a classical language should form part of the Matriculation course or at any rate that it should be made compulsory. It is better that the student should take up his own language. A classical language will interfere with the study of English.

The less the University has to do with the education of students who do not intend to enter upon a University course the better. They should be under departmental control. I should approve of school-leaving certificates, but by public examination.

There should, as at present, be an interval of two years between the Matriculation and the F.A. Examination.

F.A. Examination.

The F.A. should be made simpler by cutting out the Physiology and Physiography, and the examination should be made more difficult in the subjects left, so that it should be final for all

students who take up special lines of work in engineering, medicine, arts, or science. It should not be necessary to pass the final examination in arts before entering for the B.E. or B.L. Examination. The F.A. Examination should test a sound general knowledge in, say, English, Mathematics and the vernacular language. For those who have no aptitude for Mathematics, a classical language or Logic might be substituted. The study of history should be made more thorough than it is at present.

With regard to the B.A. Examination, the institution of an Honours course would lead to the deterioration of the standard for the Pass degree. It would be better to raise the standard of the Pass examination, and allow students, if they wish, to take the M. A. as the Honours course. The number of marks required to pass is far too low, although it is higher in Madras than in any other part of India. The questions, on the other hand, are too difficult, and it would be an improvement to have simpler examination papers and a higher percentage of Pass marks. The percentage might be fixed at 50. If this were done, one would hear much less about cramming and the large percentage of failures. The system of marking each separate question is unsound, but it is a question whether it is possible to have any other. It is not desirable to print the value of each question on the examination paper. This is not done in the Madras University. There are comparatively few students for the Engineering degree, and in examining the witness generally reads each paper through first and comes to the conclusion what marks should be given to each candidate and then goes through the papers again and awards the marks. The nature of the questions set in English, Mathematics and History, is one of the causes of cramming. The mathematical papers are much better. In the other subjects there is a great deal too much of the "catch" question. The English papers should be made up of questions which a well-educated Englishman could answer.

It is desirable that there should be a common standard for professional degrees all over India. This is certainly the case for Engineering, and medical men would probably say the same for Medicine. In the case of Engineers there is a big and powerful Association in England known as the Institution of Civil Engineers, and a man practically has no status in his profession unless he is a member of that Association. For the last 10 or 15 years they have been taking steps to secure that a person, who calls himself a professional Civil Engineer, shall be a man of certain attainments and qualifications. The Association accepts the Indian degrees as a qualification for membership, and it is, therefore, desirable that the standard should be uniform. At the present time the standards are not the same and the courses are very different. In Madras practically no physical or chemical Science is required, whereas it is required in Bombay and Calcutta. The omission in Madras is a grave defect in the course. It would be desirable to have one examination for the whole of India conducted by a joint Board of the different Universities. The examinations would be held at local centres at the same time, and local examiners would be appointed for the practical work.

The present system of making Government appointments does not sufficiently provide for utilising special knowledge. In Madras no student will take up the study of any special branch, unless he thinks it is going to lead to some definite pecuniary result, and except for those who are going in for Law, there is practically no encouragement for the higher branches of study. Probably the greater number of M.A. students simply go up for the course because they get a scholarship, and prefer to study rather than to stay two years in a subordinate appointment in a Collector's office. The fact of having taken an M.A. degree may help them to some extent to get appointments, but the special advantages from this point of view are not great enough. Again, no encouragement is given to students to go in for post-graduate work.

A B.A. who goes through the Engineering College gets a certain amount of special knowledge, which would make him a better officer in many directions; but he gains no special advantage from it. He will not be able to get into the Revenue service with better prospects than a boy who has not got that knowledge, nor will he get into that service in a higher grade. This applies probably still more to the purely science man. The Government should

offer special inducements to men who have gone in for a thorough study of any particular branch of science in the way of ordinary district appointments. A sprinkling of such men in the districts would be of great advantage.

Subsequent career of Engineering Students. The work of the college is practically confined to providing men for—

- (a) the Public Workss Departments of Madras, Mysore, Hyderabad and Travancore, and to some extent of Burma, and
- (b) Municipal and otther local bodies.

Very few passed students obtain private employment in mills, mines, etc. There is not much opening for them in the Madras Presidency, and such engineers and foremen as are needed are obtained almost exclusively from England.

The number of students is about 40 in the higher, and about 90 in the subordinate classes. The college is merely a place of professional training. A certain number of the students live in the Victoria Hostel close by, but the great majority are married men living with their wives and children.

Five students out of six failed at the last examination; there were extraordinary causes which produced this bad result.

The Engineering College does not teach the whole of the University B.E. course, and students are obliged to study part of it for themselves or they neglect it and hope to pass without it.

It is very desirable that there should be a Science Degree and Faculty of Science. In that case Science should be cut out from the ordinary Arts Course.

The Science Course should include Physical Science, Natural Science and Mathematics. Mathematics would also be a branch of the Arts Course and would form a link between the two.

For a very long time there has been a good deal of opposition to the institution of a Science degree on account of the fact that a great many people interested in teaching have not the means or appliances to produce Science graduates.

Funds permitting, it is desirable that the University should take up the teaching for the B. Sc. as a special part of its own work as a teaching body. In the event of such Science degrees being instituted, it will be essential that students should pass in the practical as well as the theoretical part of the examination. In fact the practical test is the more important. There is likely to be some opposition to this principle.

WITNESS No. 5.—MR. C. NAGOJI RAO, B.A., RAI BAHADUR, Inspector of Schocols, Southern Circle, Madras.

Much change is not required in the Madras Presidency. The Senate is not too large considering that the usual attendance is about 30 or 40. A certain number of gentlemen accept Fellowships without any intention of attending the meetings. But there does not appear to be any harm in keeping their names on the list. A few more members might be added to the Syndicate but nine is not too small a number.

There is a good deal of laxity in granting certificates. Numbers of school-masters grant certificates to boys declaring them to be fit, whereas many are not fit to go up for the examinations. Some of the masters are too weak to say "no". Many schools and colleges depend so much on fees that they cannot afford to be too strict. It is rather difficult to suggest any remedy. It would not be desirable to allow colleges to examine their own applicants.

The English test is not insufficient. The want of knowledge of English is due to the fact that there is no text-book prescribed for the examination. The pupils cram up grammar and read no prose or poetry. The Education Department requires a certain amount of prose and poetry to be read, but if 100 pages is the quantity prescribed, the students read say 20 pages and even those 20 pages are not carefully studied. Inspectors point this out but often no notice is taken. Unless the work is specially unsatisfactory, the grant is not refused

or stopped. Even if the teachers did teach English properly the students would not study as there is no text-book in which they have to pass. If the boys were to read 100 pages of English in each class, that combined with conversation and reading would give them a good knowledge of English. At present both boys and teachers are indifferent. The teachers have not got a very high sense of duty. Witness has been urging the reintroduction of a text-book as a remedy for the evil. In the Senate every one voted for it, but the Government disallowed it. The objection to a text-book is that somebody will publish notes which the boys will cram. The difficulty is not insuperable. Where there is one examination for all High Schools there should be only one text-book.

In the Matriculation Examination, in addition to the existing subjects there should be a classical language. The student would then have to take up his own vernacular, English and a classical language. In the F.A. Examination all the subjects should be retained, but Physiology should not be optional with Physiography. There should also be a third language in the F.A. course. The whole course for the B.A. should be altered and there should be no specialization. Men who have studied only one subject know almost nothing of others, and are generally failures as teachers. Men who passed under the old B.A. rules in a larger number of subjects are much better and have more general knowledge than the graduates of the present day in spite of the highly specialized course they go through. The B.A. Examination should include Mathematics, a certain amount of History and a little general Science. The study of languages is not the difficult thing that people suppose. Witness has lately been making experiments and has taught little children to speak English better than F.A.'s and graduates in about six months. Just now he is carrying on an experiment in teaching two little children to speak Sanskrit. They have learnt with objects and do not use text-books. It would not be desirable to make the conditions of passing examinations easier than now by reducing the minimum.

It is open to an Inspector to see that the conditions under which colleges are aided are fulfilled, but not whether the University rules are obeyed. He might be asked to do so as a Fellow. The rules regarding hostels, etc., were not passed long ago. [It was pointed out that the time was 3 to 4 years ago.] The Inspector has to inspect second-grade colleges and has to ascertain whether the registers are kept up, because that is a departmental rule. In visiting second-grade colleges witness has not come across serious infringements of the grant-in-aid rules.

Library.

The University ought to have a good library; it has not at present.

WITNESS NO. 6.—MR. G. SUBRAMANIA AIYAR, B.A., Editor, *Madras Standard*.

The time has come for making the University a teaching body. The existing system has worked very well and produced excellent results, but it does not go far enough. The present system gives a class of people from which the public services and other professions are recruited, these should be supplemented by another class who will supply thinkers and writers. There is the difficulty that students in mufassal colleges cannot be expected to come up to Madras, but that difficulty might be solved if arrangements were made for lectures to be delivered in the University after the students have passed the B.A., when they might be required to study in an institution in Madras. The problem of finance is important. The end may be kept in view and when Government can spare the funds teaching Universities may be established in this country, imparting instruction in Science and Arts in the same way as in Germany and America. If it were possible that Government should withdraw altogether from the ordinary colleges and give them over to private agencies and concentrate all their finances on institutions of this kind, it would be an excellent thing; but it is not possible for any private agencies to take the place of Government. It would not be desirable to convert the Presidency College into an institution

where instruction for a post-graduate course might be imparted. The existence of the Presidency College maintained by Government serves as a model for other Colleges. The Government should establish another college on the lines of the Presidency College only maintained on a higher basis to serve the purpose of a teaching University. This College should be placed under the University. The Government may continue to maintain colleges in districts as models. The professors employed by the University should be men of the highest attainments procurable, the subjects upon which they lecture should be specified and students preparing for higher and special degrees should be compelled to attend a certain number of these lectures.

Teachers should be recognised by the University which ought to exercise some control in the choice of persons to teach particular subjects. This could not be considered as the exercise of undue interference.

Recognition of Teachers.

The present system is faulty. The power of Government to appoint

The Senate.

Fellows should be put an end to, and Fellows should be elected partly by the Senate itself and partly by the graduates. At present the graduates elect one or two Fellows each year. The Fellows selected by the graduates are at all events no worse than those appointed by Government. Still some system which would give better results might be devised. Steps should be taken to diminish the number of Fellows. This could be done by stopping all fresh appointments for some time, but the number of Fellows is so enormous that it would take a generation to bring the number down to the desired limit. Although a drastic step, it would be well to declare that after five years the present Fellows should vacate their appointments and that fresh nominations should be made by the Government to start with, and all subsequent nominations by the Senate and graduates. The Government should declare some persons to be *ex-officio* Fellows, as for instance the Director of Public Instruction, the Members of Council, the Principals of the Presidency and one or two other colleges and any other persons having special claims. The total number of Fellows should not exceed, say, 70 or 75, including 20 *ex-officio* members.

The members of the Syndicate should be nominated by the Senate and the

The Syndicate.

Syndicate should be merely an executive committee all of whose actions should be subject to the confirmation of the Senate. In certain circumstances the Syndicate might be given power to act on its own authority, its action being reported to the Senate. The Syndicate does now submit a report to the Senate, but not till a long time after the event, when the matter has lost all interest.

Certificates are not granted too easily by head masters of schools. The

Matriculation Examination.

present Entrance Examination as an examination for the whole University might be done away with and each college might examine for itself students seeking admission into it. This would be a better plan than a school-leaving certificate granted after examination by the Education Department. The Department has too much to do already to enable it to undertake this task. After entrance the candidate will follow a course of four years' study, and will then go up for the degree examination. There should only be one examination to be held at the end of four years. The same rule should apply to professional colleges. It must be left to the Principals of the colleges to maintain a standard which is neither too low nor too high.

It is not desirable that candidates should take up a third language. In this country a boy starts studying at the age of 5 or 6, and does not complete his education till he is 22 or 23. Taking the average Indian life to be 40 or 45 years, he already spends half his life in education, and no project which will add to the length of education or the strain on the nerves and vitality of the student ought to be encouraged. In the lower classes the system of instruction is so unreasonable that in some instances young children practically break down under the strain of education and examination.

Too much in the way of details and technicalities is required of boys in the lower classes, *e.g.*, in the teaching of Grammar and Geometry. If instruction in the lower classes were given more through the medium of the vernacular a good deal more knowledge might be acquired. Boys of 9 or 10 should be

relieved from the strain of learning definitions in Grammar and Geometry, and their time might be devoted to more easy and agreeable subjects, such as Hygiene, etc. The study of English should be taken up in schools as soon as the student is able to cope with it, say about his tenth year. English should not be used as a medium of instruction until a boy reaches the fourth form, *i.e.*, when he is about 13 or 14 years old. Before the age of 10 boys should get a good grounding in their vernacular. It is not desirable to impose an age limit because the course of education should not be prolonged. The languages should be English and the vernacular, and possibly candidates might be allowed to substitute a classical language for the latter. In English the aim should be confined to pronunciation and facility in conversation. The vernacular should be retained up to the B.A. and made a special subject in the M.A. course.

The study of Theology should not be introduced. It will do no good in a country like India where it would not be possible to place in the hands of the boys and teachers a text-book which will reconcile and be acceptable to conflicting sentiments.

Colleges are in general too far apart for combined lectures. The system of Inter-Collegiate lectures and concentration of Colleges might be introduced in the city of Madras. It would be well to aim at concentrating first-grade colleges and of eventually abolishing second-grade colleges in the mufassal in order to encourage corporate collegiate life.

WITNESS No. 7.—The REVEREND E. MONTEITH MACPHAIL, M.A., B.D., Professor of History, Madras Christian College.

The Madras University is already in a sense a teaching University, for all graduates must pass through the colleges of the University. The question of providing higher teaching in Madras is mainly one of funds. It would be a mistake for University Professors to teach the same things as are taught in the B.A. colleges, but it is very desirable that there should be University instruction for the M.A. degree and specially in subjects requiring large laboratories. An advanced college of this kind could not be self-supporting, *i.e.*, it would not be possible to defray from the fees paid by students the salaries of the Professors or the cost of expensive apparatus. The expenses of teaching would be very heavy if suitable men were employed. It would be necessary to have special men, for they would be required to devote their entire time to the work. Some might be promoted from colleges.

There is nothing to be gained by having a list of recognized teachers, but the University might do more to carry out the University bye-laws. Bye-law 130 provides against the employment of unsuitable teachers by an inspection of affiliated colleges, but such inspection is not carried out. There is no agency for regularly enforcing the rules. It would be a matter of considerable expense to have an inspecting agency connected with the University. Government Inspectors have little to do with first grade colleges and it would be anomalous for them to sit in judgment on such colleges. It is doubtful whether even special Inspectors would be very helpful. Colleges would have no right to object to such inspection. The chief thing to be guarded against is undue haste in affiliation.

There has been rather much multiplication of small colleges, in which there can be no collegiate life. Sometimes a small school adds on a few classes and converts itself into a second-grade college to the detriment of the school. Schools in Madras have suffered to some extent from this, especially because it has taken the European teachers away from the schools. A student's work should become more independent when he enters on his University course. This applies to some extent to the F.A. classes, and to a greater extent to the B.A. students.

All students have difficulty in taking notes of lectures because of the language. The F.A. students are able to understand provided that the lectures are delivered slowly and that sufficient explanation is given. It is not the want of

knowledge of English, but the lack of knowledge of things that is the chief difficulty. Sometimes the things the lecturer is speaking of are absolutely unknown to the students. In talking about hay, for instance, the witness has found that there was not a single student who knew what it was. This is not due to the text-books prescribed, but to the absence of general reading. The whole idea of students is to pass their examinations, the pupil is hurried on from class to class and does very little general reading. There may be time for reading, but the entire energies of industrious students are directed towards passing. A student's apparent ignorance is often merely a want of power of expression. Class exercises are given to students weekly. It is not a waste for a Professor to teach the F.A. Classes. In the Christian College most of the teaching is done by European Professors, but in the F.A. part, the teaching is done by tutors. Some tutors are as good as any Professor. Students are often handicapped early in life by instruction being imparted to them by ill-paid and inefficient teachers. Even taking into consideration that students have to study all their subjects in a foreign language, they are not overburdened and have not more to do than boys at home. There is a great tendency for students to try to learn by heart text-books, notes, and keys where such exist, for they think this pays them best in passing examinations. The strong tendency for boys to memorise is partly due to the language difficulty, and the teachers sometimes encourage it by telling a boy that the words of the text-book are better than any in which he could express the same idea. The power of understanding is much greater than the power of expression. The very best teaching that the school can afford should be given to students from the lowest classes.

It would be an improvement to substitute a school-leaving for the matriculation examination, care being taken not to make it the same thing under a different name. The great defect at present is the obligation to examine a vast number of candidates in a small time. This makes it necessary to have a large number of assistant examiners and to set questions which can readily be marked by a number of different men. Such questions tend to cram. It is therefore very necessary to split up the examination. It should be conducted by an outside agency. If the matter were left to the colleges, they would be too lenient in admitting students.

It is not desirable to introduce an age limit, for very often the brightest boys are the youngest, and they should not be kept back. Twelve years would be unduly young. The majority of boys who pass the Matriculation Examination are over 16, and very young boys are occasionally but not often found. If it were decided to fix an age, 14 might be adopted; but there is no evil worth legislating for. Fourteen is certainly a young age for a boy to leave home and look after himself, but going to college does not necessarily entail leaving home. Fictitious ages would be largely used. There is great vagueness among boys as regards their age. The school transfer certificates do not necessarily contain particulars as to age. They should do so.

It is not advisable to make the scope of the B.A. degree either wider or more special than it is at present. With an M.A. degree there is not much to be gained by having an Honour's Course. As the majority of students are young there is no hardship in their giving two more years to specialising. Twenty-one is about the average age for a student to take his degree.

Mathematics should be retained as a compulsory subject, there are very few who cannot manage it; it is an excellent training.

The Senate is rather large, but it must be borne in mind that men are constantly leaving the Presidency permanently and that a very large percentage of the Senate are on leave. The Christian College has eight men on the Senate and two are on leave. A large number also cannot attend because they are up-country. The principle of selection has been rather strange. People who have very little to do with education are selected, and men who have a great deal to do with it are kept out.

There is not much to complain against with regard to the Syndicate. Government has been largely represented. It might be well to ensure representation of different classes. Aided education has generally had representation. Government officials should not be made *ex-officio* members of the Syndicate. If it were desirable to have them they would be put on. Government has the last word and should allow the Universities to stand on their own legs.

The Syndicate.

A minimum fee should be prescribed to prevent underselling. The absence of such a rule has a bad effect. Boys go round to get concessions. The rule could be evaded, but the great majority of people would observe it. Many colleges would be glad, they charge low fees only because they fear to be undersold.

Fees.

Religious and moral education are of great importance. If a good moral text-book were taught earnestly it might have some good effect. At the Christian College all students attend the scripture classes. The Professors are brought in contact with students in the various societies of which they are members. This raises the moral tone. The relation between masters and boys at the Christian College is one of mutual respect. Life in properly supervised hostels has a good influence. Unpunctuality, absence and disorderly conduct are the common breaches of discipline and are punished usually by inflicting small fines. The University bye-law about the residence of students has only just begun to work. The Professors of the Christian College visit the students who are not living in the hostels. The difficulty is to know what to do when the students are found to live in undesirable rooms. Endeavour must be directed to gradual improvement. Many more students would live in the Christian College hostels if there were room to accommodate them. Residence in hostels should not be made compulsory. Good home influence is better for students. It is also more expensive to live in a hostel than at home.

Moral discipline and Text-books.

WITNESS NO. 8.—MR. H. J. BHABHA, M. A., Director of Public Instruction, Mysore.

(Witness presented a written statement to the Commission. The President read passages from the statement and questions were put to the witness on them.)

There are great difficulties in the way of providing University Professors even to teach M.A. candidates, but Professors are needed for this purpose and for original research. A few University Professors should therefore be appointed to be examples to the college lecturers. The subjects of their lectures should form part of the M.A. curriculum. Most of the thinking students would attend, and the lectures would form an object lesson to other Professors. The lectures should be open to all students of the University. A small fee might be charged for these lectures, but not perhaps while the system is in the experimental stage. Fees for practical work must be paid. The Professors should not be tied down to any special programme. The college Professors at present are most of them overworked, and have hardly time for research. There are not at present funds for a fuller programme. A special college for M.A. students would not have the general good effect of the above scheme.

Teaching University.

The suggestion to have a list of recognized teachers is good and would be acceptable. There is some fear in regard to poorer colleges who may not have funds to engage Professors of the required qualifications. It would not perhaps be a bad thing if they had to give up. The Mysore State would be willing to act upon any advice given by the University and would not stint funds.

Recognized Teachers.

A large University like the Madras University ought to spare funds for a good library. It would be of service to Mysore students because many of them come to Madras to study for the M.A. and B.A. degrees. They think that living in the capital is a certain amount of education in itself. There is a library in the palace at Mysore, and students who are acquainted with the palace

Library.

officials have access to it. In the Bangalore College there is also a library of about 2,000 books and magazines. In the other colleges the libraries are inferior.

The Senate.

The Senate should be constituted of the following classes:—

- (a) *Ex-officio* Fellows (*e.g.*, the Director of Public Instruction, heads of some first-grade colleges and other educational authorities).
- (b) Fellows to be nominated by the Governor-in-Council.
- (c) Fellows to be elected by the graduates.
- (d) Fellows to be elected by the Senate.

The total of (c) and (d) should not exceed the total of (b).

Benefactors of the University should be made Honorary Fellows. Fellowships should be terminable, and members should be removed for absence.

The number of members of the Syndicate should be increased to twenty.

Syndicate.

Discontent arises owing to the heads of first-grade colleges being allowed no share in the making of rules and regulations, and the disability takes away their interest in the working of the University. It is true that the duties of the Syndicate are only to see that the rules made by the Senate are carried out, but mufassal Professors would like to take a share in the executive government. A statutory provision for the representation of three Arts colleges would remove the difficulty. The rule of residence should be modified so as to permit of members of mufassal colleges within a distance of twelve hours' railway journey being members of the Syndicate. For urgent work a sub-committee might be appointed. The University should pay the travelling expenses of such members as do not reside in Madras.

The University should exercise more supervision over discipline through a system of Proctors and Pro-Proctors.

Discipline.

The Proctors would exercise a general supervision over the Pro-Proctors who would be subordinate to them. They would also be responsible for the conduct of students outside the college walls, and would see that they reside in sanitary and wholesome lodgings. Pro-Proctors would be appointed by, and be responsible for discipline in, the colleges, they should be natives who can go among the students freely and enquire into their wants.

Principals and Professors should be provided with residential quarters. There are colleges where they live at a distance, whereas it should be part of their duty to mix with the students out of class hours. It might not always be easy to provide quarters near the college.

The Principals and Professors of colleges should be men from Oxford and Cambridge, or others of the same class. In some colleges the Principals do not have the high ideal of college life that prevails at Oxford and Cambridge.

Play grounds and debating and literary societies should form a feature of all colleges.

A class of Fellow Commoners should be formed with a common dining hall and residential quarters near it. It would be a good beginning if one college in each Presidency would start the system. For one student who goes to Europe ten would avail themselves of this privilege. The Commoners should be attached to ordinary colleges, not collected in a single college. It would not create ill feeling as the privilege would be paid for. Hindus would be admitted if they would eat in common.

The delivery of a weekly moral discourse on the lines of the late Mr. Chester Macnaughten's discourses at the Rajkumar College at Rajkot is a suggestion which may be considered.

Distinguished graduates should be given teaching Fellowships. This would encourage them in post-graduate work and they would assist the Professors by

Teaching Fellowships.

teaching in the junior F.A. classes. This help would be of great value. The Fellows should be divided into Junior Fellows on Rs. 70—75 and Senior Fellows on Rs. 100—150. The Fellowships should be tenable for four or five years, half the time in the Junior and half in the Senior grade. The Dakshina fellows in Bombay are an institution of this kind.

In Madras especially there is too much lecturing. More should be left to the students themselves. They are entirely dependent on lectures, notes, etc. At

Method of instruction.

first they would consider it a great hardship that they should be thrown on their own resources. No Professor should lecture for more than 10 hours a week.

The Matriculation Examination does not ensure a sufficient knowledge of English to enable students to profit by college lectures. Something should be done to improve the Entrance Examination. A school-final examination supplemented by an examination held by the college itself would be better than the present system. If the suggestion of teaching Fellowships is carried out, there will be a better class of teachers for high schools. It is extremely difficult to fill up the head-masterships in Mysore, because good English instructors are not available. The English course for the F.A. Examination should be raised.

Examinations. Universities might be multiplied and new ones eventually opened at Tanjore, Trichinopoly, Bangalore, Calicut and Mangalore.

New Universities. Under the present system, examinations are held in December and the results are not out till January, and classes are not formed till February. The examinations should be held in the month of November, so that the work may be resumed after Christmas.*

The teaching of vernacular literature by Pandits is defective and many Vernacular and Classical Languages. who pass in Canarese are unable to write good Canarese prose. The training given in vernacular languages is indifferent and a much more useful training is to be derived from the study of classical languages like Sanskrit and Latin. It is doubtful whether the vernacular literature possesses sufficient scope for study and whether some passages in the text-books are not objectionable from the point of view of morals and good taste. The method of teaching which is chiefly by rote is also objectionable. Tamil occupies a different position, as it is the richest of all the vernacular languages. Nevertheless it cannot be compared with Sanskrit or Latin. Sanskrit has been successfully studied by indigenous methods at the Maharaja's College, Mysore, and at Mirkotta. A student who went from Mirkotta to Calcutta obtained a degree in the first class in Sanskrit. These institutions are not connected in any way with the University. They grant certificates of their own, which are accepted in selecting Sanskrit Pandits in high schools. The course is high, and a man who has studied there is supposed to have read a good deal of Sanskrit literature. The methods of instruction are not critical. The teachers know no other language and teach by rote. Even discussions consist of the repetition of texts learnt in class. The committee which supervises the Sanskrit College at Mysore confers degrees.

WITNESS No. 9.--The Reverend A. JEAN, S.J., B.A., D.D., Prefect of Studies and Professor of Latin, St. Joseph's College, Trichinopoly.

The head of a school cannot decide whether a student is fit to go to a college. If the head of a school gives a certificate there will be less uniformity than now. The head of a college should not be required to examine boys that he does not want. It is much better that the University examination should be conducted by the University. It would not be advisable to have over forty or fifty colleges each conducting its own examination.

Entrance Examination. The Universities are only examining bodies and could not be converted into teaching bodies without reconstitution. The existing colleges must be maintained. There could be no objection to the University teaching subjects not taught in the affiliated institutions, but it should not compete against colleges teaching the same subjects.

* Dr. Bourne pointed out that in places affected by the N. E. monsoon the examination could not be held in November. In a letter dated 21st February 1902, Mr. Phabha suggested that the West Coast Examination should be held in November and a separate examination for the portion of the Presidency affected by the N. E. monsoon in December.

In regard to the appointment of Fellows, the Director of Public Instruction is best qualified to find out and propose to the Chancellor the names of those who are deserving of nomination.

The Senate.

It is not advisable to leave the graduates to elect Fellows, nor is the Senate qualified to do so. The Senate is too large. Fellowships should not be made terminable, the gifts of the University should be without repentance. Members who do not attend meetings regularly or take any interest in the University, should be removed after due warning. In this respect a difference should be made between Fellows residing in Madras and those residing in the mufassal. Voting by paper or proxy should be allowed when this can be done without inconvenience. Fellows living in the country would be encouraged to come to Madras if the meetings of the Senate were arranged to suit their convenience. In the event of any meetings being postponed, they should be adjourned to some early date, so that the mufassal Fellows may remain to attend them. Frequently the business to be transacted is not finished in a day, and the meeting is postponed to a week or so later, when the mufassal members cannot attend.

The Syndicate should include representatives from aided colleges at a distance from Madras. It is the general opinion that practically things are managed

The Syndicate.

entirely by the Presidency and Christian Colleges in Madras. The rule requiring the Syndics to reside in Madras should be abolished, and three more members should be added to the Faculty of Arts, thus making the number eight instead of five. The working of the present Syndicate has given general satisfaction.

In his speech at Simla His Excellency the Viceroy passed certain strictures on laxity in the grant of certificates for

Certificates.

permission to appear at the Entrance Examination. Out of 7,300 candidates at a recent Matriculation Examination, 1,860 presented themselves as private students. Out of these 1,860, less than seven per cent. passed the examination, and this considerably lowered the total percentage of passes. A large percentage of the private students had been rejected at schools, if over 20 they can obtain exemption. The certificate does not necessarily imply that the candidate is really fit to be examined but that he has a certain chance of passing. The schools give the benefit of the doubt.

If the University carries out the rules of affiliation a sufficiently close supervision will be exercised over affiliated institutions. Many of the rules, such as

Rules of affiliation.

those regarding buildings, finance, registration, and inter-collegiate lectures are observed. The University has never inspected the St. Joseph's College to see if they are carried out. The college looks to the Government in these matters.

As regards fees, there are defects in both courses but, comparing defects with defects, they are less in the present system. When on the Education Commis-

Fees.

sion the witness was against fixed fees. The system was tried many years in Madras and then abandoned. Matters have improved since the change was made. Colleges do undersell and have always done so. There is no great harm in it, though it certainly would be an evil were a college to go to a brilliant boy in some other college and say; "If you join us we shall charge you less fees than you are paying here," and so take him away. In the case of a student who has passed his examinations in the first class, and who presents himself for admission into a college, there would be no objection to allowing him certain privileges in the shape of reduced fees, etc. It would be very difficult to fix fees, and very easy to evade any rules on the matter.

In large towns where there are several colleges there would be no objection to pupils of different colleges attending combined lectures, but the fact that some colleges are for particular religious bodies would prevent free intercourse

Inter-Collegiate lectures.

in this matter.

There are too many subjects prescribed in classes prior to the Matriculation Examination. Pupils can never acquire a

Matriculation Examination.

sufficient knowledge of English so long as they have to study many subjects at a time. Physics and Chemistry should be

omitted. English, a second language, History, Geography and Mathematics would be sufficient, and History should be confined to the History of India, the History of England being left to post-matriculation study. Owing to their limited knowledge of English students cannot often understand what is said to them. Different Professors vary in the ease with which they can make themselves understood. It would not be advisable to replace the Matriculation Examination by a school-leaving examination, for no uniformity of standard could be secured. In Madras it is recognized that there is a higher standard than in Calcutta: the percentage required is higher. The standard, however, varies. Students go to Calcutta who cannot pass at Madras.

A vernacular is not equivalent in difficulty to a classical language, and a classical as well as a vernacular language should be exacted. The inequality extends to the English paper in which the candidate has to translate from a classical or vernacular language according as he takes one or the other for his second language.

The Government ought not to have an examination of their own for admission into the Public Service. The public examination would offer so much greater practical advantages that the University examinations would be abandoned. It would be very hard to find in India a student who takes a degree for the sake of the degree itself.

Things were better when text-books in English were prescribed for the Matriculation Examination. Students were more capable of writing and speaking English. Text-books were abolished on account of the number of annotated works that were written which candidates learnt by rote. If this reason is sufficient for the Matriculation Examination, it should hold good for other examinations like the F.A. and B.A. for which text-books are still prescribed. An examiner can always defeat cramming.

On the motion of the witness the Education Commission proposed the introduction of a moral text-book embodying the principles of religion. There were great difficulties and the Government abandoned the idea. It would not be advisable to examine on the book.

In general boys do not go up too young. They should not be admitted under 12. Some brilliant boys who have entered at 13 have lasted very well. The age of 14 is rather young for a boy to be left to his own resources in a large town. He ought to be subjected to some supervision, which does not mean that he must be treated as a schoolboy. There are few B.A.'s at 18.

WITNESS No. 10.—The REVEREND J. COOLING, B.A., Principal, Wesleyan Mission College, Madras.

The time has come to make the Madras University a teaching as well as an examining body. The first step in this direction would be the appointment of University Professors or Lecturers who would deliver courses of lectures on subjects more advanced than those required for the B.A. degree. The salaries of these Professors or Lecturers should come mainly from University funds, and in part from the fees of those who attend the lectures.

There are certain physical difficulties in bringing together the students into a special College. In the city of Madras with tram-cars and other means of conveyance available this difficulty could be overcome.

The principal step would be for the University to recognize the Professors and perhaps some of the lecturers of its affiliated colleges as Professors and lecturers of the University. That would give them a status. In the Victoria University in England the Professors of the various colleges are, along with some of the lecturers and some outside persons, always examiners. They are also *ex officio* professors of the University and members of the Boards of Studies.

They have the right to be represented on what corresponds to the Senate here but is there called the University Court, and they have also a right to be represented on the University Council.

Reform is needed in the constitution of the Senate. There is some ground

The Senate.

for the complaint that the Senate is too large and that some of the fellowships are given by way of compliment. The Senate should consist first of all, as now, of the Chancellor and Vice-Chancellor; secondly, as now, of certain *ex officio* Fellows, as for example, the Chief Justice, Members of Council, the Director of Public Instruction, and in addition the Principals of all professional and first-grade Arts colleges. At present only the Principal of the Presidency College and the Principal of the Medical Colleges are *ex officio* Fellows. Thirdly, representation should be given to the professorial staff of each professional or first-grade Arts college, that is to say, some members of the professional staff might be elected by the professors of such colleges for a limited number of years. Fourthly, there should be, as now, Fellows appointed by the Government, but for a term of years, and limited in number, say to 50 or 60. Under ordinary circumstances Government in appointing Fellows should have regard to the claims of the second-grade colleges, and as far as practicable appoint one Fellow from each of them. Fifthly, the total number of Fellows elected by the graduates should not exceed a fixed number, say, 10, 12 or 15, and these should hold office for a term of years, so many retiring each year. Two or three would be annually elected as now, but the total number would not go on increasing. All retiring Fellows should be eligible for re-election or re-appointment. This method is somewhat similar to that which is followed in the Victoria University in England. That University was formed by the incorporation of three colleges, Owen's College, Manchester, Yorkshire College, Leeds, and University College, Liverpool, and is the only British University that bears some analogy to our Universities here. It is expedient to make the Fellowships terminable. There are gentlemen on the Senate now, who cannot attend, and, if the appointments were for a term of years, such Fellows would disappear from the roll. The total number for Madras should be from 100 to 120. Representation given to all the colleges, would tend to draw them into closer union with the University.

A greater element of permanence should, if possible, be brought into the

The Syndicate.

Syndicate. The powers of the Syndicate should be defined and it should be so reconstituted that it shall contain more elements of continuity. It should possess some statutory powers. In the Victoria University what corresponds to our Syndicate is appointed by statute and its powers are defined. Gentlemen hold office in the Council, as it is called, for a number of years, and it is worthy of consideration whether the Syndicate in Madras should be appointed for a longer time than one year. No very serious harm has been done under the present system except that it does not provide for continuity. At meetings of the Senate when the Syndicate has presented its report for the year and a member of the Senate has got up to criticise that report, members of the retiring Syndicate have said, "we have finished with it now." The number of the Syndicate might be perhaps slightly enlarged. At present the number is 9, and it might perhaps be enlarged by appointing the Director of Public Instruction an *ex officio* member. It seems wrong that the Director of Public Instruction should be balloted for year after year. Perhaps the number of Syndics in Arts might be increased by three or four making a total of 12 or 13 for the whole Syndicate. The members should hold office for three years, one-third retiring each year. Witness considered that the principle of representation is desirable in the election of Syndics, but he was not prepared to formulate a scheme.

Some arrangements should be arrived at with regard to the spheres of in-

Spheres of influence.

fluence of the different Indian Universities. Anything like the appearance of competition should be avoided. Difficulties have arisen in Madras. For example, some years ago no sooner did the Madras University raise the standard of Matriculation than certain High Schools in North Ceylon no longer sent up candidates to the Madras Matriculation Examination, but sent candidates to

Calcutta. Certain schools in the extreme south of the Presidency—Tinnevely—began to send boys across to Ceylon in order that they might take advantage of what they believed to be the easier Entrance Examination of the Calcutta University. Certain of witness' own boys in the fifth form went over to the school in Ceylon and the majority of them passed the Calcutta Entrance Examination. Some of these boys then applied for admission to colleges in Southern India and some were taken in. One or two of them went through the whole of the First Arts course, when the question was brought before the Syndicate as to whether they had been properly admitted, and some were admitted, and others rejected. Now the Madras Senate has passed a resolution that it will not accept the Entrance Examination of the Calcutta University as equivalent to its own Matriculation Examination. It is not fitting that such a state of things should exist. One of the teachers in witness' College passed his B.A. Examination in Madras and went next year to Calcutta and took the M.A. degree. He would in Madras have been obliged to study for two years. There is in Madras in the minds of some people an idea that it is easier to obtain a degree in Calcutta than in Madras.

The sphere of influence of each University might be defined partly geographically and partly politically. The influence of the Madras University should be confined to the Madras Presidency and to those Native States attached to the Government of Madras. Affinity of language ought to count. It is open to consideration whether Hyderabad should go to Madras or not. Ceylon must decide for itself. Applications for affiliation from Colleges in provinces the languages of which have no affinity with those of the Madras Presidency should be refused.

The membership of each Board of Studies in Madras is limited to 12, it used to be 9. That limitation should be removed and every recognised professor or lecturer of the University should be placed on the appropriate Board. Similarly all examiners should, for the year in which they are examiners, be members of the Boards of Studies in their subject. Boards of Studies should be allowed to consult experts outside the Senate.

Gentlemen pecuniarily interested in text-books should be not members of the Text-books Committee. Gentlemen connected with presses in any way should also be excluded.

It should not be one of the duties of the Boards thus constituted to submit nominations to examinerships.

The formation of a Council consisting of the heads of all colleges or of selected professors of such colleges for the purpose of electing examiners would not be a better means of selecting examiners than exists or ought to exist in the Syndicate, especially if the Syndicate is, as it usually has been in Madras, representative.

The University should have its own inspecting officer to see that the rule about hostels and residence is strictly carried out. At present the rule merely serves the purpose of an ideal to be aimed at rather than of a law to be observed. The enforcement of this rule is a matter of the greatest importance, for it is to the development of hostels under the control of the college authorities, that one must look for the creation and strengthening of a healthy University life amongst the students.

There are difficulties arising from the number of students and their different modes of living, but these are not considerable. The principal colleges, such as the Christian College, the Presidency College, and the Trichinopoly College, have a large number of students; but they are the three best colleges. In the other colleges the number is not so large. In the Christian College there are three or four hostels for different classes of the community. Something could be done in the way of separate establishments for those who cannot mingle closely together.

The knowledge of English possessed by matriculates generally is higher than it was 15 or 20 years ago. Nevertheless some students now pass the Matriculation examination who have not a sufficient knowledge of English to enable them to profit fully by the lectures of Professors; but this is due not so much to

the standards set by the University being too low or to imperfect methods of examination, as to faults in teaching during the boys' school course and to the methods which the students themselves adopt in preparing themselves for the examination. These evils have been stated by Dr. Miller, and to a very large extent his views on this subject are correct. The evil is due partly to parents wishing their children to be pushed on and partly to teachers being too willing to push forward boys who are unfit, and it is also due in part to the boys themselves, who will insist upon cramming immediately before the examination, rather than preparing steadily for their work during the years of their school course. The laxity in promotions is due to the idea existing in the minds of many parents that the promotion of a boy to a higher class means that he is getting real education. Some years ago the evil was encouraged by the rivalry of schools. This still continues, but not to the same extent as formerly.

It is desirable to have an age limit. There are difficulties in the way and it is not an easy subject to deal with, but an age limit fixed at 15 would probably be found satisfactory.

Age limit.

The proposal to restrict the Matriculation Examination to those who intend to enter the University is necessary in the interests of University education.

Entrance Examination.

The time has come to have a School Final Examination distinct from the Matriculation. Much harm has been done in the past in this Presidency, through the one examination serving a two-fold purpose, namely, an entrance to the University course, and the completion of the school course. There has been fostered in the minds of parents, students and teachers the idea that every boy who passes the Matriculation Examination ought to enter upon a University course. Of the seven or eight thousand candidates who go up for the Matriculation Examination not more than one-third ought to proceed to a University course. In addition to the School Final Examination there should be a second examination to test the fitness of a candidate to enter on a college course. If the School Final is to close the school career of boys, then the examination should include subjects which will be useful to them in their different walks of life, in addition to Mathematics, English and Geography. In recent years a large proportion of Matriculation students have gone up for the higher University examinations. If there were to be a School Final Examination, it would be decided at an earlier stage in a pupil's career whether he intended to proceed further than the High School on his educational course.

It is often difficult for the Principal to certify that the candidate is fit to enter upon a University career. Many Principals would not wish to send their boys

Certificate.

up for the Matriculation if there existed the option of a School Final Examination.

The question whether the examination should be conducted sectionally or as one large examination, is an extremely difficult one. There is not at present the machinery in the Education Department to conduct five or six different examinations. It is a question whether the School Final Examination should be conducted by the University or by the Department.

It is indispensable that Madras should have a whole-time Registrar.

Registrar.

The limitation of the appointment to five years should be done away with, and, if possible, a pension should be given on retirement after 20 or 25 years' service. Otherwise the University is not likely to secure a man of the highest attainments. If we are to secure and retain a gentleman of the highest qualifications, he ought not to go up for re-election at the end of five years, especially if he come before the Senate, composed, as it now is, of 200 members. His appointment would not be secure if there were any organised canvassing against him.

The Wesleyan Mission College is a second-grade college. It grew out of a school and is still under the same roof with the school, which has what is called a College Department. Nearly all colleges are of this character.

The Wesleyan Mission College.

It is not the duty of an Inspector to see that the University rules are carried out in second-grade colleges affiliated to the University. He reports to the Department.

The college is a small one. It has some 30 students, most of whom reside with their parents or friends, though some reside in hostels. The only hostel accommodation on the premises is for Christian boys. A register of the residence of students is kept and a member of the Staff visits them in these places.

The promotion of good conduct on the part of students out of college
Conduct, Discipline and Moral Training. as well as in college is part of the aim of the Principal of a college. The Wesleyan Mission College tries to influence character by Christian teaching. Scripture is taught to all the students, Christian and non-Christian. In addition the Professors associate with the students and encourage them in games and occasionally invite them over to their houses, for social intercourse. Personal influence carries great weight and association with the Professors raises the tone of an institution. There are indications that a code of honour exists among the students and sometimes pleasing instances come to light and some times the reverse. The introduction of a moral text-book into the schools is not to be recommended. There is no suitable text-book. If the teacher has high ideals he will find ways and means of influencing the character of students under him. In the Wesleyan Mission College students are punished with small fines, and if they do anything very serious they are excluded from classes for a short time. Corporal punishment is never resorted to in the case of college students though it has been inflicted in the case of school boys. If a task is set a certain amount of work has to be done in a certain time.

Any system of examinations with regular exercises checks the tendency to
College Tests. postpone study till the time immediately preceding the examination. In the higher classes of the schools and in the college classes exercises are set by the Professors or teachers. Home work is set and if students neglect to do it they are punished by being made to do it again in addition to some other task, or they are made to stay in and do it. Students work harder in the second year, but speaking generally there is not much cause for complaint regarding the first year. Unless they pass an examination at the end of the first year, they are not promoted into the second year's class. It is possible, but more difficult, to maintain discipline where the numbers are large.

WITNESS No. 11.—Lieutenant-Colonel H. D. LOVE, R.E., Principal, College of Engineering, Madras.

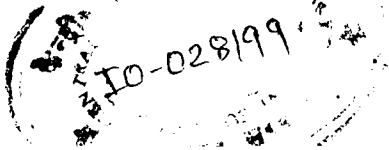
The Senate should be reduced to about half its present size. The
The Senate. principle of making Fellowships terminable would be advantageous.

In the Engineering College there is no difficulty in regard to the discipline. There is a very powerful weapon in the shape of a conduct register. If a

Discipline. student commits a serious offence his name is entered in that register, and if it appears three times during the two or three years' course he is compelled to leave the college. After the course is completed the student is given a certificate, and one entry against him in the conduct register reduces the entry in the certificate form "very good" to "good."

There are four courses in the college, one for engineers one for subordinate
College Courses and Examinations. engineers, one for overseers and surveyors, and one for draughtsmen.

There is an examination at the end of each year. These are not University examinations; they are held by a Board of Examiners appointed by Government. The Board's examinations are more important than the University examination which is regarded merely as an incident. On the whole it is a very suitable examination, though susceptible of improvement. For example, some provision ought to be made for electrical engineering. Under the head Science the University requires various forms of applied Mathematics and Heat. Mr. Chatterton has suggested that the engineering students could study Science



better in the Presidency College. This would depend to a great extent on the size of the classes in the Presidency College. There are advantages in having the students under one's own eyes. There would be loss of time in going to and from the Presidency College and difficulty in making the time-tables of the two institutions suit each other.

The different Universities have as regards Engineering different spheres of influence, and as long as that is the case no particular object could be gained by standardizing degrees. They are not even approximately equal at present. The Punjab University degree is much below that of Madras. The Madras standard resembles that of Calcutta, whilst the Bombay examination is mainly in science.

The Engineering Faculty is sufficiently represented in the Syndicate by one member.

There is not much scope for Engineers in private employment in the Madras Presidency. The chief industries are mills and mines, and they employ Europeans.

The students in the Engineering College have no difficulty in following lectures in English. The examination for admission to the Engineering class is the

F.A. There is sometimes a little difficulty with matriculates, and it is necessary to make one's language as simple as possible and to use no strange or outlandish terms. Even for the classes of sub-overseers, surveyors and draughtsmen the teaching is in English, and there is no real difficulty in making them understand.

WITNESS No. 12.—MR. L. D. SWAMI KANNU PILLAI, M.A., B.D., L.L.D.,
Assistant Secretary, Board of Revenue, Madras.

The witness was examined on a written statement in which he deplored that greater encouragement was not given to the study of classical languages. Unless a student stays an extra year at college he can only take up one language for his B.A. He should be allowed to take up several languages from the P.A. onwards, his course being reduced in other directions, especially Mathematics for those who have no taste for it. The standard in the one language is low because no more importance attaches to the examination in a classical than in a vernacular language.

In the B.A. examination Greek is taken up by a very small number of candidates and Latin by a considerable number. Latin though not perhaps necessary is very useful for those who are going to study Medicine. During the years witness examined in Latin some 140 to 150 candidates took up the subject for the Matriculation, about 50 or 60 for the P.A., and about 15 to 20 for the B.A. The number is increasing. Latin is taken as a rule by European and Eurasian candidates. If a candidate wishes to specialise in more than one language it should be open to him to do so. Tamil and Telugu do not rank as classical languages in the sense that the study of Tamil and Telugu affords the same advantages to a student as the study of one of the classical languages proper. In the study of a new, and especially of a classical language, there is a mental training involved, which is not to be derived from the study of a pupil's own vernacular. When the student selects a vernacular language he should be compelled to take two instead of one, in order that there may be some guarantee that he studies at least one language not his own. This rule should apply also to Tamil although it is a wider language than the other. Much of the teaching in vernacular languages is by pandits who instruct on traditional lines. It might be greatly improved.

A high standard of English should be required for the degree examination.

Instead of three or four text-books of which the notes can be crammed, the student should be made to study at least one of the great periods of English literature. There would be time for this if, from the F.A. onwards, the student only studied English and Science or languages. For the F.A. he might take something more, although it is not at all clear that this is necessary.

WITNESS No. 13.—The REVEREND C. W. A. CLARKE, Principal, M.A., Noble College, Masulipatam.

The cardinal needs of the University at the present time are the making of affiliated colleges an integral part of the University, and an improved method of examination so as to eliminate the element of uncertainty, which at present vitiates the whole system.

Cardinal Points.

If the affiliated colleges in Arts were in close connection with the University like those in Law, Medicine and Engineering, it would be better both for the University and for the colleges. In several ways the affiliated colleges may be drawn into closer relation with the University. The heads of affiliated colleges should be definitely approved by the University and when approved should be given a responsible position in the University system, for instance as members of the Senate or as having a right to elect members to the Senate or to the Syndicate, or to both. During the 15 years in which witness has been Principal of a first grade mofussil college, the University has never interfered in its affairs except when they were asked to raise it to the B.A. standard. The Government at present exercises many of the true prerogatives of the University in relation to the affiliated colleges. They send an Inspector round annually, who sees that the conditions upon which Government grants are given are fulfilled.

Relation of affiliated Colleges to the University.

The recognition and enrolment of approved teachers would be most desirable and quite possible if sufficient care were taken in making out the list. Another point in which the University neglects affiliated colleges is that it never offers them any advice or guidance in the matter of teaching except the results of the examinations. The University, as a University, never sends round any directions or instructions as to the manner of teaching in our colleges. Individual examiners have done this from time to time, in educational journals and elsewhere, but the University has never done it officially, and consequently the recommendations do not have the weight that they would have if endorsed by the University authorities. The reports of examiners, with recommendations based upon these reports, should be sent round annually, or at least when there is anything of special interest to communicate or of value to impart.

It would be desirable if instead of Government teaching the B.A. Arts Course and keeping up three or four expensive Arts colleges it were to confine itself to the Science branches or to those

Proper sphere of Government management

parts of the University system which cannot well be taught by individual isolated colleges. The Senate has been considering the institution of Science degrees. If the Government were to allow the Presidency College to become a college teaching for these Science degrees and for the M.A. degree, it would not be necessary for it to teach up to the B.A. standard, for that work is satisfactorily done by the aided colleges, which are maintained at much less cost to the Government. There was some talk of the Government giving over the Rajahmundry College to some voluntary association. A voluntary association would keep up the college at one quarter or one fifth of the cost to Government. The college department of the Noble College at Masulipatam costs about Rs. 6,000 a year. The Rajahmundry College costs the Government between Rs. 30,000 and Rs. 40,000 a year. Supposing a native association or a missionary society were to undertake the management of the college, the Government would perhaps give between Rs. 6,000 and Rs. 10,000. The management would be equally satisfactory. In many respects the results at Masulipatam are better than at Rajahmundry. At the former place, which is affiliated in one branch of the B.A. degree, there are three European professors; at the latter, which is affiliated in all branches, there is only one. As regards the suggestion that there are no native associations to take up the work of the Government colleges it is to be remarked that there are already several colleges supported by States or Zamindars.

The Senate as at present constituted represents the University as a body of educated men but not as an educating body. The affiliated colleges should be

The Senate.

represented on the Senate either directly by their Principals becoming members of the Senate, or by having the power of appointing by election a certain proportion of the members. The numbers of the Senate are too large and might very well be reduced. There would be little hardship in a portion of the Senate being required to retire annually subject to reappointment by Government nomination or by election by educational bodies and by the graduates as a body. Disqualification for non-attendance at the meetings is a reasonable proposition, provided sufficient latitude is allowed. An academical or professional qualification should be laid down for membership of the Senate.

The Syndicate is an efficient body, but the colleges should be more strongly represented on it by having, say, three members appointed either by the educational members of the Senate or in some other way. The Syndicate should be distinctly a body of experts, *i.e.*, of men who are practically acquainted with the profession or practice of education. Members of the Syndicate should reside in or very near to Madras.

There is a considerable amount of laxity in granting certificates, but the University lays itself open to this laxity because it is extremely difficult to ascertain what the standard is in any subject. The standard varies much more than is generally recognised from year to year. If the lowest qualification required by the University as indicated by the percentage of passes in a subject during a period of six or seven years is taken as the guiding minimum, then most students might be sent in for the examination. If on the other hand the highest standard for the same period is taken in each subject then only three or four boys should be sent up from each school. Again the University allows a candidate over 20 years old to appear for its Matriculation without any qualification of fitness. The result is that the elder boys in all the Matriculation classes instead of qualifying in the school examination to obtain certificates of fitness, put in age certificates, and are allowed to appear for the examination. It is true that the Syndicate admits them separately, but age is in practice the only qualification which is required. Boys in witness's college who are not fit to present themselves for examination are allowed to appear as private candidates under this rule. The very low percentage of passes in the Matriculation Examination is due to these private candidates. Very few of them pass. It may be the case that some schools encourage the inferior students to go up as private candidates, not wishing to risk the reputation of the school upon such candidates. If the Principal of a college were to ask that a private candidate might not be admitted, and if he adduced sufficient reason the candidate would no doubt be rejected. It is, however, hardly the duty of the Principal of a college to watch this matter for the University.

The value of the teaching is very largely governed by the examinations and the essence of the whole problem is how to make the examinations satisfactory and stimulating to true education. The present effect of the examination system is to a great extent to discourage honest teaching and the best methods of education, because of the great uncertainty of its results. The following facts are taken from the University calendar and the results of the witness' school as tested by the University.

In the Matriculation examination during the period of six years in which the witness examined, the percentage of passes in the whole examinations varied from 19.4 in 1895 to 36.6 in 1900. The variations in each individual subject were immensely greater. In English the failures varied from 21 per cent. to 60 per cent. two years afterwards. In the second language the result only varied from 12 to 19 per cent. of failures. In Mathematics it varied from 30 to 44 per cent.; in Science from 3 to 61 per cent. in two consecutive years; in History and Geography from 19 to 44 per cent. It is this variation which makes it so difficult to know what standard the University would have from those who enter for its examinations. Teachers would not grumble if a higher standard were maintained, but the grievance is that a high standard will be maintained for two or three years and then lowered again. These figures relate generally to 7,000 students drawn from something like 263 schools, and comprising also a large percentage of private candidates. If for that vast

range of boys and schools the percentage varies from year to year as greatly as these figures indicate, it may be imagined how the amount must vary in individual schools where other elements of uncertainty, such as the idiosyncracies of particular examiners, come in. When witness is Chief Superintendent, he notes more particularly the examiners to whom the papers will go than the papers themselves. A hard paper examined by an easy examiner will pass a larger proportion of boys than an easy paper examined by a hard examiner. The examiner's marks are final unless the Chairman of the Board finds it necessary to intervene. Each examiner sends up his first 100 or so papers and the Superintendent sees whether his standard is a fair one. After that there is ordinarily no intervention unless something extraordinary transpires. The same thing prevails, though not to so large an extent in the F.A. The variations shown by the F.A. figures are 29 to 41 per cent. of passes in the whole examination; failures in English 31 to 51 per cent.; in Mathematics 37 to 54; in Physiology 24 to 57; and in History from 27 to 37.

[Mr. C. Sankaran Nayar pointed out that the average age of the candidates affects the results. It is shown on page 160 of the University Calendar that in 1896-1897 the average age of the Matriculation boy was 18·5, in 1897-1898, 17·9, and in 1898-1899, 18·9. From the next page it can be seen that when the age is between 16 and 17 the percentage of passes is 24·9 and between 17 and 18, 26·8, whilst between 18 and 19 there is a large drop to 19. Witness said he had considered this.]

The difficulty of the papers varies as well as the standard of marks: that again depends on the personal equation of the examiners. The general result is that while the three or four best boys out of a class of 20 or 30 will generally pass, the system fails to select accurately the best 10 out of 20 or the best 15 out of 30.

Dr. Miller is not right in attributing many of the failures to excitement at the time of the examinations. The native student has fairly steady examination nerves. There is much more in Dr. Miller's other argument that many candidates work so hard towards the end of the course as to ruin their health. But this cause operates in the same manner each year. When the element of chance is allowed to enter so largely into the results of examinations, it necessarily makes teachers and boys reckless. It is not made plain to them that good and intelligent teaching and study will ensure success. Therefore there is a temptation to cram and take short cuts.

The following remedies are suggested:—

- (a) There should be concentration of effort on the point until the system is improved.
- (b) There should be a guiding and directing mind to co-ordinate facts and see that the remedies are steadily applied. The work could be done by the present Vice-Chancellor or it might be devolved on a permanent small Board of Moderators.
- (c) The Chairman of each Board of Examiners should be a revisor whose duty it should be to keep the standards in each examination steady.
- (d) More use should be made of the doctrine of averages in judging of the results of the examination of thousands of candidates in any one subject. For instance, if, after several years of careful watching, it is found that out of 7,000 students an average percentage of 30 have failed, it may fairly be taken that in the following year the natural percentage should not vary materially from that figure. If the variation from the natural figure is found to be excessive, there should be a re-examination of the papers of those examiners whose results differ most widely from the average standard. The re-examination should be made in the first place by the Chairman, or if the work is too heavy for him to do alone, he should call in the assistance of other examiners on the Board.

At present there is no system of re-examining the papers of those candidates who fail only in one subject. Last year some 13 boys failed in Science only in the Matriculation Examination. Of these 13 boys three had already passed in Science the year before, had worked hard during the year

In the Matriculation the lowest pass was 8 out of 39 in the year 1900; in the year 1901 the passes were 22 out of 39. In English the lowest failure was 5 out of 40 in the year 1896, and the highest was 18 out of 33 in 1898. In Mathematics the lowest failure was 4 out of 33 in 1899; the highest was 14 out of 30 in 1895. In that case the same teacher instructed the class all through. In Science the lowest failure was 0 out of 33 in 1898, and the highest was 27 out of 39 in 1900. In History the lowest failure was 1 out of 33 in 1898, and the highest was 20 out of 40 in 1896. This latter figure is partly explicable by a new teacher. In the second language the lowest failure was 1 out of 33 in 1899, and the highest failure was 8 out of 39 in 1900. The passes in the whole F.A. Examination were: the lowest 5 out of 16 in 1901, and the highest 14 out of 26 in 1898. The failures in English in the F.A. vary from 1 out of 16 in 1901 to 7 out of 22 in 1895. In Mathematics the lowest failure was 5 out of 26 in 1898, the highest 9 out of 16 in 1901. In Physiology the lowest failure was 0 out of 21 in 1897, and the highest 9 out of 16 in 1901. In History the lowest failure was 1 out of 22 in 1896, and the highest 8 out of 17 in 1900. In vernacular languages the lowest failure was 2 out of 21 in 1897, and the highest 7 out of 16 in 1901. The 1901 class was a particularly good one, only 1 out of 16 failing in English, and there were no local circumstances to account for the extraordinary results of that year. The cause of the variation is to be attributed to the vagaries of the examiners to whom the papers were sent. There are uncertainties and fluctuations which call for careful inquiry and for the adoption of measures which may render the standard more stable than it is at present.

[Dr. Bourne referred to the Science percentage failures of 0 in 1898 and 69 in 1899 in the statement given by the witness, and pointed out that the figures for 1898 referred to only such candidates who had passed in all the other subjects and those for 1899 to all the candidates, and that the comparison was therefore vitiated.]

Another means of keeping the standard more level would be to give different examiners portions of the paper instead of dividing the whole paper among a number of examiners. Complete effect could not be given to this when there are as many as ten examiners, but the papers might be divided into three portions. A substantial fee should be charged when the re-examination of papers is demanded.

The students in the Noble College vary from 60 to 80 a year. Roughly speaking, the figures are distributed between 50 or 60 in the F.A. and 15 or 20 in the B.A. classes. This year the college sent up for the B.A. eight in English and a second language, and five for the Science branches.

The students reside chiefly with relatives in the town; there are Brahmin and Christian Hostels connected with the college. The college authorities have endeavoured to supervise the residences of students, but it is difficult to exercise any substantial jurisdiction in the matter. It is difficult to obtain facts as to whether the boarding-houses in which students live are satisfactory or not. The University lays the duty on the college, but has not exercised any supervision in the matter.

The college takes much interest in the physical exercise of the students.

Physical Exercise. There are cricket, football and tennis, besides gymnastics and drill. The European teachers take part in the games, and also a few of the Indian teachers. There are three Europeans on the staff, but generally one is on furlough. The students take much interest in games.

The Professors try to influence the students by private intercourse. Students used to visit witness's house twice a week for badminton and other games, and

College Details.

there was a Shakespeare Reading Class after the games were over. There is also a Debating Society. The contact between the European Professors and the students has been so close that the College has been able to pride itself on the high tone prevailing: this high level has been maintained. There is a healthy public opinion among the boys. The population of Masulipatam is about 40,000. It is the capital of the district. There is a Hindu High School in the town. The subjects taught by the European Professors are English and

History. Science and Mathematics are taught by local graduates. Every week there is an exercise in composition, both for the F.A. and B.A. classes, which is conducted by one of the European Professors.

The number of colleges in this University is probably excessive, and they should be a little more concentrated.

Multiplication of Colleges.

When the distance between first-grade colleges is very large, there is room for second-grade colleges to be feeders to those of the first grade. There is a material difference between a second-grade college and a high school. It would not be advisable to encourage second-grade colleges that possess only half a dozen students, for it is not possible to give a good collegiate education to such small numbers.

The Matriculation standard is high enough and would be very good if it could be kept steady.

Matriculation Standard.

It would be a great mistake to reduce the University course from four to three years, because students could not assimilate sufficient knowledge in less than four years.

Term of the University Course.

The function of Government should be to supplement the educational system. The ground of the Arts course can be fairly covered in the Madras

Function of Government.

Presidency by voluntary agencies, but in the science and post-graduate course, and in technical instruction, the Government should take the lead.

The examination papers are very fair; now and then there is one a little below or above the standard. It is individual assistant examiners who are at fault.

Examination Papers.

WITNESS NO. 14.—MR. L. C. WILLIAMS PILLAI, B.A., Acting Inspector of Schools, Northern Circle, Madras.

The witness said he would give the results of his own experience as an Inspector and especially with regard to the second-grade colleges and schools which it had for a long time been his duty to inspect.

The majority of second-grade colleges and schools are below the mark, and there is a tendency to deteriorate still further. A main cause of this deterioration is the abolition of the Government institutions which was effected some 15 years ago under the recommendation of the Education Commission. The institutions were handed over to private bodies who were often incapable of managing them and sometimes were composed of ignorant men. The managing bodies do not spend their money rightly. They are always cutting down the salaries of teachers and practising false principles of economy. They think more of exercising authority over the teachers than of promoting the best interests of the institutions. Accommodation is often insufficient. The libraries are generally very poorly supplied with books. It is difficult to induce the authorities to furnish proper reading-rooms. The Government requires schools and colleges to keep up appliances for physical training, but the boys do not take kindly to gymnastics and games and in very few instances do they flourish. In all these respects there has been great deterioration, and it is very difficult to insist on improvement. Where all are bad one cannot diminish the grant-in-aid for minor defects, and the Inspectors get gradually accustomed to an improperly low standard of efficiency.

Condition of second-grade Colleges and of Schools.

With a little more expenditure to supplement the Government grant many of the institutions could be maintained on a satisfactory basis.

The want of good teachers is another defect. The quality has steadily declined from the time the schools were handed over to private bodies, because

Want of good Teachers.

those bodies do not pay their teachers adequately. They give R100 or R120 when R200 or R300 should be paid. They also adopt the "sweating" system. If, for instance, a man is paid R100 one year, next year they will want to pay R75, and the following year R50. Endeavour is made to run the institutions on very cheap lines, so that only third-rate men are procured. Up to 15 years ago the pick of the men in the colleges became teachers. Now it is only a man who cannot do well elsewhere, who joins the Educational

Department. Schools are often managed entirely by individuals. There are also a few local board schools. The resources of schools are as good as they were before. The number of boys is larger and consequently the fees aggregate more. The number of boys would be much greater if the standard of efficiency were better.

The remedy is for the Government to have model schools of its own, high schools, secondary schools and primary schools, which would display a standard

Model Schools.

to which the Inspectors might point when trying to make aided schools improve their efficiency. It is in the primary schools that the greatest mischief is done. Even in the Presidency town the Hindu High School is the only one that could be termed a model school. If Government took back these institutions it would be possible to get a much better staff of teachers. They would be better paid and better treated and would have much better prospects. The chance of being drafted into Government service is not under present conditions a sufficient inducement to induce good men to enter the profession. The inferior nature of the teachers makes it increasingly difficult to get good Assistant Inspectors. The grants-in-aid might be cut down, but it is difficult to maintain any standard without models. Some schools also are self-supporting. The Educational Department is not to blame for the defect, they do the best they can under adverse circumstances. It would be advisable for the University to cease to recognize schools which do not keep up a reasonable standard of efficiency. In recognizing schools, the University simply accepts the schools in the list of the Director of Public Instruction.

It would not be desirable to re-introduce the orders requiring institutions to levy a minimum fee. It is impracticable to carry out the system for the reason

School fee notification.

that there are many ways in which a manager can evade the rules, for instance, by false accounts and by tutoring pupils to make false statements to inspecting officers. Even in theory the system is open to objection. There is no reason why there should not be competition, and the importance of the underselling argument is not great. Rival schools are sometimes recognized. The principle that a school should not be established if it would be likely to be detrimental to the interest of discipline is in general observed. Schools are sometimes started by Hindus, because they do not care for their children to attend the Mission schools. Some, but not many schools, are opened as commercial speculations.

It would not be desirable to introduce an age limit for the Matriculation

Age limit.

Examination. Many brilliant students, who pass very young retain their pre-eminence during the rest of their career. An age limit of 15 would not work any hardship, but it would be very difficult to enforce, as it would be easy for students to give fictitious ages. The age need not be shown in the existing school transfer certificates. Some cases of mis-statement were brought to the notice of the Department by the University this year, and the offenders were punished.

The argument urged against the Matriculation Examination is want of uniformity. The want of uniformity

The Matriculation Examination.

would be greater if the examination were left to boards under the direction of the Inspectors of the four circles. The work would occupy all the time of the Inspectors, and if the examinations were conducted by a number of examiners, the results would be no better than under the present system. The certificate would also carry less weight. The market value of a matriculation certificate is perhaps about R15 a month.

The present Matriculation examination is, on the whole, a very good one, and, with a little more care in the matter of setting papers, would prove very satisfactory. The large number of candidates is not the main cause of the trouble. If the Matriculation examination had no commercial value, or if the Government ceased to require a certificate of Matriculation for employment in offices, the number would be reduced.

Text-books ought to be re-introduced for the Matriculation examination.

Text-books.

The argument against them is that they are annotated and crammed. It is a choice of evils and the worse evil is the learning by rote of mere technicalities of grammar and so forth without any reading or ability to write properly. The evil of

note cramming has been a great deal exaggerated. The Education Department prescribes the use of text-books. The students pretend to read the English prescribed, but it is neither properly studied nor taught and teachers and pupils alike devote their main attention to books on the technicalities of grammar. In a manner the students are the masters of the situation, a state of things which is due to the inferior character of the teachers.

Teaching University.

A teaching University is not at present within the range of practical politics.

If it is intended to make attendance at meetings of the Senate compulsory, then a smaller body of men might be elected—say a minimum of 100 and a

The Senate.

maximum of 150. Should attendance be optional, the present number is not too great, considering that only about 30 or 40 Fellows attend a meeting. Ornamental Fellows add dignity to the Senate. They might be made Honorary Fellows without the right to attend. Some Fellows should be elected by the Senate and some by the graduates. The election should not be by the Faculties because some of them are too small for the purpose. The present numbers of electors—graduates of 20 years' standing—is 600, and they do not elect the right men. The privilege cannot be exercised judiciously by so large a number, a smaller list of qualified voters should be maintained.

The Syndicate as it at present exists is a very good body. One or two members more or less would not make any great difference.

The Syndicate.

Hostels are just beginning to be established in the various mofussil centres and at present they are generally not much better than eating-houses. Sometimes

Hostels.

there are hostels entirely set apart for students in which they eat and sleep, at some hostels there are a number of rooms occupied by students who take their meals at eating-houses. At most up-country hostels there is no sleeping accommodation for the students, they are merely eating-houses. There is a hotel manager who looks after the table, but very little discipline is enforced. The parents are not willing to pay enough for the living of the students, and this results in the great evil of want of stamina. Unfortunately this is most common among the Brahmin students who are in the majority. In the Matriculation the Brahmins number $\frac{1}{2}$; in the F.A. $\frac{3}{5}$; in the B.A. $\frac{2}{3}$; in Law $\frac{5}{6}$; in Science $\frac{5}{6}$; in the M.A. $\frac{2\frac{1}{2}}{3}$; in the L.T. $\frac{7\frac{1}{2}}{10}$; in the F.L. $\frac{1\frac{8}{10}}{2}$; in the B.L. $\frac{2\frac{3}{10}}{3}$; in the M.B. and C.M. $\frac{1}{4}$; in the F.E. $\frac{2\frac{0}{2}}{2}$; in the B.E. $\frac{6}{8}$. The physique of Brahmins is much worse than that of other castes. Some of them are less able to pay, but there is a general unwillingness all round.

WITNESS No. 15—MR. J. H. STONE, M.A., F.R.H.S., Principal, Rajahmundry College.

There is no objection to enlarging the scope of the Madras University so as to make it possible, at some future time to convert it into a teaching University, but at present not much can be done in practice. If funds can be procured the University might at once provide a higher class of instruction, that is to say, it might undertake to teach the M.A. candidates collected at Madras for the purpose. If, however, the Government is to provide the money, it is not clear why it should not use it itself in developing the Presidency College.

Teaching University.

It is also not evident how the University is to manage the teaching of Science any better than the Government through the Department of Public Instruction. The expense would be very great because lecture rooms, laboratories and so forth would be required and it would also be necessary to provide University Professors of established reputation from Europe. The latter question is one of special difficulty as Professors would hardly care to come to Madras after their reputation had been established in Europe.

There is no objection to the prescription of a list of recognised teachers.

Recognized Teachers.

The system has been adopted by the Education Department which maintains a list of recognized teachers of various grades in schools. It would at first be necessary to make exceptions in the cause of existing incumbents but it would be valuable to be able to control entry into the list in the future.

For people educated in this country the least qualification for entry in the list should be the M.A. degree or a degree in Honours in such courses as may be instituted by the University in the future. Maintenance on the register should depend on success as teachers. A man might be appointed as an assistant teacher at first, and then as a teacher if he showed that he possessed the necessary qualifications.

The value of the present Licentiate in Teaching diploma is not very great, and it would not be desirable to make it compulsory, although a real knowledge of the art and principles of teaching is very desirable for any one wishing to become a teacher. Instruction in the art of teaching would be much more useful if given after a man had been a teacher for a short time. There is a practical examination for the L.T., but it is not of much value. The best course would be to allow the young teacher to teach for several years, keep him under observation, and then give him a certificate if he is satisfactory.

There should be less specialisation than is now the case in the Pass degree,

The B. A. Course.

and an Honours course should be instituted in which a high degree of specialisation might be allowed. For the pass B.A. the papers should be easier but a higher percentage of marks should be required. The F.A. examination should be given up and there should be a three years' course for the B.A. The present course tends to confine knowledge to too great an extent to one subject. Take the case of a student who goes in for Mathematics. He knows a little History of England and India which is learnt in the Matriculation and has mostly evaporated by the time he has gone through his course. He has also learnt a little of the History of Greece and Rome, and this has also disappeared by the time he goes up for the degree examination. He knows nothing whatever of Moral Science. Indian students learn nothing which they are not taught. There is in this respect a great contrast between education in England and in India. A man at home, while in college, learns a little here and a little there, and there is hardly a subject he does not know something about. In India the students have no knowledge of any subject that is not in the curriculum. A residential college would help to bring about this interest in different subjects. At present students are much less friendly and familiar than they are at home.

Rajahmundry is rather peculiarly situated. It is situated in a Telugu

Conditions of life in Indian Colleges.

Intercourse between Teachers and Students.

country, and whereas most of the college students are Telugus, most of the teaching staff is Tamil. The reason of this is that Telugus are backward in the matter of education. The circumstance prevents a close association between students and teachers. The whole staff is native, witness is the only European. Witness has not found many opportunities at Rajahmundry of associating with the students, but at Kumbakonam he used frequently to play foot-ball and get up dramatic performances.

Games do a good deal in breaking down the barrier between the students,

Physical exercise.

but they are taken up by very few students at Rajahmundry, 25 per cent. at the outside. This was not so at Kumbakonam. They are specially slack in the matter of games at Rajahmundry, but nowhere in the Madras Presidency is there a feeling that all the students should interest themselves in the college games, although in some colleges they must all subscribe.

One reason why the boys do not take kindly to physical exercise is that

Length and severity of course.

they receive a longer education than they are physically capable of bearing. A boy is brought to school in his seventh year, and he is encouraged to go on to college where he studies until he is 21 to 23 years of age. Vitality is diminished by the time the students get on in the college course, and the senior F. A. boys take on the whole more interest in their studies than the senior B. A. boys. The physique of the boys in many of the colleges is far below what one would wish to see.

A great many of the students live with their parents and guardians, compara-

Residence.

relatively few of them reside in hostels. Some of those who are well off keep houses of their own. The college supervises them in the matter of residence. The rule

of the University was introduced not very long ago, and the University has not yet made any enquiries as to whether it is carried out. Witness has made enquiries regarding his own students and found nothing wrong with the places where they are lodging.

The results of the last Matriculation Examination were extraordinary. In the Godavery District between 60 and 70 per cent. passed; in the previous year the district only passed between 15 and 20 per cent. The consequence is that there is an enormous junior F. A. class.

The system of conducting the English examination for Matriculation is not sound. It is not possible to avoid framing the questions in such a way as to encourage the kind of cram that other witnesses have spoken of. The test does not always secure that the boy knows enough English to follow the lectures, but considering the circumstances it is surprising that he knows so much. The senior F. A. boys cannot read English fluently but they seem to understand it very well. It would be a great improvement were the Matriculation examination in English divided according to vernaculars, and the vernaculars used in framing the questions. A number of short vernacular sentences could then be set for translation into English, and the examination conducted more in the way the London University examines in such a subject as Latin. The number of vernaculars is of course a difficulty. It would probably suffice to recognize the four principal Dravidian vernaculars, and Hindustani. Uriya and other minor languages might be omitted. Under existing rules a paper is set of one hour's duration of translation into English from one of the vernaculars. This goes some way in the right direction, but it does not work well because it is laid down that the same passage of English shall be translated into each of the vernaculars and then given to the students to re-translate. This is found in practice to be unworkable. The procuring of examiners would not present an insuperable difficulty if English examiners were associated with native gentlemen. To correct the series of short sentences it would not be necessary that the English examiner should be conversant with the vernacular. There is some force in the contention that if the examiner did not know the vernacular it might be difficult for him to appreciate the nature and degree of gravity of the mistakes. The difficulty could probably be surmounted by appointing a small Board to set the papers.

Boards of Examiners should be appointed for fixed periods to set papers for each subject in the Matriculation examination. At present the papers are set too exclusively by specialists. More practical and simpler papers are required.

Method of setting papers.

The Senate.

The present number is excessive, except in so far as many of the members are practically honorary.

The Syndicate.

The residential rule might now be abolished and up-country Fellows admitted to the Syndicate. Rajahmundry might be rather far away for a Syndic to reside, but it would be possible for a member of the Rajahmundry College to attend meetings of the Syndicate if they were held on Saturdays. Nine members are enough for the Syndicate, but there would be no objection to raising the number to eleven. It might be well to lay down some qualifications for Arts Syndics, for instance that they should be professors in a first-grade college or graduates in Honours. Four or five places might be reserved for teachers. There is some danger, which may increase, of improper elections being effected by canvassing.

The unpaid work done for the University is a matter that ought to be considered. A man may not be a Syndic and an Examiner. That is to say, he is made to do much unpaid work and is obliged to abandon paid work. This difficulty would be surmounted if examiners were appointed by the Boards of Studies. At present the Boards are only used for selecting text-books and their work is not good. They should be strengthened and made to work better. Meetings should be held on Saturdays in order that up-country members may attend and travelling allowance should be paid. If they had the definitely

Boards of Studies.

assigned duty of preparing a list of examiners, it would be an inducement to the Board of Studies to work; at present they do nothing but prepare a list of text-books, and this in a very perfunctory manner.

It would be better to have the same books for a number of years than to

Selection of Text-Books.

continue the present reckless system of selection. It would however be difficult to continually set fresh questions and cram notes might be prepared from old papers. There might be a cycle of books. The present system of annual changes is hard on a man who fails and has to learn up the course for the next examination in one instead of two years. Part of the books might be changed each year.

Examiners.

Students do interest themselves in the names of the examiners.

I have never considered the question whether the obviously incompetent should be kept back two years. Boys ought not to be allowed to appear after a certain age.

Incompetent candidates.

Too large a proportion of marks is given for text-book work in the English examination for the F.A. and B.A. A much larger proportion ought to be given

English in the B.A. and F.A. Examinations. for composition. The examiners ought also to be allowed to deduct a larger number of marks for bad spelling and grammar than is permissible under the present rules. Examiners should mark more according to their general impression.

Mr. Williams took a rather extreme view. When witness was appointed

Quality of School Teachers.

Inspector of Schools he was agreeably surprised to find many men taking an intelligent interest in their profession. He did not notice any sign that the younger were worse than the older men. The training colleges have done good. Matters may be better in the South and West than in Mr. Williams' jurisdiction. As other professions get more crowded, better men will go into the teaching line.

It is more important to fix an upward than a downward limit of age. A

Age limits.

rule prescribing a minimum age would not be a hardship, but it is difficult to see what a boy would do if he passed through the top class at an early age. He would probably deteriorate rather than go forward. It might be an advantage if the rule resulted in boys not being pushed forward as fast as is now the case. Premature promotion is a great evil.

An upward limit would be a great help, as it would automatically clear out of the schools a number of bearded men who strive year after year to scrape through the Matriculation. It would be difficult to fix the age.

Muhammadans go to school later than Hindus.

Exercises in composition and translation in language are regularly given to students, and examination papers are periodically set in other subjects.

Class exercises and tests.

WITNESS NO. 16.—MR. R. S. LEPPER, M.A., LL.B., Professor of History, Maharaja's College, Trivandrum.

The witness began by explaining that his evidence represented in general not merely his own views, but those of the Trivandrum College generally.

It would conduce to the best interests of sound education if there were only

Multiplication of Colleges.

a fourth of the second grade colleges and half the first grade colleges which are now in existence. Under the present system sound teaching is often impossible. Education in many cases is imparted, not as an end itself, but as a means to something else. The something else may be in some cases the reputation of a Municipality, and in others the desire of missionary bodies to make converts, ends laudable in themselves, but which do not always conduce to sound educational work. In some cases funds are not sufficient, in other cases the ideals are not suitable, and in other cases the time given to the Professor for private reading is not sufficient. Much good work is done in the primary, middle and high schools, and to a lesser degree in the F.A. class. But there is an impression

abroad among teachers of the B.A. classes who take their profession seriously that under the present system education is dragged down and kept back from progress.

The case of a Municipality that wants to run a second-grade college may be taken as a general example. There may already be a second college on the spot, but circumstances may induce the leading Commissioners to desire to have their own college. As soon as it is recognized there is competition, and a drop in the fees in each college, and naturally the staff becomes inefficient in both institutions. The case of an energetic Missionary Society which wishes to use all the opportunities it has to develop its work, may be taken as a second example. It endeavours to start more second-grade colleges and work them up to the first grade. The system is bad which allows societies not primarily interested in education to take up work far too important to be dealt with by men not mainly interested in it. In some colleges Indian talent is not recognised as much as it might be. This applies more to religious institutions than others, because naturally they wish to have Christians to teach their classes. They do employ non-Christians, but to some extent their choice is hampered and narrowed. It is a very striking thing that in a country, Hindu for the most part, there are, out of 15 first grade and 40 second grade colleges, six and 21, respectively, which are managed by sects which have no organic connection with the people. Probably the majority of the educated inhabitants of the country are drawn under influences which, to some extent, they dislike. It is mainly the fault of the people, or perhaps their misfortune, that they have not come into the field of education sooner, and it is, perhaps, to some extent, the fault or misfortune of Government in not having realised that in a country like India something more than the giving of grants-in-aid was needed to make a new institution like a Western college established in the East, efficient. Government might have done something more to help colleges to be efficient and to put down colleges which are not efficient by withdrawing recognition and grants-in-aid.

Students are kept in the mission colleges for religious and missionary purposes, who are intellectually incapable of following the course of instruction. Some defects of mission colleges. This burdening of the college with backward pupils increases to size of the classes and hampers the instruction of the better students. Education is sacrificed to keep a large number of students under conditions in which they cannot properly be taught. Then from the point of view of moral and religious education, the system is defective, because students are compelled to be present in the Bible reading hour or during prayers according to religious rites to which they are not accustomed. Compulsory religious instruction was abandoned by English Universities in 1870. The system in Indian mission colleges cannot conduce to true religion. Much of the charge that is brought forward that students of the present day are godless—a charge which witness does not believe—is caused by the carelessness which is outwardly shewn by students who have been compelled to attend classes in which the Bible has been read and prayers said according to the Christian rites.

Many colleges attempt to teach too many subjects. They set themselves up in rivalry to Government institutions which are better equipped; and then claim from Government grants for the teaching of subjects in a way which is not always efficient. The real crux is to bring the aided colleges up to the level of Government colleges. At present in Southern India their general standard of teaching and efficiency is much below that level. In especial the teaching of Physical and Natural Science should be confined to the Government colleges. Aided colleges attempt to play far too ambitious a roll. In many cases they have developed from high schools, and have still the traditions of school life and management hanging about them. Occasionally an aided institution may work up to the level of a Government college, but the conditions are such that they cannot in general maintain such a level. One important reason is that the Professors have to teach far too many hours. It is common to require them to do 18 hours' teaching a week, 16 hours in the B.A. and 2 hours in the F.A. class. When witness was Principal of the Pachayappa College, he had

to lecture 14 hours in the B.A. class on Political Science, Economics, Constitutional History and other subjects, and to give 2 hours' teaching of Roman History in the F. A. class. That is to say, he had 16 hours as Principal, while the other professors did 18 hours weekly and were liable for 20. The only time for private reading was on Saturdays and Sundays. Professors of all kinds of aided colleges complain that they do not get time for private reading. The evil is worst in missionary colleges where the professors have to preach on Sundays. In the Trivandrum College the witness and his assistants lecture from 13 to 15 hours a week.

In reply to Dr. Mackichan the witness repeated his remarks about religious instruction in mission colleges, and said that his impression had been formed from students of his own college who had been at mission colleges or who had friends in such colleges.

There seems to be a slight confusion of thought about the inter-collegiate system. Some think that there should be one centre, Madras, and one only, and others seem to look forward to several centres, and perhaps independent colleges as well. There might be a teaching centre in Madras, and there certainly ought also to be some independent colleges strong enough to hold their own against an inter-collegiate system. It would not be desirable to confine teaching for the M.A. to Madras. The Mysore Government are able to and do provide laboratories, libraries, and everything necessary for training M.As. and the Trivandrum College can also train up to the M.A. standard.

No great difficulties stand in the way of an inter-collegiate system in Madras. Students already study at colleges a long way from their residence, and the distance difficulty is not insuperable. The main objections to the inter-collegiate system come from gentlemen who have no knowledge of it themselves and think it more difficult than it is. It is vital for the educational progress of the country, unless the Government or the people provide more funds than they can possibly afford. Only through the inter-collegiate system can the standard of teaching be raised. At present it is impossible to give lectures good enough for the best students in the class. The institution of an Honours course would solve the difficulty, but an Honours course is not possible without an inter-collegiate system. By diminishing the call on each Professor it would enable him to do enough reading to keep his classes really up to date. It would also allow time for coaching. One of the worst features of the Indian system is that students stay five hours a day in the lecture room, then read eight hours a day on the top of that, and never receive any real individual teaching. The inter-collegiate system could easily be carried out for the B.A. classes in towns where there are several colleges, but not for the F.A. classes. Government should contribute to the finances of institutions introducing the system, on the condition that the college provides a certain number of Professors to lecture and throws its lectures open to the students of all colleges. The grants now given could be so re-adjusted as to entail no additional expenditure to the Government. The individual character of each college should and might be preserved. The change would remove much of the friction and jealousy which now prevail. To take the case of History. The three professors in the first-grade colleges in Madras would not be required to lecture for more than 8 or 10 hours each. They would each specialise on a portion of the subject, meeting in a board to settle all matters connected with the course. The attendance would not exceed 180. The subjects and the place where the lectures are to be delivered should be published in good time, and the lectures might be given in different places on different dates.

If the University recognizes colleges, and gives grants only on the submission of particulars of the qualification of lectures, there does not seem to be any need for a list of recognized teachers, but there would be no objection to the system if liberally carried out.

Spheres of influence are essential. It would create great mischief to allow Universities to interfere with colleges in each other's jurisdiction.

The system of moderation is calculated to ruin examinations. If a system of moderation were introduced, it would prevent the standard rising, examinations would gradually become easier, objectionable aids would be prevalent, and

candidates would not seek to acquire more than a superficial knowledge sufficient to pass the examination.

The Senate should include Professors and assistant Professors of first-grade arts and professional colleges teaching for degrees; also members of the learned

The Senate.

professions who are engaged in educational or scientific work. It should exclude those who have no special learning, or possess no scientific qualifications. The University ought not to be influenced by men who possess only general qualifications. Benefactors of the University might be made Honorary Fellows. Principals of second-grade colleges might be included. The present system of nomination and election is faulty and keeps out the most capable men from the Senate. Election would be a suitable method of recruitment if it ensured the election of good men, but it is very difficult to secure this. A right of election might be conceded to M.A.'s and graduates who passed in the first class, or while the numbers are small they might all be admitted to the Senate.

The Syndicate might be slightly enlarged by including representatives from mufassal colleges within easy reach of Madras, such as Bangalore. A reformed

The Syndicate.

Senate might elect the Syndicate. On the whole the Senate has shown discretion in appointing the Syndicate. There is a community of interests between mufassal colleges and to a certain extent a diversity of interests between them and Madras colleges, as for instance in the arrangement of meetings and the bringing up of measures before the Senate.

The Faculties should be amalgamated with the Boards of Studies and should manage examinations, text-books and curricula. There would be no objection to

Faculties.

each Faculty making bye-laws for its own subject. There should be a Faculty of Science to take in Mathematics, Physical Science, Biology, etc. If there were such a Faculty, a Science degree would soon follow.

Boards of Studies should consist of Professors of first-grade colleges and specialists from outside. It should depend on their qualifications whether assistant Professors should sit on the Board.

Composition of Boards of Studies.

Assistant Examiners should be appointed by the Boards of Examiners, so that the Boards might be sure of having efficient men. This rule has just been introduced.

Assistant Examiners.

The Boards of Studies should meet often, and should show more interest in their work. They ought to be frequently recruited.

Boards of Studies.

It would be open to misinterpretation to make Fellowships terminable. On the other hand, it would be better for members of Boards of Studies to hold

Terminable Fellowships.

office for only three years instead of for 15 or 20 years.

It might be desirable to give statutory powers to the Syndicate, but it works well at present and the matter is not important in Madras. The number of Syndics is about eight, it would not be harmful to introduce one or two more.

The Syndicate.

It is open to objection to give degrees to persons coming from other Universities. For instance a B.A. of Madras could get an M.A. at Calcutta, who was not

Conferring degrees on members of other Universities.

capable of getting it at Madras. There would not be the same objection to granting the degree to graduates from other Universities who come to teach in Madras, but even then it might result in a Calcutta graduate appointed as assistant Professor getting the Madras M.A. It would be right to make the European graduates Fellows.

The real evil does not lie in the giving of certificates to appear at the Matriculation Examination, but in making promotions to classes for which students

Certificates.

are unfit. Improper promotions are so prevalent that it might be a good thing to have an independent Government examination for promotion into the high school. The immense number of candidates would be a difficulty, the examination might be conducted in circles. One reason for improper promotion is that parents are anxious to push their children forward. Another reason is that

schools often need funds, and Managing Committees do not therefore desire to scrutinise the qualifications of students who are willing to pay the rather larger fees of the higher forms.

Affiliated Institutions.

Control is better left to the colleges than to the University.

The moral training of students must be left to the colleges and the Professors, and it is for the Government to keep the colleges and the Professors up to the mark. The University might take notice of misbehaviour, but it is doubtful whether this would be advisable under existing conditions.

University Teaching.
English.

The experience of the witness as examiner in the B.A. Examination for English is that the standard in English is below that in Science. The teaching in English is not on a par with that in other subjects. Even the papers of six M.A. candidates which the witness examined exhibited mistakes in spelling and bad style. There did not seem to be much difference in this respect between the Hindu and the European and Eurasian candidates. Two out of the six M.A. candidates were ploughed; one managed to pass in the second class, and the rest in the third. The main fault is that the candidates do not get guidance and do not study systematically. Few of the best students go in for the M.A., most of them take up law and other special courses.

[At this point the commission rose. The witness had further remarks to offer about University teaching, the degree of Licentiate of Teaching and affiliated colleges. He prepared some notes on these points, but there was not time to examine him upon them before the Commission left Madras. He was therefore invited to present a written statement in continuation of his oral evidence.]

WITNESS No. 17.—MR. P. S. SIVASWAMI AIYAR, B.A., B.L., Member of the Faculty of Law.

[The witness was examined with reference to a written statement which he presented to the Commission.]

If it were feasible it would be a great boon to students to come to some central place and enjoy the benefits of University life and teaching. The

Teaching University.

University should be near but not in Madras, where the distances are too great. The Presidency College should be removed to the site of the new University. If such a University could be established, it would not be necessary to maintain the mufassal colleges. The railways make it possible for students to come to Madras from all parts, and even now many of them come from distant places, usually after passing the F.A. Examination. Scholarships might be given to assist the better mufassal students. The colleges of the new University should be entirely residential. There are, however, many practical difficulties to be overcome, the main one being that of finding funds. Till the idea is an accomplished fact, it will be necessary to retain the mufassal colleges.

It would not be advisable to maintain a list of recognized teachers. The object can be attained if the University sees that its affiliation rules are carried out.

Recognized Teachers.

It would not be open to so much objection if the University merely exercised a power of veto on the choice of teachers by the colleges, although the colleges are as well able as the University to make the choice. The arrangements of the Educational Department interfere with the efficiency of the professoriate of Government colleges. In consequence of promotion and other rules Professors of Government colleges are shifted from one place and from one chair to another, in a manner which is most detrimental to the teaching. This is specially the case in the Medical College. The Professors of that College all belong to the Indian Medical Services and are posted and transferred for general service reasons. They are selected from the medical men in Madras and are not sent to Madras because of their fitness to occupy any particular chair. Witness did not mean that they are never appointed owing to special fitness, but that this is not always the case.

Great value attaches to a close intercourse between a Professor and his pupils. At present, and especially in Government colleges, many Professors do not even know the names of the students. This is partly due to the unwieldy

Intercourse between Professors and Students.

size of the classes in compulsory subjects such as English. The high salaries of Government Professors tend to keep them aloof from their pupils. It would not be advisable to lower the salaries because the best men are required. The native teachers know more about the students than the Europeans. In missionary colleges there is a much closer touch between the professors and the students. Dr. Miller, until a few years ago, knew the names and circumstances of all his students. So also in former days did Dr. Thomson of the Presidency College. The reason was largely the smaller size of the classes. On the other hand, owing to specialization, the students deal with fewer professors than formerly.

The existence of hostels is likely to promote an *esprit de corps*. In witness' student days students did not know each other well and had no common interests.

Hostels.

The rules of affiliation are suitable and sufficient. The University by its bye-laws gives power to the Syndicate to inspect affiliated colleges by sending a

Affiliation Rules.

representative to see if the rules are carried out. There is not any regular machinery for this purpose. If members of the Syndicate have not been sent to inspect, it is because the occasion has not arisen. Such inspection would not create irritation, it is incidental to any supervision.

The laying down of a standard of fees had a demoralising result. It led to false statements and returns. The matter should be left entirely to the discretion of

Fees.

colleges. The evils of underselling have been much exaggerated. In the Madras Presidency neither parents nor students put economy before efficiency.

It would be a great mistake for the Government to have a public service examination separate from the University examination. Either the Matriculation

Matriculation.

or the F.A. examination might be given up. A school-leaving certificate, or a school examination might be substituted for the matriculation. This would be better than examinations held by the Inspectors of Schools. If each Inspector held an examination, there would be no uniformity, and if there was one examination for the whole Presidency, it would be the same thing as the present examination. There would be no objection to the colleges admitting their own students. It would not then be fair to charge a Matriculation fee because the University gives no privileges except that of being examined.

There are objections to the substitution of classical for vernacular languages. The need for keeping up the knowledge of vernacular languages has

Classical and Vernacular Languages.

been recognized. The vernaculars of the Madras Presidency, and especially Tamil, contain literature which would be lost if the study were not kept up. Tamil stands on a higher footing than the other languages. The importance of studying the vernaculars may not be so great in the Bombay Presidency because Marathi is more closely allied to Sanskrit than are the Dravidian languages. Although the methods of instruction of the pandits may be defective, they are more learned than graduates. The study of other rich languages would help the study of the vernacular if there were time for both. Tamil requires special study. It is witness' vernacular but he could not read the more difficult works. They are literary, philosophical and religious and some are a thousand to fifteen hundred years old. It is not the case that students take up the vernacular because it is easier than Sanskrit. On the other hand, students used to take up Sanskrit because it was marked higher. Brahmins from some districts generally take up Sanskrit and from others Tamil.

It would not be advisable to have an Honours course. The M.A. is enough for those who want more than the pass B.A.

Honours Course.

No inconvenience has been experienced from the size of the Senate, but it is not sound to have senators who do no work. There should be *ex-officio* Govern-

The Senate.

ment educational and other officers, but the Government element should not preponderate. Nor should the Principals of the colleges, for this would throw the power into the hands of the missionary bodies, whose common interest it is to put down Government and aided institutions as much as possible, and to control the whole educational system themselves.

The Fellows should be elected by the Senate or by the graduates. It is not necessary that Government should nominate Fellows. The election might be made by a Council of graduates similar to the General Council of Education of the Edinburgh University. All graduates of five years' standing might be admitted. It is not necessary to differentiate the M.A.'s. The earlier franchise has not induced students to go in for the M.A. degree. With regard to canvassing, in any system many of the electors must take the candidates on trust, no special feature attaches to this country.

The present strength might be increased by six, so that some competent laymen might be added. This increased strength would make the work of the Syndicate lighter, and it would also serve as a corrective to the views of the educational members, which may not always be the best for the students.

There has been no pressure in the Madras University to lower the standard of the degrees.

The cost of living for a boy, outside a hostel, would be about R50 a month, if he kept house for himself and about R25 a month if, in accordance with a practice that is becoming common, he lived in a "lodge" with several companions. Some students manage on less than R25. R15 is not too much to charge in a hostel.

WITNESS No. 18.—MR. C. M. BARROW, M.A., Principal, Victoria College, Palghat.

[The witness was examined on a printed statement which he presented to the Commission.]

The witness recommended that the University should provide chairs in five subjects, that Fellows should be selected to deliver annual course of eight to twelve lectures for which they should be paid from £150 to £200 a year, and that the lectures should be open to everybody on payment of a fixed fee. The effect of this proposal would not be to make the University a teaching University. The lectures would be more of the nature of University Extension lectures. A large number of persons would attend, and the lectures might be delivered in the Senate House. It should not be compulsory for candidates to attend the lectures. If the lectures were connected with the University course and a small fee of R5 or R6 charged, many students would attend. The fees would not cover the cost. All the lectures need not be started at once. It would probably not be necessary for the Government to contribute, the University could bear the charge.

The period of 20 years' standing for electors is much too long; it should be cut down to 10 years. The list of Fellows shows the names of twelve who never attend. Fellowships may be made terminable subject to re-election.

The number of Syndics might be increased by three. The addition would make the formation of sub-committees more easy and allow for a certain number being absent from a meeting. Membership should not be confined to residents in Madras; those who live within a night's journey from Madras should be eligible—for instance persons residing at Bangalore. It cannot perhaps be said that the mufassal colleges have any common interest as against the Madras colleges. Nevertheless they would like to be represented.

The relation between Government and the University should be well defined. Only under certain specified circumstances should the Government be allowed to override the decision of the Senate. They exercise sufficient power through the Chancellor and Vice-Chancellor. Quite recently there was a case in which the Government vetoed a resolution of the Senate in regard to the re-introduction of an English text-book for the Matriculation Examination. The matter was fully considered by the Senate and a large majority were in favour of the proposal. The change would have been beneficial and the interference was much resented.

Closer supervision by the University and an occasional visitation from members of the Syndicate who would take the pains to look into the working would

University Supervision over Affiliated Colleges.

greatly strengthen the hands of the Principals. For instance it is impossible to get managing bodies to move in the matter of hostels. Many students are non-residents. There are funds available, but managers are actuated by false motives of economy.

There are a number of competing second-grade colleges in the mufassal which are not deserving of the affiliation granted to them. A college that wants to be affiliated draws up an application which is signed by two Fellows, and then gets some one, generally the Director of Public Instruction, to present it to the Syndicate. These weak second-grade colleges should be abolished, especially if they are competing colleges, even though they serve different interests. The result is two bad colleges instead of one good one. It does not matter whether the college is a missionary college or a Hindu college, provided it supplies the requirements of University education. The Syndicate should examine the circumstances of each case and disaffiliate the unnecessary and harmful. Class colleges such as the Doveton College at Madras should not be abolished. Endowed colleges should not be exempted if there is no prospect of their attaining a reasonable size.

A mistake has been made in abolishing the English text-book for the Matriculation Examination. There are no two schools in this Presidency in which the English language is taught in the same way. A text-book would give students a much wider knowledge than the present system of learning by heart certain "Manuals of English." The Department of Public Instruction prescribes text-books, but as they are of no examination value, they are taught in a very perfunctory way. It would be difficult to check the evil by diminishing the grants-in-aid of offending schools, but something might be done in this way if the number of Inspecting Officers were increased. Madras students do not care for anything which does not pay in the examination. The Matriculation course is too extensive and requires too much of the pupils. The best boys read books like *Robinson Crusoe* out of school hours.

The boys may be said to be "masters of the situation" in the sense that they are in the habit of selecting their own schools and colleges. In general they prefer to go where they can get the best value for their money. A very few go to the cheapest. There must be a certain amount of underselling; it does not do much harm.

The Matriculation classes are very large. Many of the students are unfit for the course, but they come with proper certificates. If all students not properly qualified were refused it would mean a loss to the Victoria College of some Rs. 500 to Rs. 600 a year, and whatever one's personal inclination might be it would be very difficult to carry out a procedure involving such loss. Even in the Christian college not more than a third of the students would be found fit for the Matriculation class. This is because the many failures in the prior examinations stay in the class to the benefit of the coffers, but to the detriment of education. Some stay even after the age of 20 years, although they can after that age go up as private pupils.

An age limit is desirable, but in some respects impracticable. For young boys who are exceptionally bright an age limit would be a hardship. The question of an upward age limit is difficult. The suggestion is at variance with general ideas on the subject.

It is desirable to have voting by proxy, especially for the annual election of the Syndicate. At one time there was a rule permitting it, but some one called in question the legality of the procedure and it was considered to be opposed to the Act of Incorporation. If it were introduced again it would allow Principals of mufassal colleges to share in the government of the University. It would not admit ornamental Fellows, because most of the mufassal members belong to colleges.

The rules regarding the grant of certificates should be more stringent than they are at present. There is nothing to prevent the most unsuitable candidates presenting themselves. Principals of colleges should be held responsible to the University for the students they send up for examination. Many pupils have

been kept back in the Victoria College without the popularity of the college being affected. At one time Dr. Duncan raised great objection to the keeping back of pupils on the ground that if candidates are admitted to the Matriculation class they should be fit persons for the Matriculation examination. In consequence of his remarks the Victoria College in the following year sent up all its pupils, and only 25 passed out of 130. The University might suspend the recognition of schools which send up unfit students. It would be difficult to penalize the students themselves. Good teachers test their candidates frequently, but under Dr. Duncan's rule they cannot be kept back. The rules of the Department and of the University clash. The rule enabling students over 20 years of age to go up as private candidates is mischievous.

The subjects for the F.A. examination are (1) English, (2) Sanskrit or some other language, (3) Mathematics, (4) History, (5) Physiology or Physiography.

F.A. Examination.

The minimum number of marks required to pass in English is 35. It should be increased to 40 per cent. Students should not be required to take up Mathematics, but should be given the option of Logic. The arrangements for History and Physiology or Physiography should be revised and the two branches made into one. The aggregate pass marks should be raised from 35 to 40 per cent.

It would be sufficient to teach Sanskrit and another ancient classical language. It would be advisable to abolish examination in vernacular languages. Some

Languages.

are in favour of retaining Tamil and Telegu, but that would give a grievance to the other vernaculars. The complaint that students do not know their own vernaculars is to some extent well founded; it is difficult to say whether the inclusion of vernaculars in the examinations is a suitable way of remedying this defect.

WITNESS No. 19.—The HONOURABLE JUSTICE SIR V. BHASHYAM AIYANGAR, K.T., B.A., B.L., C.I.E., DIWAN BAHADUR, Judge of the High Court and Additional Member of the Council of the Governor of Madras, Member of the Council of the Law College.

If the Universities are not converted into teaching bodies there is not much use in continuing them on their present basis. The establishment of a

Proposed University Course.

University as a purely mechanical examining body, has been one of the greatest blunders in educational policy in India. There should be a Pass Degree and an Honours Degree. The Pass Degree should be open to candidates who have attended a course of lectures in any of the affiliated colleges for three years. Those who wish to take Honours should have an additional course of one year, during which they must attend the University in Madras, which should provide an adequate staff of professors and teachers to impart the necessary instruction in one or other of the special branches of study. There should be only one examination for entrance into the University and the Public Service. It would be better that the University should conduct this examination, but if the Government will not recognize the University examination, then rather than have two separate ones, the University should accept the examination conducted by Government. Nothing has done more to produce degeneration in higher education in this Presidency than the multiplication of examinations during the last 25 or 30 years. Every means should therefore be taken to reduce the number of examinations. The standard of the Entrance Examination should be something between the existing Matriculation and the existing F.A., and the F.A. should be abolished altogether. At the end of three years from the Entrance Examination candidates might be allowed to appear for the Pass B.A. That examination would be conducted by the University, but the University need not insist on students attending a course of University lectures for it. Those who wish to take an Honours degree must attend a course of lectures in the University during the last or fourth year. The course should relate to some special subject. The Honours examination will embrace not only subjects in which instruction was given in the affiliated colleges, but also the subjects included in the last year's course. Honours candidates need not first present themselves for the pass examination.

A certain number of professors should be appointed by the University, who would devote the whole of their time to University work. The University might also appoint professors whose chief duties would be in some college in Madras, but who would devote two or three hours a week to delivering lectures and teaching students in the University. The centre of University education might be located at Guindy or Pallavaram, where there would be accommodation for professors and students as well as for lectures.

Appointment of University Professors.

At present the University is a University only in name and does not afford any scope for endowment. There are a number of endowments which are all frittered away in gold medals and prizes, which are absolutely useless. If a start is given to a teaching University, it is not unlikely that in course of time native gentlemen could create endowments which would go towards the formation of a University fund. The endowments might be either for professorial chairs or for hostels. The Government could contribute to the University the money they now spend in maintaining the Presidency College, which might be abolished. The University cannot be worked on the basis now suggested unless the Government makes a liberal contribution for some years. Able Professors will have to be engaged, and it is doubtful if the fees obtainable will be adequate to the defrayal of the cost of such a University.

Funds and Endowments.

The object of proposing an Honours Degree is not to lower the standard of the Pass Degree, but to raise the standard of teaching. Special concessions might be made to those who cannot for some reason or another come to Madras to reside.

Incidental Questions.

Witness has not the slightest faith in the results of a merely written examination. The examinations should be in three parts. First, question papers to be answered from memory. Second, question papers to be answered by consulting books which should be placed before the students. Third, oral. In the case of the Honours Degree all these methods should be employed. The great defect that one finds in the men trained by the present system of examinations is that they try to solve questions and problems simply by the aid of the memory, and the result is that they make many blunders, which they could avoid if they referred to books. The system of public examinations should be such as to cultivate this habit of reference, whereas in fact it merely cultivates the memory.

Methods of Examination.

The fee may be made very high for those students who receive instruction for the Honours Degree in the fourth year of their course. It might be Rs. 50 or more. This would not be likely to diminish the number of candidates, for those who take the Honours Degree ought to get on most successfully in the public service. The notion that degrees are passports to the public service should not however be encouraged; nor the idea that promotion in the public service is the reward for a successful University career.

Fee for Honours Course.

Tuition is the most important part of instruction. Professorial lectures may be desirable, but it should be borne in mind that tuition is absolutely necessary, and that the way in which lectures are now delivered is very unsatisfactory. Lectures must be supplemented by tuition. Students should be prevented from taking notes while a lecture is being delivered. They should have their eyes upon the lecturer and follow him closely. After the lecture the students should not be allowed to leave the room. They should remain and take notes of the lecture which should be signed and made over to the professor who should go through them and the next day question the students. He will thus be in a position to see how far the lecture has been followed by the students, and how far it has made an impression on their minds. The present system is useless, and if the student passes his examinations it is not because he attends to lectures, but because he crams.

Method of Instruction.

In Government colleges it is the practice for Professors to devote only ten hours a week to tutorial work. Witness does not understand why public servants in the Education Department should have the privilege of devoting only ten

Hours of Teaching.

hours a week to the discharge of their duties, when other public servants are obliged to devote eight hours a day. If the professors were to devote, say, at least 20 hours a week, the classes that now consist of 100 students might be divided into two sections of 50 each, and the professors might devote 10 or 12 hours to instructing each section.

Another defect of the present system is that no personal influence is exer-

Personal Influence.

cised over the students. Owing to the multiplicity of subjects each student comes in contact with a professor for only about one hour a week or a fortnight. If tuition is to have any effect it should not be imparted by a dozen teachers. Every pupil should be under the influence of one good teacher. Even in the primary schools it appears that the students are under the influence (which is *nil*) of six or eight different teachers.

The term Fellow in its application to the Senate is a misnomer. The

The Senate.

word means something different at Oxford and Cambridge. The Senate has become very unwieldy. Thirty was the number contemplated at the outset with power to the Governor in Council to increase the number. The present Senate should be dissolved, and the numerical strength fixed at a minimum of 30 and a maximum of 50, with certain *ex-officio* members over and above these. Under the Act of Incorporation the appointment of a Fellow is not for the purpose of paying him a compliment, but to assist in the management of the University. It is not conferred like a degree, though it has come to be regarded as such, and therefore nominations to the Senate should be made on the principle that those who are appointed possess expert knowledge, and that those who are only laymen have sufficient general knowledge to neutralize any one-sided course which the University might take if its control were exclusively in the hands of experts. The existing numerical strength of the Senate is upwards of 200. The whole body should be dissolved and the first nomination of Fellows or whatever they may be termed should be made by Government. Vacancies ought to be filled by votes in three ways—first by a vote of the Senate itself, second by the vote of a convocation of graduates, and third by Government. The Senate should be divided into Faculties. Outsiders not exceeding in number the members of the Faculties who are Senators might be appointed to each Faculty. The present system of election by graduates should not be continued. A convocation of graduates should be established and allowed the privilege of electing Fellows. Such a convocation is essential if graduates are to be regarded as having any connection with the University.

The M.A. Examination should be abolished in view of the proposed

M.A. Degree.

introduction of the Honours course. The honorary degree of M.A. might be conferred on graduates of ten years' standing if they have done honour to the University. The University would thus stamp with its approval its most distinguished children. Whilst the Honours degree will give all, and more than, the advantage of the present M.A., the new M.A. will act as a strong incentive, and every graduate will strive his best to win the approbation of his *alma mater* by his conduct and public services in any Department which he may enter. Thus both the University and the graduate will be honoured.

WITNESS No. 20.—MR. SRINIVASA RAGHAVA AIYANGAR, B.A., C.I.E., DIWAN BAHADUR, Inspector General of Registration, Madras.

Of late years there has been a revival in the taste for, and appreciation

Seats of Ancient Learning.

of, ancient learning. At present such learning is kept up in places called *maths*, or religious houses. There are several of them in Native States, and in some big zemindaries, where every year there is a large gathering of pandits, that is to say, men learned in the shastras collect there and hold discussions. People have also of late been combining together to hold discussions on theological subjects. If a way could be found to include these pandits in the University system, it would be an advantage, because the more the University is connected with the national life of the people, the more it will be fruitful

for the higher purposes of civilization. It might tend to keep up the study of ancient learning if power were given to these seats of learning to constitute themselves into a separate University for Oriental languages, but the pandits have no regular methods, and would not conform to rules and regulations. An attempt might be made to constitute them into a separate faculty without instituting regulations and to grant titles such as 'Mahamahapadhyay' on their recommendation. It would, however, be difficult to supervise them and to say how far in any particular case their recommendations should be accepted, and any inspection for the purpose would be resented.

If the Madras University could be turned into a teaching University it would be a very good thing, but there are a great many difficulties in the way.

Teaching University.

Something may, however, be done in this direction. The object of a teaching University is to cause men to be properly trained and looked after, and to afford proper facilities for pursuing studies even after graduation, either for higher degrees or for purposes of research in the higher branches of Science. Up to the B.A. degree examination the present arrangements may be left alone, because the subjects are taught in several mufassal colleges which cannot be abolished without detriment to the cause of education. Many of them are situated at a great distance from Madras, and the people of those parts would be heavily handicapped if they were abolished. In the remote future the growing popularity of the central teaching University might lead to their abolition. For the purposes of the M.A. Examination many of the colleges are not properly equipped, and it would be proper for the University to appoint Professors and to require students of all colleges who wish to pursue their studies for the M.A. degree to be taught by professors and assistant professors appointed by the University. Arrangements might also be made for giving lectures on advanced science. For these purposes Professors of the very highest eminence might be employed, possibly men of European reputation might be brought over on temporary engagements and such Professors and specialists as are in India either in the Government or the mufassal colleges might be asked to deliver lectures if they can find time to do it, and it might be made worth their while to do so. There should be a laboratory on a large scale to which all students should have access; also a good library. The teaching staff for the higher subjects is not sufficient. When a Professor has to take leave, there is sometimes difficulty in filling his place. At present there is only one Professor for each subject: there might be one or two more men, and additional aid might be secured by giving Fellowships to promising students who wish to devote themselves to the pursuit of higher studies. The scholarships should be substantial and should be continued not for the two years of the M.A. course, but, say, for five years, and those men who are fit for teaching might be given licenses to teach, and in course of time as they acquire experience they would be available for filling up gaps which might occur in professorships by the incumbents going on furlough or in other ways, and eventually they might be appointed permanent Professors. The scholarships must be substantial enough to support the students and in their case the 25 years' rule for entrance into Government service should be abrogated. The unsuccessful would no doubt find it hard to get a livelihood elsewhere. The funds for the scholarships must be provided by the Government. It is a proper subject for Government expenditure and the class of persons who send their sons to colleges is in general so poor that post-graduate study cannot be expected without some such encouragement. Primary education is no doubt also in want of new funds, but the money required for the scholarships would not go far in this direction and the two questions should be considered altogether apart.

The present number of the Senate is very large and capable of reduction.

The Senate.

Many of the Fellowships are given by way of compliment, but this is not altogether a

bad thing as it interests people in the University and makes them regard it as a national institution. Much depends on whether the Senate is regarded as a working body or merely as a body which furnishes some of the workmen. There has not been any very great hitch hitherto. The number can be reduced now by ceasing to make appointments for some time to come. If the Senate were being constituted on a new basis or for the first

time, the number of Fellows might be limited to from 110 to 120. If the affiliated colleges are to be inspected for the purpose of seeing whether the rules and conditions laid down for affiliation are being faithfully observed, it will be necessary to give the heads of such colleges representation on the Senate. The missionary colleges will have to be represented: they are doing very good work. As a counterpoise men of other classes will have to be appointed, so that there may be due representation of all interests. The Government will have to hold the balance evenly, and the Senate must be a fairly large body. A great object is to make people identify themselves with the University and contribute to its funds.

The present method of election is not found to work altogether satisfactorily, and it is desirable to limit the election of Fellows to a body similar to the

Election of Fellows.

Convocation of graduates of the London University. Only such candidates should be admitted to the body as care to keep up their connection with the University and pay a small fee in token of their allegiance. An endeavour was made to introduce the system some time ago but was negatived by the Government who had introduced and were watching the system of election by Fellows. The above suggestion answers the further question whether a register of graduates should be kept. Registration is desirable and any system which will tend to maintain interest in the University among the graduates will work for good.

The Syndicate is too small, much smaller than in the other Universities.

The Syndicate.

Including the Chairman there should be 12 Syndics. As the constitution stands at present certain men must in practice be appointed, for instance: for the Medical Faculty, the Principal of the Medical College; for the Engineering Faculty, the Principal of the Civil Engineering College; for the Law Faculty, one of the Law Professors; also the Director of Public Instruction, the Principal of the Christian College, and the Principal of the Presidency Collège. Thus the present number is very nearly filled up, and it is possible almost to predict beforehand who are the men who will be on the Syndicate. If there were one or two more appointments it would give an opportunity for introducing new blood.

Men outside the list of Fellows should not be put into the Faculties.

Faculties.

They should be recruited solely from the Senate. The Senate itself should exercise its most important functions. There is a feeling that the Senate has too little power. Generally speaking if any rule originally passed by the Senate is to be altered or a rule prescribing the basis of the constitution of the Senate or of important bodies is to be made, the alteration should be carried out with the approval and sanction of the Senate, but when the Senate delegates its powers to a select body of men then the recommendations of the latter should be accepted. The Faculties should not make their own bye-laws. There would be no objection to the creation of a class of honorary Fellows who would not be put into any of the Faculties.

There has been some deterioration in the quality of teachers in schools. This

Quality of Teaching.

may be attributed to the abolition of a number of Government schools. Teachers have not the same security and prospects as formerly in Government service, and this deters the best men from entering the teaching profession.

WITNESS No. 21.—MR. K. RAMANUJACHARIYAR., M.A., B.L., Principal, Maharaja's College, Vizianagram.

It would be desirable to convert the existing Universities into teaching bodies, but it is not possible to take such

Teaching University.

a step. Due regard must be had to the mufassal colleges. Twelve out of the 15 first-grade colleges and 32 or 33 out of the colleges of the second grade are in the mufassal. Two-thirds of the candidates come up from the mufassal colleges. It would not be desirable to abolish those colleges and collect the whole of the five or six thousand students at Madras. It would prevent the poorer up-country students from completing their education. Mufassal colleges should therefore be left alone but, if funds permit, the

University might have its own Professors who would deliver lectures to post-graduate students in special subjects. If inducements were offered either by the University or by Government a number of students would be found willing to continue their studies beyond the B.A. There is a difficulty about the employment of men who have studied after obtaining a degree and some might become recognized teachers. The University Professors should in the first place be mainly for Natural and Physical Science.

It is desirable that the University should have a list of recognized teachers.

Recognized Teachers.

Some regard must be had for the interests of existing teachers. Those who have been Professors or lecturers in colleges for five years should be regarded as qualified; and their names should be included in the list of recognized teachers. Qualifications should be prescribed for those who wish to become teachers after the issue of the list. The M.A. degree would be a suitable qualification for an assistant Professor. After working satisfactorily for five years and obtaining a certificate from the Professor the assistant might be included in the list of persons eligible for professorships.

The present number is too large. The Senate would be more efficient with

The Senate.

less than 200 members. The reduction might be effected by leaving vacancies unfilled. After the course of 10 or 15 years the strength of the Senate would be sufficiently reduced. The professional element should be better represented in the Senate. All heads of colleges should be Fellows of the University, and the Government or the Senate should select a certain number of Fellows from the Professors.

The graduates prize the privilege very highly and it should not be taken away from them. The qualification for

Election of Fellows.

voters might be reduced from 20 to 10 or 15 years, and to 5 years in the case of graduates employed in teaching in colleges.

Faculties.

It is not desirable to assign every Fellow to a Faculty. The Faculties should only include specialists.

The Matriculation Examination should not be abolished. It might be possible for colleges to examine their own

Matriculation Examination.

certificates granted by head-masters would not carry the same weight as Matriculation certificates. A school-leaving examination conducted by Inspectors or other Departmental agency would not be so efficient as the Matriculation Examination. The Inspectors have not got the time.

To some extent it is true that students entering colleges cannot understand the lectures. One cause of this is the abo-

Matriculation Examination—English.

lition of the English text-books, which ought certainly to be re-introduced. The abolition did not discourage cramming. On the contrary students now simply cram up grammars and manuals. The Education Department prescribes text-books, but as they are not needed for examination they are studied in a perfunctory manner.

Elementary Botany and Zoology should be introduced into the Matriculation curriculum. There is a difficulty in

Matriculation Examination—Science.

finding time for more subjects, in this case it may be met by teaching both Natural Science and History and Geography in the vernacular. Botany and Zoology are specially needed because boys have little knowledge of their surroundings, and of plants and plant life.

In the First Arts Examination, English, Mathematics, a second language, and History are compulsory: Geography

First Arts Examination.

and Physiology or Physiography are optional. The number of optional subjects should be increased and the number of compulsory subjects reduced. English, Mathematics, and a second language should be compulsory. History should be removed for the optional subjects and Zoology and Botany and Mental and Moral Science added to them. The reason for this proposal is that students should begin the study of their special subject before the third year. Two years is not enough for a subject like Philosophy.

Candidates should not be allowed to take up a vernacular as an alternative

Matriculation Examination—Languages.

to a classical language. In the interest of the vernacular language itself the study of a classical language should be compulsory. Under the present system

students do not become proficient in the vernacular. Sanskrit is essential for a proper study of Telegu. The languages are not allied, but Telegu has become so far Sanskritised that it cannot be studied without a knowledge of Sanskrit.

Too many marks are assigned to technicalities in grammar which can be crammed up by the student. More marks should be given for essay writing.

F.A. and B.A. Examinations—English.

The knowledge of classical languages, such as Sanskrit, acquired by students is so small that it is hardly worth retaining the subject on its present footing. After several years' study the students cannot write half a dozen lines of Sanskrit. To improve the method of study candidates should be required to write the answers in Sanskrit instead of in English. To equalise matters the same rule ought perhaps to be applied to other classical languages.

F.A. and B.A. Examinations—Classical Languages.

Moral Text-Book.

The example of a good teacher can do more to influence moral training than the study of a text-book.

The rules of affiliation are sound, and if the Syndicate enforced them strictly, it would be impossible for a college which is not up to the mark to come into existence. There is a bye-law authorising inspection, but it does not appear to have been put into force.

Rules of Affiliation.

Discipline.

The majority of students in Southern India are well behaved, and it is not difficult to enforce discipline.

Every college should have a hostel. In Vizianagram the majority of the students live with their parents and guardians, and those who come from other places live with relations and people who take some interest in them. Very few live in lodgings. Out of 90 students, about 70 live with their relations, and the hostel would be required to accommodate 20 students. Hostels would greatly assist the heads of institutions to maintain discipline among the students and their morals could be better looked after. The witness inspects the quarters of those of the students who live in lodgings to see if their sanitary condition, etc., is satisfactory.

Hostels.

Oriental learning.

There is a Sanskrit College in Vizianagram which was formerly only a college in name. Pandits taught boys who attended the institution but there was no regular system of examinations. Once in two or three years the boys were examined, and those who did well were given certain prizes. About a year and a half ago, the witness requested the Director of Public Instruction, North-Western Provinces, to include Vizianagram in the examination for the Government Sanskrit College at Benares. A number of students appeared, some for an examination which corresponds to the Matriculation and others for an examination which corresponds to the F.A. and all who went up did well. There is a Sanskrit College at Calcutta, and it would be a good thing in the interests of the study of Sanskrit in the Madras Presidency if a Sanskrit College were established at Madras, which would be a model for other schools and colleges in the Presidency. The studies in the college should be Eastern in depth and Western in breadth. The University should grant degrees and the standard of examination should be a very high one. The establishment of an Oriental University was discussed by the Senate and dropped.

WITNESS No. 22.—MR. J. COOK, M.A., F.R.S.E., Principal, Bangalore Central College.

Disabilities of Mufassal Colleges.

The disabilities of mufassal colleges are many and great.

The Madras Colleges have an unequal proportion of examinerships, and the Chairmen of the several Boards of Examiners. This gives them too great a share of control in the examinations. It

First Instance.

Unequal Proportion of Examinerships.

is quite unnecessary because Madras Colleges are not equipped with better men than are to be found in mufassal colleges. Without attributing any undue

partiality on the part of examiners to their own students, it is obvious that students are more likely to gauge the sort of questions that will be set by their own Professors. Students believe there is a better chance of passing if they go up from a Madras College. Witness could not say whether there is ground for this belief but maintained that it existed.

Outside examiners have been introduced in Science, but they are not a success owing to want of teaching experience. Professors make the best examiners. Those qualified should be appointed in turn. Until recent years the witness was the only member on the staff of the Bangalore College, who was on the examination staff. It is not necessary that an examiner should reside in Madras for the purpose of consultation, etc.

If a mufassal Principal writes to the Registrar and says that he is surprised that such and such a student has failed, and asks for his marks, he is

Second Instance.

Inaccessibility of Examination Marks. informed that it is against the rules to supply them, but that if he comes to Madras he can see the books. For a Principal in Madras there is not therefore the slightest difficulty in seeing what has caused a failure among his students. The marks should be furnished to all heads of colleges. That was the rule some years ago and it was a great convenience. The practice was stopped owing to the head of a certain college making an unfair use of his knowledge of the marks. The marks given to each candidate in every subject should be published, as in the case of the Civil Service Examinations. Candidates are not even allowed to see their marks on payment of a fee.

A third disability is that all B.A. students have to repair to Madras for the B.A. examination. This is quite unnecessary and the result is often disastrous.

Third Instance.

B.A. Examination held only in Madras. The students have to put up in any sort of lodgings and many get fever. At the time of the last examination there was a cyclone in Madras and many candidates had to wade through several feet of water to go to the examination hall: several became ill. The arrangements for holding the examinations in Practical Chemistry and Geology have also been unsatisfactory. Ten or eleven years ago the English and second language examinations were held locally and the students went to Madras for the practical examination in Science. The reason for sending the candidate to Madras is that it is supposed to be safer and that there are supposed to be greater facilities for practical examination. The arrangements made at the Medical College for the practical examination in Science have been bad, and the examination could have been conducted better at Bangalore. This year the arrangements were better. It is not necessary for the University to have examination laboratories: with outsiders to supervise there is no reason why such examinations should not be held at local centres. Marks are not given for manipulation and it is not, therefore, necessary for the examiners to be present. For the M.A. it is right that the examinations should be held at Madras.

Mufassal colleges ought to be represented on the Syndicate, at least as far as the Arts Syndics are concerned. There

Fourth Instance.

Want of Representation on the Syndicate. would be no practical difficulty if the regular meetings were arranged for Saturdays. Under existing arrangements no more than three Art Syndics are sometimes present at meetings. The number of Arts Syndics should be raised from 5 to 8, thus increasing the total number to 12. This would not give an undue proportion to Arts. The rule requiring residence in Madras should be rescinded and three of the Arts Syndics should be representatives of mufassal colleges. There are conflicts of interest between the up-country and the Madras colleges which render the representation of the latter necessary. In many cases when witness has sent proposals to be laid before the Syndicate, they have been treated inadequately for want of proper representation.

As the colleges are part and parcel of the University, every first-grade college should be represented on the

Fifth Instance.

Inadequate Representation on the Senate. Senate by at least one, or more properly by a fair number, of its staff. As it is, the large Madras colleges, such as the Christian College, have a number of

members on the Senate altogether disproportionate to the number of their students. A mufassal member not infrequently finds the large body of Madras members formed into an unassailable barrier against his proposals. The Madras colleges do sometimes combine against up-country proposals.

The number of members of the Senate should be reduced by some gradual eliminating process, so as not to give offence, and as far as possible member-

Constitution of the Senate.

ships should be limited to educational experts or those actually engaged in education. It is not essential to elect a fixed number as the number of colleges is not fixed. The maximum number should not exceed about 150. There should be some members of the Senate to represent non-educational opinion. In especial there should be outsiders for professional subjects.

The history of the Science degree is an instance of the manner in which expert opinion is overruled in the Senate.

Science Faculty and Degree.

The teachers in Science have been unanimous in desiring the institution of such a degree, but have been unable to persuade the Senate to accept it. The subject was dropped for a number of years and recent attempts to resuscitate it have met with little success. A reason for this is that the colleges outside Madras, Bangalore, and Trivandrum have not the staff or appliances for teaching for a B.Sc. degree. A main object would be the training of competent native teachers of Science. This is at present a great want. The M.A. course is not well suited to this purpose. Mathematics would come in both the Arts and Science course, general Physics in the former and more advanced Physics in the latter. The creation of a B.Sc. degree should not oust Science from the Arts course. A general diffusion of scientific knowledge is desirable, and Science is a valuable training for the Indian mind. The old B.A. course in which students took up both Physics and Chemistry was better than the present more specialized course. The object of the B.Sc. is to produce specialists. A great defect in the present system is that the same Professors have to teach both for the M.A. and B.A.—it spoils the teaching in both courses.

Faculties should not make their own bye-laws, but the representations of a Faculty should have very great weight in the Senate and be accepted almost as a

Faculties.

matter of course.

Nothing is more injurious to our educational system than the present association of colleges and high schools which prevails everywhere except in the

Association of Colleges and Schools.

Presidency College. The time has come for a complete separation between the two. Our colleges have all grown out of high schools. The colleges cannot be developed while school methods are followed. The discipline is injured and there are other defects. The pandits at Bangalore teach in three high schools and four college classes—seven in all. That is too much. The adjustment of the school and college time-tables is difficult. There is also a tendency to continue to treat the students as school-boys when they have been promoted from the school to the college classes. The F.A. classes ought not to be added to the schools, and instruction in them ought to be collegiate. The high schools and colleges should be entirely separate. The separation will cost money and in some cases the high school may be deprived of appliances, etc., which they now use. That is a minor defect compared with the advantages of separation. Corporal punishment is inflicted in the schools and not in the colleges. In this respect it is easy to make a distinction, but there are other disciplinary matters in which distinction is much more difficult.

The time when one can begin to treat the student as a man varies greatly in individual cases. The age of 16 might be taken as the general standard. It

Age Limit.

would be difficult to fix a minimum age for entry into college. It would be more useful to fix an upward limit to get rid of students who hang on trying to pass. Nineteen might be the superior limit or students might not be allowed to go up for the Matriculation Examination more than three times. Students who go up as private students under the 20 years' rule have probably been trying ever since 15.

Classical languages are a better training than vernacular languages.

Classical and Vernacular Languages.

Sanskrit stands to a Hindu boy's studies in the same relation as Latin and Greek

to the studies of an English boy. In Bangalore Sanskrit is taught by a pandit under old-fashioned methods. He does not know English. It is very desirable that modern methods should be introduced. Judging by the high percentage of passes the present system suits the examinations.

It is not desirable to reduce the number of subjects in the Matriculation Examination; they are not more than students of average ability can easily master. Physics and Chemistry, if well taught by teachers who have had proper training, are a most valuable relief to the minds of the pupils. At present they are not well taught. A B.Sc. degree would greatly improve the teaching. There are not many Science teachers in the market. Very few M.As. take Science. The difficulty is not in the appliances, but in the care and self-denial required in teaching. The Mysore high schools have money enough for apparatus. The teachers have had no proper laboratory training. This is specially the case with Physics. Teachers are not at all ingenious in making and using apparatus and require more elaborate apparatus than do more skilled instructors. When Physical Science is properly taught you can see on the faces of the students that it is a pleasure and not a mental effort to them. The University has taken a backward step in joining Physics and Chemistry with History and Geography as one failing subject in the Entrance Examination. It will injure all the subjects. For instance, pupils do not like Geography and will shirk it in the hope of passing in the other subjects. The reason they do not like Geography is that it is taught in a dry and uninteresting manner. Free-hand Drawing should be compulsory in high schools, it would greatly benefit the teaching of Science.

It would be a great mistake to allow each college to conduct its own Matriculation Examination, for there would be no uniformity of standard. One of the most serious causes of the variation in the present Matriculation Examination is the fact that the number of candidates in any subject is too great for all the papers to be examined by one and the same person, and the personal equation therefore comes in. This defect would be multiplied many times if each of the 40 second-grade and 15 first-grade colleges had its own Matriculation Examination. The result would be disastrous. If each college were to issue certificates to its students which held good only at that college it would not be so bad, but there is such a constant interchange of students among colleges that it would be necessary to accept certificates given by an institution which perhaps depended for its popularity on their cheap issue. The University might lay down rules, but it would be difficult to carry them out. The same difficulty is at present experienced in high schools. The institution of a School-final Examination would not relieve the University of any large portion of Matriculation candidates. It is not the case that a large number pass the Matriculation who ought not to do so. The contrary is more common. The great part of the students go on to the E.A. Before passing they cannot say if they will go on with the course, it may depend on whether their people will befriend them. It is difficult to say whether some students take the University course merely because they have passed the Matriculation. Each step and the degree of success attained in it determines the next step. A disadvantage of the proposal to have a School-Final Examination and a supplementary University Examination for Matriculation is that it involves two examinations, and therefore increases the strain on the students. A few years ago the Director of Public Instruction instituted a secondary examination to fulfil the same function as the School-Final in Bombay, but it proved a failure as the students would not go up for it. Government did not disestablish the Matriculation Examination, and the students preferred to go up for it because it enabled them either to get into Government service or to enter the University. Witness was not sure whether the upper-school examination qualified for Government service.

The remedy for the present unwieldiness of the examinations will have to be found sooner or later in the multiplication of Universities. It is to be hoped that the day is not far off for the institution of a Mysore University at Bangalore. When that day comes the institution should be made a teaching University from the outset, and as far as possible a residential University with the Principals and Professors exercising personal supervision over the students

outside as well as inside the class rooms. In like manner, there should be a Hyderabad University, and two for Southern India: one at Trichinopoly and the other at Trivandrum. Each University would have to create its own prestige, and one University might acquire a special name for Science, another for Literature and so on, just as in the different German Universities. The question of the multiplication of Universities is now in the air in England. In the Madras Presidency one University is inadequate to the vast population which it serves. At first the new Universities would not require to have more than the Arts and perhaps the Law course. It must be admitted that a certain amount of prestige applies to a large mass and therefore, for some time, until these Universities gain their special name in some department of knowledge, there may be a loss of prestige. The great benefit that will be derivable from the teaching character of the Universities will minimise this loss.

Examinations should be given their proper place as necessary adjuncts to teaching, and should be dethroned from their present position of domineering tyrants. For example the present system of examinations prevents Professors from leading their students along any special path of knowledge. A Professor of Anatomy at a University at home will not lecture upon the whole subject but will devote himself to some special branch, which he has made his own province, and will cause his students to obtain a high degree of proficiency in it. In this way alone are masters in Surgery or in any other branch of human knowledge made. It is well known, for example, that students who pass through the Edinburgh University are very strong in a particular branch of physics, while much less stress is laid on other portions of the subject.

The present examination system in practical Physics in the M.A. course is not at all satisfactory. A student, who has done two years' good work in the laboratory, may be asked in the examination to do certain things within a definite time. It may happen that something goes wrong or he may get a little excited and make a mess of the practical examination. Although he may be a good man the examiner cannot give him marks for having failed to do what was required. It would be more satisfactory if the Professor under whom he had worked were empowered to give him a certificate that he had attended a practical course of two years and gone through a certain amount of practical work in a satisfactory manner. The certificate might be supported by the student's notes taken under the eyes of the Professor. To put a number of practical questions in place of one would not improve the present system. Even an experienced Professor may at any particular time fail in working out an experiment. A practical examination without a time-limit would be an improvement. The present defects are to some extent common to all examinations, but they make themselves peculiarly felt in practical examinations.

A few years ago the Director of Public Instruction in Madras held strongly that all boys in Matriculation classes should be allowed to appear for the examination, or at all events that the percentage of passes should be reckoned on the average number on the rolls. This was in order to prevent the practice, by no means uncommon, of filling a Matriculation class with boys totally unfit, in order to secure the fees, and then when the time of examination came round, to send up a small fraction of these boys and claim a high percentage of passes. Notwithstanding these instructions heads of schools have recently been criticised in the newspapers for granting certificates to students unfit to go up for the examination. If a student of the Bangalore school has been for two years in the Matriculation class, witness always says to him:—"You had better go up for the examination. It will confirm your parents and your own belief in the trustworthiness of our class examinations and tests. If the University test agrees with us, you had better transfer your attendance to another institution." Apart from exceptional cases all boys are granted certificates after they have been two years in the Matriculation class. Two class examinations are held a year. They are taken into account in granting certificates. If a candidate has failed hopelessly he is generally refused a certificate and then the college is subjected to a cannonade of beseeching

letters from parents and guardians pleading for his admission to the examination. In the Bangalore high school about 20 certificates are refused every year.

A case happened this year in which a student of the Bangalore school who had been refused a certificate got one signed by a Fellow of the University. The matter was reported to the University and the candidate was disqualified for making a false statement.

Fellows should not be appointed for a short term of years, because under those conditions fellowships would not be

The Senate.

esteemed so much as at present by those most to be desired on the Senate. More frequent changes in the personnel of the Senate would also intensify the evil of incessant tinkering with University rules and standards. Eligibility for re-election would not cure these defects. To reduce the size of the Senate a smaller number should be appointed every year, and these should be educational men. It would not be desirable to stop appointments altogether as it is necessary to have fresh blood in the Senate.

The principle of the inspection of colleges exists theoretically and there is provision for it in a bye-law; but it has not yet been done practically. No

Inspection of Affiliated Colleges.

University officer has paid a visit to the Bangalore College to see whether everything is all right and whether the laboratory is satisfactorily equipped for teaching practical Chemistry, etc. Nor has there ever been a surprise visit from a University officer to see whether the examinations were being properly conducted. The University should have a special officer whose duty it would be to visit each college once a year. The Syndicate might depute members to visit colleges, but there would be almost work enough for a standing officer of general all-round ability.

The Universities should exhibit less jealousy in the recognition of each other's examinations and degrees. This

Mutual Recognition.

want of mutual recognition causes hardship to both European and Hindu students. For instance, a Hindu student of the Bangalore College had attended a college affiliated to the Calcutta University for a couple of years and was ready to go up for the F.A. when his father was transferred south and the boy was obliged to accompany him. The Syndicate would not be persuaded to allow him to appear for the F.A. examination at Madras. Such want of fellow-feeling between the Universities is to be deprecated.

Heads of Colleges and Professors are often accused of doing very little original work in this country. The

Heavy Work of Professors in India.

reason is that there is too much lecturing and teaching to be done, to leave any time or energy for original work. The amount of work is much greater than falls to the lot of Professors at home. Apart from teaching, Professors in India have to take an interest in the students in a thousand ways which are not required at home. Students need far greater help in India than do English students. This is due not so much to want of originality on the part of students as to want of self-confidence. It is possible that if students were left to do more for themselves, it would increase their ability. They get into a habit of relying on others. M.A. students do not get the same regular assistance and that is one reason of the paucity of such students.

WITNESS No. 23.—Lieutenant-Colonel W. R. BROWNE, M. D., I.M.S., Principal, Medical College, Madras.

It would be impracticable to have one examination in medicine for all the Universities in India. The examinations

Common Standard for Medical Degrees.

could not be held at one centre. The whole tendency of examinations in medicine of late years has been to make them as practical as possible, and it follows that the examiners must be present to conduct practical examinations in the hospitals and local colleges where the examination is held. It is desirable, where there is any competition, that the same letters should indicate approximately the same amount of knowledge. The degree of Bachelor of Medicine represents in all the Universities

in India that a man is competent to be a good practitioner in medicine and surgery. It may safely be left to the Universities of the different parts of India to maintain a fair standard for the degree. It would not be desirable to have common theoretical papers and local practical examinations, the two ought not to be dissociated. The system was tried in the case of the Lahore University, but it did not work satisfactorily and has been dropped of recent years.

The F.A. is the preliminary qualification for the degrees of both M.B. and L.M.S. It was hoped to introduce the Preliminary qualifications for the study of medicine. B.A. for the M.B., but it was found that this was likely to lead practically to the closing of the M.B. course. The degree of education represented by the F.A. varies with the students, but speaking generally it is enough to begin with. The majority know enough English to appreciate their special teaching. There are exceptions; sometimes students can read a book and relate its contents fairly well, but fail to follow rapid speaking such as one is accustomed to in the lecture room or by a bedside. In Southern India students are so accustomed to speak in English that the defect is to be attributed rather to deficient training than to want of practice. The errors that students acquire are apt to be perpetuated. A knowledge of a classical language is not necessary for entrance into the Medical College in this Presidency, but as a student who wishes to go home must know Latin, all are advised to pass in Latin. It is not necessary to legislate for the few who go home. It is desirable for an Indian Medical student to know Latin.

There is a certain amount of foundation for the statement that the constitution of the medical service involves frequent transfers from one professorship to another. The same thing occurs in England. Medical officers are appointed to Madras because they are known to be good men, and the professors are usually selected from them; sometimes, however, a professor is brought direct from up-country. Certain Professors in the Medical College here are not allowed to practice. The Professor of Chemistry is one and the Professor of Pathology another.

The medical Faculty is sufficiently represented by one member on the Syndicate. Speaking generally, one man each for Law, Medicine and Engineering, and the present number of members for Arts is amply sufficient to conduct the work of the University. A larger Syndicate would mean longer and more wearisome discussions, and no more work. It is essential that the Syndics should be resident in Madras; a man living up-country could not do the work.

WITNESS NO. 24.—MR. B. HANUMANTA RAO, B.A., Professor of Mathematics, College of Engineering, Madras.

It is desirable that the Indian Universities should develop into teaching Universities and provision ought to be made in the new Act for this purpose. Teaching Universities. The affiliated colleges are a part of the University, and ample provision is made in them for teaching up to the B.A. standard. The University should provide for post-graduate teaching first by a good library, secondly, by a good laboratory, and thirdly, by the appointment of Professors. Professors might be selected from the local colleges and given some extra remuneration. In Bombay and Calcutta regular classes are held for the M.A. course, but there is no such provision in the Madras University. If in any subject six students should come forward to receive instruction, the University might appoint a Professor. Science must take an important place in this arrangement; and probably English Professors might be induced to come out to India to teach this branch of knowledge. The University has sufficient funds, and secures a good surplus every year. Arrangements should also be made for occasional public lectures, some of which might be popular, and others relating to advanced subjects. Many would attend and a small fee might be charged.

In the interests of students the University might lay down the qualifications of teachers. In a good many affiliated colleges subjects are not taught by qualified men. Rules are in existence to prevent this, but at present nothing is

Recognition of Teachers.

done to see that they are carried out. The appointment of unqualified men has been prevalent only during the last 10 or 12 years. The reason is that good men do not care to join the Educational Department as their prospects in that line have deteriorated owing to the abolition of Government schools and colleges. These remarks apply specially to Assistant Professors who do the bulk of the work.

The Senate consists of some 200 Fellows, about 70 of whom have never attended a single meeting. About 86 of them are residents of Madras, of whom only 25 or 30 attended meetings. A rule that those who do not attend a certain number of meetings during an academical year should forfeit their privileges, would be a great gain for the University. The 200 Fellows include some who have left the Presidency for good. The rule could not perhaps be applied to native princes and other important benefactors.

There must be some *ex officio* Fellows. A few are provided for by the Act of Incorporation, and latterly an attempt has been made to include first and second grade colleges. If the number of Fellows is reduced, the *ex officio* members might consist of the Principals of first-grade colleges, the members of the Executive Council and the Judges of the High Court. The *ex officio* Fellows will amount to about 35 and with another 50 members will form a sufficiently large senate. European Fellows, who leave India, should forfeit their fellowships; if there is to be a rule about attendance it does not matter whether fellowships are made terminable or not.

The system in vogue in the London University might be adopted, *viz.*, three out of every four Fellows to be appointed by Government and the fourth to be selected by Government from three nominations made by a Convocation of Graduates.

The existence of the Syndicate has been recognised by the Act for conferring Honorary Degrees, and no further statutory powers need be given. The number should be increased by 3 or 4 persons having more leisure than the present members, in order to relieve the latter of some of the work they have to do. Permanent Committees should be appointed; one for accounts, another for considering changes that may be required in the curriculum of studies, particularly for Arts, and another for inspecting affiliated colleges. If necessary, travelling allowances and a fee should be given to Inspectors for the purpose of visiting colleges.

The Syndicate does not communicate matters of interest sufficiently promptly to the Senate and Faculties. Important matters come up and are decided, and members of the Senate may not have any official knowledge of them until long after the event.

The several Faculties are at present merely advisory bodies, with hardly any work to do, unless questions are referred to them by the Senate. The Faculties should meet once a year after the examinations and go into the results, and examine the reports of the various examiners.

Meetings of the Boards of Studies should be made compulsory once a year. The Mathematical Board has not met for 9 years, although there have been complaints in regard to the curriculum. No text-books are prescribed in mathematics. No member of the Senate has moved to have any change made in the curriculum of mathematical studies. The Board of Studies is the proper body to appoint examiners. At present the Syndicate appoints examiners, each Fellow sending in a list of names of the gentlemen whom he thinks fit to be examiners. Principals of colleges also send in names.

The University keeps a register of graduates, but if a Convocation of graduates comes into existence on the lines of that existing in the London University, a separate register should be kept of those who wish to continue their connection with the University, their names being registered on payment of a small

annual fee. The same power should be conferred on the Convocation as in the case of London. All B.A.'s of five years' standing should be eligible for membership.

It is not desirable to confer the Honorary Degree of M.A. on teachers who come from other Universities. Really good teachers will belong to the Senate.

Graduates of other Universities.
College certificates in the F.A. and B.A. classes are not easily obtained, although there is a great deal of laxity in promoting students, especially in promoting them from the first year's to the second year's class.

Certificates.
This is a mistaken act of kindness; colleges in which the Syndicate has reason to believe there has been great laxity in this respect, for instance, colleges producing bad results for three consecutive years, should be warned that they will be disaffiliated if proper precautions are not taken in the matter of promotions. In the fourth year they might be asked to send up the marks of the college examinations on which they based their certificates. There is great laxity as regards certificates that Matriculation candidates produce from Head Masters of schools. Schools have periodical class examinations, but nevertheless in most schools from one-third to one-half the pupils are unfit for the Matriculation class. Head Masters agree that boys are improperly promoted to the Matriculation class, but they say that they are powerless because they are in the hands of the managers. Headmasters have not complained that the Educational Department orders them to send up all the Matriculation class to the examination. There is great laxity in promotion, all through the school course. Dr. Duncan said as follows in his last annual report:—"The truth is that indiscriminate promotions and indifferent teaching are the principal causes of the deterioration that has taken place in secondary education. This is conclusively borne out by the fact that every year about one-third of the pupils of the 6th Form are not allowed to appear for the Matriculation examination. The immediate interest of the head of a school is to secure as large a fee income as possible by increasing the attendance, especially in the higher forms in which the fees are high; and the immediate wish of parents of the pupils is to see their sons promoted year by year. In this way, good, bad and indifferent pupils get promotion, and the good suffer owing to the presence in class of the bad and indifferent." This has been the cry for a series of years, and Dr. Miller in a series of articles in the "Journal of Education" has given voice to the same complaint. It would be a very drastic remedy to reduce the grant-in-aid to a schoolmaster who improperly promoted pupils. An example might be made of one or two schools, but the plan could not be generally applied. If for a series of three or four years, the results have been bad, the school should not be recognised for the purpose of examinations. It is a matter for opinion which remedy is the more drastic. The former applies to all classes, the latter only to the Matriculation class. Both remedies might be adopted. At present the first real check on the advance of the pupils is exercised by the University by plucking candidates who are unfit in the Matriculation examination. In the examination before last only 1,300 passed out of 7,000.

It is part of the functions of a University to look after the moral and physical welfare of its undergraduates. The University of Madras should set apart a sum each year for annual athletic sports open to all the colleges. In places where there are two colleges or more, societies might be formed for discussions and debates open to undergraduates of all the colleges, and perhaps inter-collegiate lectures might be encouraged. When witness was in the colleges at Kumbakonam and at Rajahmundry, the tutorial system was in force, each boy was placed under the care of one of the members of the staff, who was expected to look after him during his college course. The system was very successful. Sometimes the assistant lecturer used to go round to the several houses and see the environments of the students. He knew how the students lived and whether they did their studies, and occasionally all the students used to meet under one tutor and have discussions in the college rooms.

On the staff of every college there ought to be a number of pandits for the teaching either of the vernaculars or Sanskrit. These gentlemen are more

or less orthodox and they might be asked to read out a chapter from some moral text, say the Ramayana or the Upanishads to the students and there might be a discussion on it, or one of the English professors or assistant Professors might expand on what had been read in English.

The best thing that could be done for the moral welfare of students, would be to have hostels attached to each college. But funds are wanting in most colleges and it would be impossible to provide for all the students. In the University at Tokio each student has to find two responsible persons who act as sureties for him. This plan might be adopted. At present some students live in the Black Town in surroundings that must be harmful.

To some extent the knowledge of English is insufficient on the part of those who enter college classes, but this is not now so much the case as it was 10 or 12

University teaching - English.

years ago when there was a great outcry and Government started a second school examination. The abolition of text-books for the Matriculation examination in English was a great mistake. Now the students cram up a number of manuals. Even if they learnt the text-books by heart it would be much better than this. English Grammar should also be studied more with a view to reading plain English correctly than to the learning of technicalities. The Teachers' Guild in Madras called for opinions of head-masters about the abolition of text-books, and a large mass of evidence was collected, and the subject was also brought up before the Educational Conference a couple of years ago. Although a large majority were in favour of the re-introduction of text-books, no resolution was passed, because one of the rules of the Conference was that there must be unanimity among the members. Sanskrit is taken up by a large

Classical and Vernacular languages.

number of students, but it would not be fair to insist that every undergraduate should take up a classical language; for one reason because most of the graduates enter Government service and are required to pass in vernaculars which are often not their mother tongue. The pandits teach Sanskrit well although there is not much system in their instruction. They make their pupils learn a great deal by heart and can themselves teach without books. All the vernaculars are not on the same footing as a means of higher education. In the case of Malayalam and Canarese students it would be better if they took up Sanskrit, which is more or less allied to their languages. The Government should do something to encourage the study of the vernaculars. Some Native States have good vernacular high schools and colleges. The whole population cannot give up their mother tongue.

The teaching of mathematics should be made more practical and interesting. England is the only country that still teaches geometry through the medium

Mathematics.

of Euclid. If it is to be retained, its study should commence in the 5th Form. Two years are ample for the first four books of Euclid. The fourth book should be included in the course as in other Indian Universities. Mensuration should be taught along with Euclid and Arithmetic in the 5th year's course. It is not taught at all at present. Algebra and Trigonometry should be taught with the help of Logarithm and other tables. Students at present never look into a book of tables. Natural Philosophy in the B.A. classes is taught by rote. Experiments should be shown to the students. Boys learning Astronomy ought to be taught in an observatory. In the M.A., there should be two courses, as in the University of Calcutta, one being elementary pure Mathematics with advanced mixed, and the other advanced pure Mathematics, with elementary mixed. In the Madras University, the course is much too difficult. The University should prescribe text-books as is done in the Calcutta University where they have different text-books in alternate years.

Physics and Chemistry should be removed from the Matriculation and transferred to the F.A. Examination. More English should be added to the Matriculation in their place.

Physics and Chemistry

There is too much specialisation in the B.A. course. There should be a Pass and an Honour's degree. More subjects should be added to the ordinary course and students might be allowed to appear for honours in one of them.

B.A. Examination.

Mutual recognition of University Examinations.

Each University should recognise the examinations of the sister Universities.

The rule which obtains in the B. A. Examinations should be extended to all others and no candidate should be re-examined in a subject or group of subjects in which he has once passed.

Passing by instalments.

The papers of candidates who fail by only a few marks in any subject should be re-examined. When the results in each subject have been declared, the

Conduct of Examinations.

Examiners on the Board should meet together and consider cases in which the failure in one subject is by not more than, say, 7 marks. If the candidate has done well in other subjects he should be allowed to pass.

The present Registrar has only recently been appointed. Hitherto the University has been rather unhappy in its experience of full-time Registrars. The

Registrar and staff.

old system in which distinguished educationalists were part-time Registrars on a small remuneration was preferable. The Registrar should be aided by an Assistant Registrar of a higher class than any of his present staff. A great deal of confidential work passes through the hands of the Registrar, and he has to rely on the assistance of native clerks. A good confidential man would be better than several clerks on low pay. The pay might be increased and a graduate appointed. The University has at present no graduate on its staff.

The University makes a lot of money which there is no use in hoarding.

University Scholarships and Prizes.

Part of it might be devoted to scholarships to be awarded on the results of each of the examinations held by the University. The first six students in every examination should be granted scholarships tenable for two years, or prizes. In the degree examination such scholarships would be specially useful for the encouragement of post-graduate study.

WITNESS NO. 25.—THE HONOURABLE MR. G. H. STUART, M.A.,
BARRISTER-AT-LAW, Director of Public Instruction, Madras.

It is not quite clear what is meant by the expression "a teaching body" in reference to the University. It would not make any difference to the existing state

Teaching University.

of things if the University were made a teaching University. You would have the same teachers as you have now; they would merely be called University teachers instead of college teachers. It is suggested that they would teach the more advanced students; but it is not evident where the advanced students are to come from. M. A. students at present work for themselves under the supervision of the Professors. In most subjects they are too few to make it worthwhile to form a class. The witness had at one time a single mathematical student for the M. A. The graduates are too eager to obtain employment to continue their studies. It is not desirable to have much lecturing and teaching for advanced students.

Some of the colleges do a good deal for the M. A. students, though the University does not *quâ* University. At Cambridge, in the more advanced subjects, the University Professors have as a rule exceedingly small classes. Instruction is given either by means of college lectures or private tuition. It is doubtful whether many of the advanced students who now go to mufassal colleges would be attracted to Madras by a teaching University. It would be an experiment, and there is nothing to show whether it would be successful or not.

There is at present practical recognition. When the University affiliates a college it recognises thereby the teaching staff. The University is supposed to see

Recognized Teachers.

and test after a college has been affiliated that it does not allow the teaching staff to deteriorate, but as a matter of fact it never does so. It would be a good thing if every college were obliged to send up the names of new teachers for approval by the University. Without some regular inspection the University would not know anything about the state of the staff. Either a special officer or a member of the Syndicate would have to inspect. The

Syndicate could pass a rule requiring such inspection without any constitutional change.

The Senate is too large. The size would not matter so much if one could

Constitution of the Senate. always depend on most of the members staying away from the meetings. Occasionally they come in large numbers and swamp those who really take an interest in educational matters. One hundred to 120 would be excessive. The original number was about 30. Thirty or 40 would be enough. To make the Principals of first grade colleges *ex officio* members would work no practical change, for all but one are at present members of the Senate.

On the whole, for the first few years, the system of election proved very satisfactory. There would be no objection

Election of Fellows. to allowing graduates of 10 years' standing to vote, instead of requiring a 20 years' standing as at present. Fellowships should be terminable, after five years, with eligibility for re-election. The present methods of appointment, namely, election by graduates and nomination by Government do not seem to need alteration. The system of election by the general body of graduates is preferable to election by the Senate itself. Election by the Faculties would not work well because some of them are very small. The total number of elected Fellows should bear a certain proportion to the whole body; say, about one-fourth or one-fifth. The total number of each class might be fixed and vacancies filled up as they occur.

The Syndicate on the whole works well and commands the confidence of the University. It is essential that

The Syndicate. members of the Syndicate should reside in, or very near, Madras. A good deal of the business of the Syndicate is done by circulation, and it would take too much time to communicate with members in the mufassal. Up-country colleges do not suffer from any disabilities; they get a fair share of examinerships. The present number of Syndics (9) is, quite large enough, and it would not be desirable to increase it to 12 so as to include mufassal members.

The Syndicate consists chiefly of men holding certain appointments, *e.g.*, the Director of Public Instruction, Principal of the Presidency College and the Principals of the Engineering and Medical Colleges. No need for a statutory composition has been experienced, it might conceivably arise. A Fellow of great influence would probably be returned for a number of years. There are no symptoms that the Syndicate does not pay sufficient deference to the Senate. There is a slight feeling to the contrary, especially with regard to appointments. Individual members have suggested that the Senate should appoint the examiners. It is not possible to please everyone. There is no general feeling on the subject.

There is no objection to the admission of the press to meetings of the Senate, although they report very badly and the deliberations are perhaps hardly matters of general public interest.

Admission of the Press to meetings of the Senate. A Convocation of Graduates would not be a useful addition to the constitution of the University. There is an association of graduates. The witness is not acquainted with the nature of their activity.

Convocation of Graduates. Head-masters give certificates according to their opinions. There does not seem to be anything wrong in the existing system. Certificates are not granted indiscriminately, and many candidates

University examinations. Certificates. are stopped. It is not the case that Dr. Duncan discouraged head-masters of schools from stopping unfit students from appearing at the examination. What he did was to decline to judge of the efficiency of a school by the proportion of successful candidates who were sent up. He meant that boys should not be promoted to the 6th form unless they were fit to go on to the University. He aimed at checking improper promotions. There is no fixed standard of efficiency for regulating promotions from one class to another; that depends entirely upon the head-master himself. Each school holds its own examinations.

It is not the case that the public school examinations press too severely on the pupils and spoil the materials for the University. There was formerly an examination in the middle of the secondary school course which boys had to pass before they could be promoted. Since it has been made non-compulsory head-masters make their own promotions and often do it very badly. It is not correct to say that from the age of 10 upwards a boy lives under the pressure of public examinations. As a matter of fact, there are only three examinations in all, none of which are compulsory. The three examinations are the primary, the lower secondary or middle school and the upper secondary. The last is practically replaced by the Matriculation. The first is not in general passed by those who are going on with their education. The middle school examination was compulsory until about eleven years ago. Many head-masters like the middle school examination because it helps them to make their promotions; others do not like it. Each school has its own examination and makes its own promotions. Sometimes a group of schools combine for the purpose. The Inspector is supposed to see that the boys in a form are fit for it, but he does not control promotions.

Anything that would reduce the number of candidates for the Matriculation Examination and make it solely an entrance examination to the University would be an improvement. For non-University students it should be replaced either by a departmental school examination or by a service entrance examination conducted by the Government. Most candidates who pass the Matriculation go on to the University course. Many who fail do not intend to go in for the course. It would hardly seem that to make a boy enter for a particular college before going up for the Matriculation Examination would lessen the numbers. It would not amount to more than an increase of the fee. The large percentage of failures must be due to the candidate not being of good enough material. The average percentage of passes is 1 in 4. If you regard the examination as a school-final this is perhaps as much as you can expect.

The percentage of failures could be reduced by better teaching. Classes are too large and boys do not receive enough individual attention. In aided schools there must be a regular teacher for every 50 scholars on the rolls, but one class might have 80 and another 30 pupils. In Government schools the number is 40. The best teachers are as good as they used to be, but the profession of teaching is not very popular now-a-days and the best men do not go in for it. Since the Government in the Madras Presidency have retired so much from direct teaching work, the Government appointments are few in number. The Training College makes the teachers better than they otherwise would be, but the best men go in for other things. The remuneration is less than in other professions and there is not much prospect of promotion. Even in Government service the men are not so good as formerly. For the same reason there has been a change for the worse in the efficiency of teaching in colleges. Also the number of teachers has not increased in proportion to the number of scholars.

If there is a school-leaving certificate and a further matriculation test it would be well to make the further test mainly in English to meet the case of those boys who enter upon their F. A. course without a sufficient knowledge of English to understand the lectures. If it were possible, it would be desirable to have a *viva voce* test. It is not possible with the present numbers. The trouble arises from the fact that a number of students who came from the mofussil have not been accustomed to hear Englishmen speak. After a student has completed his B. A. course he has acquired a sufficient knowledge of English to follow the lectures in the B. A. course.

It would be a mistake to re-introduce the text-book in English. In the higher school forms students have to do a certain amount of reading. If they do not do it properly, it is the fault of teachers and Inspectors: the matter is one that can be controlled. The objection to the text-book was that it produced a flood of annotated books which the students used to learn by heart. The

present system should be tried for some time longer before any change is attempted.

F. A. and B. A. Courses.

The B. A. course is not too difficult at present. It is well to have two stages, the F. A. and B. A.

The students after matriculating are not fit to specialise at once. A less specialised course for the B. A. might be an improvement. The F. A. to some extent gives a general education—English, a second language, some Mathematics, History, Geography and a little Science—Physiology as Physiography. The Mathematics are elementary and should be retained as a compulsory subject. The complaints against Mathematics are made by students who have tastes in other directions. It is well to make them study mathematics.

The present B. A. course is more or less an Honour's course. The standard is high and a student taking a good degree in mathematics here would also do so in England. The course in pure mathematics is more advanced than that in mixed mathematics, but the students find the latter the more difficult.

On the whole, the papers set for the B. A. examination are very good.

Examinations.

Each paper is scrutinised by the Board of Examiners. The Examiners do their work very well. Judging from results there has been much variation in the standard at the Entrance Examination. It may be due to either the papers or the marking. The variation is not greater than in other Universities. Any system of examination by papers is a rough test. Witness had no suggestion for improvement. A variation in the number of passes does not necessarily mean a variation in the standard. There may be a better or worse lot of candidates.

The system is not to blame for the occasional leakages that have occurred.

Leakage of Examination Papers.

Everything is done that is thought necessary at the time, but afterwards it is sometimes found that a further precaution might have been taken and it is then adopted in future. One cannot always match the cunning of candidates who wish to get hold of the papers. Leakage is generally in connection with papers for the Matriculation Examination wanted by candidates wishing to enter Government service. It is worth while for such a candidate to pay a considerable sum in order get sight of the papers, often the retention of a man's appointment depends on his passing the Matriculation Examination. There are printing presses at District Head-quarters, but not facilities for printing papers in subjects such as Algebra. The despatch of papers, devolves on the Registrar and his staff. The Registrar takes charge of papers, counts packages and seals up. It is immaterial whether or not he is a whole-time man. The part-time Registrars used not to leave too much to their subordinates. It is only on particular occasions that the work is heavy and then the Registrar used to devote all his time to it. The clerks are not supposed to have anything to do with the examination papers. All is done under the eye of the Registrar. He seals up with his own hand.

It is impossible to enforce any rules fixing fees. The Education Department once laid down a scale of fees for all aided schools and colleges, which was in force till

Affiliated Colleges: Fees.

the year 1891. It was then withdrawn on account of the friction it caused, and also because it was impossible to find out what was the amount of the fees actually levied. In calculating the grants-in-aid it is assumed that fees are charged at the same rate as formerly. Grants are based on expenditure on salaries. To determine the grant-in-aid a total amount of fees, calculated by multiplying the number of students by the standard rate, is deducted from the expenditure. If a college, therefore, attracts a number of pupils by low fees, its grant-in-aid will be automatically reduced. There is some underselling, but not enough to be a serious evil. It has not increased since the compulsory standard was abolished.

Some begin to study English very early, in the second and third class in primary school. The earlier they begin

Early study of English.

the better. It is left to schools to decide when they begin instruction in English. The Department advises that it

should not be before the high schools. In general boys enter the high school at about 13 or 14 years of age.

Boys sometimes matriculate at the age of 12 or 13, but this is very rare.

Age of Matriculation.

It is difficult to keep clever boys back. They are not fit to begin college life so young. It would be better to give them special instruction at school, but they would probably idle away their time. Those who matriculate young usually maintain their superiority. The best mathematician the witness has met in India took his degree at 17. He is now a Deputy Collector and doing good work. It is not desirable to have either a maximum or a minimum limit. The only use of a maximum limit would be to diminish the numbers in the class. The rule allowing candidates to go up as private students after the age of 20 is objectionable. Private tuition must be allowed in the case of sons of Zemindars, etc., but should be carefully watched to prevent the growth of unrecognised schools.

The examination in the vernacular language should be abolished altogether, and only the classical language retained. The system of teaching classical

Classical and Vernacular Languages.

languages in Madras is better than that of teaching the vernaculars. Sanskrit, however, is not taught according to the Western methods. The men who teach it have not had the necessary training. A European teacher for Sanskrit should be employed in the Presidency College as an example to other Colleges. A man might be brought out for the purpose in the Indian Educational Service. A mere knowledge of Sanskrit is not enough; a Professor should also possess a knowledge of Comparative Philology and criticism. An Indian Professor who had qualified by a Western standard would suffice, as in any other subject. But none is available in the Madras Presidency. The inclusion of a vernacular as an optional second language, has not raised the standard of knowledge of vernacular languages. The graduates may not be well acquainted with their vernacular, but the University course does not help them. The language taught is not the real vernacular, it is to a large extent artificial and archaic.

Hours of Lecturing.

No fixed rule is laid down as to the number of hours a Professor should lecture. Fifteen hours is the maximum for actual lecturing work. That is enough.

Second-grade colleges do useful work. They are a kind of magnified high schools. The number should not be increased, but those now existing should not be abolished.

Second-grade Colleges.

First-grade colleges are not inspected, but they have to send in returns. The Director occasionally visits them.

Inspection of Colleges.

They were formerly inspected, but that inspection has now been withdrawn, as it was thought that the Professors would be able to look after their own work. Inspectors are not the proper persons to visit first grade college. It would be well for the Director to make regular tours, but he has not the time. In ten years witness has visited only four first-grade colleges.

There is competition in some places both with regard to schools and colleges. It is not a serious evil. A little competition is a good thing.

Competition.

Free hand Drawing is compulsory in the high schools, but not in the lower classes. It should be begun earlier, and it is hoped to make the change.

Drawing.

Most Europeans attend the Presidency College. The Doveton is the only college especially for Europeans and Eurasians.

Europeans and Eurasians.

Witness discussed with the Hon'ble Mr. Justice Banerjee the qualifications needed for a Sanskrit Professor. Witness said that an Indian M.A. would be better

Sanskrit Professor.

than a Pandit, but that a Professor from England with a knowledge of other languages besides Sanskrit would be the best man.

WITNESS No. 26.—MR. E. MARSDEN, Inspector of Schools, Madras.

It is not the case thatt the public examinations during school-life exercise a baneful influence on the boys.

School examinations.

It is an exaggeration to say that boys in public schools have to pass frequent examinations. In 71 per cent. of the public schools there are no examinations, *i.e.*, the Lower Primary Schools. In the Upper Primary Schools, which form 26 per cent. of the total, there is only one examination. For the Lower Secondary Schools, two per cent. of the total, there are only two examinations, and for the High Schools, one per cent. of the total there are three examinations—the Primary, Lower Secondary and Matriculation. None of them are compulsory, and a boy who matriculates very early, say at 11, would not have passed them.

The present very wide knowledge of English in this Presidency, and the advanced state of education is very largely due to the system of public examinations. Objections have been made to examinations by some distinguished and eminent men who have very little personal knowledge of secondary or primary examinations. When they find that boys who go up from their own schools fail to satisfy the examiners, they grope about for some cause outside their own institutions. They see no fault in their own schools and no defect in their own teachers, and no reason to blame themselves. They think that the fault must lie somewhere outside, and some one hit upon the public examinations as the cause of evil. Having got hold of the plausible excuse that public examinations are the root of all evil in the educational world, the objectors go further and urge that the intellect of boys is impaired by the holding of public examinations. Examinations must be held as a test of work, and if public examinations are injurious the same evils result from private examinations. In an institution which is afraid of public examinations, private examinations, equally stringent, are held. In one case not half the boys were promoted. Boys know that they must pass for promotion and teachers know they will be blamed if boys fail. All the circumstances of public examinations are present.

There are three main reasons for the poor results obtained in the Matriculation Examination: (1) the classes are

Reasons for bad results in the Matriculation Examination.

too large, (2) the teaching is bad, and (3) boys are to be found in classes for

which they are unfit. The first defect is mainly to be found in Madras, and the two others in mofussil schools. The rules for aided schools prescribe an average of 50 boys per teacher. In a particular class there might be 100 boys. The following figures show the number of boys in the divisions of the several forms of a big public school:—

6th form	.	.	.	.	.	.	.	60—61—52—51
5th "	.	.	.	.	.	.	.	51—51
4th "	.	.	.	.	.	.	.	54—56
3rd "	.	.	.	.	.	.	.	53—55
2nd "	.	.	.	.	.	.	.	54—50

Another large school gives the following figures:—

6th form	.	.	.	.	.	.	.	60—52—45
								and so on
1st "	.	.	.	.	.	.	.	17
Infant school	.	.	.	.	.	.	.	6

One man cannot teach 60 boys—they cannot receive individual instruction. Even for colleges it is too many, and much more is it the case in schools, with the boys learning a difficult foreign language. Classes should be limited to 30, giving an average attendance of 27 or 28. It is better to teach 30 well than 60 badly.

The overcrowding in the high school (4th, 5th and 6th classes) is due to the promotion of boys before they are fit. It is very prevalent in the mofussil. One reason is that fees are high in the upper classes, thus: lower secondary classes Rs. 7, 9, and 11 respectively, and upper secondary classes Rs. 15, 17, and 19. When the income depends on fees it pays the head masters to push the boys on. The boys themselves are eager and the parents, who do not understand, think it means that their children are getting on well. Quite half the boys should be

two or three classes lower down. The substitution of quantity for quality dates from the time when the lower secondary examination became no longer compulsory. One remedy would be to equalize the fee throughout the classes. With the money temptation removed, the head master might resist the pressure to make premature promotions.

One reason for University results not being so good as they used to be is that of late years there has been, particularly in the Southern districts, a very large number of candidates for all examinations from the lower castes, who are far inferior in intellect to the Brahmin and other high caste students. These castes have for thousands of years been without education, while Brahmins have for many generations formed the educated class of the country. It is a greater feat for a low caste student to matriculate than for a Brahmin to take the M.A. degree.

It would be difficult to check the promotion evil by reducing the grant; the matter is not provided for in the Code. Witness has more than once brought the matter to the notice of the Director, but has never suggested a reduction in the grant.

There is no substantial difference in the effect on the boys of public and private examinations. One does not lead to more cram than another and the outside test is better and fairer. The excitement and strain is just as great in private examinations even when held in the ordinary class room, for the consequences of failure are the same in each case, namely, stoppage of promotion.

WITNESS 27—MR. A. A. HALL, M.A., Principal, Teachers' College, Saidapet.

The following is the manner in which students enter the College. They

Entrance into the college.

pass the B.A. degree and then apply for a scholarship: there are thirty-five scholarships and about two hundred apply. Last year there were eight M.A.'s amongst them. The testimonials are examined and if a man has taken a good degree he is given the preference. The second point considered is whether the applicant has an appointment to go to, and the third whether he has any previous experience as a teacher.

If a man is accepted he joins about the 15th January and remains to the end of the year; then he goes up for the

Course and Examinations.

L.T. degree. The following are the sub-

jects of the examination:—

I.—The Principles of teaching.

II.—The History of Education (General and special subjects).

III.—Management (Discipline and organized methods of teaching).

The instruction is only in pedagogic subjects. The examination consists of theoretical and practical parts. Only those who pass the first part are allowed to go in for the second. The first part is more severe than the London or Cambridge examinations especially in psychology. Pass marks are 40 per cent. and first class marks 60 per cent. All candidates are obliged to take up English. In addition, although not required by rule, each candidate takes up a second subject according to his degree. In the last examination 190 went up and 76 passed. For practical examination the students are examined in batches of 24 each. One day the examination is held in the Christian College, another day in another school, and so on for five days. In the school the student who is examined takes the place of the teacher; he does not know the boys by sight or name. The subjects to be taught are determined by the Syndicate. They use a list which witness prepared for them. If the student is successful he passes and goes to a school. In return for his scholarship, which is Rs. 12 or Rs. 15 a month, he must teach for three years in Government or aided schools. The scholarship is sufficient to cover expenses at the college. The student pays no fees and lives at a hostel of which the expenses are about Rs. 9 per month. At the school where he teaches he gets his whole pay; no deduction is made from it. He benefits the Government by being a trained teacher. As a rule the students pass the theoretical examination well, but the practical examination not so well. They do the book-work better than in England, but they are inferior in the practical management of the schools. There is a practising school attached to

the college with about 420 boys. The boys do not suffer through being taught by the students. The school stands almost first in the Presidency. About six model lessons are given a week.

The school is divided into classes of not more than 20 each. Assistant Professors attend the classes and observe the manner in which the students teach.

System of Instruction.

The Assistants explain their faults to the students who take notes. After a short time some do very well and require little further instruction. The witness explained how he cured certain faults. In the Teachers' College students are taken from those who pass the F.A. examination. The courses are similar to those in the Training College. The witness promised to give a full written statement of the system in force. The proportion of trained teachers in schools is increasing.

The college improves the teachers greatly, but in some respects they have deteriorated; this is especially the case in their knowledge of English. The B.A.'s

Quality of teachers.

were better in English 10 or 12 years ago than they are now. One Training College is sufficient for our needs. The High Schools' salaries grant is only given in the case of certificated teachers. The reason for this deterioration in the knowledge of English is that few Englishmen teach in the High Schools. Men join the college who have passed the F.A. and have never even seen an Englishman.

WITNESS NO. 28.—MR. C. A. PATTERSON, M.A., LL.B., Registrar of the Madras University.

Recently the Senate by a very large majority resolved that it was advisable that a text-book should be again introduced in English, but the

English Text-Books.

Government have not seen their way to ratify the proposed change in the bye-laws. The knowledge of English among the pupils has very much deteriorated since the abolition of the text-book. Both as an examiner in English and as Principal of a College, witness found that the boys in the matriculation class will not study a text-book not prescribed for the examination except in a very half-hearted way, and even in the classes below Matriculation the text-book is to a considerable extent neglected. Witness did his best to compel his pupils to study a text-book, but there is no home preparation of the book, and little attention is paid to the exercises on the text in the class, whereas the pupils will cram up manuals of English, with a view to preparing, as they think, for the kind of questions to be expected in the Matriculation Examination. Witness had a similar experience in Bombay in 1882 to 1883. There is no text-book in the Bombay University, and in the matriculation papers there are general questions on derivation and on idiomatic phrases. The pupils in Bombay neglected their text-books, but would cram lists of words with the Latin and Greek derivations and lists of peculiar idiomatic phrases, and the native teachers did a good deal to encourage this sort of study. It was difficult to induce the pupils to study the text-books that were read in the classes. Many of the students who did pass the Entrance Examination did not know enough English to profit by the lectures in the college classes, whilst many failed in consequence of the neglect of text-books and of the bad teaching in the elementary classes. The abolition of text-books far from suppressing cramming has given rise to a vicious system of cramming phrases and manuals of a very bad kind. It is very difficult for examiners to set papers which will suppress this evil, for they cannot ask general questions of the kind that can be put on the subject matter of a text-book. The cram manuals can be procured in the bazaar. Shepherd's Manuals of Matriculation English and of Middle School English are examples. It would scarcely be possible to eradicate this bad habit of students by giving a large number of marks to translation. It is difficult to get teachers for translation because there are very few Europeans in Madras who know the languages of Madras sufficiently to be able to teach translation from the Madras Vernaculars into English, and if the teaching of translation is left entirely to natives, there is the corresponding difficulty that they are not thoroughly acquainted with English. Even graduates often go wrong in

English and sometimes persons appointed by the University to examine in English are unable to perceive whether an answer is correct or not. They do not understand the idiom.

An effort should be made to confine the appointment of Fellows to persons practically interested in, or acquainted with, educational matters, and all colleges, or at any rate all first grade colleges, ought to be represented officially on the Senate. In Madras at the present moment the only first grade college maintained by private enterprise, the Pachayappa Institution, is unrepresented on the Senate. In the case of the Presidency College, the Principal is an *ex-officio* member of the Senate and similarly the Principals of all first grade colleges should be *ex-officio* members. With regard to Fellows who are not interested in education, a proviso might be adopted to the effect that any Fellow resident within a certain distance of the Presidency town, who is absent from two or three consecutive meetings, should *ipso facto* cease to be a Fellow. Further, if people live so very far away that they are not likely to come to meetings, there is no use in having their names on the list.

There would be no objection to having Fellows for a limited term. If a Fellow appointed for a limited term did good work, he would be re-elected as a matter of course. If, on the other hand, he had not done good work, it might be of advantage to get rid of him without the stigma of deprivation. Showing a want of interest or not attending meetings would be a sufficient ground for getting rid of a number of Fellows who go to meetings on special occasions to swell the vote.

At present the University of Madras has got a number of book cases filled with various blue books and presentation copies of school books, and that is practically the only library it possesses. There is no librarian; one of the clerks gives out any books that are wanted. The chief books asked for are old calendars of various Universities. Anyone who came and asked would be allowed to see a book in the building. All Fellows of the University have the right to use it. No regular use is made of it; practically there is no library. The University should possess a good library of books of general literature and reference open to the Fellows of the University, to the teachers in the various colleges affiliated to the University, and to the graduates of the University. Many colleges do not possess large libraries, and the Principals and Professors would be very glad to get books from the University library which they themselves cannot afford to put into the college library. And it is not as if the University of Madras had not plenty of money. They have four lakhs of rupees savings from previous years, and they are saving between Rs. 30,000 and Rs. 50,000 a year.

Sometimes witness' pupils when they had passed their examinations came to him asking for certificates to enable them to get into Government employment or something of that sort. He has often urged them to learn to use their hands and to go back to their lands and engage in agricultural work, and explained to them that being educated they would possess a great advantage. The time has come when the Madras University and all the Universities in India should establish degrees in Agriculture so as to shew that there is no inconsistency between manual labour and intellectual education. The degree in Agriculture should not be given for mere book-work; candidates for the degree should pass a practical examination in working with the various implements used in cultivation. The proposal might induce the great landowners to study Agriculture and take more interest in their cultivators. In the course of time agricultural education might develop among all classes engaged in working on the land. When urged to return to the land the answer of the graduate is "I have an education in English and it is beneath my dignity to use my hands."

Candidates should, after passing the Matriculation, follow a course in Agriculture such as is taught in the Agricultural College in Madras, which ought to be affiliated to the University. There should be a three-years course both practical and theoretical between the Matriculation and degree examinations. Students trained in this manner would be of great value in the Forest Department.

WITNESS No. 29.—MR. M. RANGA CHARI, M.A., Professor of Sanskrit and Comparative Philology, Presidency College, Madras.

Mr. Ranga Chari appeared to give evidence, but as the Commission had not time to examine him, his written statement was accepted in lieu of oral evidence.

UNIVERSITY OF BOMBAY.

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WITNESS NO. 1.—MR. F. G. SELBY, M.A., Principal, Deccan College,
Poona.

Looking at the way in which the colleges are scattered all over the country, the scheme for a teaching University does not seem to be feasible. The work of teaching must be done in the colleges themselves. It would be a mistake for Government to pay for professors for University teaching; much more good would be done by using any available funds of Government to strengthen the colleges already existing. The University professors could only teach to one set of students in one place, they could not go round the country.

Were an endowment for a Professor offered to the University, instead of being used for a Professor whose work it is to teach, it ought to be used for a Professor whose business is research in some oriental subject. There is very little inducement for scholars in this country to devote their lives to the work of scholarship, and Indian Professors in colleges are few and badly paid. In especial, the University should confer professorships upon native students of distinction in different classes of oriental learning.

The want of books of oriental scholarship is much felt. A Professor lecturing on philosophy who wished to draw an Indian parallel, or a Professor seeking information on any point connected with Indian literature, would be at a loss to find any work which he could consult. If oriental professorships are provided, it will be an inducement to Indian scholars to publish books of this sort which will be of great benefit to the country. The University professors may also lecture, but their lectures should not form part of the compulsory course.

It would be a very good thing if the University could make itself responsible for the qualifications of the teachers in affiliated colleges. There would be no objection from the college point of view. A college has just been started in the Native State of Junagad, and probably the University knows little about the qualifications of the men who are teaching there. There is no necessity to keep a list, because there are no teachers outside the affiliated colleges. The University must judge the qualifications by the criteria of degrees and honours. In Government Colleges a professor must have a first class honour's degree at Oxford or Cambridge or some equivalent degree. The rule has been rigidly enforced for the last 25 years. Acting vacancies are a difficulty, and some very unsatisfactory appointments have been made. A new rule has been introduced by which, when an English Professor goes home for a year, an English graduate with proper qualifications is brought out to fill his place. Native assistant Professors might be utilized in professorships of Sanskrit, Science and Mathematics, but for English Literature, Philosophy and Political Economy, it is more satisfactory to bring out men from home.

The pay and leave rules of the Indian Educational service are most liberal. In the Provincial service the pay is much too low and the best men will not therefore enter for it. The Sanskrit professors cannot rise above R250 a month. The Revenue Department offers much better prospects.

Sanskrit teachers are usually men who have been head-masters of high schools. The teaching of Sanskrit is a matter of the highest importance. It is always taught through the medium of English, except in so far as the *Shastras* are concerned, for which lectures are given in the vernacular or Sanskrit. Everything should be done to attract the best English scholars to this line. With the same qualification an Indian would be preferable to a European scholar.

The Senate.

The constitution, rather than the size of the Senate, is at fault.

There should be *ex-officio* representation of more persons concerned in education. Heads of colleges and all Professors of two years' standing, possessing good qualifications, should be in the Senate. There is only one second-grade college in the Bombay Presidency and the introduction of such colleges would be a great misfortune. It is also important that there should be a large proportion of men who have distinguished themselves as graduates in English Universities. At present a large portion of the Senate do not know what a

University means. Things are argued on absurd grounds and subjects introduced with which the University has no concern. For instance, the teaching of Agriculture. Another instance of the need of more educationalists is that the Senate take it upon themselves to discuss books, *e.g.*, whether Hegel or Aristotle should be read in the Philosophy course.

Speaking generally, the following changes in the constitution of the Senate are needed :—

- (1) there should be a larger number of English graduates ;
- (2) there should be a strong element of men actually engaged in teaching in the colleges ; and
- (3) outsiders should be persons who have distinguished themselves and shown general interest in education.

All Government Professors should be considered qualified to sit in the Senate, and Professors in aided colleges should be considered qualified, provided they possess the same qualifications as holders of similar chairs in Government colleges.

It is difficult to suggest a satisfactory means of transition from the old to the new Senate. Very few appointments might be made for a number of years, or the more drastic measure might be introduced of abolishing the present Senate by legislation. The proposal to remove a portion of the Fellows to an honorary list would depend for its efficiency on its acceptance by the Fellows. A considerable number would probably accept, and the rest might be allowed gradually to disappear. Terminable fellowships would be an improvement, (1) because of the tendency of the English element to vary, and (2) because it would afford a good way of removing a man who does not take an interest in his work.

It would not be advisable to make the Senate an elective body for the purpose of appointing a certain proportion of its members. To apply the attendance test to the present Senate would cause undesirable Senators to attend. The rule might be introduced into a reformed Senate to keep the members up to the mark. The test might be made much more rigid for people in Bombay than anywhere else, and more rigid for people in Poona than for those in Sind. It should not be difficult in the reformed Senate to secure the appointment of any person whom it was thought desirable to have on the Senate. There would be a certain number of *ex officio* fellows. Government would make a certain number of appointments and a certain number of fellows would be elected. It would be well to have a certain number of the Senate elected by graduates from among themselves. The electors and the elected to be graduates of ten years' standing, or in the case of graduates possessing the M.A. degree of seven years' standing. The elected body should not be more than one-third of the whole.

Witness has not been a member of the Syndicate and knows the University better through its effect on the colleges. Speaking generally, the Syndicate gives satisfaction, but some complaints have been made with regard to their selection of books. The composition of the Syndicate ought to be more professional than at present. The Vice-Chancellor ought to be *ex-officio* President, and the Director of Public Instruction, Vice-President. Then if twelve be taken as the number of the Syndicate, four members should be heads of colleges, three Professors, and the remaining three elected by the Senate. The Principals should be appointed by rotation and should hold office for four years. Professors should be deputed by the colleges in turn. Thus constituted the Senate would be quite competent to deal with general questions. The head of a college should be a man of general views, and the scheme allows for three elected fellows.

It is desirable that some of the Syndics should be Indians because of their better understanding of the character of the students. But the above scheme does not exclude Indians. The three members of the Syndicate to be elected by the Senate would probably be Indians. Some Indian Professors would also be selected by the colleges.

So far as Poona is concerned, it would not be necessary to pay the expenses of fellows attending a meeting of the Syndicate. It would be necessary in the case of members from Karachi.

From the point of view of colleges, it is very important that there should be Boards of Studies. The Boards of Studies should be appointed very carefully from men who are really students and scholars. The need for the great care is due to the importance of the selection of books. At present books are selected by the Syndicate and referred to the Senate. The arrangement is very unsatisfactory. One instance of bad work is the difference in the standard of difficulty in the books set from year to year in the intermediate examination. One year one of the text-books may be Burke's French Revolution, an extremely difficult though no doubt an excellent book. The next year this is taken off, and the text-book may be Johnson's Lives of the Poets. This is no doubt a very fascinating book, but it is absurd to suppose that it is the equivalent of Burke's French Revolution. Again there is now in the Deccan College a student reading for his B.A. degree a book which he passed in his Intermediate Examination. It is monstrous to put a book on for the Intermediate Examination, let one year pass by, and then put the same book on for the degree examination. Again Bacon's "Advancement of Learning" is a book which is very often put on. Obviously it is a book which should be read as a whole, but, to make a change, the Syndicate one year took off the first book and left the second book only; worse still, the next year, the second book was cut in the middle and only half prescribed together with a play of Shakespeare.

The Boards of Studies might also recommend curricula, but their main function should be to see that text-books are properly prescribed. If there were a properly constituted Senate, there would be no harm in bringing before it the curriculum selected by the Board and approved by the Faculty. In such a Senate members would have the good sense not to vote on subjects they knew nothing about.

In the memorandum of points for consideration under the heading "University Teaching," the expression "Mental and Moral Science" is used. For this should be substituted the words "Philosophy and Logic." The expression "Mental and Moral Science" is too narrow, as it excludes the study of the great systems of Philosophy.

Boys come up to the University with very little knowledge of English, not enough to enable them to understand the lectures. Nothing is to be gained by keeping boys longer at school, as the progress they make under an English teacher in college is enormously greater than at school. English in the schools is wrongly taught. The students can parse and analyse, but cannot read intelligently. After a student has attended English lectures in a college for a month, he is already much better. The best plan would probably be to have a year's school teaching of English at college.

If poetry were more studied in schools, it might be an improvement. But what is wanted is to teach the boys to read a book in such a way as to get an intelligent idea of what it contains. The Matriculation standard of English ought to be raised. A Hindu boy does not know nearly as much English as an English boy in the corresponding form knows of Latin.

The boys cannot understand what is said to them at first, but this difficulty soon disappears. It is largely due to the fact that boys are taught by Indians who may have had little or no acquaintance with Englishmen. The average schoolmaster also puts things in a particular way, and when the same things are put in a different way, the boys cannot understand.

In order to improve the Matriculation Examination no certificate should be given to a boy who passes, unless he agrees to join a college. If no value were to be attached to Matriculation except that a boy who passes would be able to join a college, the number of those who go up for it would be much reduced, and schoolmasters would be able to prepare boys more thoroughly. One great reason why a schoolmaster is not free to teach a boy properly in this country is because, in many cases, the parents bring pressure to bear upon him to promote a pupil who is unfit, by threatening to withdraw him from the school. The Matriculation ought to be solely for candidates about to enter the

University ; the University should have nothing to do with the grant of a passport into Government service. The Government ought to decide what form of examination they require for entry into the public service, and should arrange for it themselves, leaving the University to the sole function of encouraging liberal education. The University should withdraw from the management of the School-Final examination. That examination has been discredited, and the worst hoys go up for it. It is not possible to make one examination serve the two purposes of University education and the test for Government employment, except in so far as a University degree shows that a man has been well educated and is therefore the sort of person whom the Government want.

To a certain extent the cram habit acquired at school continues at college, but in most cases the boys will listen to advice.

Another evil is the number of annotated text-books of an inferior description which students learn. A well annotated text-book which is sufficient in itself to enable the students to understand the work and its grammar and language is useful, inasmuch as it enables the lecturer to leave those matters and to talk to the students about the subjects arising out of the book. Some of the students will be content to cram the notes, but the best will listen to the lectures.

In the Deccan College there are no arrangements for teaching Latin and Greek, and students who want to take up these subjects must study them privately. They are advised to go to St. Xavier's College in Bombay. In the Elphinstone College the English Professor teaches Latin.

When the question of a four years' course came up in Bombay, witness proposed that there should be one examination at the end of the first eighteen months, and that after two-and-a-half years' further study students should be allowed to go up for their degree. This was objected to by Mr. Wordsworth who said that if there were no examination for eighteen months a student would waste the first twelve, and that it would be better to have one examination at the end of twelve months and a second at the end of the second year. In this way the Previous and Intermediate examination system came into force. It will be best to retain the Previous Examination, because it is necessary at present to carry on school education for the first college year and the Previous is simply a higher school examination. A college examination would not be so strong an incentive to work as a University examination conducted by men who will take an outside and impartial view of the student's work.

The B.A. course is, on the whole, a very good one, but it is doubtful whether all the voluntary subjects are really equivalent. Mathematics and Logic give a better and more severe test than the Literature examination.

In this country it is most desirable to have Logic and Moral Philosophy as a necessary part of the higher training of all students. These subjects are an excellent discipline for the mind, particularly in India, where as soon as a boy comes out of college he enters into a political and social world, in which he is assailed by all sorts of theories and ideas.

Many students choose Literature for the B.A. and Languages for the M.A., because these are much easier than Logic and Philosophy. It would not be desirable altogether to abolish the subject of Languages and Literature, but they ought to be made more difficult. At present they are not equivalent to any of the other subjects. In the literature examination philosophical should be substituted for merely literary works.

Law should be excluded from the B.A. curriculum. It is not encouraged in the Deccan College. There is a Law class teaching up to the first part of the Law examination in Poona.

The History for the B.A. is a farce. Meredith's History of the Roman Empire is prescribed, and the eight volumes of that work are boiled down into one volume the size of one's hand.

There should not be specialization for the B.A., and a specialized honours course would be a great mistake. A man cannot specialize with advantage until he has received a liberal education. An M.A. in languages only would not seem to be an adequate training.

Honours Course.

The natives of India would have no objection to the comparative study of religion, but the Christian missionaries would probably dislike having the Christian religion critically discussed.

Theology.

The present system wants a great deal of change. As a general rule, the examinations do not quite command the confidence they ought to do; one great reason for this is that the examinations are conducted by persons who are engaged in teaching in colleges, and sometimes the Professors have to examine their own pupils. This is due to the choice of examiners being limited. The field of choice might be enlarged in several directions.

Conduct of Examinations.

Appointment of Examiners.

In the first place the M.A. examiners in Literature and Arts, including Mathematics, might be appointed in England. The number of candidates is small and the papers might, without inconvenience, be set by distinguished graduates in England to whom the answer papers would be forwarded for examination. This plan need involve no departure from the present standard. The same object could not be so well secured by appointing professors in one Presidency to examine for another Presidency, because the standards in different Universities are so different that the examiner would not know what to adopt. To level up the standard would be well, but there might be a danger of leveling down. There is at present considerable variation in the standards of examination. In years gone by, the results of examinations used to tally more than they do now with the opinion formed in colleges, that is, the men who were best in college came out best in the University examinations. There seems to be in the present day a kind of instruction given to examiners to make examinations rather easy, for instance in Mathematics, enough book-work is set for a student to pass in it alone.

A second method of widening the field of choice would be to appoint examiners from among the junior members of the Civil Service. For several years past, men have come out in the Civil Service who have graduated with honours. Amongst them the Syndicate might find some persons qualified to be examiners, and they might ask the Government to place them on special duty for the purpose of the examinations. They could not carry on the examination work side by side with their other duties. The Syndicate ought not on the other hand to appoint barristers, for they are too busy. Again the Directors of Public Instruction in the various provinces might supply the Syndicate with a list of their men qualified to be examiners, and the Syndicate might draw upon these lists when necessary.

It would also be an improvement if the Syndicate were to find out who are competent examiners, instead of inviting applications. Many really good men will not apply for examinerships, although they would accept them, if offered.

A defect of the present system is that opportunity is not given to an examiner to know what each of the candidates has done in the other subjects. It is not an examination but a series of examinations. The examiners do not even know the results of the examination until they are published. The effect of this sometimes is that if a student happens to get a large number of marks in one subject, he is enabled to get a place of honour in the list of successful candidates, however poor a figure he may have cut in other subjects. The work of every candidate in all the subjects should be placed before the whole body of examiners for their collective opinion. A change in this direction is necessary.

Decision by the whole Board of Examiners.

Oral Examinations.

An oral test should form part of every examination, and in the degree examinations it should not be confined to the text-books. The examination ought to be conducted as at home, where candidates come up before representatives of the whole Board, and any examiner may ask any questions he pleases. At

present what is done is to pick out one English book and the candidate is examined on that and nothing else. The object of an oral examination is to find out how much a candidate really knows.

Legal men should not be appointed examiners, because they have not time enough to do justice to the examinations. If he leaves the Court or his chambers, the examiner may lose a great many cases. The same reason applies to some extent to doctors, but they have to be employed as examiners in professional and science subjects.

Of late the Senate has been very lax in the matter of affiliation and has given affiliation to anybody who takes the trouble to ask for it. It is extremely desirable that the University should enquire from time to time with regard to the condition and efficiency of a new college. They ought to send a competent person to inspect. It is not necessary to have special Inspectors, members of the Syndicate would perform the duty. If the college is in a satisfactory state, it would have no objection to being inspected. Under present conditions it has happened that an applicant after receiving permission has not even started the affiliated college.

The University should extend its enquiry to see whether provision is made for the physical and moral welfare of students. That is almost as important in this country as the educational part of the supervision. At present the University has no direct means of enquiry. Every college whose funds permit should have a hostel. As far as Poona is concerned, there is nothing in the way of unhealthy competition between the colleges, such as one college trying to attract students from another. There is no feeling of jealousy between the colleges, and students often pass from one to another.

In Government colleges the fees are fixed by Government: in aided colleges they are not regulated at all. A college trying by improper means to attract students away from another institution should be disaffiliated.

It is very important that the staff should reside in the college. The residence of witness is next door to the college, and he is endeavouring to cause arrangements to be made to provide residential quarters for the staff.

The following are the principal ways in which professors can mix with and influence their students: (1) Games. This makes it desirable to have several young English professors. (2) The management of the Gymkhana. (3) College debating and other societies. At the Deccan College the difficulty is the distance at which the Professors reside.

The tone of the pupils is good and their conduct satisfactory. Healthy occupations tend to raise the tone.

In a letter dated the 27th February, Mr. Selby raised two points which he had omitted to mention in his examination—

- (1) Some limit should be put on the time within which a man can obtain a class in a University examination. It is presumed that men who are classed together start fair in the race. But there is nothing to prevent a man of ten years' standing competing with one who has gone straight through the course.
- (2) It has been suggested that teaching might be centralised for the M.A. course. It would be difficult to arrange this where colleges are residential. Only Fellows can, as a rule, afford to read for the M.A. degree. "Mr. Selby would not allow his *Dakshina* fellows to go elsewhere, as their presence in college is an essential part of the scheme of college discipline.

WITNESS NO. 2.—MR. F. L. SPROTT, C.E., Principal, College of Science,
Poona.

The witness observed that he had not been an educational officer for long. He is an officer of the Public Works Department who has for two years been Principal of the college.

It would not be practicable for the University to take over the teaching in the College of Science. The work of the college is more of a practical than a theoretical character, the practical side would deteriorate under University management.

Teaching University.

Witness agreed with Mr. Selby that the field of choice of examiners should be large, and that the Syndicate should seek out the best men and issue invitations

Examiners.

instead of calling for applications. For the last two years, the examiners in engineering have been the witness, two Professors of the college and two non-educational Public Works officers. The latter are too professional, and have forgotten much of the theoretical side of the work. The Syndicate might make a better selection.

Generally speaking, the course of studies laid down in the University syllabus is a good one, but there are several respects in which it should be changed :

Course of Instruction.

- (1) There is no relation between Physics generally and the mathematical portion, *i.e.*, Statics and Dynamics. Students are started in the laboratory work of Mechanics without having studied it mathematically and cannot therefore understand their work.
- (2) Much of the Physics taught is unnecessary ; *e.g.*, in Sound an ordinary engineer does not want to know about musical tones.
- (3) In the course on Light, there is nothing about the working of instruments, such as the telescope, and that is just what engineers want to know.
- (4) The mathematical course is sufficient, except that there should be some higher work. For instance, the Calculus is not studied at all.

The course in Agriculture was prepared some years ago by the Agricultural Chemist with the Government of India, the witness, and a Professor in a Bombay College. It is on the whole a good course.

If it were desired to alter the Engineering course, it would be necessary to go to the Syndicate and the matter would be referred in the end to the non-expert Senate. Witness explained that he did not mean that the Senate would refuse to amend the course. The college is not represented in the Syndicate, but the Engineering Faculty is represented by two members.

The Licentiate of Civil Engineering at Bombay corresponds to the Bachelor of Engineering at Calcutta. The two never come into contact. There would not be any practical advantage if students were given the degree of Bachelor of Civil Engineering, instead of Licentiate of Engineering. There is no prejudice against the term "Licentiate." There are a number of Bengali students in the college who are satisfied with the Licentiate of Civil Engineering.

Engineering Degrees.

The college is deficient in boarding arrangements. It is most desirable that such arrangements should be made in the interests of both the teaching and the moral and physical welfare of the students.

Residence of students.

Professors try to influence their students out of college hours, but it is only practicable in the case of those who go in for physical exercise.

Influence over students.

WITNESS NO. 3.—MR. A. W. THOMSON, D.Sc., Professor of Engineering,
College of Science, Poona.

As far as the College of Science is concerned, it has everything that could be given by a teaching University. The syllabus is laid down by the University, and it makes it a little less elastic than it would be if everything were in the hands of the College authorities. That is perhaps an advantage. If the College has any suggestions to make, the Syndicate is always ready to listen to it and to make any alterations that may be proposed. From witness' experience as a

Teaching University.

teacher in Japan, England and Scotland, he considers that in the matter of teaching and holding examinations the system observed in the Bombay University is the same in general as that which prevails elsewhere. The examiners are well chosen, partly from the college staff and partly from outsiders. The staff supplies the constant element and the outsiders give confidence to the public. The degrees and certificates given represent high qualifications and correspond with those given in England and Scotland. The whole atmosphere round the students is not, however, of so practical a kind as at home. So far as the teaching is concerned, it is on a level with what is done elsewhere, and some of the work in the College of Science is equal to the best that could be got anywhere.

An institution should have the privilege of affiliating itself to any University. If there is any reason why a

Sphere of Influence.

Bombay institution should wish to be affiliated, say, to Calcutta, there is no objection to its doing so, even though the reason may be that the foreign course is easier. There should not be any hard-and-fast rules requiring an institution in Bombay to be affiliated with the University of Bombay and not with any other University.

Witness has been a Fellow of the University for the last ten years and has

Constitution of Senate.

not been able to attend as many meetings as he would have liked. He has to lose one or two days' work whenever he goes to a meeting. Sometimes meetings are adjourned without finishing the agenda, and that makes it very hard to attend. It is quite possible that in some cases resident members have purposely spoken at great length in order to postpone a meeting to a date when they might have things to themselves.

When an institution is affiliated to a University, the University ought

University Inspection.

to see that a proper standard of teaching apparatus is kept up, and that can only be secured by inspection.

About ten years ago the standard of admission to the College of Science was raised from the Matriculation to the Previous examinations, and that was the greatest blessing the College has ever secured. It ensures that the students know English sufficiently well to understand what is said to them. It would

Entrance Standard and Course.

be a great advantage if to the three years' course of teaching now required for the L.C.E., there were added a fourth year to be spent on some engineering works. The examination would then be held at the end of this fourth year. This system is followed in the University of Tokio. The L.C.E. course at Poona was framed on the model of the Dublin University. The B.E. is a higher degree than the L.C.E. If it is proposed to alter the name, the standard should also be raised.

Residence.

The question of residential quarters for professors and students is a very important one.

WITNESS NO. 4.—DR. R. G. BHANDARKAR, M.A., PH.D., C.I.E., late
Professor of Sanskrit, Elphinstone College, Bombay.

* Paper No. 1 in Part II.

The witness read a statement* on which he was examined.

The main point is that educational opinion should predominate in the government of the University: that is not at present the case. All the details of the plan suggested by witness are not essential: it is an endeavour to include all classes of institutions. The Inspectors of Schools should be on the Senate, not on the Syndicate. The Principal of the Elphinstone College is especially included in the list of Syndics, because it is the greatest and oldest of the Bombay Colleges. It has the most cherished traditions, and it also has foundations.

Constitution of the Senate and Syndicate.

The system of teaching Sanskrit is good: all depends on the nature of teachers and examiners. Complaints have been made for the last 25 years that the examination is too stiff, but the number of candidates has not diminished. It would be a pity to lower the standard. There are no celebrated seats of ancient learning in the Bombay Presidency. At Satara there is a school for Sanskrit learning, where pandits teach, and there is a similar school at Poona which is aided by Government. No titles are given, but all the students are called *Shastris*, and the appellation is always respected. There are eight or ten pupils at Satara, and their teaching according to the old method goes deep. Two or three pupils have studied deeply at Poona. The system cultivates a keen, logical, subtle intellect, but not large, comprehensive views. The subtlety also is apt to be confined to the particular subject, and not to be general or practical. Sanskrit ought to be taught by men acquainted with European literature and thought. A first class M.A. of the Bombay University would be competent to teach, provided he possessed the critical faculty. In proof that this is not always the case, witness remarked that a writer of a University essay said that the Ramayana was older than the Mahabaratha, because Rama flourished in the Tirta age and the Pandavas in the Dwapara. No European, or indeed any scholar, would accept such reasoning.

WITNESS NO. 5—MR. R. P. PARANJPYE, M.A., Principal, Fergusson College, Poona.

The witness read a statement Paper No. 2 in Part II and made the following remarks in reply to questions:—

A very large endowment would be needed to support University Professors for a post-graduate course. They would be useful for the advancement of knowledge, but would have few pupils. A peripatetic Professor could only supplement college teaching. Attendance at the University lectures should not be compulsory. If the examinations are hard enough, the students will be obliged to attend the lectures.

There would be no objection to the submission of the names of teachers to the University, but the University will have less means of knowing their efficiency than the college authorities. Colleges would not employ inferior teachers for the sake of cheapness. Colleges run for purposes of gain might do so.

A boy is fit to be taught through the medium of English when he can read a novel easily. The right time would perhaps be in the present high school standard, when the boy is about 14. Boys are now taught history in English in the 4th Standard—it merely means another hour's English instruction. There should be hours fixed in which English must be spoken, as in French classes in England. Students are at present very weak in English when they enter college. The schools do not stimulate the desire to read, and reading out of school hours is rare.

The Matriculation should be harder than at present, almost as hard as the Intermediate, and the B.A. should be taken after a three years' course. The Matriculation standard should be specially high in English. Two or three years should be added to the school course, and boys should not be allowed to matriculate until they are 18, or 17 at the earliest. Much of the present, previous and intermediate study is merely school work. There is also much learning of unnecessary technicalities, a general knowledge in most subjects is all that is required.

The standard for the B.A. should be as high as a low first class at Cambridge. Now a B.A. has not so much knowledge of Mathematics as a good student when he comes up to Cambridge. The Bombay mathematical course is not nearly so advanced as the course at Calcutta, and yet there have been no first class graduates for a long time. The language standard is so easy that

there are 60 M.A.s in that subject, against 10 in all the others. Even a third class B.A. can sometimes succeed in getting an M.A. in languages. There are far too many subjects. Specialization is very important.

The number of examinations does interfere with the health of students.

Overwork.

They study too hard immediately before the examinations. If a student would work four hours a day in addition to his lectures it would be enough. At the Fergusson College some students do seven or eight hours private study. That is quite unnecessary. The reason is often that the boys try to make up for previous idleness by a spurt. They often fall ill just before the examination.

WITNESS No. 6—The Honourable Mr. Justice E. T. CANDY, I.C.S., Vice-Chancellor of the Bombay University.

The witness was examined on a written statement which is reproduced in the printed volume.*

* Paper No. 3 in Part II.

For some time to come there can be no great change in the present working of the Bombay University. To begin with, the University cannot very well teach outside Bombay.

Teaching University.

A commencement may perhaps be made in teaching for the M.A. and Science degrees. It would be desirable for the sake of laboratories, etc., to centralise Science teaching. It might be centralised at Bombay or at the Poona College of Science. Witness believes that there is not any one college at present having a full equipment of appliances.

If students came to Bombay for the higher teaching their residence would be provided for in the same way as at present. The facilities for residence in colleges are very limited. They ought certainly to be increased. The limited residence provided in the Elphinstone and Wilson Colleges is very much appreciated by the students. Attendance at University lectures should be made compulsory just as attendance at college lectures.

There would be some difficulty in recognizing teachers after the manner of the London University. For instance,

Recognized Teachers.

what facilities has the Syndicate of the Bombay University for judging of the capabilities of a teacher whom the Principal of the Wilson College may get out from home? Hitherto there has been no interference with the colleges which constitute the University as regards their teaching staff. They make their own arrangements and it is naturally to their advantage to get the best professors and teachers they can. There need, however, be no objection to the qualifications of a teacher being submitted to the University. The affiliation rules give the University the power to say at any time that the staff is not as it was when the institution was affiliated and must be brought up to the proper standard. No cases have occurred in which it has been necessary to exercise this power. There have been one or two mushroom colleges, but they soon died a natural death. The Junagad College has lately been affiliated and it is possible that its staff may deteriorate. The difficulty in the case of qualifications would arise not so much in the case of private colleges as in the case of Government colleges, because if Government appoints anybody, the Syndicate could hardly interfere. There would also be difficulty in the case of private colleges. It would seem equally impertinent to go either to the Elphinstone or Wilson College and ask for the qualifications of the staff.

The present number of the Senate should be reduced to 130 members.

The Senate.

The transition might be effected by an Act repealing the old Act of Incorporation, and empowering the Government to remove the present Fellows to an Honorary list. The opinion generally held is that the present state of things is very unsatisfactory, and that a remedy would be welcome. The Senate has been reduced from 333 to 295 within the last four years, but the process of gradual reduction by following certain principles in making fresh appointments would be too slow. If there is a sentiment in favour of retaining the present Act of Incorporation and avoiding a break with the

past, then the new Act should be drawn up in such a way as to respect this feeling.

Fellowships should be vacated by non-attendance at meetings. This rule cannot, however, be employed with equal rigidity in all cases. A member of the Sind College residing at Karachi could not be expected to attend as regularly as a person who lives in Bombay or Poona. Further, to meet this difficulty there should be fewer meetings of the Senate in the year, and if possible they should be at fixed dates, so that arrangements could be made beforehand to attend them. The Senate should not meet, as it does now very often, to get through 20 minutes formal work; such work should be left to the Syndicate. Mufassal officers are not likely to want meetings on holidays any more than Madras members, so that it does not seem probable that there will be any conflict of wishes on this point. The complaint has been made that members not residing in Bombay come to the Senate and that the meeting is adjourned for a week or more. There are only 17 elected members of the Senate, so that it is difficult to say whether they are more or less suitable persons than the nominated Fellows. The proper proportion of nominated and elected Fellows in the Senate is a matter for very careful consideration about which the witness would not express an opinion. The absolute total number of the Senate should be fixed and vacancies caused by nominated or elected Fellows should be filled by others of the same class.

Fellowships should be granted for life, but a Fellow who is absent from India for more than certain time should vacate his Fellowship, and the vacancy should be filled up.

The present number, 14, should either be increased or reduced. It is too

The Syndicate.

large for the convenient and prompt circulation of papers, and not large enough for the formation of sub-committees to whom executive duties might be delegated. The number should be reduced to 7 or 9 or raised to 20. The Madras system of adding other Fellows to sub-committees of the Syndicate appears to be sound. Members of the Syndicate should be residents either of Bombay or Poona; this is a geographical necessity. A man could hardly be expected to come all the way from Karachi at least once a month. Karachi might have a representative living in Bombay. If possible, the Principal of every constituent college, Government-aided and belonging to Native States, should be *ex-officio* a member of the Syndicate, not because there is any conflict of interests between the Bombay and mufassal colleges, but because the Principals of the colleges are the most competent persons to govern the University, and because it is desirable to bring the colleges into closer touch with the University. If this would make the number too great, then the colleges should be represented in rotation, say 6 at a time. Even under existing arrangements a certain number of college professors are on the Syndicate. For instance, the Principal of the Elphinstone College has been for some years on the Syndicate, also a professor of St. Xavier's College. Until Dr. Mackichan went home he served on the Syndicate which also has the help of Mr. Naegamwalla. It is very desirable to have men of administrative capacity and business knowledge on the Syndicate, but it is difficult to find such men with the leisure and inclination.

Mr. Justice Chandarvakar remarked that in the past more help of this nature used to be given to the Syndicate than it gets at present.

The Syndicate should do much of the administrative business of the University which has now to be brought up before the Senate, especially formal business. For instance, a candidate for a degree must go through a certain course of instruction. Suppose he fails to keep two days in one of his terms, the Syndicate must recommend to the Senate that he may be considered to have kept the full term. That is a matter which might well be left to the Syndicate. Speaking generally, legislative power should be in the hands of the Senate and executive power in the hands of the Syndicate. With a reformed Senate and Syndicate no check would be needed on the Syndicate. The Syndicate would exercise the power of exemption no better nor worse than the Senate. The question whether the Senate should have the power of vetoing any action of the Syndicate, is one of administrative detail.

There should be a Board for appointing examiners. The system of inviting applications for examiners is bad, and the marvel is that so few mistakes have been made. It is quite possible that, as Mr. Selby says, competent men will not submit to the procedure of applying for the post of examiners. If there were a permanent Board for the appointment of examiners it would be their duty to find out who were competent examiners. Some examiners might be appointed from England.

Appointment of Examiners.

The disadvantage of appointing a Fellow to more than one Faculty is that it gives him more than one vote. In the case of a lawyer competent to advise on questions of general culture, he might be placed in the Faculty in which he would be of most use, or he could be put into two Faculties, with power to vote only in one of them. The Faculties should not settle their own curricula; that should be left to a Board composed almost entirely of experts. The work is now done by a small sub-committee of the Syndicate. The real work of the University should be done by Boards to be elected by the Faculties, and merely Honorary Fellows should be kept out of the Faculties.

Faculties.

The certificates granted by head-masters of schools should be of fitness as well as of attendance. Granting that it is difficult for head-masters to withhold certificates, the fitness certificate would do something to keep back the unprepared.

Certificates.

At present the University has no means of exercising a supervision over colleges. Indirectly, however, the Syndicate knows the condition of colleges. With the existing Senate, the Principal or governing committee of a college would resent any member of the Syndicate claiming the right to overhaul the institution. With a reformed Senate if the University could find the means of supervising colleges that would be a different thing. If the existence of anything wrong in a college be brought to notice, the University has the power under the rules of satisfying itself as to the course of instruction that is being given in that college. If the University were not satisfied that the staff and course of instruction are good, it would be bound to take some means of finding out, either by deputing members of the Syndicate or asking outsiders to inspect the college. Under present conditions such an inspection would not be made unless there were reason to suspect that something was wrong. Whether regular inspection would be advisable depends on the means available and the nature of the person deputed. He would require to be specially qualified. It is difficult to imagine a case in which regular inspection would be needed unless it be that of a distant college over which indirect supervision could not be maintained. If the efficiency of a college were seriously to deteriorate there are many ways in which the fact would be brought home to the Syndicate and then they could take steps to satisfy themselves as to its condition.

Affiliated Colleges.

The system of hostels has made great progress during the past few years. New quarters are being built in the Elphinstone College.

Hostels.

After reading an extract from his note on the subject the witness said: It is quite likely that vernaculars have not the same educational value as classical

Study of Vernaculars.

languages, but the matter must also be looked upon from the point of view of what knowledge of the vernaculars is possessed by educated Indians. In many cases they have no proper knowledge. Probably Sanskrit is a better training than Marathi, but is it the intention that the vernaculars should gradually fall into disuse and be spoken only by the agriculturists, or are they to be retained as the language of the Courts and for the use of educated men? If the latter is the case, then boys leaving school or entering the University should be able to read and write their vernacular correctly. The young men of the present day cannot do so. In a few decades these languages will disappear.

The President remarked that the argument against the collegiate study of the vernaculars had been put in the following form: to teach the vernacular of the

people is not to give a liberal education, whilst to teach a Sanskritised language is not to foster a knowledge of the pure vernacular. The witness replied that there is no real dilemma; the boy may learn both classical and vernacular languages, but he should by all means acquire such a knowledge of the latter as to be able if he comes into Court to read a vernacular document. The complaint of Sanskritising refers specially to Gujarati and not so much to Marathi. The language to be taught should be not the colloquial dialect of a hill tribe but the vernacular as spoken by an educated business man.

The Honourable Syed Hossein Bilgramii put the question whether English boys who are trained in Latin, Greek, etc., and not in their own language feel any difficulty in writing or speaking good English. The witness sent the following reply in writing:—"The want of early training in English was felt to be a defect in England, and now boys are trained in English at home and at preparatory schools before they enter public schools. Further, take the boys of 40 or 50 years ago: though they had no early systematic training in English, there was *no competition* between their own vernacular and another vernacular. If the English boy is at school in France or Germany there is the chance of his not being well trained in English. Here in India, English is becoming the *lingua franca* of the continent. If a boy is not well trained in his own vernacular by the time he is 16, the chances are that he will never be able to speak or write it correctly. There is a tendency increasing every day for English to push out the vernacular. The Indian boy does not, like the English boy, read every day books in his own vernacular. The English boy does his work all day and every day in his own vernacular: the Indian boy pursues his studies at far too early an age in a strange language, and every day that he grows older his vernacular is pushed further into the background."

The witness having read his remarks on the small competition existing for such scholarships, the Rev. Dr. Mackichan remarked that it must be partly due to the age limit imposed, and that only a precocious student could graduate in time to get the scholarship. Mr. Hewett said that the age limit was not a hard and fast rule and that a student from the North-Western Provinces had recently been sent home overage.

The question of one or two examinations was much discussed in the Senate. Examinations between Matriculation and Degree. and the present scheme was the outcome of full deliberation. The question is one for those who come into close contact with the students and it would be wisest to rely on the opinion of Principals and Professors on the subject.

There are at present no recognized schools. It is very desirable that the system of recognition should be introduced.

A boy of 12 years of age is certainly not fit for college life, and it would be well to fix the entrance age at 16. An upward limit might also be fixed or students might be prohibited from going up for the Entrance Examination more than three or four times.

WITNESS No. 7—Sir BALCHANDRA KRISHNA, KT., L. M.

* Paper No. 4 in Part II.

The witness was examined on a written statement from which he read extracts.*

The number should be limited to 150 and Fellowships should be terminable.

The Senate.

Unless they are made terminable the number will again increase. It would be difficult to prevent its increase by stopping appointments when the maximum is reached because that would create dissatisfaction. Honorary Fellowships should be given to persons of distinction. The reduction in the number should be by gradual transition, not by a clean sweep. A 50 per cent. non-attendance test should be applied even to persons living at a distance from Bombay. There are nine or ten meetings in the year, and every one could arrange to be present at half of them.

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The method of election has worked well, but the actual teaching element should receive greater representation. The election should be left to the Faculties, but they should be required to elect from certain classes.

The Syndicate.

The invitation system is bad and demoralising. Examinerships should be offered to competent persons and not given to persons who apply for them.

Examiners.

The standard of the preliminary and subsequent examinations should be raised and the degree of M.B. given instead of L.M.S. The standard is now lower in Bombay than in London. It should be raised throughout on the London model. There should be independent examinations, but they should follow the London standard. Latin is useful for medical students, but need not be made compulsory unless the London standard is adopted. There should be a special Entrance Examination like that for London. This would be preferable to adopting the Previous or Intermediate Examination, for one thing because it would save time to the student. But if this proposal is not feasible, then the Previous Examination may be adopted as the entrance test. The course should be lengthened by one year. Unless the student matriculates unusually early he will not get his degree too young. The Matriculation English is sufficient. One defect is that students from the mufassal cannot follow the lectures because they are not accustomed to hear Englishmen speak. Medical graduates have a sufficient knowledge of English to enable them to write out research results and the like.

Medical Course.

The witness read an extract complaining of the method of appointing Professors from the officers of the Indian Medical Service. In reply to questions the witness said: Transfers are made from chair to chair according to the exigencies of the services: men are removed for purely departmental reasons. Tutors are not promoted to be professors. The University should exercise the same supervision over the Medical as over other colleges.

Personnel of the Grant Medical College.

After reading an extract as to the evil effects of the University course on the constitution of the students the witness said in reply to Mr. Justice Chandravakar that he had not tested the accuracy of Mr. Justice Ranade's statistics—that he relied mainly on his own personal knowledge. Careless habits of life may account in part for the early mortality among graduates, but it is in great measure due to loss of vigour, consumption and brain fever caused by over-study. Out of 100 witness believed that 5 or 6 die within a year and others drag on 8 or 10 years. The entire blame cannot be laid on the University, but the strain is so great that many constitutions cannot bear it. It does not follow that examination by compartments would engender idleness and cause boys to cram up their subject shortly before the examination. In some cases this result might occur. Over-study is due partly to bad methods, but partly also to the severity of the course. Witness had not studied the subject sufficiently to say whether any improvement in physique has resulted from the increased facilities for active exercise. The intensity of the examination strain in India is greater than elsewhere. Some subject should be deleted from the Pass course and an Honours course introduced. The system of examination by compartments would enable more candidates to pass, but it would not prevent discrimination between the better and less well trained mind.

Evil effects of the University Course.

WITNESS No. 8—Mr. M. MACMILLAN, B.A., Principal, Elphinstone College, Bombay.

Cram is the great cancer of education. Indian education is accused of being a sham chiefly on account of the great prevalence of cram in the Universities, and the accusation is largely justified. The evil of cram is more especially rampant in India for three distinct reasons:—First, the wonderful power of memory and the defective originality of Indian students;

Cause of Cramming.

second, the fact that all subjects have to be learnt in a foreign language of which few of the students obtain a complete mastery, so that they find it safer to learn off by heart pages of printed books with notes dictated by professors, than to express their own ideas in their own words; third, the character of the examinations. Of these three causes the Universities cannot remove the first two causes. They cannot at any rate attempt to diminish the memories of Indian students, although they may perhaps encourage originality; and the subjects must continue to be learnt in English. Therefore the Universities must direct all their efforts to operating by means of the third cause.

The character of the examinations to a very large extent encourages Cram Encouraged by Character of cram. Witness cited his experience Examinations. of Latin examinations to give an idea of the extent of the evil and of the means by which it can partially be cured. Latin being a very difficult language for Indian students, the text-books are naturally short. For instance in the Previous Examination this year the amount prescribed was 900 lines of Ovid, and one book of Livy. Indian students have such great powers of memory that it is quite possible for them to learn the whole translation of these short text-books by heart. The amount prescribed is of course larger in the more advanced examinations, but the students always learn a large amount of translation and notes by heart, and in extreme cases they even try to learn the whole. They can then safely neglect, and do neglect, the Latin prose composition which bears about 20 marks out of 100, and devote their efforts mainly to learning the translation and some notes by heart, being quite sure that if they do so, they will pass the examination. Such study from an educational point of view is utterly useless and only exercises the memory. It is a sham, because the candidate who is supposed to have qualified, may be unable to read Latin prose or translate an easy passage from Latin into English. He has obtained little or no insight into Latin literature, no taste for the language and no notion of the way foreign languages ought to be studied. The remedy for this is evidently the introduction of unseen passages for translation into English. If a candidate knew that half marks in the examination would be assigned to the translation of unseen passages and Latin prose, he would learn his books intelligently and in such a way that by learning the text prescribed he would at the same time acquire the power of grappling with similar difficulties in other books. Another great advantage would be the more effectual elimination of duller intellects in successive examinations, so that the highest examinations may be passed by, and the highest degrees given to, the brightest students. Witness' own experience as an examiner in the Allahabad University, in which unseen passages are set in English, supports his contention in this matter. In examining ordinary questions on prescribed texts the examiner is often doubtful whether the candidate understands what he is writing—whether it comes out of his own head or out of printed or written notes learnt by heart, but an unseen passage well explained and commented upon is a clear sign of the writer's intellectual power and a most satisfactory test for the examiner. Latin is a striking and a rather extreme instance of the examination evil on account of its double foreignness, *i.e.*, it is a non-oriental language learnt through the medium of a foreign language.

There have been no candidates for Greek in the Bombay University for many years past. It is practically not taught. Some years ago one or two students took up Greek for studying the New Testament. There are a certain number of candidates in Latin, but its study has very much diminished of late years owing to the introduction of French. Witness once gave a course of special lectures on Greek and Latin literature—the Wilson Philological lectures. People did not take a very keen interest in the subject. The attendances were very variable in kind. Witness tried as far as possible to make the lectures more interesting by oriental references and oriental comparisons but without great effect. Greek is practically impossible as a study in India, and except for Europeans it is doubtful whether Latin can profitably be studied. It ought perhaps be studied to a certain extent by students taking up Medicine. It is not necessary to make provision for the study of Greek and Latin on the ground

that they are still the basis of liberal education in Europe, for our Indian education is based upon English, and English is based upon Latin, if therefore we go into Latin and Greek, we go into the foundation of a foundation. It will be sufficient to study the History of Greece and Rome. Students studying Latin use cribs and small annotated editions employed in English schools. None have been specially prepared for the Indian market, which is not large enough to make a special edition profitable.

The Bombay University had abolished text-books in the Matriculation Examination and on that account it is a good examination. In all the higher examinations text-books are prescribed, and practically no unseen passages set. Perhaps a particular examiner may introduce a little bit of unseen. He would be regarded as eccentric and condemned by the general public.

The Bombay examination papers do not err by asking too many questions about grammar. Grammatical questions tend to encourage intelligent study, but there are few such questions in the Bombay papers and they carry few marks. They are a necessary and useful part, but always a small part, of advanced examinations.

For the Matriculation Examination there should be a very minute test of grammar. Theoretically a student ought to be master of grammar before he goes to college, and in the higher examinations he ought only to be asked advanced questions on really difficult points. Too much importance is not at present attached to grammar, and the manuals which the students have to learn are written in simple English and are a good exercise for them. In addition to the grammar, the student has to write an essay which tests his knowledge of English and his power of English composition. He cannot do it unless he has read a good deal. It may be open to consideration whether text-books ought to be added in the Matriculation course, but it is not absolutely necessary. Translation from the vernacular is as good a test as paraphrase. It would be better to have both, but one cannot crowd everything into one paper.

Witness did not think that any evil results from the method of translating a passage into the various vernaculars which has then to be re-translated into English by the candidates. After reading a few of the translations the examiner can see whether the paper is correctly translated, even if he does not know the vernacular, and as a matter of fact, every examiner knows probably a little of one of the vernacular languages. The paraphrase is a far stricter test and school masters when sending up boys generally warn them against it. The Matriculation Examination would be better if there were another paper with a paraphrase of English, but the addition of a paper is an important question when there are some three thousand candidates for examination.

Matriculates generally know English well enough to follow the lectures. What they complain of is that they cannot follow European pronunciation at first, having so many of them been taught by natives. But this is only a temporary obstacle; after a week or so they become used to the European way of pronouncing English words and understand them. The complaint has been exaggerated.

Students often understand their subjects better than they can express their knowledge in English. Sometimes in examining students in class in a subject like logic witness has known them to have understood the subject well enough, but when asked to answer a paper on it they could not express themselves properly. They trust to their memories rather than to their intellectual powers and repeat what they have learnt by heart. Students can also understand spoken English more readily than they can express themselves. This is due to want of opportunity of speaking English especially in mufassal schools. If the complaint of not understanding the lecturers is louder than it used to be, this is probably due to the greater size of the classes which makes it more difficult for the speaker to make himself heard by all.

English poetry ought to be taught as much as prose. In some ways it is more instructive and lends itself more easily to intelligent explanation. The paraphrase is an admirable test, but not much better than the vernacular translation.

In Bombay the study of English has been much improved both in its methods and results by the introduction of essays in all University examinations. But even now essays bear only 25 per cent. of the total number of marks and that is not enough. The average Indian student is a shrewd practical person and is most inclined to study subjects in proportion as they pay. In other languages, essays are not prescribed and unseen passages are not set except in the M.A. and the marks assigned to prose composition are few. The following figures showing the proportion of marks given to essay or composition are taken roughly from the calendars. Previous Examination: English 25 per cent., Sanskrit 15 per cent., Latin 26 per cent., Arabic 12 per cent., French 23 per cent., Persian 20 per cent., Avesta and Pahlavi 10 per cent. Intermediate Examination: English 25 per cent., Sanskrit about 25 per cent., Latin 20 per cent., Arabic 23 per cent., French 20 per cent., Persian 18 per cent. B.A. Examination: English 25 per cent., Sanskrit 13 per cent., Latin 20 per cent., French 17 per cent., Avesta and Pahlavi 12 per cent., Persian 20 per cent., Arabic 14 per cent. In the voluntary subject no marks are ascribed to essay or composition in English, Sanskrit, Latin, Avesta and Pahlavi, and only 5 per cent. in French. The voluntary examination in languages consists for the most part of two papers on text-books, with no original composition and no unseen passage for translation. In the M.A. Examination one out of three papers in English is devoted to essay, and in the other language taken up with English, one paper is given to unseen and compositions; that is $33\frac{1}{3}$ per cent. of the marks in the M.A. are given to original composition and translation. The other figures given above are rough, but they show that as a rule not more than 20 per cent. of the total marks in languages are given to composition. The study of languages would be greatly improved if more weight were attached to essay and composition. Witness would invite the Commission to ask all teachers of languages in the Universities whether it would not give greater impetus to the intelligent study of languages if half the marks in every language examination were assigned to composition in that language and translation into English of unseen passages, or, if they would not agree to such a trenchant reform, whether they would not advocate the introduction of unseen passages in all language examinations. A proposal of this kind was brought by witness before the Syndicate some years ago. The Syndicate did not bring the matter before the Senate, not because they disapproved of the principle, but because they knew that such a change had no chance of being accepted by the Senate, constituted as it now is.

The circumstance related above leads to the consideration of the constitution of the Senate. Here is a supreme body that determines educational questions rejecting, or sure to reject, a measure which appears to be most highly beneficial. Such a state of things must arise from defects in the constitution of the body. The Senate is a popular assembly mainly composed of Indians whose strongest characteristic is benevolence sometimes carried to extremes. The members of the Senate are so full of sympathy with candidates that they are not inclined to admit any change that might possibly make the attainment of degrees harder. Now, the change proposed need not necessarily make the attainment of degrees harder, nor is any raising of the standard recommended. The number of degrees is not an evil as long as Honour degrees, at any rate, are not given lightly. Still the change proposed would be suspected of having this tendency and as such would not commend itself to the popular Senate and would therefore be rejected. On another ground it would be unpopular. There would be more uncertainty in the results of examinations. There is a good deal of chance in the character of the "unseen" that is set and that would lead to uncertainty. It is considered, and perhaps with some reason, a hardship that a student who has worked honestly and regularly at his books should not be sure of passing. This is an evil which looks like a kind of injustice, and one sympathises with the feeling, but in educational matters as elsewhere, small evils must be endured for greater good. In this case there would be every encouragement to a more liberal and inspiring style of education and students would be less exclusively confined to the cultivation and exercise of the memory. In one way the change might be acceptable even to the Senate. The present cram system leads to

excessive and terribly monotonous work sometimes extending to 17 hours a day, ruinous to the powers of mind and body of a student. The more intelligent study of languages would be evidently better pursued by the student who can confine himself to such limited hours of study as would allow his mind to be at its brightest. They would have the sense to see that their power of grappling with fresh "unseen" would not depend upon their learning long rules and notes and pages of criticism, but it would depend upon their keeping mind and body fresh. It would prevent them from going in for extravagantly excessive work. Another argument of a similar character in favour of the change would commend itself to the Senate and to all reasonable men. At present students ruin their health by suddenly beginning to study very hard on the eve of their examinations. This is because everything depends upon their memory. They cannot expect to remember at the end of a year, what they learnt by heart at the beginning. Therefore they neglect their studies at the beginning and make up for it by tremendous efforts when the examination is close at hand. If, instead of learning words and sentences by heart, they studied intelligently and acquired correct ways of thinking, as they would have to do with the prospect of unseen composition before them, they would begin to study in proper time, knowing that the acquisition of correct ways of thinking and the power of mastering difficulties of thought and construction, once acquired, are permanent mental possessions, just like the power of swimming or balancing oneself on the bicycle, which once attained, is not quickly forgotten. A *vivá voce* examination might to some extent have the same result, but practically it is not a very satisfactory test, because it is not possible to devote enough time to each student.

Witness explained to Mr. Justice Banerjee that in saying that the benevolence of the Indian element in the Senate might lead them to reject useful measures he did not mean that an Indian element was not essential in the Senate. He regarded it as just as useful as the English element. But the benevolence and sympathy characteristic of Indians may sometimes lead to bad results just as the qualities of the English members may lead them sometimes to exercise a bad tendency in the deliberation of the Senate.

Experts no doubt sometimes differ considerably among themselves, but even where educational experts are either unanimous, or have decided by a majority in favour of one view, they are liable to be overruled by the popular element in the Senate. Witness could not quote specific instances but that is his general impression.

In reply to Mr. Justice Chandavakar witness said that the curriculum would have, if necessary, to be modified to give time for the study of languages in the manner proposed; but that the study need not necessarily be much more difficult than under the present system if the passages set are fairly easy. For the test to be sufficient it is not necessary that the passages should be difficult.

In reply to Mr. Pedler witness said that in the case of the examination by compartments the majority of experts were opposed to the proposals, but the general body of Senators were in favour of making the examination easy and, therefore, overruled the opinion of the majority of experts. The tests should not, however, be made harder than at present, nor the attainment of a degree rendered more difficult.

In reply to Dr. Bourn witness said that the representatives of missionary bodies are just as anxious to maintain the standard as other educationalists.

Much might be done to combat the evils of cram in subjects other than languages. For instance, problems in Logic and Moral Philosophy offer admirable tests.

Prevention of cram in subjects other than languages.

All college Professors should be included in the senatorial body. It is absurd that learned and energetic men fresh from England with the latest European educational ideals in their heads, like Mr. Coverton of the Elphinstone College and Mr. Robertson of the Wilson College, should have to wait several years before they are admitted to the body of the Senate, nine-tenths of the number of which body are inferior to them in learning and educational experience.

Composition of the Senate.

A difficulty in way of the recognition of teachers by the University is that the Education Department would probably dislike having to submit their choice to a non-Government body. It is quite unnecessary that they should do so, for of late years the choice of men in the Education Department has been admirable.

Recognized Teachers.

Supposing a college were recognized or affiliated by the University with a particular staff of professors and teachers, and the income of such a college were to fall and it was found necessary to replace the more highly paid staff by men on lower pay, and inefficient teachers were therefore appointed, the college would certainly lose its students, and it would therefore not seem necessary for the University to interfere. The University should have the power to intervene in such cases; they would not often be obliged to use it. They have the power now in theory, but do not exercise it in practice. It would certainly be objectionable to allow a first grade college to go on for months together without a Professor of Mathematics.

The President asked with reference to the proposal of the witness that all college Professors should be *ex-officio* Fellows whether it would be safe to make a man a Fellow simply because a college finds it convenient to make him a Professor in a certain subject. There would be no guarantee of his fitness unless the recognition of the University were required. The witness replied that the University should threaten with disaffiliation any college that was badly manned.

There does not appear to be any urgent need that rules should be framed and arrangements made to enable the University to satisfy itself from time to time that the conditions of affiliation are being carried out by its constituent colleges. The present system works well enough and the University has almost too much to do in carrying out its examinations and present duties.

Supervision of colleges.

Mr. Justice Banerjee suggests that students should be required to make their own abstracts of books as a means of preventing cram. The best teachers do discourage cram as far as their influence goes. It has an effect upon the best pupils and there is always a minority of good students who have higher aims than merely passing their examinations and love study and literature for their own sake: but the words of advice have little effect upon the majority of the men who study to procure a livelihood and think it an absurdity to aim at the end and not use the proper means, which, under the present circumstances, consist to a large extent in cramming. It would not be to the interest of these students to abandon cramming. There are many keys and note-books in use in this Presidency. It would not pay head-masters of high schools in the districts to discourage cramming. Many students would avoid schools which did not cram skilfully.

Even taking into account the restrictions that are placed on the examiners in the subjects in which they examine, the question-papers tend to an unnecessary degree to encourage cramming. There is a strong public opinion against any divergence from the text-books, and the questions tend to encourage not only a careful study of the text-books, but cramming. Examiners are afraid to go against this general public opinion. A rule requiring examiners to assign a proportion of marks to book-work large enough to enable students to pass in the book work alone would be a bad rule.

Indian students are more utilitarian in their studies than students in other countries. This arises partly from the fact that they are Orientals studying to a large extent European literature and modes of thought with which sometimes they have no natural sympathy. They do not like their studies as a rule so much as English boys.

Mr. Justice Chandravarkar asked whether it is not the case that in former times, when men like Sir Alexander Grant, Professor Wordsworth and Mr. Chatfield were Principals of the Elphinstone College, there was no cramming, and whether students did not then take delight in English literature and express themselves more thoughtfully and intelligently than students of the present

day. The witness replied that the superiority of the former students is exaggerated. There is always a natural tendency to praise the past. It is too often forgotten that the number of students now is far greater than it used to be in old times, when there were only small numbers in the colleges and those were picked men. Now almost everyone who can afford it sends his son to college, so that the material is less select than it used to be. And even at the present day there is always a strong minority of students who do love English literature as much as, if not more than, the old students, and take a real intelligent interest in their work and are a credit to the colleges to which they belong. Such students are as numerous as or even more numerous than in old times, but they are not in such a large proportion, owing to the fact that the practice of going to Universities is more common than it used to be. There are many men who have left colleges who express themselves well, but who have not lived long enough to make their mark. They will make their mark 10 or 15 years hence, and people will then be found who will confidently assert that there has been a decadence in the education of those times compared with that of the present day.

Owing to the large number of students in the classes it is difficult to give individual attention to students. The conditions of teaching are burdensome and the competition amongst students is severe, so that teachers often have not the time to diverge so much from the prescribed course of study as they were able to do formerly. Having regard to the difficulties which the educationists of India have had to face, the colleges have done as good work as could have been expected.

There is more cramming in the Matriculation than in the higher examinations. That would naturally be the case, because as they get higher in the University career, the worst men are eliminated, and the better students are less inclined to cram.

It would not be an advantage to make the Matriculation Examination purely an entrance examination for those who wish to pursue the college course.

Matriculation Examination.

Government does not fix any limit to the size of classes in the Elphinstone College. It is left to the management of the college. If the authorities found the number of students in the classes too large, the Principal would have to make a selection and reject some students. There has been never any occasion to do this. It is done in the Grant Medical College.

Size of classes.

It might be possible to have combined lectures in the M.A., but not in the other classes. The distances are too great. It might be advantageous to have a common Science laboratory. There would be difficulties in the way, but they would not be insuperable.

Combined Lectures.

An examination midway between the Matriculation and degree examination would be better than the present system of Previous and Intermediate examinations. There are too many examinations in the Arts course.

Intermediate Examinations.

It would not be desirable to make provision for a School of Theology, to promote the comparative study of religions.

Theology.

Professors are accessible in their rooms for consultation and students often come to them for advice. The Gymkhana gives many opportunities for professors and students to know each other better and take counsel together. But here again one is met by the difficulty of the number of students in the colleges. If the numbers were smaller, far more could be done. There are hostels attached to the college, under the charge of a Superintendent who is a native and lives with the boys. All students who are living in Bombay away from their parents and guardians are not compelled to live in hostels. The room is limited and a great many applications have to be rejected. The Presidency Surgeon is paid ₹100 a month for attending to the students. The college authorities do not enquire where boys, who are not living in hostels, reside.

Moral and Physical Welfare.

WITNESS NO. 9—The REVEREND F. DRECKMANN, S.J., Rector, St. Xavier's College, Bombay.

The witness said that he had heard the evidence offered by the Vice-Chancellor, and, as he agreed with him in nearly every point of his evidence, he would not give the same statements over again. He would therefore confine himself to a few points.

The witness agreed with the general opinion that the project of a teaching University is scarcely feasible. The only practicable approach to it would be in some inter-collegiate arrangements for post-graduate and M.A. work. At present the teaching for the M.A. course implies a great waste of energy. If the very few students who take up the M.A. were collected in Bombay, it would save a great deal of this waste. Although the teaching should be under the auspices and direction of the University, the different colleges should undertake the courses; one college, for instance, should teach English or part of English, another Latin, and another Science or some other branch. It is only where there is nobody able to or willing to take a course that the University should appoint a University professor for it. In that case such a professor should not be on the staff of any of the colleges; he should stand alone as a University professor. Otherwise the college that had such a professor on its staff would gain such prestige that the other colleges would suffer. The colleges must work together for the benefit of all. At present the private colleges have a hard struggle to compete against the Government colleges, which have larger resources, greater prestige, and the advantage of the general opinion that those who go up from Government colleges have a preferential claim to Government employment. The defect in resources is not in the teaching staff, that is as large in the aided as in the Government colleges. It is in matters such as scholarships, of which the Government colleges have a very large number and which the private colleges are perhaps unable to provide. This circumstance draws the best students to the Government colleges, and the work of the private colleges in teaching is more difficult, because they have to deal with inferior material.

Even in Science it will be better to leave teaching to colleges which can provide the requisite instruction and equipment. If the University provides Professors and laboratories, it will draw all the Science students from the mufassal to Bombay. This would, on the whole, be a disadvantage; there would be less variety of instruction, and if Science were taught only at the Presidency town, it would spread very little in the provinces. It would, no doubt, be more economical to centralise Science teaching, but the disadvantages would more than outweigh this.

The contention that better instruction can be given when students are in contact with others who are working at the same subject is true. It is an argument in favour of concentration of B.Sc. teaching, but in the B.A. in Physics and Chemistry the classes are large enough. Twenty is a sufficient number for a class: it would be much better than 40. The B.Sc. has not as yet taken on, and we should not yet draw conclusions from it. The B. Sc. course is to a certain extent anomalous. There is Physics and Chemistry both in the Science and in the Arts course. Mathematics also forms part of both courses. Pure Mathematics belongs properly more to the Arts course. The B.A. course is sounder than the B.Sc., which includes too many things; for instance, Natural History and Physics and Chemistry, which have nothing to do with each other. The Physical and Natural branches should be separated. M.A. students have not to pay any fees: that is a mistake which ought to be remedied. The M.A. course requires great expenditure. For instance, in Physics and Chemistry, it requires most expensive apparatus. It ought to be the general rule in all colleges that M.A. students should pay fees just like the others. As long as Government colleges do not charge any fees, the private colleges cannot do so except in the case of students who join from other colleges. There was some correspondence with Government on the subject, and the Principals of the Government colleges were opposed to charging fees.

Education is valued more if it is paid for, and it is not fair that colleges should undergo heavy expenditure without being to some extent recouped by fees.

There are scholarships for the encouragement of post-graduate study, namely, the *Dakshina* Fellowships. The *Dakshina* Fellows devote three hours a week to teaching the junior grades. The number of M.A. students varies greatly.

In the B.A., the B.Sc., the M.A., and in all other courses where Science is taught, a certain minimum is necessary for practical work. The minimum is about 20 per cent. For the B.Sc. Physics there is very little practical instruction. The laboratories in St. Xavier's College are just sufficient for teaching up to the B. Sc. For the M.A. in Chemistry it would be necessary to go a great deal further. There are in St. Xavier's College 11 students in the M.A. course, and in the B.Sc. in one course about 10 and the other 15 or 20. It depends very much on the examiners whether the same questions are set to all the men in the practical examinations. In some cases they get the same questions. The questions are not printed. Most students prefer to take languages rather than Science for the M.A. The reason is that the examination in Physics and Chemistry is much more difficult than that in languages. It would be difficult to completely equalise the standard in different subjects. They ought to represent approximately the same amount of work, but to get them mathematically equal is impossible. Another reason for the choice of languages is that the candidates to a great extent do not like practical work and practical examinations. They prefer to deal only with theories. The standard of languages is too low for the M.A. Students who despair of passing the M. A. in Science in one year succeed in passing it in one year in languages, *i.e.*, English with a classical language.

In the Senate as now constituted, the relation between that body and the colleges is very unsatisfactory. There is very little understanding of the wants of the colleges, and very little sympathy. All schoolmasters and Professors are considered here as common enemies. Witness was told in the Syndicate not very long ago that he seemed to be under a misapprehension in thinking that the University was there for the colleges. It was the other way about, the colleges were there for the University, and the interests of colleges must be subordinate to the University; that is to examinations. The Senate does not consider that the work of the University has to be done in the colleges, and that they ought to be more fully recognised. The present Senate is unwieldy, and to a great extent its constitution is unsuitable. It ought to be composed of professional educationalists rather than of amateurs, or of people who belong merely for the sake of the honour. The whole Senate should be reconstituted, and a working majority ought to be professional educationalists, men either actually engaged in teaching or who are conversant with it. It would be an improvement in detail were the Engineering Faculty absorbed in a Faculty of Science. At present those who teach Physics and Chemistry are placed in the Faculty of Engineering. The Senate should include a certain number of *ex-officio* members: first, the Director of Public Instruction and the Educational Inspectors, because the Senate must keep in touch with the schools; next, the Principals of all fully recognised colleges (7 in Arts and 3 Professional); lastly, two representatives of the other colleges and one representative of the high schools. Professors of colleges of a certain standing ought also to be *ex-officio* Fellows. Some have suggested that they ought to be of three years' standing, others have suggested five years. It is difficult to say which period should be prescribed: it will depend upon the number of men available. The number of the Senate should be limited to 100. It will not be easy to find more than a 100 men who are qualified and willing to serve. At present the meetings of the Senate are sometimes sorry spectacles of empty benches. There is scarcely anyone who takes an interest in the proceedings, even though they be of an important character, yet great interest is generally taken in elections and especially in contested elections. After such an election, if there is any important business to be transacted in the Senate, half the members or more leave the hall. At least two-thirds of the Senate ought to be educationalists, either past or present,—men who are conversant with, and who take an actual interest in, education. The Faculty of Arts should contain

40 members and the Faculties of Science, Medicine, and Law 20 each. The problem is how the transition from the large to the smaller modified Senate is to be effected. The curricula should be settled by the Senate. In a reformed Senate, if a Faculty comes up with an unanimous proposal, the members will have sense enough to accept it.

Formerly the University was in close contact with the Civil Service, but of late they have lost that contact completely. There are at present scarcely any members of the Civil Service on the Senate, although many of them are eminently fitted to be members. This is a pity.

The tenure of Fellowships should be limited to five years, outgoing Fellows being eligible for re-election. The names of all candidates for Fellowships should be submitted to the Syndicate to judge whether they are eligible. Fellows should be appointed in the following manner: $\frac{1}{2}$ should be appointed by Government, $\frac{1}{4}$ by the colleges, and $\frac{1}{4}$ should be graduates of a certain standing, say 20 years, to be elected by graduates of the same standing. The qualifying period may be dispensed with in the case of M.A's and M.D's. Elections or appointments should be held or made as vacancies occur. A graduate of less than 20 years' standing might be appointed to the Senate as a college Professor. College Professors should be elected by the members of the college staff. The number 100 should include the *ex-officio* members of the Senate. The Senate is at present swamped by the Legal Faculty. Some of the Legal Fellows who are in the Arts Faculty try to pick holes in all propositions. Witness does not mean that the Legal Faculty has become a nuisance: it contains some of the best men on the Senate.

The Legal Faculty in the Senate.

At present the Syndicate is either too large or too small. For quick despatch of business it is too large, and for a thorough discussion of all questions it is too small. The number should be increased to about 30, and the powers of the Syndicate enhanced. At present the Syndicate is merely an executive body; it can do nothing except under the supervision of the Senate, and the Senate can overrule any of its decisions. That is not a healthy state of things. The Syndicate ought to be placed on a statutory basis, and have certain rules of its own, so that matters such as the appointment of examiners cannot be overruled and corrected by the Senate. The following should be *ex-officio* members: the Vice-Chancellor, the Director of Public Instruction, the Educational Inspector of the Central Division, the Principals of all fully recognised colleges, (7 in Arts and 3 professional). Four Syndics should be elected by the Faculty of Arts and two by each of the other Faculties. Two members should be elected by the colleges and one by the Educational Union as representing the high schools. Members should be appointed for five years, and should retire by rotation. As the Syndicate will be large and as the Principals of various colleges such as Sind and Poona would find it difficult to come often to Bombay, a smaller body should be elected from the Syndicate to transact current business.

It would not be desirable to abrogate the rule that every Fellow must be assigned to a Faculty. If a man is not qualified to be a member of the Faculty, he is not qualified to be a member of the Senate. As regards Boards of Studies, if the Syndicate is increased as proposed, the Boards of Studies, although they might be very convenient and might relieve the Syndicate of a great deal of work, would not be so necessary as at present. The system which has been followed in Bombay has worked fairly well. Text-books before being prescribed are circulated to the colleges for opinion, and there have not been many complaints.

Examiners should be appointed by small Sub-Committees of the Syndicate, consisting of the Dean of the Faculty and two members to be appointed by the Syndicate. In default of this, the appointments should be made by the Syndicate. The Senate should be given a very limited power over the Syndicate, subject to which the action of the latter should be uncontrolled. The financial affairs of the University should be left to the Syndicate, which might appoint

committees of experts out of their own number to superintend such matters. These things might be left to the reformed University.

The complaints about English are not altogether well founded, although the knowledge of English has to some extent deteriorated. One reason is the abolition of the oral examination in the Matriculation. It is to be feared that is past cure now. The abolition of the test has certainly not worked to the advantage of English teaching. Another reason is the increase in the number of the students. Formerly, in the times of which Mr. Chandravarkar speaks, only a select few joined the colleges, and it was much easier to teach a small number of bright students than it is to carry on the work weighted down as we are by a quantity of inert matter.

Witness has had very small acquaintance with school work. In St. Xavier's school the study of English is begun as soon as possible. Witness does not think that the instruction in English has been injured by its being begun in the lower classes under the charge of very junior teachers. Mr. Pedler differs. Any difficulty that students may have in following the lectures soon disappears. The same complaint existed 15 or 20 years ago, and perhaps in some cases it was even stronger.

The Matriculation examination might be improved if it were made an Entrance examination pure and simple. Now it has to serve a great many purposes. The proposal that comes up now and then to do away with it entirely is a bad one. The Matriculation has laid down the standard to which our schools have to educate, and it would be a great burden on the colleges if each of them were required to conduct its own Entrance Examination. There would be this further disadvantage, that in the event of transfer from one college to another, the Principal of a superior college might have to accept the Matriculation of an inferior college.

A school-leaving certificate could not take the place of the Matriculation examination. The University ought not to let the Entrance test go out of its hands.

The present system of examinations is too mechanical. The University requires in every subject 30 per cent. and 30 per cent. in the total. It would be fairer and better to demand a lower minimum in each subject, and a higher minimum in the total. Universal talents are very rare, and those students who are proficient in some subjects should have an opportunity to make up for a deficiency in other subjects. The candidates who failed under the old system of examinations deserved to fail, while some very good men fail under the new system. The minimum should not be reduced below 25 per cent. The minimum should be left to the University to settle.

It would be a great advantage to the University if the Registrar were made a full-time officer.

At present any close supervision of the colleges by the University is out of the question. The Senate is not a body which has the knowledge or the qualifications to superintend the colleges, and on the whole any interference of the University in the internal management of the colleges is to be deprecated, except in so far that the University must be satisfied that the colleges keep up their efficiency.

WITNESS NO. 10—MR. O. V. MULLER, M. A., Professor of History and Political Economy, Elphinstone College, Calcutta.

There is urgent need for reform in the constitution of the Senate. The government of the University appears to have been modelled largely on that of the London University, without any reference to the position of the colleges. When the Elphinstone College was built, Professor Wordsworth said that at Oxford the colleges overshadowed the University, and that this ought not to happen in

Bombay. The college was built at a distance, which also seems to show that the spirit of some of the early founders was to prevent the colleges from overshadowing the University. Now that there are many colleges, the more suitable model would seem to be Oxford or Cambridge rather than London.

In considering the numbers of the Bombay Senate, it must be remembered that it has other functions besides

Size of the Senate.

those ordinarily performed, namely, to return a member to both the Legislative Council and the Bombay Municipality. In this respect the University of Bombay is a political as well as an educational body. Its numbers could not be reduced to any very great extent without destroying these uses, and 200 might therefore be fixed as a suitable limit. It would not be desirable to disenfranchise educational opinion in Bombay, and the political and educational interests can both be maintained by retaining a Senate of 200 and at the same time transferring much of the power from the general body of the Senate to its executive committees and in especial to the Syndicate.

All Government Professors should be made *ex-officio* Fellows on their appointment to a college. According to the printed

Constitution of the Senate.

form shown to the witness in the office of the Secretary of State for India, an Indian Educational Service recruit must have taken a first class in the Oxford or Cambridge University in the particular subject in which he is appointed to teach. Witness was in Bombay several years examining, serving on committees for text-books, and performing innumerable small University functions, but with no voice in the Senate. The same thing happens to many others. Professors of other colleges should, if they have similar qualifications to the Government professors, also be appointed *ex-officio* members of the Senate either with the approval of the Government or of the University. For Indian Professors the qualification might be a first class in the M. A. examination. The rule requiring Government Professors to be first-class men has been strictly followed in the Bombay Presidency for many years past.

The appointment of Professors of Government and other colleges

Conduct of business in the Senate.

would tend to strengthen the power of the colleges in the Senate. This would be a reversal of what was the deliberate policy of some of the founders. Witness has always attended meetings of the Senate, and a great part of the work of himself and the other Professors is to fight in order to maintain good text-books and to prevent the standards from being lowered. The first intimation one may receive of a proposal of this sort affecting one's own subject may be the entry in the list of business, and then one has to fight against the proposal in the non-expert Senate. There is a constant tendency to lower the standard, or, what amounts to the same thing, to appoint text-books for higher examinations where there were none before. There is a certain section in the Senate composed principally of Indians who take this line.

The original proposal of examining by compartments was not meant to lower the standard. If the resolution, as it was ultimately framed by the Senate, had been passed, it would have lowered the standard, and the supporters of it, no doubt, hoped that it would.

In the Syndicate the chief weight should be given to colleges; the heads

The Syndicate.

of all colleges cannot be members, but the Principals of the three old Bombay colleges, *viz.*, the Wilson College, the St. Xavier's College, and the Elphinstone College, should be *ex-officio* members, and half the seats should be filled by professors and teachers to be elected by the Senate. Witness would not express an opinion as to what the total number should be. He considered thirty would be much too large, and had opposed the enlargement which was made by including the Deans of the Faculties.

In accordance with the principle of throwing the weight of authority

Vice-Chancellor.

into the hands of the colleges, the Vice-Chancellorship should be conferred more often upon the head of a college, instead of, as an honour, on some distinguished official or man in some other walk of life. There have been such appointments of Principals of colleges in Bombay, and they have been

attended with great success. The office of Principal of a college is high enough to confer dignity on the position of Vice-Chancellor.

The Faculties, as they at present exist in Bombay, are only used for electing Syndics. The Faculty of Arts, to which witness belongs, has not met for any other purpose for some years. When they did meet, the discussion was always regarded as a waste of time, because the recommendations of the Faculty carried practically no weight. The whole subject would ultimately have to go through the Syndicate to the Senate, where the opinion of the Faculty might or might not be listened to. The Faculty are supposed to discuss questions referred to them by the Syndicate or by the Senate, and they can initiate subjects, but as a matter of fact there has been no meeting of the Faculty for four years except to elect Syndics.

It is perhaps because the decisions of the Faculties are overridden by the general body of the Senate that the Faculties practically never meet. It has constantly happened in the Medical Faculty that the Faculty has come to a conclusion which has been overridden by the Senate.

There are no Boards of Studies in Bombay. It is most necessary that there should be a Board of Studies appointed for each subject in each Faculty, if possible, for a term of years, and that text-books should be fixed by them, and not by the Syndicate.

The present system results in the selection of inappropriate text-books. For instance, the late Mr. Justice Ranade and others drew up a suitable scheme for the M. A. course in History. During his illness and in the absence of the witness and the Government Professor, the scheme was radically changed and unsuitable books were prescribed. One book was included which was published in 1820 and only two copies of which exist in India. The number of books prescribed was also more than the student could possibly study. The experts on the Boards of Studies should be experts in the particular subject. There should therefore be separate Boards for each branch of study. Each Board should consist of five members, of whom three must be teaching the subject in some college. They should be chosen by the Faculty and appointed for three years.

Too much stress is laid on the bare percentage of passes. The University list and the college list published by the Director show merely the number sent up and the number who passed. Account should also be taken of the class. A college which passes a good many 1st and 2nd class men may have done much better than a college with a higher general percentage of passes. Insufficient account is taken of the great difference between men of different classes.

As the examinations are at present constituted, there is a certain amount of chance whether a student who is on the border line will pass or not. It would therefore be wrong for a college to keep back a student who is doubtful, because it is to a certain extent a lottery whether he passes or not. Not many students have of late years been kept back in the Elphinstone College. If a student has done badly, he is warned, and it is left to him whether he will go up for the examination or not.

It would not be desirable to fix an age limit, because many of the best students go to England and should finish their Bombay course in time to enter Oxford or Cambridge at the same age as English students.

Students who come from the mufassal have during their first term in college a little difficulty in following lectures, because they are very often not accustomed to hear Englishmen speak English. The difficulty disappears by the middle of the first term.

If the University is to teach, the subjects of Physics and Chemistry are those in which it could do most good. In order to teach these subjects efficiently, appliances are required, which are beyond the means of some of the colleges. The same difficulty was experienced at Cambridge, where the University

has taken over the whole of the Science departments. In India also the Universities should take the matter up and equip laboratories both for Physics and Chemistry. The teaching of Physics ought not, as at present, to be left entirely to natives of this country. It is laid down by the Education Department that the professor of Physics must always be an Indian. The reason is that the number of Professors from England is small, and that some subjects such as History and Moral Philosophy require to be taught by English Professors. Some scientists ought to be procured from England to introduce more recent European ideas. At the Elphinstone College there is a splendidly equipped laboratory for Physics, which is more or less wasted. The arrangement for teaching Chemistry is also unsatisfactory. It is taught by the Chemical Analyser to Government, who only receives a conveyance allowance for the duty. In the Wilson and St. Xavier's Colleges there is better provision for the study of Physical Science, and more students take it up.

The present Bombay course in History and Political Economy is very satisfactory, with the exception that Geography is not taught. It is not prescribed in any of the curricula, and the ignorance of even good graduates of the subject is appalling. Geography has now been introduced into the Provincial Service Examination. There is no objection to including History and Political Economy in one group. The same arrangement is followed in other places, and Political Economy is included in the historical tripos at Cambridge. Political Science forms part of the M. A. course.

In reply to Mr. Justice Banerjee, witness said that a certain section of the Senate tries to lower the standard chiefly by limiting the amount that may be set by confining the examiners to text-books and even to pages of text-books, and by making text-books easier. They would also like to reduce the actual percentage of marks.

The M. A. classes are the only ones in which it would be possible to introduce the inter-collegiate system. M. A. students are few in number, and they are not tied down by a large number of hours like other students. It might therefore be possible among Bombay colleges to arrange for M. A. students to have a sort of inter-collegiate lecture system. For instance, they might attend lectures at the Elphinstone College on one part of the History course and at St. Xavier's College on another part. Such an arrangement would be facilitated where the professors are personal friends. If this could be done right through the M. A. course, it would mean a great saving of time, and would produce greater efficiency.

Examiners are appointed too much as a matter of patronage and from considerations of caste. It would therefore be well to lay down certain qualifications by rules which might be kept confidential. For instance, no graduate of the Bombay University should ordinarily be allowed to examine in any subject in which he has not proceeded to the degree of M. A. A graduate should not be allowed to examine in History who has not taken the M. A. degree in that subject. M. A.'s in Literature are sometimes appointed to examine in History. An exception may be made to the rule where a graduate has distinguished himself in another subject after taking the degree.

Again, Englishmen, when available, should be appointed to examine candidates in the English language. The tendency has been to appoint native examiners to examine in some English examinations. Their services could probably be better employed in other subjects. They cannot test the students' knowledge of English in the same way as Englishmen. Even in the B. A. examination a native gentleman was appointed to examine in English last year. It is as important, or more important, to have English examiners in the lower examinations. For in them it is the knowledge of the language which has to be tested, whilst in the higher examination it is more the knowledge of literature.

The rule under which Syndics are debarred from examining should be abolished. Under the self-denying ordinance, a Syndic is disqualified from examining. This acts in two ways. It debars a good man from becoming a member of the

Syndicate if he wishes to examine, and also deprives the University of the services of men who are well qualified to be examiners but who are on the Syndicate.

Under the present system, each examiner or group of examiners sends in the marks to the Registrar. Five or six days after there is a meeting of the examiners for the addition of the totals. Not unfrequently the examiners may find that a student who perhaps has failed in one paper by one or two marks has passed well in other subjects. The examiners should have it in their power to reconsider the case of such a student. It may also happen that in a particular subject a man is just on the border. If it were known to the examiners that he had otherwise done well, he might be allowed to pass in that subject, but, if the contrary were known, they might decide that he should not be allowed to pass. At present there are no means of finding out how the candidate has done in other subjects. There is no way of deciding that on the whole a candidate should or should not pass. The same remarks apply with even greater force to the division into classes. It is frequently seen at the meeting of examiners that a man has missed his first or his second class by one or two marks. It ought to be possible, by looking at the whole of his papers, for the examiners to say in what class such a man should be placed. At present these matters cannot be discussed at a meeting of the Board of Examiners. They meet simply for the addition of the marks. The present system does not lend itself to abuse, but, on the other hand, it often causes grave injustice.

The University has a number of small endowments consisting of prizes for competition which often remain unadjudged. They are not competed for, and the funds accumulate and are sterile, while the University is starved in other directions. Steps might be taken to utilise these endowments for some useful purpose.

WITNESS No. 11—MR. W. H. SHARP, M. A., Professor of Philosophy,
Elphinstone College, Bombay.

The Senate is too large, and contains a great many people who are of no use. The number should be reduced to 100. Fellowships should be made terminable. An attendance test cannot be enforced in regard to up-country members. The transition is a matter of difficulty. The analogy of the Justices of the Peace might be followed. Every now and again Government publishes a list of those elected to be Justices of the Peace. Those names that appear in the list are considered Justices, and those left out of the list cease to be so.

Witness has served on the Syndicate for a year. It is a little too big for the convenient despatch of business. A great deal of business is settled or discussed in the first instance in circulation. If members keep the papers to consider them, it occasions great delay. It would be desirable to enlarge the powers of the Syndicate and make them independent in certain directions. For instance, the Syndicate should be allowed to excuse students who have failed by a few days to complete their college terms. The Syndicate should have some *ex officio* members. At present there is a good deal of manoeuvring and canvassing before elections. If the Principals of the three Bombay colleges were *ex officio* Fellows, it might save them from what is sometimes an awkward position. There is considerable desire on the part of Fellows to get into the Syndicate. In some cases it is because membership carries with it a certain amount of patronage. Members themselves do not canvass, but the election seems to be engineered and arranged beforehand. For several years the University has generally acted upon the principle that the Principals of the three leading colleges ought to be Syndics.

There is room for considerable improvement in the appointment of examiners. The system of inviting applications should be abandoned. There are a very large number of applications, most of which are from persons who are

quite out of the question. Representatives of the Faculties discuss the set of examiners for that Faculty informally in the first place, and arrive at a general conclusion as to who are to be appointed examiners. It seldom happens that any one is appointed who does not apply. It is taken for granted when a man does not apply that he does not wish to be made an examiner. Many gentlemen do not refrain from applying out of disinclination to take this step. Witness has heard of one such case. The total number of examiners appointed for the Entrance Examination is considerable. There are six examiners in English, two each in the other subjects and one in the vernacular. The Senate rarely goes outside the University for examiners. It would probably be an advantage, especially in the more advanced examinations, if persons from outside were asked to set papers. Under existing arrangements, Professors may have to examine their own students. Those asked to examine in such cases should be persons connected with teaching. The self-denying ordinance does not prevent members of the Senate from serving on the Syndicate.

The present courses of Logic and Moral Philosophy are suited to the students. It is not a popular subject in Bombay. The number of students taking it up for the M.A. is very small, and for the B.A. comparatively small, altogether about 50 or 60. It is a very popular subject in the Deccan, where the majority of the *Dakshina* Fellowships are given for it. Here no Fellowship is given in the subject, and it has therefore been neglected for others. It would not be desirable to make the subject compulsory in the B. A. course. It is regarded as the most difficult of all the subjects, and would prove a stumbling block to many. One difficulty is the want of satisfactory text-books on Philosophy. They are written in very difficult language. Witness could not compare the standard with that prevailing in Calcutta and Madras, but promised to examine the papers and send a written opinion to the Commission. It is a more important subject than Political Economy, and an easier course might be devised in order that it should be more largely studied.

The reason why it is desirable that Fellowships should be made terminable is that, on the whole, it would tend to greater efficiency. It would enable the Senate to get rid of those who do not attend the meetings regularly or who have lost their interest in the University. There are a number of Fellows who are not educationalists and who may lose their interest after a time.

Taking them all round, the students are not overtaxed, though some of them suffer from leaving everything to the last hour and then overworking. There has been a flourishing Gymkhana in the Elphinstone College ever since witness has been there. If there were a four-year course with only one examination in the middle, the students would be idle during their first year. They take things very lightly in the first B.A. year, and it would be worse in the earlier part of the course, because the students are younger and less sensible. A college promotion examination might be substituted for the Previous Examination. There is no regular promotion examination at the end of the third year.

Witness heartily endorsed the suggestions made by Mr. Macmillan as to giving unseen passages to candidates for translation. Witness' great experience in Latin and French has convinced him that some change of the sort is very badly wanted. At present a man may get high honours in French without being able to write a line correctly, because the number of marks assigned to composition is very small. For the last two years French has become a very popular subject among students on account of it being regarded as easy. It is a pity that French has attained such prominence. It cannot be called a classical language, and it is undesirable that the Indian classical languages should be discouraged in its favour. It is possible to extend study of an easy subject so as to make it as difficult to pass in it as in other subjects, but that does not appear to have been done in this case. French was introduced in the University curriculum because lady candidates found it difficult to pass in classical languages.

WITNESS No. 12—MR. H. M. MIASINA, L.M. and S., F.R.C.S., late Tutor in Surgery, Grant Medical College, Bombay.

The witness read a paper,* and was questioned on the separate paragraphs as he read them. The following is the substance of his replies :—

* (No. 6 in Part II.)

The proposal with regard to *research instruction* is that a professor skilled in research work should have a class with the object of helping graduates or college students. The special object would be to advance post-graduate studies. The research lecturer might also make experiments for the benefit of science.

Teaching University.

In the first instance, the Government colleges may be utilised to start the teaching University. They need not be bodily incorporated into the University, but they should be so far recognised as University institutions that their staff may be designated University professors and teachers. The change sounds as though it were more in name than in substance, but by making it the University will have a greater influence over teaching than it has now simply as an examining body. There should be no interference with the colleges and their Professors as they now stand, but as new professorships arise in these colleges, the University should have a greater voice in the matter. It is not necessary to interfere with the internal management of existing colleges.

There are schools which cannot afford to have teachers in special subjects such as Latin or German. If the University created lectureships or teacherships for such purposes, pupils of these schools could attend such lectures, and the schools could contribute towards the cost of the lectureships.

It is desirable that the Bombay University should permit the students of other Universities to present themselves for its examinations. It will increase both the prestige and income of the University. So far as prescribing the curriculum and regulations is concerned, the University of Bombay should maintain its confined sphere of influence, but if the University authorities think the curricula of other Universities are suitable and sufficient, then the students of those Universities should be allowed to appear for the Bombay examinations; just as students of Indian Universities are allowed to appear for examinations in Great Britain by different licensing bodies. The term "recognition for examination purposes" describes the position better than the term "affiliation." For instance, a college at Benares affiliated to Calcutta would remain under the control of the Calcutta University, but its candidates or students might be allowed to appear for the Bombay University examinations. In other words, such candidates might go either to Calcutta or to Bombay, and it would conduce to the prestige of the Bombay University if they chose the latter because they considered its examination more thoroughly conducted and more searching and its degree more honoured and more valuable. To illustrate the meaning, it may be remarked that an L. M. and S. of the Bombay University has not so high a reputation as a man who holds the British diploma. The candidates should be required to satisfy the authorities of the University that he has received proper instruction. More candidates go from Bombay to other Universities than *vice versa*. They take advantage of the examinations of other Universities because they are easier than the examinations of the Bombay University. If other Universities maintained their standards better, the temptation would be removed. This University is not concerned. It does not matter whether the candidate comes from a college not controlled by the University, because it is only for examination purposes that he is received. Instances in which Bengali candidates come to the Grant Medical College because they have not to pass the F. A. or because they have done badly in the first examination in the Calcutta Medical College are very rare.

Spheres of Influence.

The Senate.

The system of election by graduates is a good one. Graduates exercise their voting powers on the whole intelligently. Canvassing goes on for these appointments just as it does for appointments to other bodies, but there is a difference between wholesale canvassing and a reasonable amount of canvassing. The term canvassing is hardly a proper term to apply to what is done. It

might be called "after proper deliberation": sometimes, however, it does come to what is practically canvassing. The system does not cause unfit men to be elected. Witness receives applications from the majority of candidates. In applying for votes the candidate generally asserts his own claims and mentions what he has done and what he has not done, or what he is and what he is not. Candidates have never sent a mutual friend to witness to talk the matter over, nor does witness encourage that sort of canvassing, which ought to be strongly deprecated. There are several straightforward and strongminded gentlemen of Bombay who do exercise the privilege which is given to them in a proper way. There is nothing like the wholesale canvassing which is alleged by interested parties. Often distinguished graduates are kept back, because they do not like to canvass or put themselves forward. If good men will not come forward, then it is the duty of well-minded graduates to put them forward, and if they are put forward by such people, it should not be said that the latter are guilty of canvassing. It would be best to have a simple proposal and seconding. It would not be advisable to make an absolute rule against canvassing: it would be difficult to prove, and there are different ways of canvassing. What is required is a simple, straightforward election. To the knowledge of the witness there is no bribery or attempt at bribery in connection with elections.

Witness proposed that, should any of the following persons not be a member of the Syndicate, he should be appointed *ex-officio* :—

The Syndicate.

- (1) The Principals of eight colleges.
- (2) The Director of Public Instruction.
- (3) The Principal, Elphinstone High School.
- (4) A representative of the public high schools.

Supposing, as is very likely, that the Faculties elect fourteen men as now on their own responsibility, outside the chosen 11, the Syndicate will normally be composed of 25 members. The increased size will not interfere with the working or efficiency of the Syndicate. The *ex-officio* men will be recognised authorities or experts on subjects discussed at meetings of the Syndicate. In electing Syndics for the various Faculties, one of the two Syndics should be from the staff of the eight fully recognised colleges. In the Arts Faculty two out of the four Syndics should belong to the recognised colleges, so that they may have a voice in the management of the University. At present, they have not always a sufficient voice.

With a reformed Senate, the Vice-Chancellor should be appointed by the Senate. The qualification should be high academic distinction and a suitable position in the State. The appointment should be for two years as at present.

The Vice-Chancellor.

The Syndicate appoints the Boards of Studies, whose functions are simply advisory. If the Senate, when the suggestions of these bodies come before it, does not think they are appropriate, it must throw them out. If a Faculty or Boards of Studies comes up with a unanimous opinion, that opinion is rarely rejected by the Senate. Witness was appointed a Fellow of the University in 1896. Since that time no such instances have occurred as to lead to the general impression that the recommendations of the Faculties or of experts are frequently rejected by the Senate.

Faculties and Boards of Studies.

Witness has had no experience in teaching English, except that he used to take the lower classes whilst still a student. For paraphrasing a passage, a student must possess a better knowledge of English than is required for translation. The oral test in English was abolished, because it was conducted in a haphazard way. It may be said to have been the fault of the Senate, inasmuch as they did not appoint a sufficient number of examiners and did not give sufficient time for the test. It would improve matters to revive the test, even with the present number of candidates, if the examination were properly conducted and the University appointed good examiners.

University Teaching—English.

If the proposal to make Latin compulsory is adopted, Sanskrit and the Indian classical languages will be included in the group of voluntary languages.

Study of Latin.

An Oriental is not bound to follow on the lines of a Western University, but it is desirable to conform to the European custom in order to give no cause to others to complain that our standard is low or inferior to that of other Universities. Some of the English Universities—Edinburgh, for instance—recognized the Matriculation Examination of the Bombay University, but the difficulty lies in regard to the London University. In recommending that Latin should be made compulsory, witness has not omitted to take note of the fact that English to the Indian students is itself a foreign language. The study of Latin will improve their English. The difficulty of procuring teachers would not be insuperable. In Bombay provision should be made by the teaching University, and for the mufassal five years' notice should be given. If it were possible, the best thing would be to make the London University accept the Bombay methods; in default of this, witness recommends that Latin should be made compulsory. Mr. Hewett asked the witness whether, in the interests of a few candidates who are going in for medical education, he would insist upon every student who goes up for the Matriculation knowing Latin. Witness replied that he would, because the Bombay University does not want to have a separate Matriculation Examination for medical students.

Witness would prefer a year of post-graduate work after a student leaves Standard of preliminary education for the Medical College, whereby he would gain a better knowledge of his profession, rather than to require him to pass the preliminary test of the Previous Examination, which would mean a year's more work before he entered college. The average age of entrance is 15 or 16, and men are ready to practise at about the age of 21. If there is a good Matriculation, there is no necessity to raise the standard for admission to medical studies.

A higher standard might mean a longer school course, but that would be better than that a bad Matriculation test.

Candidates do not go up for the M. D. for the reason that it is harder than in other Universities. Among the subjects it includes Surgery, Midwifery, and Comparative Anatomy, and it requires the preliminary qualifications of the B.A. or B.Sc. A candidate must spend ten or more years over his studies. Many graduates who get the L.M. and S. are deterred by the difficulty from going in for the M.D.

M.D. Examination.

In the First and Second Examinations in Medicine a candidate is required to get 33 per cent. to pass in a subject and 45 per cent. of the total number of marks Standard of marks. to pass the whole examination. This means a double standard, that is to say, the examiners may think that a candidate has sufficient knowledge to pass in each subject, but when it comes to the question of totals, the University may think he has not sufficient knowledge. Witness would rest satisfied with 35 per cent. for the individual subjects and for the total, but if this be thought to unduly lower the standard, he would alter the percentage to 35 in each case.

At this point the Commission rose. On the 7th March Dr. Masina's examination was continued, and was conducted in the same manner as before.

Witness has been an examiner for four years for the L.M.S., and finds that many good students have failed for the sake of 1 or 2 marks in subjects of minor importance, such as Medical Jurisprudence and Toxology. The old rule of allotment of grace marks should be re-introduced. If a candidate has second class marks on the whole, he should be entitled to grace marks. There should be a formal meeting of examiners before submitting their marks to the University, and if they think that certain candidates deserve to get grace marks they should proceed to allot them.

Allotment of grace marks.

The college is at present under a triple government, viz., the Principal of the Internal government of the Grant Medical College. College, the Director of Public Instruction, and the Surgeon-General. Witness has been connected with this institution since 1882, and is of opinion that the best person

to advise Government is the Principal of the College. He knows of the exact wants of his institution. The Director of Public Instruction may exercise the usual control, but as regards the internal government of the College, the Surgeon-General is not the best person to advise Government. The present Surgeon-General has never been a Principal in a college, so that he cannot know anything about the internal management. His advice has on several occasions been prejudicial to the interest of the College. First, there is the case of Framjee Petit Laboratory for research. The Surgeon-General advised that there was no special necessity for it. Afterwards the local profession got another donation, and wanted a laboratory; the Surgeon General advised that Bombay was not a suitable place; nevertheless Lord Reay carried out the scheme.

Recently, in order to build quarters for the House Surgeon, certain wards were removed, which were the source of supply of unclaimed bodies for experimental purposes. The authorities have now to write to the Hospital for infectious diseases in order to get their supply of dead bodies.

During the past three years attempts were made by the Principals of the College to obtain assistant Professors. The Surgeon-General, however, opposed the scheme.

A good many complaints have been made on account of the changes which frequently take place in the members of the teaching staff. If it is not possible on account of the exigencies of the Indian

Medical Service to keep the same men as professors, there are among the local practitioners men fully qualified to fill these posts—for instance, Dr. Surveyor and Dr. Rao. The scheme of additional Professors came into force in Lord Reay's time, and died away after his departure. In order to keep up an efficient staff, young members of the Indian Medical Service should be attached to the colleges and trained at Government expense in order to qualify them for professorships. The tutors employed in the College have done excellent work in different branches of their profession, and should be eligible for promotion to professorships. When witness found that he had no chance of promotion, he went to London, and obtained an English qualification. Dr. Choksi, Dr. Rao, and Dr. Surveyor are instances of gentlemen who have distinguished themselves in special subjects. Very recently one of the tutors obtained high qualifications in Midwifery, and another is going to England to qualify himself in Pathology.

The witness dealt with the various subjects mentioned on pages 9 and 10 of his printed statement, expanding in some cases the remarks in that statement.

Teaching of Different Subjects.

WITNESS NO. 13—THE REVEREND R. SCOTT, M.A., Acting Principal, Wilson College, Bombay.

The phrase "Teaching University" has puzzled people in Western India. Its meaning is dependent on local association. The Bombay University is without qualification a teaching University. It was never anything else. The London University was for a time a purely examining body, that is to say, it gave degrees to private students. Here no student is admitted to a University examination, unless he has kept full terms in a University college, and been taught the complete course of prescribed study in a proper class room. The number of students in the Presidency capitals is so large that it is impossible to teach all (as is done in Scotland) in one University college. If it were possible, it would still be undesirable. Distinctive peculiarities should not be suppressed, and the rivalry of colleges, though it may contain elements of evil, is the chief safeguard for the maintenance of a high standard. The system has grown up in consequence of, and in adaptation to, the circumstances and needs of the country. To attempt essential changes would be unwise. But the question is asked—"Should more be done by the University as distinct from the colleges?" In this question the

Teaching University.

University has its technical meaning, *viz.*, the Vice-Chancellor and Fellows. These constitute the Senat, a body of changing character and opinion, and possessed of no property except the special endowments it administers and the fees it levies. Such a body cannot found a college or do anything but administer special funds. Universities should, however, benefit the public in whatever ways are possible. The University should maintain an up-to-date library for students, a museum for students of Natural Science, and well-equipped laboratories for students of the Physical and Chemical Sciences. It might institute lectureships on the classical languages not taught in colleges, such as Pahlavi, Arabic, and certain aspects of Sanskrit, lectures also on ancient Oriental systems of thought and on Archæology and kindred subjects. It might attempt occasional courses of lectures on subjects of general interest for the benefit of the general public, *e.g.*, on art, or music, or literature, or sociology. In no circumstances should it institute lectures on subjects taught in the colleges, or in any sense assume an attitude of rivalry towards any recognized institution. Such action would put the Senate in a false position, and prove mischievous. For the teaching of small advanced classes, inter-collegiate arrangements might be made with the sanction of the syndicate, as an occasional, not general, practice. The University laboratories should be used for examination purposes and as reference laboratories open to all the Professors of colleges. In every college there ought to be a certain number of appliances, but the University might have a larger number. The practical examinations are now held in the college chosen by the examiner. They are sometimes held in the Elphinstone College. No use is made of the University Library that now exists, as it consists mostly of old books. The Royal Asiatic Library is a good one, but it is not free. There is a cheap native library used by students, but it does not contain books needed for their studies.

Each full college at the seat of the University should have a representative on the Syndicate. The colleges at the seat of the University practically constitute the University. Up-country colleges may be regarded as affiliated colleges which are sufficiently honoured by affiliation. Inasmuch, however, as the Deccan College was an original part of the University, and as the Engineering College is in Poona, and as it might be convenient to have other institutions located there the University might be regarded as the Bombay and Poona University, so that the Poona colleges would, like the Bombay colleges, have representatives on the Syndicate.

Witness does not agree with those who advocate a large reduction in the Senate. No doubt, smaller numbers are more easily handled, and with large numbers a certain inconvenience is unavoidable. But it is not the case that in the Bombay Presidency evil has resulted to education from these numbers. Annually from two to three hundred students graduate, and it would not seem much if after years of good work ten of these should receive the honour of Fellowship. Hope of this honour must tend to keep alive a graduate's interest in educational questions and in learning. The weakening of such a hope is to be deprecated. The opinion that the native graduates who are Fellows are unable to judge of the matters that come before the Senate is unreasonable. It is true that there are Fellows who have not gone through a course of study, but of these the numbers will diminish from year to year. There is another class equally unserviceable—the occasional European who takes no continuous interest in the University but may be called forth on a special occasion by a newspaper article to record his prejudice. But no system can be perfect. It is well to encourage all distinguished graduates and all graduates that afterwards make their mark in life to maintain an active interest in the University. This cannot be done by a register of some thousands of names, or by purely honorary Fellowships, but by such an arrangement as the present which combines honour and responsibility. As far as the experience of the witness goes, native graduates do not (as some suppose desire to) lower the standard of passing. It is notorious that native examines are more severe than European. Two hundred should be fixed as the maximum limit of the Senate. All Professors of recognized colleges should have a certain status in the University, and should be entitled to a seat in Convocation

Colleges should not be supervised by the Senate. The judgment of students is quite as valuable as that of any other body. All colleges should have a fair field, and none should be bolstered up by artificial means of gifts or rewards or other influence. In practice it is not necessary for the University to take measures to see that the affiliation rules are obeyed. If the college falls below the mark, the students will leave it. Before affiliating a college, the University should see that it has a proper staff; after it has recognized the college, it might require reports, but need not inspect. The University might use the power to give one college an unfair advantage over another. This matter should be left to the students; all the world over the students know best the capacity of the professors. Inspection might occasionally serve a useful purpose, but the balance of advantage is against it. At the back of every college there should be a strong governing body, and the Professors should be above the need of inspection. The present system has worked satisfactorily for a long time, and it would be unwise to abandon it for a system the results of which have not been tried. The University cannot be regarded apart from the college. It is a collection of colleges, some better and some worse. Students tend to leave the bad colleges, and careful enquiry before affiliation will prevent such colleges from coming into existence. If a bad college can keep up its numbers by successfully cramming the students, that is the fault of the examination system.

There are several ways in which the standard of education may be raised and the methods of teaching improved.

Course of Study. The primary matter is the improvement of school education. The pupil goes through three successive stages—the Vernacular, the Anglo-Vernacular, and the High School. It is possible that more rapid progress might be made all through, but the University is concerned only with the Matriculation Examination. The revision and re-modelling of this examination might, however, beneficially affect the standards below Matriculation. It is desirable that the average age of boys entering college should be increased by about one year. This can be effected only indirectly by increasing the amount of work to be gone through in schools. Perhaps it would be well to constitute an additional school standard.

- (1) *English*.—As regards a knowledge of poetry, the recent tendency has been retrograde. This matter has to be considered not only in connection with knowledge of the language, *i.e.*, the power of conversation, but in connection with the educative influence of English poetry, which is more valuable than prose for stimulating thought and for enriching the mind. It is an important element of culture, and it is a pain to be constantly finding students who are ignorant of the most familiar lines of the most exquisite poems. There should be two papers in English, one on the grammar of the language and one on selected passages of prose and poetry prescribed by the University. The paraphrase should be of an unseen passage. Students should be made to commit to memory hundreds and thousands of lines of poetry for the enrichment of their minds.
- (2) *Second language*.—As the Matriculation Examination is preparatory to a college career, a language recognized in the Arts curriculum as a second language should be a compulsory part of the examination. At present this is not so. Many matriculate without any knowledge of the second language which they must study afterwards. This tends to lower the standard of education.
- (3) *Mathematics*.—The Algebra should include quadratic equations.
- (4) *Science*.—The present arrangement is very unsatisfactory. Three sciences are prescribed for one paper, and none of them is profitably taught or studied. They are Mechanics, Chemistry, and Astronomy. Neither Chemistry nor Astronomy can be properly taught in Indian schools. There should be one branch of Science honestly taught, *viz.*, Mechanics or Dynamics with, as an alternative chiefly for girls, Botany. This would prepare the students for the Physics

taught in the college course. The general effect would be to furnish students with more mature minds and more able to profit by college lectures. The Dynamics should be taught mathematically rather than experimentally. Statics and Dynamics are taught in high schools in Scotland. It would not be advisable to introduce a branch of Physics, because of the difficulty in providing apparatus. Science does not cause many failures at present; it is recognized as a purely cram subject. There might be an improvement if the matter were represented to the Senate. The witness is not aware of any teacher having done this.

On the preliminary question whether the students have a sufficient knowledge of English to follow the lectures, the answer is in the affirmative. There is some difficulty at the beginning, especially if the Professor's utterance is not distinct, and boys from country villages are at a disadvantage compared with town boys, but the evil remedies itself, and requires no special treatment.

The question whether the course is not too much a task laid on the memory, and too little a training of the reasoning and other faculties, is one that may be raised in connection with all Universities in the world. In the highest examinations in Britain the receptive and assimilative faculties tell better than the original or inventive. Things are not much worse here than elsewhere, but the following improvements may be suggested:—

- (1) In the classical languages and also in English unseen passages might (as recommended by Mr. Macmillan) be introduced.
- (2) The voluntary subject—Roman History and Jurisprudence—should be withdrawn.
- (3) Two papers on History in the B.A. (compulsory part) might be withdrawn, and a philosophical subject introduced.
- (4) In Languages and History the books or periods prescribed should be oftener changed. When one period is kept for a long time, synopses are drawn up and examiners cannot avoid repeating the questions. Also a new period introduces new ideas.

The chief defect of the Bombay curriculum is on the side of Philosophy. Nothing is compulsory except Deductive Logic. There is a voluntary group, Logic and Ethics. There is practically no Psychology and no history of Philosophy. In saying that there should be one compulsory paper in Philosophy (say Ethics), it is not meant that the voluntary Philosophy should be withdrawn. The subject is large enough for both. The second language question is one of great difficulty. Here the place of Greek and Latin is taken by Sanskrit and English. If there were only Hindu students, Sanskrit could be made compulsory. But for European, Eurasian, and Goanese students, the classical language is Latin. And for Mahomedan and Parsee students still further provision has to be made. Pahlavi, Greek, Arabic, and Hebrew, are at present allowed, but they are not regularly taught in any affiliated college. Two living languages—Persian and French—have been admitted, and have obtained a place from which they cannot easily be dislodged. While these two languages should be encouraged, they should not be allowed a place amongst the classical languages, but should rather alternate with some other subject, such as ancient or Indian History; or after a certain stage they might alternate with English. As regards Science, it is doubtful whether Botany and Zoology should be part of the B.A. course. But if so, the two should be regarded as constituting one subject (Biology) and a student whose voluntary subject is Science should be required to take two off these three—Experimental Physics, Chemistry, Biology.

Text-books are necessary in philosophical and political subjects which are handled variously, otherwise all the students of one college might pass and all of another college fail. Of course, no professor is limited to the text-book, but students must know what they are to be examined on. These text-books are often written by the ablest living authorities on the subject.

Colleges should not be unnecessarily multiplied, and, as a rule, remote country colleges should be recognized only for the first two years of study.

Affiliation of Colleges.

To illustrate: On the Gujarati side of the Bombay Presidency there are at present four full colleges. One would be sufficient, and not more than two should be allowed. The others should be half colleges. This year a college has been affiliated at Junagad for the whole four years' course. It is not possible for all the colleges to have competent equipment according to modern requirements, nor can students in remote districts attain to the culture that contact with a great city and with educated minds imparts.

Government colleges are called model colleges; but here they are poorly equipped and are the least progressive.

Government Colleges.

The rule by which the Secretary of State is said to be guided in making appointments, *viz.*, that the Professor must be a graduate of Oxford or Cambridge, is objectionable as a creation of privilege, one of many devices for confining the higher services of India to certain classes. In effect it excludes the majority of those in England who are skilled educationalists, and practically the whole of Scotland and Ireland. Graduates of Oxford are supreme in their knowledge of Latin and Greek, but in India they are not employed in the teaching of these languages. To this rule it is partly at least due that modern thought is so little studied, and modern sciences so little developed. In Calcutta and Madras the study of Philosophy is far more advanced, but this result is due to Scottish influence. So with regard to Cambridge graduates. Our eminent Mathematicians, of whom there are two in Poona, can only carry on their life's work in private. Only a very few students care for what we call higher Mathematics (which is, of course, merely elementary Mathematics), and the subject has little bearing on Indian life. Much more importance pertains to the experimental sciences, on account of the various industries of the country; but of these the Government have no regular Professorships in Bombay. [The witness was informed that there is no such Government rule as he supposed and that Professors are also appointed from other Universities.]

Fellowships should be conferred for a lengthened but limited period of, say, 10 or 15 years. A Fellow is appointed

Terminable Fellowships.

when he is about 35 years of age. If he is a Fellow for 15 years, by the time he is 50, his usefulness is at an end. In the case of educationalists, so long as they are connected with education, they should continue to be Fellows.

There is a good deal to be said on both sides, but on the whole the system of two intermediate examinations is sound.

Intermediate Examinations.

Without the Previous Examination students would be idle in the first year. They are too young to read and think for themselves. Many students enter college at too young an age. If the standard of the Matriculation were raised there would not be so much need for the Previous Examination. Under present arrangement a collegiate examination would not replace the Previous. If promotion were made to depend on it and inter-collegiate rules were prescribed to prevent a student who fails in the college examination from migrating to another college, then an inter-collegiate examination might suffice.

It is difficult to say how many hours the students work. For two or three months before the examinations they work up to midnight, indeed as hard as they

Physical welfare.

can. Not more than a third of the students of the Wilson College go in for physical exercise. In the Elphinstone College more attention is given to physical exercise. Last year there was a good deal of illness, but the general physique is not bad. The inclination to play games is increasing. It is difficult to get grounds in Bombay.

Sir Walter Scott's poems and Pope's Homer's Iliad are very suitable books. For young boys nothing could be

Subjects in English Literature.

better; more thoughtful poems can be read by older boys. The boys often get very enthusiastic over the poems they read. Pope's Iliad is objective not subjective. Mental experiences which boys have not gone through are required for the understanding of Wordsworth.

Sanskrit.

Complaints are sometimes made that the Sanskrit papers are too long, not that they are too hard.

WITNESS No. 14—MR. K. J. SANJANA, M.A., Vice-Principal, Bhavnagar College.

[Professor Sanjana represented the Samaldas College, Bhavnagar, before the Commission. The Principal of the College had presented to the Commission a paper containing the unanimous views of the college staff.* The President read this paper and the witness was questioned on it. The following is an abstract of his replies to the questions.]

* Paper No. 7 in Part II.

The number of the Senate may be fixed at a maximum of 200. A member residing at Karachi might perhaps be expected to come once a year. The qualifications for membership should be educational experience, academic distinction or the bestowal of important benefactions.

The Senate.

The mufassal colleges should be represented on the Syndicate. Changes may be made in the curriculum or even in general arrangements opposed to their interests. Latterly the first term has been shortened and the change has interfered with the work of the Bhavnagar College. The report to the Senate stated that the Samaldas College was in favour of the proposal, but this was not the case. Had it been represented on the Syndicate, this mistake could not have occurred. The college ought to be consulted more frequently and greater weight should be attached to its opinion. If its views had been properly represented to the Senate they might on several occasions have carried the day.

Mufassal Colleges.

More specialization and greater thoroughness is required in the B.A. and M.A. courses. The students should be taught some Science or other subject thoroughly well. In Science thoroughness is more important than width. In Mathematics the gap between the B.A. and M.A. is too wide. If the University had Professors they might succeed in teaching the students the present M.A. course. It would be an improvement to divide the course as in Calcutta, *i.e.*, one course with pure and the other with mixed Mathematics as the chief subject.

B.A. and M.A. Courses.

The students are about as good now as they used to be. Perhaps they read rather less; this may be due to the examinations being too extensive. It is not desirable to appoint Professors to be examiners in the subjects in which they teach. Some teachers have their own notes and methods, and if it were known that they were to examine students might neglect their books and confine their study too much to the Professor's notes. In witness' student days the undergraduates used to read their books and not attend to the examination papers. If this is no longer the case the fault may lie with the examinations.

Examinations.

There are some Sanskrit *patshalas* in the Bhavnagar State. They are not of ancient origin. They teach Sanskrit grammar and ordinary Sanskrit literature in an efficient manner. They do not confer degrees. The University Sanskrit Examination is about as stiff now as it used to be. The papers are now perhaps rather too technical.

Sanskrit.

An examination in a second language like Persian does not test the education of a student so well as an examination in Sanskrit. As Persian is taught now it is not of great educational value. If Arabic were well studied it would be valuable. In the Bhavnagar College students do not take up French, they take either Sanskrit or Persian. Many Hindu students take up Persian.

Other Languages.

The standard of Matriculation is high enough except perhaps in English. An oral test should be required, though the size of the examination is no doubt a difficulty in the way of such a test. The great difficulty of the students is not so much in composition as in audition; not being taught by Englishmen the boys are puzzled by the pronunciation. In inspecting schools more attention might be paid to pronunciation.

Matriculation Examination, English.

The University should disassociate itself from the School Final. The Entrance Examination should be for the University alone, and the School Final for the Government alone. If this principle were followed many who now go up for the Matriculation would take the School Final.

WITNESS NO. 15—MR. G. M. TRIPATHI, B.A., LL.B., Pleader, High Court, Bombay.

[Mr. Tripathi presented a written statement and a work on vernacular literature and teaching by Dewan Bahadur Marnibhai Jasbhai].

Witness has taken much interest in Gujarati and has contributed to the development of the literature of that language. After much struggling those interested in vernacular literature have procured its introduction into the M.A. course. If it were also introduced in the examinations between the Matriculation and the M.A., some useful books could be found for study, but the selection must not be confined to the old literature for books suitable for modern conditions will not be found in it.

Certain defects stand in the way of the proper study of vernacular languages.

(1) *Imperfect teaching of vernaculars in schools.*—They are taught in the schools in a very imperfect way. The root of the disease is the practice of teaching all subjects in English. If Sanskrit and other languages were taught in the vernacular they would be much easier. In the fourth standard a boy is required to learn rules about Sanskrit in English. When an English boy learns Latin he derives much help from the similarity of many Latin and English words. An Indian boy loses this advantage when he learns Sanskrit in English. Similarly with Mathematics. The students do not study the book-work in an intelligent manner simply because they do not understand the language in which it is written. When witness studied for the Matriculation Examination he had a good knowledge of English. He was therefore able to translate the mathematical book-work into the vernacular and to really understand it. English should be studied as a second language in the schools and there should be a double Matriculation. First of all there should be an examination by the head-master in the vernacular, and then if the boy is sufficiently advanced he should study his subjects in English and then present himself for the Matriculation Examination. The present system is one of learning by rote and cram. Witness' knowledge of English enabled him to do his Matriculation work very quickly. Witness knew of one instance in which a student pursued his studies in the vernacular so successfully that he was able to do all his English studies for the Matriculation in a year and a half. At an early age the study of English as a classical language should be begun and less distinction should be drawn between the vernacular and English schools.

(2) *Excessive burden of study and defective methods.*—If the burden is increased by fresh studies something else must give way. The Mathematics can be reduced. As now taught the work is; cram. In Euclid the propositions are merely learnt by rote. Instead of the present four books it would be better to study one only and understand it properly. Similarly in Arithmetic a boy does not know that addition and multiplication are connected with one another, or what is the meaning of the formula by which he works out examples in stocks. When witness examined in Gujarati his difficulty was to make the students think and understand. They could not apply definitions or explain the passages they read. There is so much to cram into their brains that they have no time to study properly. The only way to teach is to put questions to students and exact answers, so as to see what they have understood. In certain colleges Professors dictate notes, with the result that when the examination is about to take place the students run about inquiring who are to be appointed examiners and after ascertaining get the examiners' notes and cram them up. There is no hope of improving the teaching unless one can get independent professors not connected with the colleges to examine. College Professors are narrow-minded and think too much of their own colleges and

methods of tuition. Witness agrees with Mr. Scott that students know who are the best Professors. Mr. Scott is, however, wrong in thinking that the efficiency of colleges is secured by the law of supply and demand. A student may go to one college for its English knowing that the Sanskrit instruction is bad. He cannot help himself, he wants the English. The best students of the colleges (*e.g.*, the *Dakshina* Fellows) might help in the choice of Professors. It would be an improvement to have a Professorial Faculty in the University.

It is not a great misfortune that there is not at present so much knowledge of the popular vernacular. It is an impure rather than a pure vernacular and it ought not to be encouraged. A more diffused knowledge of Sanskrit would improve the vernacular language. It would be a disaster to enforce the study of the vernaculars and not the study of classical languages. But if the burden can be lifted in some other direction in order to introduce a little vernacular study, that would be a good thing.

The present method of study in English is not sound, there is too much technical grammar and not enough language. Both teachers and examiners are to blame for this. In Sanskrit it is not so bad. Some parts of the Sanskrit grammar are essential. Under the old system of learning Sanskrit there was less grammar. Some parts of Dr. Bhandarkar's works, which are now in use, are not required for the study of ordinary literature and might be left to a later stage in the course. Another defect in the present Matriculation Examination in Sanskrit is that unseen passages are set which B.A.'s could not understand. This unnecessary severity has scared away many candidates. The amount to be studied is so great that it injures the health and spoils the student for his other subjects. When Dr. Bhandarkar says that there has been no decrease in the number of Sanskrit students he calculates on a wrong basis, he should have regard to the proportion not to the actual figures. It is the severity of the Sanskrit examination that makes candidates take up Persian and French.

In a letter, dated the 5th March, Mr. Tripathi sent the following explanation with reference to his evidence:—

“I had given it as my opinion that there should be a double Matriculation, one an examination in all subjects through the vernaculars and another after an interval of a year or so in the same or an extended group of subjects through English. By this I did not mean that the study of English should begin after the vernaculars and be finished before the English examination in the interval. I only meant that English should be taught through the vernaculars as any other classical language and should form part of the vernacular examination like all other subjects, and that its study by itself and without the medium of the vernaculars should begin only after the vernacular examination. Its study through vernaculars would of course go on in that case for years and by standards like the study of any other subject before the vernacular examination.”

WITNESS No. 16—MR. J. E. DARUWALA, B.A., B.Sc., Acting Principal, Gujarat College, Ahmedabad.

As most of the students receiving higher education in the Bombay Presidency belong to the mufassal colleges, it would be inexpedient to establish a teaching University unless the University Professors could go round to the different colleges to deliver their lectures. It would be better to strengthen the existing Government and aided colleges.

The grant the Gujarat College receives from Government is one quarter of the amount expended out of provincial funds on the Deccan College, or even less. Owing to want of funds the college has got no separate Professor for Logic and Moral Philosophy. There is one teacher for both Physics and

Chemistry. There is no provision whatsoever for Botany and Zoology. Again, the Principal has more work than can be done by a single man, because there is no additional English teacher. The grant of £10,000 from Government is too small for the college. Government is also more liberal in the matter of scholarships to the Presidency than to the Gujarat College. The latter received scholarships to the value of R1,000 in 1896, 1897 and 1898, but owing to financial pressure the grant was then stopped, and has not recommenced. The income of the college is made up as follows:—Rupees 10,000 from Government, R12,000 interest on endowments, R13,000 from the Municipality, and about R12,000 from fees. Students are charged R30 a term, and there are two terms in the year. The Deccan College gets from R10,000 to R15,000 in fees. The college students there are about the same number as in the Gujarat College. In the Deccan College the fees are R30 a term in the Previous class and in the higher classes R40. The Government refused a short time ago to give the Gujarat College a grant for scholarships. The Collector of Ahmedabad has a double function. He is President of the College Committee and also Collector. In his capacity as President he wrote to Government asking that a scholarship grant might be given; in his capacity of Collector he replied that the Gujarat College was in a very favourable condition, that there was no reason why wealthy citizens should not come forward to help the college, and that there was no necessity for the proposed grant.

The Senate should be largely composed of College Professors. Fellowships should not be vacated by non-attendance at meetings. The mufassal colleges should be properly represented. There should not be more than 100 members because more than 50 qualified Professors may not be available. One-half the Senate should be composed of Professors and the other half of distinguished graduates.

The advantage of terminable Fellowships is that they will cause Fellows to take greater interest in higher education, because they will know that they will be deprived of their Fellowships after five years, if they do not work for the University.

No radical change is needed. The number is convenient, but the mufassal colleges ought to be represented. The majority of the students are from up-country, and if the mufassal colleges do not have a voice in the University business, the interests of such colleges may be overlooked. This is specially the case in the matter of examinations, with regard to which the Gujarat College is not well treated.

There are also other grievances. On page 3111 of the University Calendar, the rule is laid down that no scholarship holders as such should be exempted from the payment of fees. This rule is obeyed in the Gujarat College, but is practically ignored in some other institutions. For the sake of fairness there should be uniformity in such matters. The Baroda College recently asked for permission to receive as a scholar a first class student of the Gujarat School. Witness agreed but at the same time stated that the Gujarat College did not give scholarships to the students of other colleges. Students are in the habit of migrating from one college to another. There is an understanding among colleges that they must bring with them a certificate from the college they have left. Recently some students came from a new college to the Gujarat College and did not have any certificates. Some years ago when plague broke out, a student came to the Gujarat College from a certain Bombay college which refused to grant him a certificate because he had been a scholar. The Director of Public Instruction took serious notice of this refusal. The University has no rules about transfer certificates. It should exercise more control over the matter.

Professors should be consulted through the Principals of the Colleges on the selection of textbooks. The Reverend Dr. Mackichan said that this is frequently done by the Bombay University. The witness remarked that he had acted off and on as Principal for a year and a half and had known of only one instance.

In the B.A. course about nine or ten years ago too much stress was laid upon optional subjects. Now the University goes in too much for compulsory subjects. There should be neither too much specialisation nor too much insistence on general knowledge. In certain walks of life, general knowledge is more useful, in other walks of life specialisation. There should be four papers in compulsory and four in optional subjects. Formerly there were two compulsory and four optional, now there are six compulsory and four optional. The three compulsory papers in History and Political Economy might be reduced to one. The standard in the optional subjects should be high. Seeing that there are already too many compulsory papers, it would not be advisable to make Philosophy compulsory.

Fellows should be elected by Professors of Colleges, M.A.'s, M.B.'s and M.L.E.'s of not less than five years' standing and other graduates with honours of not less than ten years' standing. That would restrict the number of electors and at the same time give greater efficiency. To a certain extent graduates do not at present exercise their voting powers intelligently, but that defect would be diminished by eliminating graduates who have not taken honours. The qualifications of the candidates should be the same as those of the electors. As long as Government nominates graduates of other Universities they need not be eligible for election. On the whole, the graduates have not exercised their powers badly, but there is considerable personal canvassing. A good many graduates of ability who ought to be in the Senate do not put themselves forward as candidates for election because they find that other people less deserving are going to canvass. On the other hand, fairly competent men have been elected and the system has, on the whole, not worked badly. There is also a certain amount of manoeuvring for Government nominations. Except Muhammadans the various communities have been fairly well represented in the elections. The graduates have not, however, elected a sufficient proportion of persons engaged in education.

The present standard of University examinations is, on the whole, neither too high nor too low. If a teaching University is established, only first rate men should be brought out from England, and some professorships should be restricted to those who are engaged in actual research.

Students find difficulty in following lectures in the Previous class, and it is necessary to work a little more slowly than in the other classes. In schools the boys are accustomed to mere mechanical work, and in college they find the system and the teaching different. Sometimes they are unable at first to understand European lecturers. On account of all these reasons students cannot always follow lectures in the Previous class. In the Intermediate and B.A. classes they are all right.

At school boys must to some extent be taught Mathematics in a mechanical way. Their minds are not sufficiently developed to grasp the theory of Mathematics. Some students find it a great difficulty even after finishing the course for the Previous examination.

In the Gujarat College there is apparatus to the value of Rs. 6,000 and enough practical work is done in the class. The students are too poor to buy their own apparatus and chemicals. The students are very seldom asked to handle the apparatus.

More than one-third of the students in the Gujarat College come from Ahmedabad, between one-fourth and one-fifth from British territories, and less than one-third from Native States. Forty-three per cent. are Brahmins, after the Brahmins come the Banias, and after the Banias the Jains. On an average in the last six years there have been ten or eleven Parsees. Two lady students passed last year and there is one lady student at present in the college.

The college has about 23 scholarships. Of these 7 are closed and the remaining 16 are open to all communities for competition. The highest scholarships are only Rs 15 in value. The scholarships as compared with other colleges, especially Government colleges, are very very small. They are almost all from private endowments. The eight Government scholarships are still called Government scholarships, but are paid for from college funds since the Government grant for them ceased.

Endowments.

The college has two lawn-tennis courts, a gymnasium and a large cricket field, and the students also go in for football and badminton. In 1900 the college defeated the Baroda and Bhavnager Colleges in football. Last year it was champion of the Northern Division.

Physical Exercise.

There are two hostels belonging to the college accommodating 84 students. The buildings cost Rs 1,92,000 including the new building, excluding it the cost was Rs 1,76,000. Government only paid a half of the Rs 1,76,000. The first hostel was built in 1897.

Hostels.

The college tries its best to inculcate habits of order, discipline, industry and truthfulness in the students and impresses upon them the necessity of practising moral virtue both inside and outside the college. The college students and graduates are better than those who have not received the advantages of higher education.

Moral Welfare.

The Professor of Sanskrit this year teaches Logic and Moral Philosophy in addition to his own duties. He knows Sanskrit, but has not passed in the subjects of Logic and Moral Philosophy. This is not satisfactory, but a better arrangement cannot be made with the available funds. It would be well if the University took notice of such an arrangement; the college would then move the Government to supply more funds.

Instruction in the Gujarat College.

WITNESS No. 17—The Honourable Mr. P. M. MEHTA, M.A., C.I.E.,
Barrister-at-Law, Advocate, High Court, Bombay.

Mr. Mehta presented a printed * statement to the Commission which he read and with reference to which he was examined. The following is an abstract of the replies he gave :—

* Paper No. 8 in Part II.

No scheme for teaching in some centralised manner is practicable in so far as the Bombay University is concerned. The difficulty lies in the character of the existing colleges, which are mostly aided. They would hardly submit to any rules of centralisation, for such rules would interfere with their independence of action. The relations between the aided colleges in the Bombay Presidency are at present harmonious and friendly, but there was a time when this was not the case, and it may not always be so in the future. If University Professors are appointed private colleges would have to give up their Professors in certain branches. In subjects such as literature and history some of these colleges have their own ways of teaching and they might not approve of the University method. There is an advantage in the variety of method which results from the present system. Men bear the distinct stamp of the colleges in which they have been educated. The above remarks apply mainly to the B.A. course. It would be an advantage to concentrate post-graduate study. For the B.Sc. there would not be the same objection as for the B.A. except that the colleges like to have a complete staff. If laboratories and science instruction were concentrated it would be economical and might conduce to better instruction, but there would be a loss of variety in teaching. If one could obtain a University Professor of a higher class than the present college Professors the scheme would be an improvement, but it is doubtful if this result would follow. Advanced instruction has languished principally because there is no sufficient inducement to the students. There is very little opening in trade and industry for the Indian scientist. There is, however, an increasing tendency on the part of the mills to employ Indian graduates.

Teaching University.

It is necessary that there should be a certain amount of outside representation in the Senate because it brings the University in touch with the public

The Senate.

to whom it owes a very large number of its endowments. The outside members should be men of culture and able to deal with University problems—men like Mr. Tata. The preponderance should be of men with degrees, but it is a mistake to have too large an element of direct educationists. As a rule Europeans come forward only when there is some controversy going on. The largest attendance was a few years ago when there was a proposal before the Senate to increase the number of examinations to be passed before graduating. Europeans would have much more influence if they attended meetings regularly. The Senate always pays great respect to the European members and it is with very great care that it differs from them. There was a time when European gentlemen had very great influence in the Senate, *e.g.*, Mr. Latham, Mr. Jardine, Mr. Piggot, and others. The complaint of over-talking is made not only with regard to the University but with regard to various other public bodies. The charge is very much exaggerated. The proportion of lawyers in the Arts Faculty (78 out of some 200) is not greater than it should be, because lawyers take a very prominent part in public affairs. The best of the B.A.'s go in for law and the pick of these belong to the Senate. The lawyers are more regular in their attendance than other classes. Educationalists on the other hand are less regular in their attendance than the majority of the Fellows. This is not because they find themselves outvoted and their opinions neglected. It is very rarely that this has occurred. On one occasion they afterwards admitted that the majority was right. The other occasion was the proposal for examination by compartments.

Mr. Justice Ranade brought forward the proposal for examination by Compartments on two main grounds: (1) He maintained that the severity of the course

Examination by Compartments.

injured the health and shortened the lives of the students. The statistics on which he based his arguments were not reliable and witness did not attach great importance to this portion of the argument. (2) It was contended that the change would tend to diminish cramming and would give students more time for general reading. The student should go up for all the subjects, in the first instance, and those in which he passes with credit need not be taken up again. Otherwise he has to devote a good deal of time for revision and has the less time for his other subjects. The strain on the system would be less, and with a rational system of instruction preventing idleness the system would give better men. A higher minimum might be required in each case. The alternative of requiring the student to take up each subject separately would not be sound. Those who are able to do well in all subjects should be allowed to pass at once.

In this case at any rate the decision was not the result of canvassing but of long and careful deliberation. There is some canvassing for the elections but

Canvassing.

not to any very great extent. Notes are sent round to graduates asking for their votes. It is desirable to put down any canvassing over and above a reasonable extent. To a certain extent pressure is brought to bear on the electors.

The Government and the electoral bodies will appoint a sufficient number of educational experts and it is not necessary to appoint them *ex-officio*. It would

Ex-officio Senators.

not be desirable to make professors *ex-officio* members of the Senate as soon as they take up their appointments. There would be no great objection to making principals of colleges *ex-officio* members. The electorate body is composed of graduates of the different colleges who would not be likely to pass over their own principals and professors.

It is not desirable that there should be a preponderance of the educational element in the Syndicate, because despite the harmony that prevails among colleges

The Syndicate.

there is keen competition among them. Every college is desirous of showing that its results in the examinations are better than those of other colleges, and unconsciously they advocate measures which enable them to turn out a larger

number of graduates than other institutions. Even in educational matters the commercial instinct must play some part.

The standard of examinations is high or low according to the examiners, who are mostly Professors of colleges. Examinations. The number of examinations should be reduced or examination by compartments instituted. The Matriculation Examination should be made more strictly a University examination. This matter has already come up before the Syndicate for consideration.

Witness approves of the introduction of the vernaculars in the M.A. examination.

WITNESS No. 18—MR. C. H. SETALVAD, B.A., LL.B., Barrister-at-Law, Advocate, High Court, Bombay.

The witness was examined on a printed statement which was identical with that presented by Mr. P. M. Mehta,* with the addition of a passage recommending that the University should not hold more than one degree and one intermediate examination.

Witness does not object to the University holding two examinations, but would prefer one only. It should be left to the college authorities to hold as many examinations as they think proper. They are in a better position to do that than are the University examiners, *i.e.*, the Professors are better able to gauge the progress made by students. The college examinations should be class exercises rather than stiff formal examinations. By these tests the Professors would be able to ascertain what students should proceed to the higher examinations. There ought to be some check on Professors in the colleges, and the University should determine whether the courses of instruction are followed or not. The Intermediate should be a sort of college examination, or, if that is not considered enough, the University should hold two examinations.

The system of examinations by compartments would discourage cram. Witness handed in the report of the committee appointed by the Senate on that question.

Many of the legal members of the Senate possess good Arts qualifications. The charge that lawyers talk too much is unfounded. It would be wrong to do away with the presence of reporters at meetings. Speeches are not reported at length. The Senate should work in the light of public opinion, and the public should know what they are doing. Preventing the attendance of reporters would not cut down the length of the speeches.

A paper in the vernacular languages should be compulsory at the Matriculation Examination. At present vernaculars are absolutely neglected. It would be well if subjects were studied through the vernacular. It has been suggested that all school education should be through the vernacular, but if that is impracticable then the answers in some subjects should be in the vernacular. In the vernaculars there is literature on a par with that of classical languages. The works in Gujarati may not be as numerous as those in Sanskrit, but they are equally rich and valuable. Those who choose Gujarati should not be compelled to take up Sanskrit.

WITNESS No. 19—Lieutenant-Colonel H. P. DIMMOCK, M.D., M.R.C.S., L.R.C.P., I.M.S., Professor of Midwifery, Grant Medical College, Bombay.

Colonel Dimmock read a written statement† and was asked some questions on it. The following is an abstract of his replies :

The proportion of the number of Fellows to be elected should be fixed, but witness has not worked out what the figure should be. The Syndicate or governing Committee ought to be a small one and not altogether composed of people engaged in education. The proportion of non-educationalists should be four out of ten.

Fellowships should be made terminable after five or ten years, as it is a very good thing to bring fresh blood into the Senate. Occasionally there is a spirit of antagonism between the Syndicate and Senate.

The evil of unqualified practice is grave, and it would be a great advantage could a general system of registration be adopted in all the big towns. Death certificates should be signed by properly qualified men. There has been an attempt to study the Ayurvedic system of medicine in the Bombay Presidency. It is not a system which should be encouraged by an enlightened University.

The University might take a certain amount of interest in the general welfare of students, and establish clubs of different kinds. The Colleges might combine and have a University Cricket Club, and the Professors and Fellows of the University might take an interest in it. It would not be advisable to impose on the University any duty in the matter, but if the different Colleges were to take it up, the University might patronise and help it. It would bring the students together. At present there is too little intercourse.

Witness does not agree with what has been stated about chairs being sacrificed to the exigencies of the Medical Service. Changes in the Professors are not frequent. Witness has taught the same subject all through. The Professors devote quite as much time to their subjects as they do in English Hospitals.

It would be very advisable for the University to grant a degree in Sanitary Science. It would then be necessary to arrange for more teaching in Bacteriology.

WITNESS NO. 20—MAJOR C. H. L. MEYER, M.D., B.S., I.M.S., Professor of Physiology, Histology, and Hygiene, Grant Medical College, Bombay.

The witness was examined on a written statement* which he presented to the Commission.

* Paper No. 10 in Part III.

The Science which is laid down for the Matriculation is very elementary. Students who come to the Medical College do not shew any appreciation of Science. In lecturing in the physical laboratory

witness finds that the students, although they have passed the examination in Elementary Physics in fluids and solids, do not even know the fundamental laws of the subject and have to be taught from the beginning. It is certainly desirable that the teaching in Physics for the Matriculation should be improved.

The students' knowledge of English and general knowledge when they enter the college are insufficient to enable them to follow the teaching in Science. It takes a year or more for this difficulty of understanding English to disappear. The students are deficient in education generally in the subjects in which they have been taught. They are articles which are not finished sufficiently to take up the study of science. Some of the other Faculties used to have the Matriculation as their preliminary examination, but they fought the matter out and were able to carry a higher examination, namely, the Previous, as their preliminary test. The Medical Faculty has attempted to do the same repeatedly but has failed. There has been opposition in the Senate as well as in the Faculty, which has been divided on the subject. The argument appears to be that a license to practise is obtained on easier terms than the medical degree, and that the L.M.&S. although it is called a degree is really a license to practise. There has always been a great deal of discussion whether the L.M.&S. is a degree or license. It is a qualification conferred by the University and should therefore be considered as a degree. It is called a degree in the Act of Incorporation. A license to practise is usually conferred not by a University but by a college or some corporate body. The witness' mind is confused on the point and that is the case with most people. It has been suggested that for the M.B. Degree the Previous or the Intermediate Examination should be taken as the preliminary qualification and that the standard of the medical examination should be slightly raised, but that

for the license the present curriculum for the L.M.&S. should be left and no higher preliminary qualification required than the Matriculation Examination. In other places such as London, Dublin, Edinburgh, Lahore and Madras provision is made for two sets of medical qualifications, a higher and a lower. In some cases the University gives both, but in London, Dublin and Edinburgh the University confers the degree of M.B. or whatever it may be called and the license or lower qualification is conferred by the colleges. Witness could not say, supposing there were two classes at Bombay, what percentage of students would go to the higher, and what percentage to the lower examination.

Witness filed the following statement showing the number of students of the Grant Medical College in the first, second and third year's course, in accordance with their qualifications in Arts:—

	Third year.	Second year.	First year.	TOTAL.
Matriculates	134	147	102	383
P.E.	4	18	17	39
F.A. (Calcutta)	3	...	...	...
Intermediate	3	1	...	7
B.A. and B.Sc.	6	3	1	10
M.A. . . . .	...	1	...	1
TOTAL	150	170	120	440

A man who passes the Matriculation well, will certainly know more English and will probably be a better man than one who has scraped through the Previous Examination. The percentage of marks required to pass the Previous Examination is 30. Men who pass the Matriculation with a high percentage are undoubtedly

better able to follow the lectures.

Latin is necessary for Science students, certainly for medical students. The

Latin.

college warns intending medical students to take up Latin, but does not insist upon it. Witness would rather not take anybody into the Medical College who had not studied Latin. Recently the London University has discontinued Latin as a compulsory subject and the medical journals have attacked the University vigorously on the point. Witness cannot understand from what motive the London University has taken this course.

Witness is not sure whether the Scotch Universities at present accept the Acceptance of Preliminary Qualifications in the United Kingdom. Bombay Matriculation. The acceptance and non-acceptance have varied greatly from time to time. Witness thinks that the General Medical Council has given up accepting the Bombay Matriculation, but their requirements also vary constantly.*

The difference in the course for the M.B. & L.M. & S. might be a difference

M.B. & L.M. & S.

in the length or a difference in the percentage of marks. Witness would be inclined to favour a different standard of examination. There would be no objection to the L.M. & S. being an inferior M.B. There is need for both. The L.M. & S. should be for men of inferior general and professional culture, but able to study Science with intelligence, and the M.B. for men of superior general culture and with superior professional training.

The age for the Matriculation should be fixed at 15. At present there is

Age Limit.

no age limit and this enables students to leave school earlier than they should, and when they enter college they get less physical exercise. If they stayed longer at their schools they would benefit physically. A boy can begin his medical studies at 12, so as to become a full-blown medical practitioner at 17. Sixteen is the limit for Matriculation in Europe, but boys mature a little earlier in India, so 15 would be a suitable age. Eighteen is about the average age at which a student enters a Medical College in England. In England a student must be 22 before he can get a license to practise from the Royal College of Surgeons.

Repeated attempts have been made in the Bombay University for the

M.B. Degree.

last ten or twelve years to change the present curriculum by substituting the M.B. for the L.M. & S., but the attempts have failed owing to opposition in the Faculty and the Senate.

* A reference to the Regulations of the General Medical Council for January 1902, showed that the Bombay Matriculation is accepted.

The Medical College is under the dual control of the Director of Public Instruction and the Surgeon General. This is entailed by circumstances. The Surgeon General has entire control of the Military Assistant Surgeons class. The Director has not much to do with the management. There might be a conflict of views between the two authorities.

There has been very little change in the staff since witness has been in the Grant Medical College. He has been there thirteen years; Dr. Childe, ten or eleven years; Dr. Dimmock, seven or eight years. Short leave is given as much as possible during the vacation months, so that the work may not be interfered with. When long leave is taken a substitute has to be provided. Substitutes are procured who do the work sufficiently well. Chemistry is a separate department. When Dr. Barry was at home for a year his place was taken by Dr. Burke who proved an excellent substitute. Witness is not aware to what extent encouragement is given to young officers to specialise. In Bombay there are young men of the service who have specialized in Bacteriology or in the Plague Laboratory. Witness is also not aware whether encouragement is given to young officers to take up a special line of study at home so as to get themselves up to date. It would be a great advantage if this were done. Witness' understudy is at present studying Physiology at Cambridge. No special privileges for doing so are given him by the Government.

The first examination in Medicine is passed at the end of the second year and the third examination at the end of the third year, so that there is only one clear year for Physiology and Anatomy, two big subjects, and in the third examination there are in consequence a good many failures. First year students do not begin with Anatomy. They take up Chemistry, Botany and Materia Medica. Students do not attend lectures on Physiology and Anatomy until the second and third years. All students enter college at the same time, in January.

On the proposal to introduce an M.B. degree the opposition in the Faculty was slightly stronger than the party favouring the change. There was an attempt made to get superior degrees whilst retaining the present standards. If the M.B. Degree is introduced the qualifications appropriate to it must be exacted. There are a number of men in the Medical Faculty who have no medical degree of the Bombay University. They were appointed before the University degree was instituted. They do not form an opposition. The main line of division was with regard to the preliminary qualification. Some who resisted the change with regard to the preliminary qualification were in favour of a higher standard of professional examination.

There are appliances for teaching Science practically in the Medical College. Recently there has been a considerable development in this direction. Witness does a large amount of physiological demonstration work. The students take an interest in practical demonstration, but show some dislike for the trouble involved in doing practical work. Witness did not remember clearly the nature of the opposition to the M.B. Degree in the Senate and suggested that Dr. Mackichan would probably remember more about it. Dr. Mackichan said that as far as his recollection went the opposition was almost entirely on the question of the initial qualification. It was held that an effort was being made to make the initial qualification in India higher than that which obtained in England. Therefore the Senate resisted the proposal to raise the preliminary examination from the Matriculation to the Intermediate. Witness said that experience had shown that a higher class of students was wanted and the medical experts went to the University and failed to get what was required. The Professors of the Medical College were not unanimous as to what exactly the entrance qualification should be, but all were agreed that it should be raised.

The composition of the Senate is such that the voting of that body is often influenced by considerations other than the merits of the question. Witness preferred not to specify these considerations. Personal popularity was an instance.

The opinion of experts is sometimes controlled by non-experts. The size and composition of the Senate renders it liable to personal influence. The remark does not apply to any one particular class or community. It applies to all classes. A large number of people record their votes on subjects with regard to which they have no interest or special knowledge. It is therefore possible that arguments on general grounds may carry more weight in the Senate than arguments on special grounds based on the experience of experts. Witness repeated that he would rather not specify instances of these personal and general considerations. He might have to attack personal friends or other members of his college. Witness did not know what remedy should be applied.

It would be possible for the Syndicate to look out for men and offer them examinerships instead of inviting applications. Good men do not refrain from applying under the existing system. There is no pride about it. Witness applies for an examinership when he wants it. The opinion of the medical Syndics is in general accepted with regard to the appointment of medical examiners.

Examiners.

If a man does very badly in an examination it would be desirable to forbid him to appear at the next examination, only if there were bi-annual examinations.

Conduct of Examinations.

Supposing there were a really good College of Science run by the University or other agency, there would be no objection to medical students receiving their Science training there before they entered the Medical College, but every college, including the Medical College, should be free to teach Science if it wishes. An argument against removing pure Science teaching to some other college is that it is desirable to bring the students in touch with the wards of hospitals as soon as possible.

Mr. Justice Chandravarkar said that Colonel Dimmock had suggested that junior members of the Indian Medical Service might be appointed to lecture on different subjects under the professors, and asked the witness whether he did not think it more important that graduates who have made their mark in the University should be given a similar chance and appointed to teach under these professors. The witness replied that it would appear to be a matter for the consideration of the Government. There are some of the Bombay graduates who are extremely able men and who are quite capable of teaching.

Training of Indian Professors.

WITNESS NO. 21.—MR. M. J. JACKSON, M.A., D.Sc., Principal, Dayaram Jethmal College, Sind.

Witness said that in addition to minor points there were three main points on which he wished to lay stress:—

- (1) The University as a whole is dominated by Examinations to an excessive degree;
- (2) Science is greatly handicapped in the University; and
- (3) the system under which the Sind College is governed is not an ideal system.

In Sind the Dayaram Jethmal College is in a small way the teaching Relation between the Sind College and the University. It is recognised in Arts and Science by the University of Bombay; it has a small engineering course of its own and a small law class teaching up to the first LL.B. In fact the college does all that a University ordinarily does as far as it can except in Medicine and Agriculture. There is a great advantage in having a number of courses under one roof and the college is able with a comparatively small staff to make some provision for students in numerous branches. The college has really very little to do with the University of Bombay. Practically the University by its examinations prescribes the work that the students of the college are to do and by laying down laws as to attendance facilitates its discipline. In other ways the college is sometimes

inclined to regard the University as almost a hindrance. For instance, there is some difficulty if a student has not quite kept his terms, that is to say, has not put in the requisite number of attendances. Reference has then to be made to the University, and there is sometimes considerable trouble in getting the student admitted. Colleges are not allowed to make up any little deficiency without asking the University, but practically they not uncommonly do so by counting even Sundays as days for University purposes. Witness has never done that though he has been asked to do so, but he has often counted holidays. There should be some more definite instruction from the University as to how terms should be kept. One case occurred about ten or twelve years ago which caused a good deal of correspondence. A particularly deserving student had virtually kept his terms. He was required to keep 80 days, and witness was able to certify that he had kept 78 days and that he should be considered as having kept the term. By an oversight this student was actually allowed to sit for the examination before his exemption was declared, and the University afterwards refused to declare his results, although witness sent in a strong recommendation and afterwards found that he could even give him four more days, on which the college had been closed. It would be some advantage if a college were able to settle such a point itself. There has also been a little difficulty with regard to the law class. Through an oversight the recognition of the class, which was recognized for two successive periods of five years each, was allowed to expire this year, and witness does not know whether fresh recognition has been granted and whether, with regard to certain students who have appeared for the examination, their results have been declared or not, notwithstanding that it is several months since the examination was held. In such small matters as these one thinks hard things of the University. Otherwise the college has little to complain of and really very little to do with the University, so that all those matters which are included in points 5, 6 and 7 do not particularly concern the college.

Witness is not an authority competent to say whether it is satisfactory that

Legal Instruction.

in the law class one teacher should take all the subjects. The man in the law class of the Sind College does the work sufficiently well. For a time there were two teachers, but one does just as well. Generally throughout the University the law lectures are treated, as in England, in a rather perfunctory manner. Witness has heard, though not recently, of the suggestion that some specialist, say in Hindu law, should deliver lectures of an original character in place of the present system of general lectures on the prescribed subjects. Such a change would be a move in the right direction, though it would crush the law class in Sind. That would not be a misfortune. It would save some expenditure and other subjects might be better developed. The Professor of Law does not give his whole time to the teaching of the subject; he is a pleader practising at the Bar. It would be much better if the law classes began after the B.A., and if the subject were removed from the optional list of the B.A. Examination. A fair proportion of those who follow the B.A. go on to law studies. The inclusion of Law in the Arts course interferes very much with the proper constitution of the course.

The prescribing of text-books is now overdone. The students always want

Text-books.

to have a text-book and to stick to it through thick and thin, and if possible to be examined in nothing else. It would not be advisable to do away with the text-book, but it should be clearly laid down that the work should be regarded only as a general landmark indicating the nature of the examination, but that it will not be rigidly adhered to. It should be "recommended" and not "prescribed." Half the marks might be devoted to unseen passages of English and questions of a general character. There should be text-books for Science and sometimes two might be recommended. The following are examples of how text-books are prescribed. In the Previous last year the English book was the "Vicar of Wakefield." This year there are three of Macaulay's Essays and the "Lives of the Poets" by Johnson. The "Vicar of Wakefield" is a very good book, but it is a little below the standard; the other books might very well form part of the B.A. course. In no two successive years is the same standard of

text-books prescribed. The fault lies not in the system of prescribing text-books, but in prescribing text-books which are of such varying degrees of standard. Of the two systems of a prescribed text-book and a prescribed syllabus with recommended text-books, the former would encourage the students to cram up the particular text-books prescribed, and the latter would encourage them to go in for general reading and to understand the subject properly. Take a particular example—Balfour Stewart's *Physics* is prescribed for the Intermediate Class. It is a very good book as giving a general idea of the subject. Witness' class find terrible fault with him, because he does not go through the book *seriatim*, and sometimes refers to other authors and leaves some parts of the book out. It is not necessary to have a text-book in order that the student may know what will be the subject of the lecture, but the teacher should intimate beforehand what he is going to talk about next. Without that the students cannot follow the lecture properly. Students are slow in grasping a lecture, so that the lecture is considered a matter of secondary importance and the text-book is brought more to the front. In *Physics* questions are set to an appalling extent from the text-book. The examination in *Physics* in the Intermediate course in Bombay is nothing less than a farce. Students often pass who really understand nothing about the subject. Balfour Stewart is a book that can be learnt by rote, and the questions are so largely based on the text as to allow students to gain many marks for mere memory work. As soon as anyone introduces a reform in that respect, there will be a great slaughter of the innocents in the Intermediate Examination.

The papers in the B.Sc. are not open to this objection to nearly the same extent, but very few students go up for that examination. Even in the M.A. text-books are recommended. In some other subjects there is a difficulty of another kind. Enormous lists of text-books are prescribed. The list in Moral Philosophy and History is a tremendous one. The college has to buy all these books because the students cannot afford to do so.

The complaint about the percentage of passes does not apply to the Bombay University. The percentages are steadily rising. The percentage in the Sind College is about 70, and so all through the University. The Sind College is rather strict about granting certificates, and it has a good many examinations or test papers, by which it is possible to judge whether a student is fit to be sent up from the college. Students are rarely kept back except in the Previous class, and the college results and those of the University agree very well. This year there was an unusual coincidence. The College sent up 60 boys for the Previous. Of the first 40, 36 boys passed and of the last 20, 2 passed. Witness has never stopped promotion at the end of the third year. B.A. students are never kept back; Intermediate students are sometimes kept back but not often.

The real crux of the University problem is whether the present system of examinations should be retained. Higher education is overridden by an elaborate system of examinations comparable to nothing but the Chinese system and leading to nothing but cram. That evil is always before us in the colleges; there is a constant struggle to suppress cram. That is the real canker in our University system, and all other subjects the Commission is enquiring into are insignificant in comparison with the suppression of cramming and the over-domination of examinations. It is very hard to know how to suggest an improvement, but if one is prepared to meet the matter in every direction improvement must follow. For instance, in *Mathematics* in England, an average school boy will probably despise the propositions of Euclid thinking that he can do them a little before the examination and will try to solve problems. Here it is quite the other way. Students learn the text of Euclid by heart, and if a paper is set so that he can get pass marks out of the text he will be almost certain to pass. The remedy in this particular case is to set a larger proportion of problems (which should be of an easy character) than would be set in England, so that these papers in *Mathematics* will really seem harder than English papers. At present the Bombay University examination papers look very hard for the Previous and Intermediate; but they are not really to the students as hard as they look.

A rule prescribing that not less than 60 per cent. of the marks in Geometry and not more than 30 per cent. of the marks in Algebra and Arithmetic should be assigned to book work, would enable all the students to pass.

In reply to Mr. Justice Banerjee, the witness said that he would not go so far as to say that English boys despise doing book work, but in proportion they do problems to a much greater extent than Indian students. The latter is far more patient and plodding and devotes his time to study while an English student would prefer to idle. The mischief is that a student in India asks himself what is best worth learning and what will lead most easily to the passing of examinations and the acquiring of a B.A. degree. It may be partly due to the fact that problems set in the earlier examinations, *e.g.*, the Matriculation, are more difficult than problems set at corresponding examinations in England, and that the time allotted to them in the examination is too short. The problems should be easier than those now given. To a certain extent the difficulty of the examination papers in Mathematics may be a partial cause of cram. As another instance, a student although he may know a great deal of the theory of logarithms, cannot use a logarithmic table. Students are provided with tables of logarithms, and they will not use them although they are almost sure that logarithms will be set in the examinations.

The following is an instance of a bad examination paper. Witness once looked through an old M.A. paper in Chemistry which contained some very difficult-looking questions. They were set in the following way. There is a very old chemistry book, Millers' Chemistry, in three volumes, the more important parts of which are in large print and the more out of the way parts in small print. Half that paper was set from the small print. That would be the very thing students would cram up. The same sort of thing is to be seen in many examinations.

The Matriculation papers in English in the Bombay University do not tend so much to cram, but the system of cramming is very much resorted to. The English paper on page LXXV of the Calendar was examined. Witness thought that certain things in it might be crammed, but on the whole he would be contented to correct the paper and distinguish the crammer from the non-crammer.

The evil lies at the door of both teachers and examiners.

People have got accustomed to the present B.A. course, but it is not an ideal one. Before the course was introduced there was what may be called a tentative scheme in force in which a candidate had to take up all the following subjects for the B.A.: English language and literature, a classical language, English and Indian History, Mental and Moral Philosophy, Political Economy, Physics, Mathematics and Chemistry. If he wished to take up Science, he had no choice; he had to take up all these subjects. The idea then was to require general proficiency and no special proficiency in a particular subject. Although the tentative scheme was greatly improved, there is still neither sufficient gradation in the course nor sufficient opportunities for specialization.

Students improve very rapidly in English in their first year at college. Students have a difficulty in understanding English especially as spoken by Englishmen for the first few months, but they very rapidly improve in that respect.

As taught in the Bombay University neither classical nor vernacular languages have very great educational value. They must form part of the Arts course, but they do not seem to have the same value as Greek, Latin or French have in England. The above remarks do not refer to Sanskrit, about which the witness has had little experience as the Sind students all take up Persian.

Science students are heavily handicapped in the Bombay University. In the old days students were obliged to take up some Physics for the Previous Examination, but that has been done away with. Students in their first year ought certainly to study some form of experimental Science. They are supposed to

study some Science for the Matriculation, but they have none in the Previous, and resume it in a perfunctory manner in the Intermediate course. In the Sind College weekly lectures on Science are given in the first year, but the students do not like it.

In the B.A. stage the University course is drawn up so as to favour the students who take up Literature or Law. It is difficult for students to study Physics and Chemistry, both practically and theoretically, along with the other subjects they must take up for the B.A. course, namely, History, Political Economy, and a second language. It is no great difficulty for a student to take up Literature as his voluntary subject, for it is allied to his compulsory subjects. There is a much greater gap between the compulsory subjects and Physics and Chemistry than there is between those subjects and Literature, Languages or Law. Students who take up such subjects are therefore favoured by the present course, whilst students studying Mathematics or Science are put to a disadvantage. Witness does not encourage students to take up the B.A. course in Science. If they want to go in for Science, they are helped as far as possible, but the best of the students take literature or some other voluntary subject so as to avoid the mixed course.

On the whole the London system of separating Arts and Science would be an improvement, but there is this difficulty, that Indian students ought to have more Arts knowledge than he would get if he took up the B.Sc. course at once.

The difficulty in making Mathematics, Logic or Philosophy compulsory in the B.A. course, for the sake of the training these subjects afford, is that the course is already overburdened with compulsory subjects. History might perhaps be relegated to the Matriculation course.

The Bombay University should do more to provide high Science teaching. It is most extraordinary there should never have been a regular Professor of Science—Physics or Chemistry—at any of the Bombay colleges except the College at Poona. The defect might be supplied by improving teaching in the Government College or directly by the University. A Science institution in Bombay managed by University Professors would replace Science in the Bombay colleges, but it would not help the college in Sind.

The objection to the institution of a College of Science in Bombay is that it will crush out the little Science that exists anywhere outside Bombay. With a well-regulated course for a Science degree, the subject might perhaps be omitted from the Arts course. Witness has not given much attention to the point.

If possible, it might be a good thing if students' names did not appear on

Conduct of Examinations. the papers as they do at present. If an examiner knows anything of a student, he

can hardly help being influenced in some way, either in his favour or against him. The omission of the names would also give greater confidence to the students. They have an idea that it is an advantage to have particular examiners. This is not well founded, but everything should be done to make students think that it does not matter who his examiner is.

Grace marks should be discouraged. This University has an excellent rule

Grace Marks. that if a student gets 45 per cent. of the aggregate marks, he can be allowed to

pass even if he fails in one paper. That is going far enough. A student not near the border line will pass, and a student who is very near the border line should take his chance. If he has not earned the marks, they do not belong to him if given by way of grace.

On the whole witness would retain the Previous examination, though he would not greatly object to its abolition.

Previous Examination. It makes the students work. The third

year men who are working for the B.A. and who have no examination before them are rather idle. It is a great pity that education should be examination-ridden, and that it should be necessary to stimulate the students by examinations, but when the stimulus is removed they do not work. The third year students are the idlest in the college. College tests might be substituted for the Previous

examination, but that would throw a certain amount of work on the college. Tests are also unpopular things; and private influence might be brought to bear, if they are left too much to the colleges. There would be great advantages in substituting for frequent University examinations college tests and class exercises held regularly at short intervals, to which values should be attached for determining the students' right to be promoted to the next higher class. That would be quite satisfactory, if honestly worked out everywhere, but if one college lets students through easily while another keeps them back, there will arise a great difference in the popularity of the two.

Students would be in favour of passing in compartments if they thought it would make examinations easier. If the percentage of marks is raised sufficiently, the compartment system might be a good one. But taking up subjects one at a time would not prevent cram, rather the contrary.

The other day a witness said something against reckoning by the percentage of passes. The percentage of passes is about the only thing by which a Principal can get some sort of idea how a college is doing or how a particular class of students are getting on. The Government attitude is rather to lay too much stress on the absolute number of successes and not enough on percentages. The witness was, however, right in saying that the classes should be noticed as well as the percentage.

There should be an age limit of 15 or 16. Candidates ought certainly not to be allowed to go up for Matriculation before the age of 15.

Good men are not prevented to any great extent from examining through unwillingness to apply. It may, however, sometimes happen. For instance, a man would not care to apply if he knew he was likely to be rejected because someone was canvassing on behalf of another applicant.

The system by which the Sind College is governed is not an ideal system. The governing body is a mixed Board consisting of the higher officials in the province and a number of native gentlemen who are elected. While the officials are no doubt persons of the highest intellect in the province, they have little leisure for attending to college matters and regard the work in rather a perfunctory manner. Sometimes they have even desired to resign or to be excused from the work. It is doubtful if anyone of them has so much as seen the University calendar. They cannot, with all their duties, give much attention to educational questions. Some of the other members of our Board are elected by an obsolete body called the College Association, others by the contributing Municipalities and Local Boards. Such a mixed Board is not suitable for the management of an educational institution. It would be difficult to find the materials for a competent Board. It should be a local body and an educational body. At present it is local, but not professionally educational. None of the members of the staff are members of the Board, and witness is only a nominal member without a vote. Virtually the President, who is Commissioner in Sind, and perhaps the Principal are in a way the Executive. Where there is a difference between the Principal and the Board very often decisions are given off-hand without the facts being fully gone into. The system is not a very satisfactory one, and it is desirable that it should be altered at some date.

In conclusion, the witness expressed the hope that something might be done to lessen the dominating effect of examinations, and to destroy as far as possible the cramming that goes on throughout the University.

WITNESS No. 22—MR. N. G. WELINKAR, M.A., LL.B., Principal, Union High School, Bombay.

Preliminary Points.

Witness began by discussing three preliminary points:—

(1) How far University education is suited to the needs of the country. It is too literary and too little scientific. There should be more scientific instruction introduced in all courses of study.

(2) Whether a change is desirable in the public opinion regarding University education. At present it is understood to be for all sorts and conditions of people, and the result is a great many people join colleges who have not the means to pay their expenses. In many cases students have contracted debts, and as they have been many years in getting employment the result has been hardship.

(3) Whether graduates of the University are able to find suitable employment. They are not. Too many graduates are long without employment, and swell the numbers of the discontented. The mischief has not yet reached an acute stage, but is likely to do so. Matters are worse in this respect than they were twenty years ago. An ordinary B.A. starts on R40 a month now; twenty years ago he started on R75 or R100, if not more. Any attempt to make the examination easier will aggravate the disease.

The remarks of the witness apply to the Bombay University alone. In theory at least it is a teaching body. The colleges are under the supervision of the University and no college is affiliated without the sanction of the University. But if it is intended to increase the scope of the University, it should be recognized that time has not yet come for the Indian University to undertake the functions of Oxford and Cambridge. The appointment of professors and lecturers by the University is not practicable at present, considering that the colleges are situated in all parts of the Presidency and most of them are financed by corporate bodies which are independent of the University. For instance, the Wilson and St. Xavier's Colleges bring out their own professors and would resent the University appointing professors for them.

Teachers might be recognized, but this would have no practical effect. The University will have to recognize all the professors who are teaching in the colleges at present, and when all are recognized there remains no special significance in the recognition. The Committee of the Graduates' Association agree with the witness that the recognition of teachers is of no practical use at present. Such recognition as is necessary and practical can be effected by greater care in the affiliation of colleges.

The witness next made certain suggestions:—

(1) The registration of schools, like the recognition of colleges, is a matter of very great importance. Bombay is the only University that has no recognition of schools. All sorts of schools are allowed to spring up, and there is in consequence a deterioration in the students who appear for the Matriculation Examination. A system of registration would help to remove this defect, provided no students were allowed to come up for examination except from a recognized school. Rival schools at present undersell one another and send up indifferent students. The matter recently came before the Senate. They did not approve of the suggestions of the Syndicate. There is a certain amount of opposition to the proposal. It comes from the managers and proprietors of schools who influence the Senate through their friends. When the matter last came before the Senate some were for introducing nominal restrictions which came to less than nothing, and others, rather than see such regulations introduced preferred that matters should remain as they now stand.

(2) The recognition of colleges should be real and not merely formal as at present. There has even been a case in which recognition was obtained before any provision was made for the teaching staff of the college. For about three months classes were held and the college was then finally closed for want of funds to keep it up.

(3) A Board of Visitors should be appointed by the University to report once in two years on the condition and progress of each college in the Presidency. This will do away with any need for recognizing teachers. The Board of Visitors would visit all colleges, whether Arts, Medical, Engineering or Law. The Board would go into facts and make inquiries. It would, for instance, report

whether the scientific apparatus in the college was kept up to a certain standard or not. Reports sent in by the college itself would not meet the case. Visits such as are suggested would keep the colleges up to a certain standard of efficiency. Admitting that the men who manage the colleges hold the same position as those in the University, and that the self-respect of the college must not be lost sight of, there is no reason why a college which is under the University should object to a visit of inspection on behalf of the University.

(4) If funds permit, post-graduate lectures, particularly in Science, for M.A. students should be instituted by the University, the lecturers being appointed

Post-graduate Lectures.

by the University. Attendance at these lectures should be made compulsory for M.A. students.

The Senate should be appointed as at present, *viz.*, partly by nomination and partly by election. The present

Constitution of the Senate.

constitution of the Senate, containing as it does a proportion of educated men who are not engaged in teaching, is eminently beneficial. It introduces that non-professional yet intelligent and educated element into educational deliberations the presence of which is a safeguard against doctrinaire (and often very ill-adapted) schemes of education. The complaint that expert opinion in the Senate is liable to be overruled is not well founded. The elective element should be larger, it being assumed that the body of electors is a competent body. With a view to secure this competency the formation of a University Convocation on the lines suggested in the representation of the Graduates' Association may be strongly recommended. The Convocation to consist of graduates of the Bombay University of ten years' standing, and of graduates of other Universities and others forming the Professoriate. A third of the Senate might profitably be elective. Nomination of Fellows merely by way of compliment is now regarded by the authorities as lowering the prestige of the University, and has been latterly increasingly discouraged. The qualifications necessary whether for nomination or for election to the Senate should be prescribed and a certain academical status made a *sine qua non*. The number of the Senate is too large; but if in future appointments are strictly limited in number and Fellowships are vacated by non-attendance, the number will gradually be reduced to reasonable limits — about 200. Fellowships should not be terminable after a number of years. Such a provision would weaken the interest of the Fellows in University affairs. Even with re-election the plan is unsound. It is not always possible to secure the re-election of a good man, there may be others wishing to come in. A life fellow will be more independent and have greater confidence.

The present method of appointing the Syndicate appears to be quite unobjectionable, except that there should

The Syndicate.

be some provision for a minimum proportion of educationalists. At least one-half should be actual teachers. It would be undesirable to fix the constitution on a statutory basis in view of the need for a close connection between the Senate and the Syndicate.

A Board of Studies consisting of educational experts, a Board of Visitors for inspecting colleges as above suggested

Boards.

and a Board of Moderators for the University Examination are great and pressing needs. Boards of Studies are specially needed for books. They would also, subject to the confirmation of the Senate, settle the curricula.

The Faculties should be reconstituted by including in them only those who may be presumed to be conversant

Faculties.

with the special subject of the Faculty and by adding to each Faculty the graduates with honours in the Faculty.

The University should not be empowered to confer the M.A. degree on recognized teachers who come from other

Graduates of other Universities.

The University should interest itself in encouraging those societies and common pursuits among students which do much to foster a genuine University life.

Social Life and Physical Exercise.

On the subject of the physical needs of students, the suggestion contained in the representation of the Graduates' Association is worth careful consideration. The practice of the Allahabad University which contributes ₹1,000 a year to the recreation club of the students should be followed.

Moral instruction is an urgent need. Dr. Murdoch's pamphlet, pages 16—21 and 62—65, gives a list of suitable moral text-books, which shows that there

Moral Training.

is a considerable selection. These books will awaken thought and teach students that there are higher things on which to reflect than merely getting on in the world. It is better to prescribe such books than to rely solely on the teachers. All teachers are not good and they have so much to do that it is difficult for them to travel outside the University curriculum. Sir William Lee-Warner's book tends to awaken thought regarding the duties of citizenship. The Punjab University prescribes a moral text-book.

Students come to the colleges very ill-equipped as regards a knowledge of English. Much more reading of English is needed at school than is done at

Studies.

1. English.

present. The Teachers' Association were unanimous in their recommendation on this subject. The questions in English at the Matriculation Examination are such as to encourage cram. There are so many manuals used that they crowd out the reading of prose and poetry. The paper on page 75 of the Calendar would encourage cram. Paraphrase, especially of a poetical passage, is a better test than translation.

It is undesirable to make the vernaculars the medium of instruction even in the school course.

2. Vernacular Languages.

- (a) There are no suitable text-books in the vernaculars.
- (b) Even if there were, it would only mean the substitution of a technical vernacular vocabulary for the English vocabulary. "Trigun" would not be more intelligible than "triangle."
- (c) English as a medium of instruction does not create great difficulty in understanding the subjects taught, and it is very desirable that children should hear English spoken as early as possible.

English cannot of course be used immediately as the medium of instruction, but the study of the two languages should begin at the same time. This would give the following advantages:—

- (a) It would make it possible to spread the study of both languages over the whole school course, and the interest of the student would therefore be kept up in the vernacular language which is at present dropped after the 3rd standard.
- (b) The study of English will be encouraged because the boy will hear it spoken for 9 or 10 years.

It would be undesirable to introduce the study of vernaculars into the college course which is already overcrowded. Subjects like Arithmetic and History must at the beginning of the course be taught in the vernacular.

There is great need for scientific instruction of a more practical kind. The instruction that is at present imparted

3. Science.

in the schools is altogether lacking in practical character. Experiments are very seldom made, and altogether students do not have a practical acquaintance with Science. Witness gave his own experience. He was very badly taught in the Elphinstone College up to the Previous Examination, and matters have not since improved.

The study of Sanitary Science with an elementary knowledge of Physiology should be introduced.

In the B.A. Moral Philosophy should be made compulsory as in the A course of the Calcutta University. It may be urged that this will be adding to the burden of the students. This will not be the case if the pressure of examinations

Burden of Examinations.

is removed. The Bombay University is examination-ridden and the Previous Examination should be done away with. It is quite unnecessary.

Text-books are needed, but in some subjects instead of being prescribed they should merely be recommended, and this especially in the higher examinations.

Text-books.

For languages text-books must be prescribed. It will be for the Board of Studies to attend to these matters.

In all subjects English examiners should be associated with native examiners, except perhaps in Sanskrit or Persian, where it would not be possible to

Examiners.

get suitable English examiners. The Syndicate should draw up a set of rules showing what qualifications are needed for examinerships. At present a great many men who have no special qualifications apply and some canvassing takes place. The system of applying for appointment is suitable up to the B.A. For the M.A. there should be special selection. Witness has known a case in which a man applied for an examinership for the M.A., although he was only a B.A. himself. Native examiners are more severe than Europeans. They expect more, and think that the more numerous are the questions the better is the paper. They ask questions which tax the memory and ask too many questions. This remark applies to all examiners, not only to those in Sanskrit. The evil is, however, specially marked in the case of Sanskrit and many complaints are made. There is not a great proportion of failures in Sanskrit, because native examiners are mathematically precise in according marks and so a great many students just contrive to scrape through by getting fractional marks in the different questions. Sanskrit examiners think that 60 per cent. is as high as anybody can hope to reach, whereas others look up to 80 per cent.

WITNESS No. 23—MR. T. K. GAJJAR, M.A., B.Sc., Professor of Chemistry, Wilson College, Bombay.

The witness propounded a complete scheme of education illustrated by a Scheme for a University. coloured chart.

No scheme of reform, however reasonable, is likely to be introduced all at once, but it will diminish inconsistency and confusion, if instead of discussing the question of standards in a haphazard fashion some consistent scheme is always kept before the mind.. University questions should be regarded as parts of a whole influencing each other in a hundred subtle ways. If not so regarded, results most ridiculous are apt to make their appearance. Witness has therefore thought it necessary to submit an entire scheme. It will not be possible to complete it in one University, but it will be possible if India is regarded as a whole. For instance, the Faculty of Technology may be developed in Bombay and the Faculty of Science in Calcutta, where there are excellent laboratories.

In the diagram the school age or the period of education, which may be taken to be the 24 years prescribed in the *Shastras*, is divided into a number of concentric rings denoting years. In the centre is the Kindergarten, the first training all students have to go through. The next four years of elementary education is also common to all students. Then the education ramifies into several divisions. Those who cannot go through the whole course have their technical schools of agriculture, industry and commerce. They receive their technical education at this stage between the ages of 10 and 13. They come into the side of the diagram which contains all those who do not go in for a University course. Next there are a number of primary schools of the highest grade leading up to technical, commercial and arts schools. We now enter the sphere of the University. The Middle or Anglo-Vernacular School occupies three years. Then there is a bifurcation with a classical and modern side of the High Schools, corresponding to the gymnasia of Germany. This occupies four years, and from these schools students after passing the Matriculation Examination proceed to what is called the preliminary college course. There will be examinations after this first year of college study. It may be added to some of the principal schools, as was proposed by Sir Raymond West.

After this preliminary course there will be different studies for different Faculties. The University will be divided into several Faculties on the classical and on the modern sides. The classical side will make for the learned or ancient professions. The first Faculty on the learned or ancient side will be the Faculty of Arts or Philosophy as it may be more comprehensively termed, while on the modern side will first come the Faculty of Science. The time has now arrived when there should be a separate Faculty of Science in the Bombay University. For the Faculty of Philosophy or Arts there may be five parallel courses of three years each :—

- | | | |
|-----------------------------|--|-------------------------------|
| (1) Classical languages. | \| | (3) Philosophical Historical. |
| (2) Modern languages. | \| | (4) Historical Political. |
| (5) Classical Mathematical. | | |

On the Science side there will also be five courses :—

- | | | |
|----------------------------|--|----------------------------|
| (1) Mathematical Physical. | \| | (3) Chemical Geological. |
| (2) Physical Chemical. | \| | (4) Geological Biological. |
| (5) Chemical Biological. | | |

Mathematics will not be altogether omitted from the groups in which it is not named ; a necessary portion will be included. But Classical Mathematical students will have to study Mathematics specially. All students will have to study some Science, even students of the Faculty of Philosophy ; just as the student of Science will have to learn some Philosophy. That is to say, each special course includes also a general education, but the student will specialise in the subjects giving the name to the course. For instance, the Physical Chemical group is so designated, because it is specially devoted to the study of Physics and Chemistry, Mathematics being an auxiliary.

Witness promised to submit the complete scheme in writing as the time available only permitted him to mention the points.

The above is for the college period. Education on the University system will begin after the college period, and will also occupy three years.

In the post-graduate or University course proper there will be further specialization ; that is to say, each of the ten groups will divide themselves into several sub-groups. All these are stated in the written scheme and will be represented by the different Boards of Studies or different trades. The post-graduate course will occupy two years for the Masters' degree and three years for those who proceed to the Doctors' degree. The examination for the Doctors' degree will always include a *thesis*.

The above are the Faculties of liberal education. Next come the Faculties of technical education. Technical education on the learned or classical side will include (1) the Faculty of Fine Arts and Music, (2) the Faculty of Commerce, (3) the Faculty of Law and Politics. On the modern side the Faculty will be (1) the Faculty of Engineering, (2) the Faculty of Agriculture and Technology, and (3) the Faculty of Medicine. There will be post-graduate courses in Medicine, Technology and Agriculture, and also in the Faculty of Engineering, but no post-graduate courses in the Faculties of Fine Arts and Music or in the Faculty of Commerce.

The degrees must indicate what subject the student has studied and will therefore be numerous. For instance, a man who has studied Chemistry should be called a Bachelor or Doctor of Chemistry. Witness has prepared a list of the several degrees which will be included in the scheme. Pedagogics has been added to the Faculty of Philosophy, and the students of all the different groups may take up the science and art of teaching as an additional subject to qualify for teacherships in secondary schools. For professorships in colleges a post-graduate pedagogic course will be essential. Witness has also prepared a list of the different professions which will come within the scheme of the University.

The Faculty of Law should be constructed with a view to (1) persons learning as law students or articled clerks and whether designing to practise in the country or elsewhere; (2) persons engaged or about to engage in public service, whether civil or diplomatic; (3) persons engaged or about to engage in public life; and (4) persons applying themselves to the work of the University or research in colleges. The scope of the Faculty of Law requires, therefore, to be made more liberal. As it is now, it is merely a Faculty for technical studies.

Witness has adopted the scheme put forward by Dr. Bahadurji for the M.B. degree. The University should give no licenses to practise. It has no power to do so. It can confer Bachelors' degrees, and all the Licentiate degrees should be converted into Bachelors' degrees. The present Matriculation is not a sufficient or satisfactory test for entrance into the Grant Medical College. In the general scheme prepared by the witness a more severe preliminary examination has been proposed, to be passed after the Matriculation and to be conducted by the College itself. The staff of the Medical College require reform and the Professors should be specialists. There is also no reason why India should not provide her own staff; there is no need always to have recourse to England. In this connection witness submitted a statement about the present evil system for the appointment of a Chemical Examiner. The statement deals with the question of research. Witness read a portion of the statement.

A much more important place ought to be given to Chemistry. At present Chemistry is not attended to properly at the Medical College. Witness examined the students for several years, but now the Medical College students are examined in Chemistry by their own Professors. All the examinations in Chemistry used to be conducted by one Board, and the medical men took away the examination of the medical students from that Board. Speaking from personal experience as an examiner witness can say that medical students have little or no knowledge of Chemistry. The students in the Medical College have not much opportunity of seeing science experiments. Witness comes into contact with many medical graduates in his chemical laboratory, and can give it as his opinion that their knowledge of Science in general and of Chemistry in particular is very defective. If they knew more of Science, they would be more useful than they are in these critical times of plague and famine. At present medical students waste a good deal of their time on Materia Medica, and in cramming Anatomy. The medical curriculum ought to be reformed on the lines laid down by Professor Huxley.

Unless provision is made for research students, and prospects are offered to them, it will be a very unsafe thing to have a Research Institute. There are no prospects for purely scientific men in Bombay. There is not a single chair of Chemistry in Bombay. Even the Elphinstone College has no such chair. Witness placed before the Commission a scheme that was submitted by him to the Provisional Indian Research Institute at their second meeting in 1898. He stated that it shows that it is possible out of the funds at the disposal of the Institute to have a modern University that will make provision for all subjects, including the Faculties of Science, Technology and Engineering.

Witness has had some experience of working out the rules laid down in the Educational Despatch of 1854, which was a sort of a University scheme, under the liberal patronage of the Gaekwar of Baroda. Witness drew up a scheme by which they had at Baroda a regular Polytechnic University. There the medium of instruction was the vernacular, and most of the students acquired a better knowledge through the vernacular than they could have done through the medium of English. In this connection witness submitted to the Commission a note on University reform printed in 1894, wherein he advocated that the

vernacular should be the medium of instruction for secondary schools; also a statement showing what is now being done in Baroda. He stated that the statement showed that although witness had only ₹56,000 at his disposal for carrying out his scheme, he nevertheless provided a number of Professors including some German specialists, and a Professor who was one of Mr. Pedler's pupils.

Witness then gave an explanation regarding his system of notation and nomenclature in Chemistry, and submitted to the Commission a pamphlet on derived nomenclature and notation published by him. He also proposed to submit to the Commission some statements regarding the working of his Techno-Chemical Laboratory.

Constitution of the University.

Witness had also prepared a note for the Commission on this subject.

The proposed constitution makes the Viceroy a visitor of the University; the Governor of Bombay, Chancellor; the Vice-Chancellor to be elected by the University Court; the Syndicate to be abolished altogether; and most of the powers of the Senate to be withdrawn.

The University Court will consist of members returned by the Senate and by the Academic Council, nominees of the Crown in respect of several institutions, and representatives of learned bodies as, for instance, the Royal Asiatic Society and the Natural History Society.

The Academic Council will consist of members elected by the several colleges, four for Philosophy or Arts, two for Science, two for Medicine, two for Law and so on, and some representatives from the University Court.

The Senate will only have the power of returning members to the University Court, and of sending representatives to the Legislative Council, the Corporation and wherever else required; that is to say, it will have political privileges.

There will be new Faculties which may appropriately be called Professional Faculties and Boards of Studies.

The University should have visitatorial powers, censors being appointed regularly to visit colleges. Colleges should be recognised not for the entire course of the B.A. or B.Sc., but for special groups. In mufassal colleges there is no adequate provision for teaching Chemistry.

Lastly, the electoral body will return members to the Senate. The scheme is complicated, but under present circumstances this cannot be avoided. On other points witness promised to submit a written statement.

Examinations.

Teaching is at present subordinate to examinations, whereas it should be the other way about.

The University should provide a laboratory where all students may have equal facilities for passing their examinations. The present system of holding examinations in a laboratory attached to a particular college is not fair. The University should provide a laboratory for teaching and that can be used for examinations. Scientific lecturers must be maintained by the University.

University Laboratory.

When the University becomes a teaching body, there will be a combined system of internal and external examiners.

Examiners.

It is difficult to understand how marks are assigned in some of the practical examinations. It is impossible to gauge the attainments with such accuracy as to distinguish between a mark or two more or less as some examiners do. The mark system should be abolished and for marks should be substituted remarks such as good, bad, indifferent. With the marking system many students who do not deserve to pass scrape through, while some deserving students cannot arrive at the minimum. There should be no first, second, or third class, but only Honours and Pass. The qualifications for honours should not be tested by an examination. Endeavour should be made to ascertain what knowledge a student possesses, how he has acquired that knowledge, and how he can acquire further knowledge.

Mark System.

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So long as there is no D.Sc., B.Sc.'s must be allowed to take Science in the M.A. At witness' laboratory several students after getting the B.A. did not

Higher Teaching in Science.

know where to go for further studies. An M.A. course has now been instituted which witness laid down for his laboratory work, and then submitted to the Syndicate by whom it was accepted. There is a prospect in Bombay of obtaining liberal help towards the foundation of laboratories such as that worked by the witness. His laboratory is progressing. He commenced with ₹30 and it may now be said to be worth ₹30,000. Several people take an interest in it.

The Indian Universities can get many useful hints from the management of those ancient seats of learning termed *Parishads*. It is on those lines only, adapted to modern requirements, that it is possible to make the Indian Universities teaching bodies. It will not be possible to afford the best European Professors on high salaries; it therefore behoves self-sacrificing natives of India, like Professors Bose and Paranjpye, to build up the Indian University. These ancient seats of learning taught all the useful arts, and our Universities should be established on the same lines.

The present Indian Universities have totally neglected the main principle laid down in the Education Despatch of 1854, namely, the imparting a knowledge of European Arts and Sciences through the medium of the vernaculars,

General Remarks on University Education.

English being taught only in the Presidency towns and where else it might be demanded. At present the aim and end of University Education is intellectual gymnastics, not knowledge. It is said that the discipline of the school and University has for its object the training up and sending into the world able men of mature intelligence, sound bodies, and well-formed characters, but that it is not a part of their business to communicate any of that special knowledge or skill with which only a man can excel in some one calling in life. Witness is not opposed to general education, but for the purposes of modern life the youth who is good for everything is good for nothing. First class University men who have taken Honours are sometimes scarcely worth the pay of a day-labourer outside the walls of the University. What is necessary is that technical education which renders the talents of the educated man directly useful to the society in which he is to pass his life. The Bombay University is not a teaching body at all, but merely an examining one. The centralisation of Science teaching for the B.Sc. and upwards under the University is one reform in this direction which is greatly needed.

The University must be an independent body. It must be independent of Government because it must have a character and vitality of its own. There are many defects in the present working of the Senate, and whenever any reforms are to be introduced they have to be slipped in with some manoeuvring, *i.e.*, canvassing. Many members who do not take much interest in education will vote for the best canvassers. Witness had to canvass at the last Syndicate election and disliked it very much. He was anxious to be in the Syndicate in order to urge reforms in the course in Chemistry. He wrote letters to Fellows urging the points he wished to bring forward. A measure cannot be passed through the Senate without a lot of canvassing and difficulty.

There is no provision for research fellowships. The *Dakshina* Fellowships are given for teaching in colleges. Teaching capacity only is considered. There is no objection to these Fellows doing some teaching, but they ought also to be given opportunities for research. They do four or five hours' teaching a week, or sometimes only three. In some cases there is no teaching. The fellowship is then given as a reward of merit, not for work to be done. The period of the fellowships should extend for as long as five years.

Research Fellowships.

The present system allows students to join the University who have not passed the Matriculation test. They may not be entitled to degrees, but they may receive the benefit of University Education.

Students.

The Senate.

The Senate should be limited in number, and its power considerably reduced.

WITNESS No. 24—MAJOR L. F. CHILDE, I.B.A., M.D., M.R.C.S., I.M.S.,
Professor of Pathology, Grant Medical College, Bombay.

The Senate should contain a larger proportion of members connected with
or interested in education. At present the
Constitution of the Senate. number of Fellows appointed for various

reasons unconnected with education is considerable, and they are able to out-
vote the educationalists, even on questions of education pure and simple, e.g.,
in the debates on the question of the M.B. degree. At present there are 88
members in the Senate connected with education out of 210. The Faculty of
Medicine was divided on the question as to the raising of the standard of the
preliminary education, but the educational members of the Faculty were all of
one opinion, and had on their side the Professors of the Arts colleges in Bombay.
It came to this that the educational experts were against the non-experts.
Supposing there were an M.B. degree and a license to practise to be obtained
on easier terms, the Matriculation would be enough for the latter.

The Syndicate should be more closely connected with the colleges which
are affiliated to the University. At present the
The Syndicate. Syndics are elected by each

Faculty, but their only necessary qualification is that they must be Fellows of
the University. Thus the Syndicate might consist of persons in no way connected
with the teaching colleges. Either the Principal or the Principal and a Pro-
fessor of each college should *ex-officio* belong to the Syndicate. The proposal
applies only to the important colleges. It would be difficult for the colleges
at a distance from Bombay to appoint Syndics. It would be necessary to
exclude Sind from the arrangement, unless perhaps the Sind College elected to
have a representative residing in Bombay. The proposal might cause the number
of Syndics to vary. At present the number is too small, and there is no
need to apprehend that for a considerable time, at any rate, it will lead to an
undue increase in the number of Syndics.

At present there are great variations, the B.A. being required for the LL.B. ;

Entrance Examination in Arts for the different Faculties. the Previous Examination for Agriculture
and Engineering; the Matriculation for

Medicine. This is an anomaly and also a great disadvantage to the Medical
Faculty. Students enter for Medicine, because they are not good enough for Law,
Engineering, etc., and failed candidates for the Previous Examination or B.A.—
originally intended for other professions—start late in life on the Medical course.
There are some students in the Medical College who were not able to pass the
Calcutta F.A. and came to Bombay for the lower qualification. The Syndicate
admits such students if they have passed the Calcutta Matriculation. The
Matriculation is not a sufficient test of general education for medical students.
More English is required. Even for students who are only candidates for the
license to practise, it would be an advantage to them if they knew more
English when they came to the college. At the college itself there is a simple
Entrance examination for all students. It is mainly in English and consists
principally of writing a passage from dictation, with the object of showing
whether the student is able to follow lectures. It is not uncommon to find
students who have passed the Matriculation quite unable to write English at
dictation. This shows that more English is required than the Matriculation
affords. The chief reason is that some of the students come from up-country
and have never been in contact with Englishmen. They get over the difficulty,
but the first part of their course is spent in learning English and not in learning
the subjects of their profession. It is a question whether the difficulty would
be overcome by an increased study of English in schools and colleges, or
whether it will not always remain until students are brought into contact with
European Professors.

A knowledge of Latin is very necessary for the study of Medicine, and
should be compulsory. One important

Study of Latin. reason is that if Indian medical students

wish to prosecute their studies further in Europe, they cannot enter for any
medical degree without a knowledge of Latin. Again, all the terms of Botany
and many of the terms used in Medicine are derived from Latin, and it

would be far easier for the students to understand them if they knew some Latin.

In the first three medical examinations, a candidate requires about 30 per cent. of marks in order to pass; whereas in the final examination he requires 50 per cent. in each subject. The result is that a number of students are just able to scrape through the early examinations, but are never able to obtain the L. M. and S. degree, and in the examination the percentage of failures is always very high—

Pass Marks.

22 out of 61 passed in 1900.
14 out of 54 „ in 1899.
20 out of 53 „ in 1898.

It would be far better and kinder to the students to weed out the weak candidates at the early examinations, instead of allowing them to proceed to the final, which they are unable to pass.

No minimum age is prescribed for the Matriculation, and it is not uncommon to have candidates even of 14 years of age passing it. There should be an age limit, as is the case of other Universities. Sixteen might be fixed as the age. One result of the change would be that in the medical profession no man would begin to practise before he is 21. I think the temptation to push on promising boys in their schooling is at present too great.

Age Limit.

At present examiners are appointed in each subject for one year only.

Appointment of Examiners.

There is thus no provision made for continuity of standard in examinations. Examiners should be appointed for a longer period, say, for a period of four years or of two years, and half their number should be changed every two years or every one year. By this means the same standard could be maintained from year to year. There would always be one old examiner and one new examiner, instead of both being changed. Examiners are very often re-appointed, but it would be well to safeguard this by a rule.

Before the results of the examinations are sent in to the Registrar, a

Meeting of Examiners.

general meeting of all examiners should be held. At present such a meeting is recommended, but not ordered, and sometimes meetings are held, and sometimes they are not. For lack of such a meeting, hardship to candidates may result in doubtful cases. In one examination, a student passed the L. M. S. degree, but failed to get into the first class by a single mark. If a meeting of examiners had been held, no doubt that mark would have been given to him.

Mr. Justice Banerjee remarked that it has been said sometimes that the

Pass Marks (continued).

reason for demanding a higher minimum for the final examination is because the subjects of that examination are important practical medical subjects, whereas for the earlier examination the subjects are of a less practical and more subsidiary character. Witness did not consider this to be a good reason. For example, it is necessary that a student should learn his Anatomy thoroughly in the earlier examinations, in order that he may be able to learn his Surgery afterwards, and do his practical work well. Similar considerations apply to Physics.

Witness could not say what are the sizes of the classes in the Medical

Size of Classes.

College. There is no limit to the number who are allowed to enter into college. The number of students who attend the lectures depends only on the number in the year's class. Some of the classes contain 300 students, and they are all lectured to at the same time. The classes are too large, and their size is at present a great difficulty. The whole 300 students can hear a lecture in one of the rooms visited by the Commission, but not in some of the other rooms. It is just possible for students to get at present into the Chemistry room, but it is doubtful whether students at the back can see the experiments performed.

Witness has been a Professor at the Grant Medical College since November 1889. He has lectured continuously in the same subject with the exception of two or three months when he acted as Professor of Physiology. For the last twelve years, since witness came to the college, there have been very few changes.

Staff.

Degree of Sanitary Science.

It would be a good thing if there were a degree in Sanitary Science. The College is not at present equipped for teaching the bacteriological work that would be needed for the course.

Appliances.

There is no particular difficulty in getting money for appliances and for keeping them up to date. The indents of the Professors are generally accepted.

Practical Instruction.

The large classes are divided into batches for practical work.

Preliminary Scientific Instruction.

There would be some advantages in having the students taught preliminary subjects such as Chemistry and Biology outside the Medical College. The disadvantage is that the students would remain a shorter time in the college.

Examination in Chemistry.

There is no objection to separate examinations in Chemistry being held for Medical and Arts students. In other Universities they have an entirely separate course. That used certainly to be the case in the London University.

Course of Practical Chemistry.

With reference to the college time table, Mr. Hewett enquired how many hours' practical work was included in the three months' course prescribed for first year's students. The witness was unable to say.

Applications for Examinerships.

Witness is in favour of the system of inviting applications for examinerships. A good many men might not otherwise hear about them. Some men do not like to apply.

WITNESS NO. 25 — MR. K. D. NAEGAMVALLA, M.A. F.R.A.S., Professor of Optics and Astronomy, and Director of the Takat Singhi Observatory, College of Science, Poona.

Teaching University.

The University of Bombay is not a teaching University in any sense of the term. It lays down certain syllabuses of study, and carries out examinations according to these syllabuses. It affiliates certain colleges, but it does not control them. In fact, the colleges would resent any interference on the part of the University, as constituted at present. Under such circumstances, it cannot be called a teaching University. At the same time, it is not possible to establish a teaching University in the sense of the University at Oxford or Cambridge. For this purpose, it would be necessary to bring together all the colleges at one central place such as Bombay or Poona. If this were done, the cause of education would suffer in the outlying provinces. On the other hand, it is impossible to have separate Universities at separate centres of the Presidency. Neither the men nor the money are available. There is no intellectual life outside Bombay and perhaps Poona, and the evil would be greater than any advantage to be gained. An attempt has been made recently to re-organise the University of London to meet a case something like the case of the University of Bombay, but the re-organised scheme of the London University has not yet been tested, and it would be rash to copy it, simply because it has been introduced as a tentative measure in London. Moreover, in London the sphere of influence is restricted to a radius of 30 miles, a restriction which would in Bombay leave out the mufassal colleges. The problem in India is quite unique; there are no materials to go upon and no means of establishing a teaching University under the present conditions of general culture, spread of knowledge, and modern requirements. A step in the right direction can, however, be taken by reconstituting the Senate, Syndicate, etc., by encouraging inter-collegiate teaching for post-graduate courses, by insisting upon a rigorous

supervision of the colleges through the medium of the reconstituted Senate, and by encouraging learning in general.

It will be wise to restrict each University within definite limits, although no self-respecting University will admit into affiliation any college from another

Spheres of Influence.

Presidency without very good cause. At the same time, the difficulty has arisen in the past. The Bombay Matriculation Examination is a pretty stiff one notwithstanding all that has been said against it, and it was a common thing in former years for those who were plucked at the Matriculation to proceed forthwith to Allahabad and return as under-graduates. Allahabad will not now admit to its Matriculation students who have studied in schools outside the limit of its province. The above instance shows that there is a certain amount of danger in not laying down a defined sphere of influence, but, on the whole, the question may perhaps be left to the discretion of the Universities.

Causes which have led to the Failure of the University System.

The following are the principal causes which have led to the failure of the present University system:—

(1) The promiscuous manner in which the Senate has been recruited by

The Senate.

Government in years past. Men have been admitted to the Senate as a civic compliment. Witness knows of an instance in which a very amiable gentleman was appointed a Fellow of the University, because his great grand-uncle first introduced English learning among the ladies of his family. Another gentleman was, within the last three or four years, nominated a Fellow of the University because his father-in-law established a school for the girls of his community somewhere about 1850. They have no other qualifications. The circumstances were told to the witness by persons who had something to do with the nominations. It results from the constitution of the Senate that extraneous considerations are frequently imported into the discussions on academic questions. Among a certain set of Indian Fellows there is a desire to make examinations easier, and, on the other hand, there is a desire on the part of some European Fellows to make them prohibitive. This gives rise to friction and want of confidence in discussing academic questions.

(2) The University has no funds. . . Practically the only source of income

Funds.

is the fees it levies for examinations and spends on examiners and the ordinary expenses of the University. Government at one time used to contribute R20,000 to the University, but this was reduced to R15,000, then to R10,000, then to R5,000, and finally withdrawn altogether. One of the reasons given was that the University was self-supporting. By self-supporting the Government meant it could pay its expenses and the examiners. This unfortunate step on the part of the Government led to the belief that the proper function of the University is to examine, and to examine as cheaply as it can.

(3) There is a dearth of competent examiners. Frequently it is very

Examiners.

difficult to find a set of thoroughly good examiners, and this difficulty is increased to a certain extent by the exercise of what may be called patronage. The self-denying ordinance in the Syndicate lessens the number of examiners, but wisely lessens it. In former days all the Syndics used to be examiners, and examiners in more than one subject. Witness said he could best explain what he meant by "patronage" by giving a concrete example without mentioning names. It was decided to keep out a certain gentleman because it was thought he was not a competent examiner. In the meeting of the Syndicate he was forced upon the Faculty by the other Syndics, who said he was a good man and would not be a bad examiner, and this although he had been declared by the best authorities in the Presidency to be incompetent and careless. In another case an examiner was wanted for a higher examination of the University. A gentleman who is most competent to advise on the subject recommended an official. The Syndicate, however, did not appoint that gentleman, but appointed another who, however good otherwise, had not passed an examination in the subject in which he was to examine. He was an M.A., but not in the particular subject. He had never learnt that subject, never

taught that subject, and had no testimonials to show that he knew that subject well, and yet he was appointed to examine in one of the higher examinations of the University. He was appointed without there being any sort of guarantee, either by a University degree or in any other way, that he was competent. This was done at an extraordinary meeting of the Syndicate. It was objected to by 2 against 4. In both these instances the arrangements were made at scratch meetings of the Syndicate, and were carried simply by combination; these are exceptional occurrences, but there is a feeling that, if you know certain Syndics, you will get appointed to certain examinations.

There is an absolute want of control over colleges. Consequently there has been a lowering of teaching in some colleges, and this has a reflex action upon examinations. Examiners try to keep up a certain proportion of passes even if the candidates are badly prepared, and so defects in the teaching tend to lower the standard. The University ought therefore to control the colleges and keep them up to the mark. Examiners are told that there should not be any very abrupt change of the standard, and they try to keep up the average result. They say so many have appeared, so many should pass. And if the proportion is not kept up, for instance if the examination is made a little hard, there are complaints before the Syndicate, and the Syndicate in the majority of cases does not like to receive such complaints. The Syndicate looks with disfavour on examiners who raise the standard. When complaints are made, the Syndicate imposes a moderator for the subject. In one case, which came to the knowledge of witness, an examiner advised his colleague to be generous, or a moderator would be imposed. Complaints come from the school masters. The Syndicate does not formally blame the examiner, but it imposes a moderator. The system of moderators applies only to the lower examinations, but the same principle applies throughout. Examiners object to moderators; a good examiner would think the moderator not good enough to be put over him. Moderators are appointed two or three weeks after the examination more or less as a result of complaints. There will be no moderator in a more important subject in which the examiner has been lax, whilst there will be a moderator in a less important subject in which the examiner has been more severe.

It is urged that the present number of the Senate is not too large because at some meetings of the Senate there is hardly a quorum. The danger does not, however, lie in ordinary meetings, but arises on occasions when subjects are discussed which raise a general feeling. Everyone then attends, and the unwieldy size of the Senate exerts a prejudicial effort on the deliberations. It is proposed by some not to make any appointments for the next ten years. This will only reduce the number to 150, and those who will retire by the operation of the procedure will be mostly Europeans, and those who remain will not satisfy the doctrine of the survival of the fittest. After giving the matter his most careful consideration, witness is constrained to say that the only remedy is to do away with the present Senate and to appoint a new Senate by a fresh Act of Legislature. This will meet with great opposition, but it is nevertheless essential. The number should be restricted to about 1000, and at least half the members should be connected with education. There are now about four thousand graduates of the University. They have a claim to be adequately represented on the Senate. At least 50 members of the Senate of 100 should therefore be graduates of the University, and 25 at least of them should be non-officials. In a Senate like this all the various interests will be well and adequately represented, it will be an academic body in the true sense of the term, it will not be unwieldy, and it will inspire general respect.

In connection with the Bombay University there have been in the past a number of benefactors, and it would be unwise to keep these friends out of the University. There should be an extra 25 Honorary Members of the Senate without the power of voting on academic questions. These gentlemen will be very useful as members of the Board of Accounts and Finance Committee. They may be called Honorary Fellows or Fellows Extraordinary.

It will be unwise to make Fellowships terminable at the end of five years. The independence of Fellows would be impaired, and there would be a good deal of canvassing and manœuvring whenever vacancies were likely to fall due. An attendance test would cause the undesirable Fellows to attend.

Terminable Fellowships.

The number of the Syndicate should be raised from 15 to 21. That would not be an unwieldy body. There are Syndicates of about 20 in many Universities. Oxford has a Council of 20, Cambridge of 21, Allahabad and Lahore of 20 each. Twenty-one will not therefore be an unusually large number. On this Syndicate, besides the Vice-Chancellor, there should be as *ex-officio* members the Director of Public Instruction, the Principal of the Elphinstone College, the Principal of the Deccan College, the Principal of the Wilson College, and the Principal of St. Xavier's College. Also a representative nominated by the northern circle of colleges, Gujarat and Kathiawar, one by the circle of colleges in the Deccan, and one by the circle of colleges in Sind. Nominated Syndics may be Principals or professors of colleges or members of the Senate residing in Bombay. Two Syndics should be elected by the Faculty of Arts to represent Arts, and, as long as there is no separate Faculty of Science, two others to represent Science.

The Syndicate.

[A Faculty of Science is much needed; the Faculty of Engineering should be merged into it, and Agriculture should be made a part of it. A Faculty of Commerce is not required for the present at any rate.]

As regards Law and Medicine, the Principal of the Bombay Law College and the Principal of the Grant Medical College should be *ex-officio* members of the Syndicate, and there should also be two elected representatives of each of these Faculties. In Engineering the *ex-officio* member should be the Principal of the College of Science, Poona, and there should be one elected representative. This gives a total of 21: the Vice-Chancellor, 11 *ex-officio* and 9 elected members. The portion of nominations proposed in Arts and Professional Faculties is different. In the latter case there are only single professional colleges, and also members of Professional Faculties are capable of giving professional and up-to-date advice regarding their own subjects.

With a reformed Syndicate, it will be possible to insist upon the supervision of the colleges as regards teaching, discipline, equipment, and so forth. Objection has been taken to this suggestion before the Commission, but if the Senate is re-organised as proposed and if the Syndicate is formed as suggested, then the University will be entitled to exercise control. If the Senate is not considered fit to wield this power, then the University does not deserve to exist.

Supervision of Colleges.

The Syndicate (continued).

Deans of Faculties should not be *ex-officio* members of the Syndicate, though they may be Syndics.

It will be desirable to withdraw the right of representation from any college, of which the representative has not attended two consecutive meetings of the Syndicate. It is very necessary that the attendance should be improved. At present the Deans who are *ex-officio* members are very lax in their attendance; one has not attended for a whole year. Not only should the defaulter be retired, but, in so far as his vacancy is concerned, representation should cease for the rest of the year.

Assembly of Graduates.

There is now a large body of graduates, and they ought to be brought in some way into co-relation with the University. An assembly of graduates might be established by Statute, to which graduates of ten years' standing should be admitted on payment of an annual fee of R10. They should elect their own Chairman, Council, and Clerk of Council, and their province should be purely deliberative. They might discuss educational questions and send recommendations to the Senate through the Syndicate for consideration. The present Graduates' Association does nothing, but the proposed body will differ from it in being recognised by the University. It will be an innocent means of gratifying the desire of the graduates to be connected with the government of the University, and may do some good.

Vacancies may be filled up in turn by Government, by the Government colleges, including the College of Engineering and the medical college, by the aided

Recruitment of the Senate.

and independent colleges, and by the assembly of graduates. The assembly of graduates should not, however, have any voice in the first formation of the Senate, because a slight manœuvring in the elections might create enormous difficulties in the Senate. There have been eighteen elected Fellows within the last nine years, and not more than four of them are in any way connected with practical education. Elections should not be confined to educationalists, but the graduates have not shown a wise discretion in electing, so few persons having a practical acquaintance with educational matters. Sometimes better candidates have been kept out by less suitable persons. On one occasion a man of advanced years and of great experience was not elected, and another man much his junior was chosen. There is also much canvassing. Canvassers go accompanied by Honorary Magistrates from town to town and from house to house, and get votes recorded. Men who act in this way can alone hope to get elected. The best men have not an opportunity under the present system of being elected. The new Senate should, in the first instance, be appointed solely by Government, and the nominations should be made more carefully than has been the case in the past.

At present the duties of these Boards are performed by the Syndicate, and certain evidence has been given before

Board of Studies.

Syndicate has not performed the duties properly. It has been said that the course of Physics is altogether unsuitable. The course of Optics is another source of complaint. No knowledge of optical instruments is required. The Syndicate pays little attention to the proposals made to them on such subjects.

The Registrar should be a whole-time man. Half-time Registrars have proved unsatisfactory. At Lahore there is a Registrar on Rs. 1,000.

The Registrar.

There has been a great deal of difficulty in getting suitable examiners, and consequently standards have varied a good deal.

Examiners.

It is an astounding fact that the only Medical College in the Bombay Presidency has hardly any accommodation for students. The College itself is situated in

Students' Quarters.

a very undesirable part of the town, and the quarters the students occupy are, to say the least, places in which students ought not to be found. The College recruits students from all parts of the Presidency, and it is much to be desired that better accommodation should be found by Government for them.

The Government should hold its own examination, and the Matriculation should be simply an examination for

Matriculation Examination.

admission into the University. The present course is a satisfactory one except as regards English. It has been injured by the introduction of a passage for translation as an alternative for the paraphrase of a passage of poetry. When the paraphrase was obligatory, students were compelled to read a good deal of English poetry. Now they do not. It is desirable to insist on a study of poetry. It would be of no avail to prescribe text-books in English poetry. The School Finals have deteriorated for that very reason. If text-books are prescribed, it will lead to the publication of annotated books which students will commit to memory. The Science course for the Matriculation is not unsatisfactory, but it is not sound to set only one paper in Mechanics, Chemistry, and Astronomy. Some attempt is made to treat the scientific subjects from a practical point of view. All the high schools have small laboratories and scientific apparatus, and the teachers themselves are men who have a practical knowledge of Science. Matters are not so bad as the Commission are disposed to think. The present course requiring a little knowledge in general scientific subjects is preferable to one requiring more knowledge in a single subject. The students find the classes a relaxation, and the classes are very popular when the subjects are well taught.

There is a complaint that students are deficient in English. There are two reasons for this: The first is that the

Knowledge of English.

large majority of students when they enter college have intercourse with European professors for the first time. The

second is that Englishmen do have a peculiar accent and style of speaking which is quite foreign to Indian methods of speaking. They do not articulate clearly. Students are also lacking in the power of expressing themselves. Improvement is to be sought in the high schools and in the examinations. A Board of Examiners appointed with sufficient discretionary powers for a period of five years to make the examinations more suited to college needs might do considerable good.

The B.A. Examination was formerly a three year course. About the year 1885 it was pointed out that three years were not enough, and that the students had no time to assimilate what they learned. It was therefore proposed that the course should be extended to four years. This proposal was accepted by the Senate, and the Syndicate was requested to re-organize the course. A few months later the Syndicate brought before the Senate a tremendous new B.A. course much larger and more extensive than the former one, so much so that it was sent back to the Syndicate who modified it to some extent, but even now it is more extensive than the former one. Unnecessary importance is attached to History and Political Economy, and the scope of the voluntary subjects has been extended. A Mathematical or Science man does not require so much History and Political Economy. The present course is too burdensome, and students have hardly any time for private work. Witness does not agree that students are idle in the third year; even in that year they have not much time for general reading.

The M.A. course should leave much more time for specialization. The examination in languages is ridiculously easy and far below the standard in other subjects. Specialization should not be begun too soon because there is little intellectual life outside the class room.

There should be inter-collegiate lectures at Bombay and Poona, and a centre in Gujarat for the M.A. course. The centralized teaching might be recognized by the University and some of the most distinguished lecturers called University Professors. There is great need, especially in Science, for libraries, laboratories, etc. The so-called physical laboratories are mere cabinets of interesting objects. There is no working physical laboratory in the west of India. It would be a good plan if all the Bombay colleges were to unite together to maintain an up-to-date laboratory. It would also be an advantage for advanced study to be centralized under the control of the University. It is difficult to say whether private liberality would assist such a scheme.

It is unfair to say that Indian students do not love learning for its own sake. If one considers how much is done for students in England from school days up to the Fellowships at Oxford and Cambridge, and how little in comparison in India, it is not right to expect the same results.

The study of Physics is not popular, because it occupies more time than subjects such as Philosophy. Much time has to be devoted to laboratory work. It does not pay. The Syndicate has already passed a resolution which carries out the Calcutta plan of dividing the subject of Mathematics into two courses, in one of which pure Mathematics forms the principal and mixed Mathematics the auxiliary part, and *vice versa*. Science subjects have been retained in the B.A. course, because they are included in the M.A. In any event, it would be proper to retain Science as a portion of the general education given in the Arts course.

WITNESS No. 26—MR. R. M. SAYANI, M.A., LL.B., Attorney, High Court, Bombay.

The witness read a statement (Paper No. 12 in Part II), and was asked questions on it. The following is an abstract of the replies.

The University of Bombay should have for its sphere of influence the whole of the Presidency, including Sind. It should not take in Hyderabad, which is a separate State of large area, and could probably maintain its own University.

It would not be advisable to divide the Presidency of Bombay into several parts. There should be only one University for the whole Presidency.

The disadvantage of *ex-officio* Fellows is that after a time they become less energetic than Fellows who are specially appointed. The Vice-Chancellor should remain an *ex-officio* member of the Syndicate.

Senate and Syndicate.

The appointment of examiners should be vested in the Boards, not in the Syndicate. The system of application for examinerships is open to some objection, but is probably the best that could be devised. Without it the appointing authority would not know who is willing to examine. Some good men may not be willing to apply. (Dr. Bourne mentioned that last year 21 were appointed who did not apply.)

Faculties and Boards of Studies.

It is not possible to entrust the supervision over the colleges to the University. There must be responsible persons to periodically visit and enquire into the working of the colleges. The University cannot provide such persons. Neither the Chancellor nor the Vice-Chancellor could do it. The Syndics will not have the time, and the Registrar would not receive the same attention as higher officials. The duty lies with the Education Department, because the colleges form a system under the Director, who has a certain authority over them. The Director has not, it is true, any authority over the unaided colleges, but in their cases the authority supplying the funds, *i.e.*, in general the administration of the Native State, will see to the management. The University determines whether the college is efficient before affiliating; if the students in the college do not follow the University regulations, they will not pass their examinations. Beyond this, it is difficult for the University, owing to the want of agency, to go.

Inspection of Colleges.

The Matriculation should be divided into two parts, the first part comprising English and the vernacular. To pass the first part, the student should get 40 per cent. in each language, and, unless he passes in the first part, he should not be allowed to appear in the other part. This is not open to the objection that it is passing by compartments. What is meant is that the student should not be allowed to proceed until he has a competent knowledge of his vernacular and English.

Examinations.

Witness is not in favour of an age limit. There was formerly an age limit of 16, but it did not work well in practice, and the rule was abolished. It is difficult to ascertain the age. A few boys pass younger than 16, very few so young as 12. Cases of mis-statement were not common. The main arguments used were that there are satisfactory students among those who passed at 14, and that parents are anxious to get their boys through the course young in order to send them to Europe. Even with school registration, it would be difficult to tell the age to within 12 or 18 months. Horoscopes are not always reliable.

Age Limit.

No existing Fellows should be deprived of their rights, but new Fellows should be appointed only for a term. In the past the honour of Fellowship has been a gift, and the recipients should not be deprived of it.

Terminable Fellowships.

WITNESS No. 27—Mr. J. F. ADAIR, Principal, M.A., Rajaram College, Kolhapur.

At Dublin the Board consists of seven Fellows, who have the management of the University in their hands. The Syndicate, or governing body, of the Bombay University should be reduced to the same number.

The Syndicate.

It is expedient that the University should be a teaching University. For this purpose, the Elphinstone College should be made into a University, and lectures held there as in Trinity College, Dublin. Those who are in residence will keep their terms by attending lectures, the others by passing examinations.

Teaching University.

Witness was asked whether for the sake of the technical advantage of calling the University a teaching University, one college should be put above the others. Witness answered in the affirmative, because there are not funds to

secure the object in any other way. Students in other colleges would obtain degrees by passing examinations to be conducted by the University College.

A local limit should be placed upon the right to affiliate colleges. The Calcutta University, for instance, should not have the right to affiliate a college in Bombay.

The Senate should be limited in number. Qualifications for appointment should be prescribed. A man should not be appointed because he happens to be the son of a man who set up a college long ago. Fellowships should be vacated by non-attendance at meetings.

Text-books should not be prescribed in the majority of subjects. A further paper should be set for candidates in the Previous and each subsequent examination in any subject the student chooses, and, if he fails in this paper, he should not pass the examination. The paper will correspond to the easy problem paper at Cambridge.

The University is now empowered to confer the degree of Doctor of Laws, but there are few who care for that degree. The University should be empowered to confer the M.A. or other suitable degree on strangers.

The small percentage of passes in the Previous Examination does not matter, as students often go up to get experience of the examination for a future occasion.

The system of grace marks is objectionable. For the last three years one out of three have passed, the proportion being practically fixed by grace marks. The examiners allot the marks carefully, and then their whole work is spoilt by the grant of grace marks. It makes examiners lax, and is bad for students. The marks are not given on any principle such as a reward for a higher aggregate. The extra paper proposed above would tend to do away with the need for grace marks.

The physical and moral welfare of the students should be of interest to the colleges, but it is a very difficult subject. It is almost impossible to exercise any influence over students.

There should be Law schools and schools of Medicine, Engineering, and Divinity. At Trinity College, Dublin, these schools exist, but the difficulty here is to find funds to pay the Professors.

Vivá voce examinations in modern languages and especially in English should be compulsory in every case. For the further paper proposed above, text-books should not be prescribed, and the examination papers should be set by suitable persons altogether unconnected with the University.

Uniformity among Universities is desirable, and could be obtained by having the same subjects and by setting the same papers in all Universities.

The rate of pay given to examiners is too low, much lower than at London, Sydney, or Dublin. Assistant examiners may be appointed except for the further paper. Examiners should be appointed one year beforehand and for two years in succession.

The subjects of examination are antiquated. For instance, quaternians are not included in the mathematical course.

The foundation of a school of Divinity was suggested to witness by the mention of Theology in the note for the witnesses. He could not say what course of studies should be pursued. He is not in favour of teaching the Christian religion or any other religion in particular, but is in favour of teaching religion.

WITNESS NO. 28—MR. K. SUBRAMANI AIYAR, B.A., L.T., Principal, Byramjee Jeejeebhoy College of Commerce, Bombay.

Mr. Subramani Aiyar read from a long printed note,* and was asked a few questions upon it. The following is an abstract of his remarks and replies :—

* Paper No. 13 in Part II.

Witness proposed that for a donor to be appointed to the University Court, he should pay R15,000 in Madras and R25,000 in Bombay, the reason for the difference being that there is more money in endowments in the Bombay than in the Madras University.

The Government should be allowed to appoint cultured bankers and merchants to the University Court, even though they are not graduates. The matter should not be left to election.

Paragraph 7.

A B. A. and LL.B. is appointed to both Faculties. The same procedure exists in some foreign Universities. In London the rules permit him to vote on only one Faculty. In Bombay he should be confined to the Legal Faculty, unless he is a scholar in any other special direction, when he may also be admitted to the Arts Faculty.

The Senate, paragraph 9.

A separate Faculty of Science is needed. Economics require more attention than has been paid to them in Madras and Bombay. So also Commercial Geography. In Birmingham there are separate Boards of Studies in History, Geography, and Economics. In Oxford there is a school of Geography which grants diplomas. Geography is here only recognised for the Matriculation, and it is very badly taught both in Madras and Bombay. The examination papers in these subjects directly encourage cram. The teaching would be greatly improved if the subject were included in the University course.

The Faculties, paragraphs 12 and 13.

It is recognised in England that encouragement is needed for commerce and commercial education; how much more then is it needed in India! The University should grant degrees in Arts, Science, Law, Engineering, Medicine, Teaching and Economics and Commerce. The last two are the additions required.

University Degrees, paragraph 20.

The Bombay University is too unwilling to grant honorary degrees to the graduates of other Universities; the power exists, and should be more liberally used.

Honorary Degrees, paragraph 22.

There has been much discussion on the subject. The increased knowledge in the voluntary subject which results from the permission to pass by compartments is insufficient to outweigh the objections to the system.

Examination by compartments, paragraph 24.

Too much thought is directed to passing and percentages. If students thought less about passing, they would pass more easily. The Matriculation paper in English should be mainly devoted to translation, paraphrase, and the transformation of a few sentences. Unless cramming is made impossible, teachers and students will continue to practise it. There should be no dictating of notes. The lectures should be fewer, and directed more to the guidance of the students.

Examinations and cram.

WITNESS NO. 29—The Honourable MR. E. GILES, M.A., Director of Public Instruction, Bombay.

† Paper No. 14 in Part II.

Mr. Giles presented a printed note † to the Commission, and was examined with reference to it.

The colleges which constitute the University are scattered, and consequently, while it is desirable that the University should have the power of

Teaching University.

appointing Professors or lecturers, it is obvious that outlying colleges cannot materially benefit by such appointments, so that the scope of a teaching University in Bombay must be limited to those colleges in which centralisation is possible. It should be confined to a post-graduate course: it does not seem possible to go beyond this. It is possible that a good many students studying for the M. A., who are attached to various colleges in the mufassal where they hold scholarships of ₹50 a month (Dakshina Fellows), might be led to come to Bombay if lectures were delivered there by persons of eminence.

The *Dakshina* Fellows are required to assist to a certain extent in teaching the junior classes, but they are also under an agreement to study for the higher degree. They have three to five hours lecturing a week and no tutorial work in addition. They are supposed to be reading for their own benefit. They generally lecture in classical languages and Mathematics. They are of considerable assistance in the college, not only in teaching, but in supervising and keeping in order the students and assisting in their games and in other ways. There has been no complaint that their having to teach prevents them from studying. The distribution of the Fellowships is made by the Government. The Elphinstone College has 9, the Deccan College 6, the Wilson College 3, the St. Xavier's College 3, the Gujarat College 3, the Jayram Jethmal College 3, and the Ferguson College 3. The distribution was made, witness believes, in order to carry out a recommendation of the Education Commission. Formerly all were given to the Deccan and Elphinstone Colleges. The College of Science receives some. The Native States colleges do not receive any, nor does the Medical College. The money is supplied by an old *Dakshina* grant of the Maharattas. When Government took over the Deccan, they found this fund existing. It was money left by an old Maharatta General at Telagaun near Poona. It was principally spent in feeding indigent Brahmins, but its nominal object was to improve education generally. Government took over the grant, and have spent it in various ways for the furtherance of education. At this moment a very small portion is still given in grants to Brahmins. The University has nothing to do with these Fellowships. They are tenable for one year, but a student may be renominated if it appears desirable. Formerly it was possible to combine two to make a larger scholarship, but this is not provided for in the present rules.

University lecturers might be appointed where colleges are grouped, and specially for the study of Science. It will not be possible to have combined lectures for such subjects as English, where the classes are very large. There is always great difficulty about combined lectures. They are more possible in Bombay than in Poona, because the distance between the Fergusson and Deccan Colleges is at least three miles. Students studying for the B.Sc. in Bombay might attend combined lectures. It would certainly be sound to establish a Science Institute for the benefit of students residing in one place. In the Elphinstone College the Science teaching is not as it should be.

A main reason for reducing the Senate to 100 is that it is easier to find 100 than 200 good men. The present Senate is undoubtedly very much larger than it should be.

Any Fellow who fails to attend a meeting of the Senate for a period of two years should vacate his Fellowships, unless his absence is due to special circumstances. If there were quarterly meetings of the Senate on fixed dates, there would be no particular reason why a Fellow should not even come from Karachi. The two years rule is required to meet the case of a man on long leave in England; he might be very useful, and it might be impossible to fill his place. Fellowships should be terminable after five years, subject to re-appointment. No person whose independence could be diminished by this rule is worthy to be a member of Senate. Some Fellows should continue to be elected, and those already elected should be placed on the new list. They would then come under the five years rule. The number of elected Fellows should be limited to one-fourth of the whole, so that, even if some undesirable Fellows are elected, they

will not be able to do much harm. All elected Fellows are certainly not undesirable. It is unsatisfactory that out of the 18 Fellows recently elected, only four are actively connected with education, but if election is permitted, and if the candidate for election is qualified under the rules, the result of the election cannot be disturbed because the candidate himself is not a very desirable person. The election should take place in each Faculty in the following order: the Faculty of Arts, two; and then each of the other Faculties, one. Such a Senate would not give rise to the difficulties that exist at present, because the total number of the elected graduates would only be 25, and against them there would be 75 nominated Fellows. At an important meeting of the present Senate perhaps only 60 out of 297 attend, and then a party of 40 will carry things their own way. The present quorum of 6 is inadequate. It is a matter to be regretted that Fellows who are engaged in teaching are not more often elected, but it is also desirable that there should be some, though not a large proportion, of representatives of the general public. It would be unwise to exclude a business man or a banker or a lawyer, because he is not engaged in education. It is to be hoped that graduates will elect more people interested in education.

The principal reason for making Fellowships terminable is that, if a man is found to be taking no intelligent interest in the affairs of the University, the sooner he is got rid of the better. That object might perhaps be partially secured by the attendance rule, but terminable Fellowships would be more effective. It is difficult to state precisely the difference between intelligent and unintelligent interest, but, speaking generally, everybody understands what taking an intelligent interest in University affairs means. A man who takes an intelligent interest comes down to the meeting, and knows what he has to talk about; he does not come and give a silent vote, because somebody has told him to do so. It is well known that, if there is an important vote to be taken, people are whipped up. With a reformed Senate there will be no force in the objection that an attendance test will bring undesirable members to the meetings.

Generally at elections votes are taken by a show of hands. There would be no great advantage in recording the names, but no objection, except that it would take longer, and that would be less important with a smaller Senate.

If a Faculty of Science is created, it might be merged with that of Engineering. Witness merely puts this forward as a suggestion, as it is not a subject in which he is an expert. A Faculty of Science ought to be created: the study of Science is not prosecuted to the extent that it should be. It is most desirable that nominated and elected Fellows should be assigned to one Faculty only. Because a man is a B. A. and an LL. B., that is no reason why he should be assigned to two Faculties. It gives him a vote first in one Faculty and then in another. His attention should be directed to one Faculty, either Law or Arts. It may be desirable occasionally to put prominent men in more than one Faculty, but they should put there specially on account of their prominence, and the ordinary run of Fellows should be assigned to one Faculty, and not to more than one.

Dr. Bourne remarked that it was the custom in Madras to put the Director of Public Instruction on more than one Faculty.

Witness said that it is only the Registrar who is on all the Faculties in Bombay.

The Syndicate has no statutory basis, and that, if legislation is resorted to, the Syndicate should have its status defined and legalised. It should be empowered to exercise certain powers independently of the Senate. It would be difficult to define those powers, but generally they may be described as the conduct of all ordinary business which does not involve any distinct change in the curriculum of the University. It is not perhaps necessary to refer such matters to the Senate, but the Senate should decide all cases where there is a change in the course of any examination, or any change in the dates of examinations, or the number of examinations to be held, or the degrees to be conferred. It should not be necessary to refer to the Senate the grant of exemption to students from attendance for a few days required to complete a term.

Witness does not know of any proposal having been made that the Senate should appoint examiners, but it is only within the last three years that he has had any close connection with the University. Dr. Mackichan said that his own recollection was that once there was a demand that all appointments made by the Syndicate should be reported to the Senate. Witness said he should be opposed to any such power being exercised by the Senate; they are quite incapable of exercising it.

Witness referred to the portion of his written statement* in which he had suggested that mufassal members should be paid travelling expenses for attending meetings of the Syndicate. He said that, if proposal No. 3 (for quarterly meetings) was carried into effect, it would be possible to get mufassal members to attend, and under these circumstances the University should pay their travelling expenses. Witness gathered from what Mr. Selby said in Poona that he seemed to think that it was no tax upon a man to come down and attend meetings of the Senate. It means really nine or ten meetings a year, and that even from Poona would involve an expenditure of Rs 25 each time for railway fare, besides hotel charges and expenditure of all kinds. Witness is able to come from Poona because he is a Government servant and receives travelling allowance, but if he did not get that, he would feel it a distinct tax. If the University gave travelling allowances and had quarterly meetings, then men might come even from Karachi.

The Syndicate is too large for an Executive Committee. It is difficult to give proper attention to the papers that are circulated, and a great many of them relate more or less to routine work, which could be done by a small body of the Syndicate. Witness therefore proposes to make the Syndicate a representative body consisting of 18, instead of 15, members and to have an inner body of 7, who should be residents of Bombay. This small body will be able to deal more efficiently with current business, and all questions involving matters of principle should be kept for the quarterly meetings of the whole Syndicate. A question such as the date of an examination might be fixed by the executive body. The present system is a haphazard system and it is not the fault of the Syndics but of the system that proper attention cannot be given to the papers that come before them. The Madras system, in which there are eight Syndics and other Fellows are invited to join them for special sub-committees, does not provide for the representation of mufassal colleges.

There should be six Principals of colleges *ex-officio* on the Syndicate. In his turn the Principal of, say, the Gujarat College will be one of these members, and he should attend at least four times a year and whenever there is any important business to be discussed, and such business should, as far as possible, be kept for the quarterly meetings, and, if necessary, it should not all be disposed of at one meeting. At present there are seldom adjourned meetings of the Syndicate, and occasionally the Syndics rather hurry over things because they wish to get through them. That is not as it should be. The smaller body should prepare their views upon any important question, and then submit it, possibly printed, to the other members who will come to the quarterly meeting and seriously tackle it.

It would not do to have a much larger body than 18 or a much smaller body than 7. The smaller body should not be a majority of the whole, otherwise they might settle an important point and carry it through the larger body. The quarterly meetings of the Syndicate should have full information as to what had been done by the executive board throughout the quarter. Although the mufassal colleges have not any interests as opposed to Bombay colleges they should nevertheless be given a share in the management. They do not want this for the purpose of securing more examinerships. Retiring members should be eligible for re-election. It will improve the administration if the term of office is raised to three years.

With a reformed Senate voting by proxy might be introduced. With a Senate of 100 good men it would be very easy to send round papers, and to ask that votes may be recorded on them. It would not be admissible under the present Act. Perhaps the simplest way would be to have a proposing day and a

* Paragraph 4 (1).
Method of voting.

polling day when all votes should be recorded at the Registrar's office. Mufassal members should not be allowed to vote in this way on questions of curricula, but only for purposes of election. In the former case they would not have an opportunity of hearing the arguments.

It should be the duty of the Syndicate to see that the colleges conform to the affiliation rules not only at the time of affiliation, but at all future times.

Inspection of affiliated colleges.

It is difficult to say what measures should be employed for the purpose. Continued interference with the colleges is to be deprecated. For instance, supposing the members of the Syndicate chose to drop into the Elphinstone College, and then into the Wilson College, and then into St. Xavier's College, they might make themselves undesirable in every way. But it would be quite easy for the Syndicate to ascertain at any time whether a college is deteriorating or not, and if they had reason to believe that a college was deteriorating, they might depute one or two of their body to go and see it, or they might call for certain returns from the college or reports to shew why such and such persons employed on the teaching staff who do not appear to be desirable should not be removed, and if they are not satisfied with these reports, then they might pay a visit to the college and enquire into things themselves. Perhaps it would be advisable for the Senate to make a rule that colleges should ordinarily be visited by the Syndicate. The visit would usually be one of congratulation rather than fault-finding; at the same time, constant visits are undesirable. If the University appointed the Director of Public Instruction for this purpose, there would be no friction. Witness has never yet been received in any college except very pleasantly. He has visited all the Native States' colleges. A good many years ago he paid a visit to the Baroda College, and he would not hesitate to visit it again if he went to Baroda, though he would not have any *locus standi* whatever. The colleges would be less likely perhaps to object to a visit if it were a matter of University routine. It might be provided in whatever rules are eventually laid down that it should be part of the duty of the Syndicate to exercise supervision over all the colleges affiliated to the University.

Dr. Bourne said that it had been stated by one of the witnesses that, as a general rule, the managing boards of colleges are as good judges of the fitness of a Professor as the Syndicate would be. Witness replied that that would include the Department as the managing body of the Government colleges. As regards Government colleges, if the Director of Public Instruction is a sensible man, he works with the Principals and consults with them on the position of the colleges. Witness has never recommended a man to act as Professor in the Elphinstone College, without having taken the advice of the Principal. As regards aided colleges like the Gujarat and Sind colleges, the board of management is a body consisting partially of Government servants of high position and partially of a few representatives of the Municipal, District, and Local Boards, and of the original founders (as in the case of the Sind College). They do their best, but they have no educational experience and generally depend on the Educational Inspector, who is a member of the board. They would be very glad indeed if the Syndicate would assist them occasionally by seeing their colleges and pointing out any direction in which change could be made. As regards the Medical College which would come under the same rule, there would not be any difficulty. The Principal of that college is on the Syndicate, and it would be very easy for the Syndicate to ascertain whether he was of opinion that his college was conforming to the rules, or if any member of the Syndicate could point out that it was not conforming to the rules, then it might be inspected. There would always be a representative of the college on the Syndicate, and it would be his business to see that the representations of the Syndicate were listened to and attended to.

The Syndicate should have the power of approving of the appointment of teachers in colleges. There would be no objection with regard to the Government colleges. At the present time they would have nothing to fear. Some appointments were some time ago made in the Elphinstone College, which caused very great disappointment; and on the Graduates' Association making a representation to Government, a change was made in those appointments.

That was obviously not the work for the Graduates' Association; it should have been for the Syndicate to move in the matter. Such cases are very rare, and it will probably seldom be necessary for the Syndicate to resent the appointments made in the Government or in the aided colleges.

The University could not make any distinction between Government, Professional, and Arts colleges in the matter of periodical inspection. If there is to be any power of supervision by the Syndicate, that power must be exercised over every college affiliated to the University. If it were obvious that the men nominated by the Secretary of State were inefficient or that any particular appointment was a scandal, it would be the duty of the University to take the matter up, even if they had to go to Government or to the Secretary of State, and say that the man is not what he should be. Such cases would be phenomenal.

It is advisable that there should be Boards of Study. The need for such boards has lately been illustrated by the extraordinary development of interest in the French language. It seems possible that there may be no members of the Syndicate who have given any particular attention to the examinations as conducted in French. It would be useful to place upon the Boards of Studies men who are not only thoroughly educated Englishmen, but are also thoroughly proficient in French and could thus compare the French with the other standards. It is becoming a serious thing, this extraordinary way in which people are taking up French to the neglect of their own classical languages. The only reason is that the French examination is easier than that in Sanskrit. Some time ago it was easier to pass in Persian than Sanskrit, and then everybody went in for Persian, now all have gone round to French. That shows there is something wrong in the standard. There may be a few persons, especially business men, to whom French may be useful, but it is inconceivable that French is of any use to the majority of Hindu, Mahomedan, and Parsee students. Before deciding to restrict French to lady candidates for whom it was originally intended, it would be well to take the advice of the Chamber of Commerce, because it is said that French is becoming more and more useful for business purposes. An approximate equalisation of the standards would probably put a stop to this abnormal development of French. The whole question affords a striking instance of the need for properly constituted Boards of Study.

It is worthy of special note that the Medical staff have vainly endeavoured for 18 years to raise the qualification for entrance into the Grant Medical College. Now they have given it up in despair. There have also been attempts to institute the M. B. degree, but the principal question has been with regard to the preliminary qualifications. It is considered that an ordinary matriculate is not fit to begin the work which it is necessary for him to do in the college.

Witness has no special knowledge of the subject, but thinks that matters were better before the Previous Examination was introduced.

The Licentiate in Engineering in the Bombay University is quite as high as the B. E. elsewhere, and there is no reason why an engineering graduate should be called a Licentiate. Similarly the L. M. and S. is quite equal to the ordinary degree of M. B. in England, and there is no reason why it should not be called the M. B.

A student should be allowed to specialise after passing the Intermediate, not in one subject, but in a smaller number of subjects than in the present pass course. Certain subjects like English should be common to the Honours and Pass courses, and Honours men should specialise in two groups of subjects. It would not do to allow a man after he has passed the Intermediate examination to take up a single group like Logic and Mental and Moral Philosophy, or Physics and Chemistry. There should be a general education, and permission to specialise in two kindred groups.

The M.A. is not a sufficient substitute for an Honours degree. Some men have not the money or the opportunity for reading for the M.A. Witness has known some extremely good men who have never gone up for the M.A., although they have got a first class in the B.A. Good graduates should not be injured in their prospects of entering into Government service, where an Honours man is preferred to a pass man. The system of marking for Honours is objectionable, the Oxford system of simply classifying is much better. It would not be difficult to maintain a consistent standard if thoroughly competent examiners were appointed.

Honours.

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It is not desirable that all the examiners should be changed every year.

Examiners.

The Syndicate endeavours to have in a group of examiners, at any rate one man

who has got one or two years' experience in the work. For the Honours examinations, if possible, examiners should be appointed for two or three years.

On the whole in Bombay the standards have been fairly consistent. They

Standard.

will remain consistent, if there are sensible examiners who will set sensible

questions and look over them in a sensible way. There is no fault to be found in the curricula, and if properly applied they are very good test of a student's knowledge and capacity.

It would be well to re-establish the age limit of 16, although there have

Age limit.

not been many cases of boys much below 16 coming up to the Matriculation. Wit-

ness has known one or two such cases including one case of a boy of 14 who was not fit to be a member of a college. The percentage of boys under 16 is probably less than the Madras figure of 10 per cent.

The present Matriculation Examination should be abolished, and replaced

Matriculation and School Final Examinations.

by a School Final Examination to be conducted by the Education Department.

There is a School Final Examination in Bombay, but it is conducted by the University. When the Education Commission recommended an examination separate from the Matriculation in order to provide those boys who are not going up for a collegiate education with some test to show that they have attained a certain degree of education, the Government should have taken the matter in hand and provided a suitable examination. The Government failed to do so and after a few years the University made out a scheme for a School Final and undertook to conduct it themselves. But, although they took this responsibility upon themselves, they did not seem to be alive to the fact that it was a responsibility, and their action with reference to the examination was such as to give it the smallest possible chance of success. For instance, while they held the Matriculation Examination at all the main centres of the Presidency, Karachi, Poona, Bombay, Ahmedabad and Belgaum, they insisted on holding the University School Final only at Bombay, so that a boy from Shikarpur had to come to Bombay to be examined. Secondly, they charged a higher fee for the School Final, although it is admitted by everybody that the boys who go up for that examination are those who cannot afford a University career. Nobody was likely to come all the way from Shikarpur and pay a fee of Rs 15 to be examined in Bombay, when he could go to Karachi and have himself examined at a cheaper rate for the Matriculation which was very similar in character and also gave admission to a college. This went on for many years, and it is only in the last two or three years that the School Final has been given a chance by being held at the various centres. Government has also done something to encourage it by making it a qualification for public service. Even now it is not so popular an examination as the Matriculation, and Mr. Selby told the Commission that it was an examination that had been entirely discredited. Witness does not agree with this view. The examination is improving every year. There is, however, no objection in having these two examinations, for one could be made to serve perfectly well the purpose of both. The combined examination should consist of four subjects, namely, English, Vernacular, Arithmetic, and the History and Geography of England

and India. These are subjects which every boy, whether he is to be a clerk in an office or to take a degree, should know. Such an examination would answer perfectly well, provided it were conducted in a really sensible manner. For instance, if the English paper is a sensible and thorough test in English, instead of being a ridiculous attempt to extract from boys replies on every kind of difficulty in grammar, and if the Arithmetic test is a sensible test instead of being, as now, an attempt on the part of the examiner to show what extraordinary problems he can set, things of no use to people in any walk of life whatever; and if the vernacular is confined to translation from the vernacular into English and from English into the vernacular; and if the History and Geography papers are sensible papers. After passing this examination a boy can go out into the world. If he wishes to enter a college he should pass a further examination in English and a classical language.

In taking up the School Final the intention of the University was to make the Matriculation a purely entrance examination and to divert from it those candidates who used it as a means of entrance to the public service. Dr. Mackichan enquired whether one of the main causes of the failure was that the matriculation certificate was accepted along with the School Final for entry into Government service, and that in some districts only matriculation men were accepted and in others only school final men. The witness replied that the main cause of the failure was the holding of the examination only at Bombay.

The further test in English might consist of an unseen passage and perhaps a few good questions in grammar. It would be an advantage to have an oral test, but that would probably be impossible. If there were 3,000 candidates, it would be a serious matter to give each of them even 5 minutes.

Mr. Selby said that boys who come to college can at the end of ten days understand lectures well. If a boy brought up under native school masters is able to understand and follow lectures at the end of ten days, he must have been very well educated indeed, and greater praise could scarcely be given to the high schools. Witness knows, from experience as an Inspector of nearly 25 years' standing, that when a new Inspector goes into a school, his voice and manner not being familiar to the children, they take a little time before they understand him, not only in native schools, but also in the European schools at Bombay. If an Inspector were to go into one of the European schools here, and if his style were at all rough or quick, he would find that he would get no answer at all from the children. They get frightened and cannot answer questions. Much more is this the case when an Englishman goes to a native high school. Of course all students who pass the Matriculation are no doubt not fit to listen to lectures, but on the whole the Matriculation qualifies boys fairly well to attend a college. Witness has not heard of any complaints in the five years he has been Director. It would be very easy to make the test rather harder if there were a combined examination followed by a University Entrance test.

The first part of the examination should be conducted by the Department. The University might, if it pleased, lay down its own tests, but it would save a great deal of trouble if the Department undertook both parts. The Department would have its own men at its disposal and the University would not be losers if they charged a fee—a gold mohur—to everybody who matriculated. The examinations should be held at convenient centres.

If it is necessary that students should know something of Euclid and Algebra before going to college, elementary mathematics and science might be formed into a group for the second part of the examination. They might be taken either as an addition to, or an alternative for, the other subject.

Mr. Pedler enquired whether it would not be possible to hold a School Final and then at a subsequent period a University Matriculation Examination for the purpose of finding out whether a boy has a sufficient knowledge of English to profit by University teaching and for the purpose of testing his knowledge of a second language and mathematics. Witness thought it would not be necessary to prolong the examination in this way. If the candidate has

a proper knowledge of the preliminary four subjects he will be very nearly fit to enter a college.

The present system under which there is no recognition of schools by the University, and candidates are allowed to go up from private tuition, is wrong.

Recognition of Schools.

Mr. Justice Chandavakar said that the matter was under the consideration of the Syndicate, but that it would be rather difficult to say that no boy shall go up for the Matriculation who had been educated by private tuition.

In reply to Mr. Hewett, witness said that he would so restrict the number as to allow of a rule that only those who deserve to go up without school education

English and Vernacular in Schools.

should be allowed to do so.

There is a good deal of misapprehension as to the study of vernaculars. In the Bombay Presidency before a boy can begin to learn English he has got to go through the primary school in four standards in the vernacular. That is to say, that for five years he studies his vernacular before he is allowed to begin to learn English. Then he goes to the Anglo-Vernacular School where for three years English is merely taught as a second language, and Mathematics, History and Geography are taught through the medium of the vernacular. So that during eight years he is learning the vernacular continuously, and during the last three of these years he is learning English as a second language. Then he begins the high school course in which English is the medium for instruction in the different subjects. But even during the high school course he still goes on studying his vernacular, in so far that he does vernacular translation even though he takes up a classical as his second language. Six is approximately the age at which a boy begins the eight years of his study through the medium of the vernacular, so that he is 13 to 14 when he begins to learn through the medium of English. The high school course lasts four years.

Boys often continue their vernacular studies up to the fifth and even the sixth standards before entering the High School. A boy learns his English quicker after being properly grounded in the Vernacular. Witness had not observed any difference in the careers of boys who had and had not gone in for this longer vernacular education. It is no doubt an advantage.

The University might institute a degree in teaching provided a satisfactory College of Pedagogics was first established.

Instruction and degree in teaching.

A training college for secondary teachers is an urgent need apart from any idea of degrees; at this moment the primary are better than the secondary teachers. Although the secondary teacher may be a graduate he knows nothing of education and learns at the expense of his boys, whereas a primary school teacher has been one, two or three years in a good training college where he is taught the science and practice of education. There are four large colleges of this class and one minor one. A primary teacher takes the boys for the first five years, and a secondary teacher for the next three years.

There are no University regulations controlling the transfer of students from one college to another, but the colleges are bound by the grant-in-aid rules of the

Inter-Collegiate Rules.

Government. There is nothing very wrong about the migration of students from one college to another, at the same time the position may not be altogether satisfactory. No *Dakshina* Fellow should be allowed to transfer his Scholarship for one college to another without permission. The University should have some authority in the matter of transfers, and the question ought to be looked into.

The cost of the Elphinstone College for 1900-1901 was Rs 79,273 (page 9

Cost of the Elphinstone and Deccan Colleges.

of the subsidiary form in the Director's report). The cost of the Deccan College was Rs 64,345. The fee receipts of the Elphinstone College amounted to Rs 34,476, and the fee receipts of the Deccan College to Rs 13,320. The Elphinstone College has Rs 13,204 from endowments, the Deccan College only Rs 105. Therefore whilst the provincial cost of the Elphinstone College in 1900-1901

was R23,611, the provincial cost of the Deccan College amounted only to R47,508. Even making allowances for the endowments the Deccan College costs very much more, because the number of students is not so great and the fees are very much less. In the Elphinstone College the fees are R120 a year and in the Deccan College only R80. There are special reasons for this. One is that the Deccan people are poorer than people in Bombay, and another that the Department tried to raise the fees in the Deccan College to R100 a year, but in consequence of a great petition made to Government they were again reduced to R80.

On the 31st of March last the total number of students in the Elphinstone College was 300, and in the Deccan College 176. The figures are to some extent abnormal because of the plague. The reason that no fees are charged to students for the M.A. degree is probably because they do not get regular tuition.

The best University candidates have a better chance of getting good University degrees and Government appointments under Government than the inferior ones. There have only been two Provincial competitive examinations, one was held last year and the other two years ago, and in both cases the results were in striking agreement with the results of the University Examination, that is to say, the best men out of the University got the appointments. In the ordinary distribution of patronage it has been the custom for the authorities who employ graduates to look upon them as graduates merely, and not to enquire whether a graduate has taken a first class or what his marks were. They think that all graduates are equal.

Many people come to the University merely in order to get into Government employment. One could not get a much better test of a man's general education than by means of a degree, and therefore the Government may safely in the first instance take a graduate as more properly fitted to be employed than a non-graduate. This use of the University has not interfered with its work except as regards the Entrance Examination.

Witness does not approve of the study of law being an optional subject in the B.A. course. It saves one year of study for those students who intend to proceed to the LL. B., but at some expense to the efficient working of the University.

There is a certain amount of cramming in every school, and this will be the case until there are more intelligent teachers. In this country the seeds of cram are sown in very fertile soil. The English boy hates to commit anything to memory, whereas the native of this country, being more studious, will learn a very great deal by heart. The real remedy for cramming is sensible examinations and trained teachers in schools. Even for advanced examinations people will cram all the world over. Candidates cram for the Indian Civil Service; witness crammed for his degree. At a certain period there are certain things that the candidate must commit to memory, and he must put on a spurt and try and extend his mind to grasp a large number of matters at once. When the examination is over and the strain removed, much that is learnt in this manner fades away.

In colleges there may be a tendency among some Professors to be more mechanical in their teaching than they used to be, but witness has not much experience in this matter. As regards schools, the teaching has distinctly improved, and many High Schools are in a very different state to what they used to be five and twenty years ago. On the whole there are better classes, taught by more educated men, and of late years these educated men have begun to pay some attention to the theory and practice of teaching. Departmental examinations have been instituted and no man can be confirmed in the service until he has passed this examination. For several years the Department has been drawing the attention of high school headmasters to books on education and to newspapers published in the interest of education. The system of inspection has also been improved. An Inspector now goes to a Government high school and stays there for two or three days hearing lessons given. He

discusses with the teachers and with the head-master the weak points in the school, tests for himself how the work is being done in the various classes, and gets far greater insight into the work of the school than when, under the old system, he assigned so many marks to each boy for English and so on. All that has tended to raise the tone of schools. The aided schools generally are very nearly as efficient, and quite as efficient in many cases, as the Government schools.

Witness does not endorse the opinion expressed by some witnesses that the University product is inferior to that of 20 or 30 years ago. There are always certain men who spring up and become prominent, such as the late Mr. Justice Ranade and Mr. Telang. Then people point to them and say: "look at the scholars of former days." The best young men of to-day will in a like manner exhibit prominent qualities. Considering that the University has turned out one senior and two high Wranglers within the last three years it has not very much reason to lament the quality of its graduates. On the whole the graduates of this University are quite fit for the positions they have to fill in afterlife. They are well-mannered and well-educated, and make excellent public servants.

WITNESS NO. 30—MR. MACDONALD, M.D., B.S.S., C.N., Professor of Biology, Elphinstone College, Bombay, and Registrar of the Bombay University.

About one-third of the candidates who go up for the Entrance Examination are private students. They are much less successful in passing than those who go up from schools. It is very desirable that there should be some change in the present rules.

The election of fellows leads to a great deal of canvassing. It has become an expensive affair. Witness could not give any idea of what the expenses amount to. Charges are incurred in postage and other incidents of canvassing. Carriages and posters are an item, but they are not often used in University Fellowship elections. Electors resident in Bombay have to come to the University to vote. The University has not taken any notice of the canvassing.

About 1,000 candidates go up for the School Final. The matriculation has varied from 3,000 to 3,600 during the last five years. A very small proportion of the candidates go up for both. During the present year the expenses of conducting the School Final have exceeded the fees. It would be no loss to the University to give up this examination.

The places in which candidates are examined are very far from satisfactory. An examination hall or building is much needed. At present candidates are examined in *mandaps*, temporary buildings made of bamboos.

The examiners decide where practical examinations are to be held. They choose a place where they can have the convenience of a laboratory. The University is not convenient, because appliances and materials have to be brought to it. The fees for practical are higher than the fees for theoretical examinations. There are special fees for the B. Sc.

Ever since the fiasco that took place 15 years ago, the system adopted has been to print the papers on the day they are set. They are taken to the Government Central Press, where the printers, compositors, etc., are shut in, and no one is allowed in except the examiners. In the case of examinations in mufassal centres the printing of the papers is done synchronously. After prints are taken the type is broken up. Centres of examination are fixed, having regard to whether there is a printing press or not. The six copies for the centres are sometimes typewritten and sometimes written by hand, but in either case the work is done by the examiner himself. The papers are taken to the press by the Superintendent or sent by special messenger in a box with a Chubb's lock and the key is sent in a separate packet sealed and registered.

Since these precautions have been taken, there has been no reason to suspect anything wrong.

After the examination the marks are brought to the Registrar's office and tabulated there and the results declared by him at a meeting of the examiners who check the figures. If any slip is made, it is checked at the meeting.

Marks.

There is the following special instruction about grace marks: "The Syndicate have decided that the system of grace marks should be done away with. Examiners who are colleagues in marking are to meet and consider before finally sending their marks to the Registrar, whether in any particular cases candidates should or should not pass in any subjects, as the final decision rests with them."

In cases of failure to reach a particular total by a fraction only, the fraction is made into a round figure so as to pass the candidate. When a candidate has failed in one subject only, but in the total number of marks has attained the second class aggregate, a vote of two-thirds of the examiners present at the meeting may allow him to pass. That is either a rule passed by the Senate, or part of the instructions which issue to examiners from the Syndicate. The number of those who get the privilege of this rule has been very small; in some years none at all. Witness has not known of a case in which the indulgence has been refused.

The library has just been re-arranged and printed catalogues issued. (Witness presented copies to the Commission.) The library is available for the use of Fellows and persons recommended by two Fellows. The library is chiefly used by students who are reading special subjects, such as History or Languages. Two or three students read there every day. Not many Professors use it. Books are occasionally lent out to Fellows or Professors who wish to have them for special purpose.

The Library.

Witness strongly supports the recommendation that the M.B. degree should be substituted for the L.M.S. which is not recognized as the equivalent of the home M.B. degree. The course ought to be revised and a higher qualification in Arts required. The L.M.S. should be abolished and the M.B. with higher qualifications required in every case.

M. B. Degree.

WITNESS NO. 31—MR D. D. DAVAR, Barrister-at-Law, Acting Principal, Government Law School, Bombay.

The Government Law School.

For the first LL.B., the average number of students is 150 and for the second 200 a year. First LL.B. students are taught at other places besides Bombay.

All students of the first year attend lectures at the same time. The higher course is divided into 2nd and 3rd year students who have different sets of lectures. The school is an evening school. Many of the students follow various occupations during the day. A better education could be given if the school were a whole-time one. This matter was considered by the Committee which sat on the school and they decided in favour of an evening school. The fees charged are Rs 35 a term. There are two terms in the year. Since 1898 there have been a Principal and four Professors for the 2nd LL.B. classes and a Perry Professor with an assistant for the 1st LL.B. class. The school is self-supporting. The salary of the Principal is Rs 350 and of each of the Professors Rs 300. The salaries are fixed, they do not depend on the fees. The school has had a surplus, which is devoted to giving prizes to students.

Each Professor and the Principal delivers 60 lectures a year. If a 2nd LL.B. student attends all the lectures, he receives 150 hours of instruction a year, for two years. The form of certificate which the Principal has to give to the students is merely one of physical attendance. Whether the student follows the lectures or not is immaterial to the granting of the certificate. Principals of other Colleges have to certify that the students have been of good conduct

Defects in the System.

and are permitted to present themselves for examination. The Principal and Professors ought to be authorised to hold a test examination at the end of each term in the subject of the lectures, and unless the student shows that he has followed the lectures, he ought not to be entitled to a certificate. At present they cram and take their chance at the University Examination; some go up 8 or 10 times and then pass. Class examinations are held. But out of a class of, say, 200 students only about 15 attend the examinations. There is no time to put questions each day on the subject of the previous day's lectures.

In an evening school it is impossible to give efficient legal education of the nature required by the University curriculum. The text-books are unsuitable and the time for their study is much too short. For the 1st LL.B. the prescribed subjects and text-books are enumerated on page 545 of the Calendar. For these the student has 60 hours' lectures and 50 hours' tuition. For the 2nd LL.B. the text-books recommended are enumerated on pages 545—547 of the Calendar. With very big and difficult books, such as "Smith's Mercantile Law" and "White and Tudor," the student does not know in what he will be examined. Last year many passed, the year before the results were unsatisfactory. One cannot, however, judge the results by the number of applications sent in. Many send in applications who never appear, and if a medical certificate is submitted, the fee is allowed to stand over. In the last examination 261 applied for permission to appear, 45 did not appear, and of the 216 who did appear, 142 passed.

If the Principal had the right of holding school examinations on the subjects of the lectures, and if students were informed that their certificates would be withheld if they did not pass the examinations, then the students would attend to the lectures. Mr. Justice Chandavarkar said that under the existing rules the Principal might do this, putting his own interpretation on the word "attendance." Witness did not think that this was the case. The President considered that the point was arguable. Witness has asked the Director of Public Instruction to put the matter before the University. The Government called for an explanation, through the Director of Public Instruction, as to why the result of the 1900-01 examination was so very unsatisfactory. Witness was asked to send a report, and state in it the drawbacks in the constitution of the school and the disadvantages under which the Principal and Professors labour. (With the permission of the Director, Mr. Davar sent copies of this report for the use of the Commission.)

The Principal and Professors have not much to do with the students except in the class room. They invite students who have any difficulties to come to them for further explanation, but very few take advantage of the offer. Except the first LL.B. candidates and some who are reading for the M.A., the Law students have severed their connection with the University. There is a very good Law library open to the students, and a certain percentage of them take advantage of it.

They have no debating or other society. The Government Law School itself is a guest of the Elphinstone College. The school has no strong corporate existence. There is a visiting Committee and the Professors occasionally meet in the Principal's room. Members of the visiting Committee sometimes come into the class room, but witness does not know whether they pay any attention to the lectures.

The evening lectures are insufficient. If the Law School were a day school, there would be more lectures and students would be able to complete their studies for the examinations in a shorter period say two years. They would not be employed elsewhere and could devote all their attention to the study of law. A great many of the students are now earning their own living. Mr. Justice Chandavarkar doubted whether it would improve matters to convert the school into a day school. It would not be possible to get good whole time Professors and the cost would be greatly increased. Witness said that he knew that there were objections, but he nevertheless considered that a day school would be much more efficient. There would be fewer students, but they would be of a better class and *bona fide* students of law.

Students who are going up for the examination read their text-books and work at home. A student could not by learning up a small manual pass examinations such as are held by the University. Students do not read "White and Tudor." Some of the cases in the book are studied and short notes have been published.

UNIVERSITY OF ALLAHABAD.

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ERRATA.

Page 65, line 11.—Insert the words "opposite Allahabad" after the word "Ganges."

Line 13.—For the words "teaching Sanskrit" substitute the words "examination by the Sanskrit College."

Line 42.—For the word "Gangadhar" substitute the words "Ganga Nath," and for the word "Pitambur" the words "Patan Rai."

Last line.—For the word "has" substitute the words "would have."

Page 66, lines 12 to 14.—For the sentence "while a Kayasth or Chamar can get education, Brahmins are debarred from the benefit of higher education simply because they cannot pay for it," substitute the following:—"there can be no objection to high education being given to any one, not even to a Chamar, but the system is open to objection which places the bar of high fees in the path of poor Brahmins."

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WITNESS NO. 1.—MR. A. VENIS, M. A., Principal of the Queen's College,
Benares.

Witness presented a printed statement (paper No. 1 in Part II) which he read.

It is necessary to draw a distinction between the difference in the acquisition of knowledge sufficient to read the literature of the English language and that other acquisition necessary to write correctly. Students should be able to read English fluently, but the best kind of men are often hampered by being required

English as a medium of instruction.

to write in a foreign language. Witness was once obliged to pluck one of the best men he had ever examined in Philosophy. This man was not one of his own pupils, nor did witness know who his teachers were, but he came up at the University of Allahabad for his B.A. in Philosophy. Witness looked at his paper and found the English would not construe. He thought he should be able to dismiss him quickly, but a casual remark led witness to question him and he found that English was the difficulty. When he questioned him in the vernacular witness found was proficient in both oriental and western Philosophy, but he had to be ploughed, because he could not answer the question in writing. An examiner ought to be able to put questions in the vernacular. If a man comes out to this country as a professor and it is understood that he is to stay here for 5 or 10 or 15 years, he ought to consider it his duty to learn the vernaculars for the purpose of understanding answers to questions. He diminishes his own usefulness when he demands a certain linguistic test from his pupils from which he safeguards himself. There are of course difficulties in the way of such a course. Dr. Bourne pointed out that one man could not be expected to know the five or six languages of Madras. Mr. Lewis said that the difficulty would be less in the United Provinces and the Punjab, but asked whether the system would not tend to the neglect of English. Witness replied that he would not touch English as a language. Dr. Mackichan observed that in Bombay students would prefer an examination in English. Witness said he had met men in the United Provinces who had said that English had become to them practically their mother-tongue, but a good many who made that statement were not men of the widest mental capacity. A great deal has been sacrificed to the linguistic knack. There may be good philosophers who are bad linguists and they should be considered. On the other hand is the evil of students being forced to cram notes, etc.

Philosophy is a more difficult subject to give expression to in English than History and some other subjects, because a student has to struggle with the thought and then has to give expression to that thought in English. A subject like Political Economy would come very much under the same category as Philosophy, so would all subjects in which Metaphysics are involved. The matter is therefore of special importance in the case of Philosophy.

Witness suggests that a man might be required to write a certain number of answers in English and allowed to do as he pleases with the rest. Students at present seem to understand the text books, but are not able to express their thoughts in English. This is only natural. Witness writes German, but he should not like any one to read his answers in German on any subject. In England, when they were asked questions in German or Greek Philosophy, they were not asked to write their answers in these languages but in English. English is a classical language for the people of the United Provinces. It is not exactly even what French or German is to Englishmen. If what witness suggests were carried out, certain ideas and symbols would have to be expressed in English. English words are being continually drawn into the vernaculars. Where, however, there is a good equivalent in Sanskrit, that might be utilised.

After reading his written statement relating to this subject witness in reply to a question put by Mr. Justice Banerjee

Sanskrit.

said that a Sanskrit grammar written in English, like Macdonald's book, might do very well for a beginner, but such

books are too expensive. Macdonald's new work costs 8s. 6d., which is prohibitive. Also it contains no exercises, nothing in the way of drill, which is what boys need. Professor Bhandarkar's works are on the right lines, but demand too much at the start in the way of grammar. After three or four years a Hindu boy should be able to read easy Sanskrit. Replying to Dr. Mackichan, witness said that they are far ahead of Allahabad in that respect in Western India. It is not asking too much of a boy to study his vernacular, English and Sanskrit, because in the case of Sanskrit, a Hindustani or Bengali boy has little to learn in the way of vocabulary. Then again the structure is very much alike in these languages. To a Hindu boy in the middle school Sanskrit does mean what Greek means to an English boy in a preparatory school. In the middle school Sanskrit should be taught through the medium of the vernacular. Beautiful and easy aphorisms may be learnt, but boys should not be burdened with the theory of grammar. Such a simplification of the school course would make the subject more popular.

With reference to the objection taken by witness to the assigning of numerical values to questions, Mr. Justice Banerjee observed that the system was rendered necessary by the large number of examiners, without it there would be fluctuations of standard and injustice. Witness said that he felt that they still worshipped number as if there were something in number itself. Witness was once associated with an examiner in a translation paper from the vernacular. It was a piece of about 30 lines of printed matter to be translated into English. The other examiner took some of the papers and witness took the rest and when they came to compare their results they differed. His friend had parcelled out the passage into small paragraphs and eventually into sentences and in the margin he had entered his marks for each sentence, and he gave marks accordingly first to each sentence, then to each paragraph and then to the whole. These men had, however, to be plucked on the ground that the translation in English did not convey anything like the sense of the passage in the vernacular. Whenever this examiner considered a sentence was somewhat difficult and had been fairly well done he gave the candidate $1\frac{1}{2}$ marks, and somewhere else he gave him 1 mark and when all these were added the boy got the 15 he required to pass, although the passage as a whole was not correctly rendered. Witness was once associated with an examiner in Philosophy who followed much the same course, that is to say, when he thought a candidate did understand something about a question he gave him some marks for it, whereas witness trusted to his general impression of the whole paper. To witness the whole of a paper is of more importance than its aliquot parts. (Mr. Lewis observed that the instance given was one of incompetence, even without the mark system a bad examiner would not do well.) Examiners do not really try and get at the root of the matter. They are not agreed as to what a good answer is, and therefore try to get out of the difficulty by marks.

President.—Justice requires that whatever be the principle, numerical or otherwise, all examiners should follow it. Otherwise it is not fair to the candidates.

There is no system of consultation between Examiners in the Allahabad University. It is not necessary to have more than one examiner for each paper and therefore all candidates have the same chance. But no attempt is made to get to the truth of things.

Witness read a statement on courses of study in Philosophy and Sanskrit, compiled from the University Calendars.

Courses of Study.

He said that he preferred that text-books should be prescribed. In Philosophy the works of original authors should be set rather than books giving an account of several systems.

Witness did not quite understand what teaching University meant in this context.

Teaching University.

President.—The question is whether under existing conditions you think it is desirable that a University should be empowered and encouraged to undertake

directly the teaching of any of the higher subjects by the establishment of chairs or central lecturers and laboratories, so as to supplement the work done by the colleges.

The suggestion to have University professors for the teaching of M.A. subjects or subjects of higher science does not seem to be practicable. It is not clear how such professors could be differentiated from college teachers. The guidance of students in the higher branches of their studies does not require University professors. For instance in Benares if a man wanted to take Honours in the M.A. in Sanskrit he would have the advantage of the Sanskrit College, and of the European methods of teaching in the Queen's College. The Sanskrit College could not be moved elsewhere. There are three colleges in the United Provinces affiliated up to the B.Sc., and the Muir College teaches for the D.Sc. These colleges would seem to be sufficient for the purpose.

Witness would, however, have no objection to the Act of Incorporation of the University being altered and amended, so as to enlarge its scope and make it possible for it to establish professorships in any subject, according to the necessities of the case.

All affiliated colleges in Allahabad are not subject to inspection, only those on the Science side. According to a new scheme which has come into operation, gentlemen are deputed by the Syndicate to undertake the work. Mr. Wood of the Canning College and Mr. Hill of the Muir College are the gentlemen this year appointed for the purpose. They are members of the Syndicate, Fellows of the University and members of Faculties. They have been asked to inspect all the colleges seeking affiliation in Science. Witness does not know whether they have power to visit colleges already affiliated. They visited those colleges that had applied for affiliation. No attempt is made to keep the affiliated colleges in general up to the mark. As head of a college witness would welcome the rule that every college appointing a teacher should submit his name and qualifications to the University.

Inter-collegiate lectures would depend on the scale of fees being equal in two colleges, otherwise advantage would be on one side. The Government charged Rs. 8 for a candidate in the intermediate class; elsewhere it might be Rs. 3. If students from other colleges paying Rs. 3 a month were admitted to lectures at the Government colleges and got their own lectures besides, the tendency would be to stream out of the more expensive college into the other. The difficulty as regards the fixing of hours for inter-collegiate lectures might be got over. At present there are too many lectures; students have five hours' lecturing every day. Some of this work is tutorial.

There is no tutorial work out of class. It would certainly be an advantage to introduce something like the tutorial system of Oxford. It would probably mean a reduction in the daily grind of lectures and would also admit of a student being put under a tutor who would take charge of his whole work, see that he understood his lectures, assist him in any genuine difficulty and set him exercises. The subjects are too numerous.

The fees in the Queen's College are Rs. 8 in the Intermediate, Rs. 10 in the B.A. and Rs. 12 in the M. A.—*i.e.*, 12 times 10 for the year.

Witness and his staff meet and talk about the men under them. The college holds frequent examinations and the system of class exercises is in force. There used to be a system of monthly examinations, but that has been given up.

The tutorial system would mean a very great deal of work. Taking English by itself in a large college the work would have to be taken up by the English members of the staff and each man would have a large number of pupils. Regular class exercises would mean heavy work. The college would certainly want a composition teacher and one would probably not be enough. There are 80 students in the college.

Promotion to the next class does not depend upon class exercises. There is an annual examination for that purpose. In the Intermediate every man is

sent in for the examination [except in the case of persistent idleness or misconduct.

The Syndicate might be made more representative. That does not necessarily mean making it larger. The Queen's college is represented *ex-officio* on the Syndicate. Some colleges are not. A larger representation of Colleges could be secured by rotation. All five members elected to the Syndicate by the Senate belong to the Muir College staff. This has not always been the case. There is no tendency to elect non-educationalists. There is no rule about residence. There are two members of the Law Faculty on the Syndicate. The Statutory Syndicate has worked well on the whole. There is no canvassing for seats on the Syndicate. For the Fellowships there is canvassing of a somewhat undesirable kind.

WITNESS NO. 2.—MR. W. KNOX JOHNSON, M. A., Professor of English literature and Logic Queen's College, Benares.

Witness presented two papers—one on the standard of English at the Matriculation and (Paper No. 2 in Part II) the other on the B. A. course (a copy of this pamphlet is in office).

Witness said that in the two papers he had really only three points to refer to. They were dealt with in much greater detail than they would have been dealt with if the second of these papers had been written for the Commission. But it happened to be in circulation in the Faculty of Arts and was written for the body of Fellows of whom a good many are native gentlemen unfamiliar with the subject of English Literature.

Preliminary observations. The general opinion is that the standard of Matriculation English is too low. The standard of pass marks varies considerably. In Madras the pass marks required are 40 per cent. The difficulty of the questions does not seem to vary very much. Witness referred the Commission to the table in his printed statement which gives the proportion of marks assigned to English at the different Universities, the nature of the test and the pass marks required.

Matriculation in English. Text-books are not changed every year. For instance, Goldsmith's "Deserted Village" has been on for six or seven years with the exception of one year when the "Traveller" was put on instead. Candidates will not be the worse for it if they learn the text by heart, but the learning by rote of notes and explanations would not seem to be very educative. A good many cram books are in existence, though they are strictly forbidden in the schools. Questions on analysing and parsing do not lend themselves to cramming, because a man cannot tell what sort of a sentence is going to be set, whereas answers to questions on the technicalities of grammar can be learnt by heart. Analysis, on the other hand, is a mental exercise. The objection to an essay is that if a student learns up a few sentences of a short essay on a certain range of subjects, he stands a very good chance of one of these subjects being set, as for instance to describe a journey or a visit to a friend or some subject of school-life. They have to deal with men whose memories are not perhaps very good, but who, at any rate, rely a great deal on them. It is a very severe test for a boy to write an original essay in English, though it is a very valuable test when education is sufficiently advanced. Of course a Matriculation student should be able to write a little correct English, but the test for that can be secured by means of translation rather than original composition. The range of suitable easy subjects is very small, and the papers show that the subjects are of a constantly recurring type. The paraphrase test is much too difficult for United Provinces students.

The pass marks should be raised for the sake of the colleges. The college classes are kept back by men who do not know English enough to follow a subject in which English is the medium of instruction.

There should be a *viva voce* examination. In some Universities where the number of candidates is very large *viva voce* may be difficult to arrange, but in the Allahabad University where there are only about 1,700 candidates it is not difficult. If the candidates number 7,000 or 8,000, the University ought to be sufficiently wealthy to appoint a very large number of examiners to go round to the different schools for the purpose. It is only a question of funds. There would not be want of uniformity in standard if the examiners were men of the same experience and knowledge. The difficulty of a large number of candidates may also be got over by examining only those *viva voce* who have passed in all other subjects.

Witness has no objection to the system of setting a passage for re-translation which has been translated from English. The examination should be held by Indians under the supervision of a European.

Remuneration of Examiners. Rs. 20 is given for setting an Entrance and Rs. 100 for setting an M.A. paper. The latter requires higher qualification. The former is not very difficult for a man accustomed

to the work. The Entrance Examiner's fee is also greatly raised by the number of papers to be examined.

Witness referred to his second paper and said that it appears to him that English Literature, which is made by far the most important subject in examinations, has not been justified by results. What was expected of English Literature has not been obtained. English Literature has failed for two reasons : (1) the people of the United Provinces do not know English well enough to understand the actual text in front of them, and (2) the subject is too remote from them. It assumes a knowledge of the West which does not exist in the minds of the students. On page 20 of his statement witness gave as an example the text of Milton which cannot be understood by students in the United Provinces, partly on account of the English, partly on account of the subject and treatment. Keats is an example of a text which although written in modern English is of too highly an imaginative a nature to be understood by boys who are at the stage at which the University gets them in the B.A. classes. This is dealt with in detail on pages 29 to 33 of the statement. The remarks on pages 34 and 35 deal with the subject of Literary History. It is not sensible to expect boys who cannot read a line of ordinary simple English to know anything about Spencer's " Fairy Queen " or Bacon or Dryden.

On page 39 is discussed the present length of courses. Instead of a short and difficult course with Milton, Keats and Carlyle, texts not easy to even a great many Englishmen, there should be a longer and more simple course which would not require to be lectured on line by line and which would gradually familiarise the students with the actual English language now in use. At present the boys have a large vocabulary, but do not know when to use the right words in the right places.

With regard to History the same difficulties do not arise. (1) The style of History is much simpler and is more like the kind of English students meet with in their other subjects. (2) History does not take so much for granted. A boy begins at the beginning and the teaching of History imbues him much sooner with western curiosity, western knowledge of the past and the desire to explain the present by it. Students ought to have just that kind of knowledge which History imparts. It must be remembered that they have no means of acquiring general knowledge outside the actual instruction they receive.

Instances of the kind of books that might be read are given on pages 9 and 10 of the statement.

Mr. Justice Banerjee asked whether these books did not also take for granted a good deal of knowledge which the students do not possess. Witness said that it is knowledge of a kind that can be more easily supplemented by the lecturer. The English course should consist principally of History on the one hand and the best fiction on the other. Novels take for granted a knowledge of the English or other society from which the characters are drawn, but there again a novel is essentially a thing which can be supplemented by the lecturer. Novels would have to be very carefully selected. One or two novels have been prescribed, such as " Esmond ", " Westward Ho " and " The Bride of Lammermuir. " Such books interest the students, and that is the great thing. Texts like Milton or Keats or Wordsworth do not interest the average students. They might be included in optional courses for the best men. If one legislates for the best men, one runs a danger of going entirely over the heads of ordinary men. The Allahabad University does not succeed well enough with ordinary men. The level is considerably below that of Madras or Bengal and probably of Bombay.

In the first place, the students must study contemporaneous English. Their University education after all is only introductory and should be designed to fit them for after-life. The central object in teaching English is to get students into touch with western modes and customs. The student should be in a position to have ready access to western books. Whether he expresses his thoughts in very good English or prefers to write in the vernacular is after all a minor point.

WITNESS NO. 3.—MR. GOVINDA DASA, Vice-President, *Nagari Pra-charini Sabha*, Benares.

Witness presented a written statement to the Commission (No. 3 in Part II) on which he was examined.

He premised his observations by observing that Mr. Venis had stated that Indian students should be examined in the vernacular in Philosophical papers. Without going into details witness would say that the Sabha would much prefer that the examination should be in English.

It is only for the post-graduate courses that a Teaching University would be practicable. French and German ought to be made compulsory for advanced students, because some of the best work is done in continental languages.

Witness on the model of the Madras rule would like students after 25 years of age to go up for the B.A. without any term certificates being required from them. A similar rule should apply to F.A. candidates who have matriculated four years back. The rule would be specially useful for grown up persons living at a distance; for instance teachers. The rule should be confined to grown up students.

Witness also approves of the Madras rule allowing students to pass the B.A. by compartments. Witness does not agree that it would enable weak students to pass or that it would not be so good a test of mental training as passing in all the subjects together. Far from facilitating cram, passing by compartments would encourage more thorough reading. Students should, however, be allowed to take up all the subjects in one year if they like.

Witness objects to centralising Law studies. The University should allow practising pleaders to go up for legal degrees, provided they have the other necessary qualifications. No college could possibly give better training than is to be had by daily practice in court. A college requires two or three lecturers and a fairly good library to be efficient in law teaching. An attempt is being made to centralise law teaching in the Muir College and the Benares College law department has, as a preliminary, been abolished. Practical training is more important than what can be learnt in a college. Law lectures are of very small use, as witness has seen them in two or three Presidencies. With codified laws the study is not difficult. A B.A. who is a practising pleader might be allowed to go up for the law degree. There is a system of apprenticeship—one year after taking the LL.B. It is not a convenient arrangement. A pleader must practise in a District Court before being admitted to the High Court. There is a separate examination for High Court vakils which does not require apprenticeships or attendance at lectures. The candidate must be a B.A.

Up to a few years ago students from all over the country were taken as students into the Roorkee College. It was then ruled that students from Bombay and Madras and other parts of India would not be taken, and the reason assigned was that Engineering Colleges had been started elsewhere and that Roorkee should no longer be treated as an Engineering College for the whole of India. That would be all right if the rule were also applied to Europeans and Eurasians; but they are allowed to come from all parts of India, and the restriction is applied only to Indians. Witness referred the Commission to page 5 of his statement on this subject.

Witness recommended the establishment of a Medical College in the United Provinces. There is a nucleus already in the Agra Medical School which is only in part vernacular. There are two or three hospitals at Agra. The Allahabad like the Punjab University might have examinations in the Yunani and Ayurvedic systems of medicine, which would help to turn out a better class of Hakims and Vaidyas. Registration of these men would be impossible in the present state of the country. The Yunani and Ayurvedic systems are included

in the Faculty of Medicine in the Punjab University and this might also be done at Allahabad. There is a great deal to be said for the inclusion of Homeopathy. There is a well-known Homeopathist, Dr. Mahendra Lal Sircar, on the Faculty of Medicine in Calcutta. [The President said that on account of difficulties he had to be transferred to the Faculty of Engineering.]

With reference to his proposal for a diploma in Agriculture, witness admitted, that there are not many students in the Cawnpore School of Agriculture.

Agriculture.

Merely theoretical instruction is not enough. There is not much real practical teaching at the Teachers' School, Allahabad. [Mr. Lewis said that there is a good practical course from the Primary up to the Entrance.]

Instruction of Teachers.

There is no harm in the Calcutta University affiliating colleges in the United Provinces. If a college wants to be affiliated to some other University, there must be some defect in its own University. The Calcutta University examinations are not easier than those of Allahabad. There have not been many cases in which a college in the United Provinces has preferred to be affiliated to a more distant University. Some colleges, such as St. John's College, Agra, are affiliated to two Universities.

Spheres of Influence.

Senate.

The present number of the Senate is 106. Witness suggests a small increase to between 125 and 150.

When the Syndicate consists of a sufficiently large number it can be broken into sub-committees, and routine work can be made over to them. The Allahabad Syndicate has been increased from 19 to 20 by the inclusion of an educational representative from the Central Provinces.

Syndicate.

Witness is opposed to an age-limit. There is no harm if a boy is capable of passing his examination at 12 in allowing him to go on with his studies in college. There is not much difference between college life and life at school in India, because it is largely tutorial work both in schools and colleges. Witness has known some cases where boys of 12 have gone into college and done better than their class fellows. There are very few cases of boys of 12 passing the Entrance. If the University were centralised, the matter would be different. It would be disastrous if a boy of 12 were left adrift by himself, but if he can stay with friends there is no reason why he should not attend college. Instances of the kind are so few that witness does not believe there is a sufficiently strong case made out for the interference of the University. Witness has traced the history of one of the boys who had passed the Matriculation examination at 12. He took his M.A. very well and is one of the brightest scholars which the Calcutta University has ever turned out.

Age-limit.

One of the unsuitable English text-books witness refers to in his written statement is "Mary Queen of Scots." It is one of the worst books that could be prescribed. It contains all sorts of intricacies and obsolete words which even a European teacher has to look up, and although it may be a very good book to prescribe for grown-up boys to read, it is a very bad book to teach school boys.

Teaching of English.

The present school classes are generally too large, and unless each boy is made to speak a few words of English each day with his teacher, there is no chance of his ever getting a colloquial knowledge of the language.

Latin and Greek may retain their place as voluntary subjects, but should not be made compulsory for Indian students. The very small amount of Latin necessary for a medical student might be picked up in three months.

Latin and Greek.

There is a need of good books for beginners. A book on the lines of Professor Blackie's Greek manual would improve the vocabulary of the students and give them some power over the language. Dr. Bhandarkar's books are not very

Sanskrit.

good. The selections are haphazard. Vidyasagar's manual though good is too advanced for beginners.

Students in Oriental colleges do not get a proper general grounding. If a student elects for *Naya* or grammar he confines himself to that particular subject without getting a sufficient knowledge of the language to enable him to understand the books. He cannot read ordinary Sanskrit. This is not a new method introduced by the University. It is the traditional method of study. New light is required. Among hundreds of Pandits hardly any succeed. Only a man of great ability can fight successfully against the dead weight of the defective method. By following the European methods students can learn more quickly. Mr. Justice Banerjee asked whether admitting this they acquired such depth of knowledge as students trained under the old method. Witness replied that the old class of students cannot manipulate the language or write plain Sanskrit. Witness would like a combination of the two systems. The students should learn grammar and an elementary general course before proceeding to their special study. Benares produces some brilliant students, but the general grounding is not good. Something should be done for the majority. Many are attracted to Benares by the *Chatris*; they come to eat and waste time.

Witness is against the teaching of theology, as it would lead to difficulties between the Professor and his students.

Theology.

Natural theology has led to trouble sometimes. In Flint's Theism there was a passage criticising Hinduism; the students objected to it and succeeded in getting the University to remove the page. Personally witness would retain natural theology, but he would fight shy of theology dealing with revealed religion.

The present system which obtains with regard to the English translation papers is objectionable. A European examiner selects an English piece and sends it to his

Examiners.

subordinates to translate into the vernaculars. He does not understand what is being done, or whether the translation is good, bad or indifferent. The translators are not responsible, nor does the University know anything about the arrangements between the examiner who selects the passage and his subordinates. If an Indian gentleman can be found competent to translate a piece of English into the vernacular, he will be as competent to judge of its re-translation into English as the European examiner. An M.A. of the Calcutta University in English should be able to judge the language of the re-translation. The first objection would be removed if the person who translates the piece of English into the vernacular were made a responsible examiner. The second objection is based upon this, that if the English piece is translated into a vernacular, however correctly the translation may be made from the English passage, it will still contain points peculiar to the vernacular and so, to judge of the merits of the re-translation, the examiner must know not only English but also the vernacular of the passage into which the English has been translated. It would not be desirable to give up this test; but it should be made better. If University instruction is worth anything, an M.A. in English of any of the Universities ought to be a fairly good judge of the English of an Entrance class boy. If not, his degree is worth very little.

There should be various centres for examinations, because a long railway journey before the examination day may ruin a whole year's work. It is also

Examination Centres.

difficult for candidates to get lodgings. The longest journey for examinees is 16 or 18 hours by mail train. It is not desirable to gather together a large number of students, especially when no provision is made for their lodgment.

Supervision should not be unnecessarily strict. No college that is not competent to teach will be able to keep up its number of students. It would be

Supervision of Colleges.

deserted in a few years. Independent managing bodies drawing no salaries for their work should be regarded as fit to be entrusted to maintain the quality of the teaching. There should be a certain amount of supervision, but not over

much. At present the rules of the University are unnecessarily strict. Witness has especially in mind the difficulty which the Central Hindu College had in getting itself affiliated even to the F.A. standard. There was great delay and a good many students suffered, because the University would not recognize their term certificates.

Headmasters would make better Inspectors of schools than Professors who come out as specialists. It is very hard for such men to have to go round from village to village and to learn the vernaculars. They could do much better work in the laboratory.

The *Nagari Pracharini Sabha* is a society for disseminating the Hindi language and has succeeded in inducing the Government to allow the use of Nagari in the law courts. Government recognises the Sabha and gives it a grant-in-aid for research work in connection with Hindi manuscripts and prints its reports.

WITNESS NO. 4.—MR. C. M. MULVANY, M.A., B. Litt., Professor of Philosophy, Queen's College, Benares.

Witness presented papers (No. 4 in Part II) containing suggestions regarding a University course, a general matriculation and the constitution of the University.

Witness would have no Intermediate examination in the three years' course which he suggests; colleges would be required to examine their boys as they do at present in theory at the end of the first year and unless they were then satisfied that a boy had a prospect of passing the B. A. in two years, the boy would have to be kept back. There is difficulty in enforcing the rule at present; some colleges do one thing and some another.

No Intermediate.

The above difficulty would be diminished by the proposal that a college having got a boy should be sure of him for three years. There should be a rule to prevent migration. In the future when something like academical morality has developed in this country, such a rule may no longer be necessary. At present each college has a right to buy up a boy. Provision should be made for cases where parents of boys are transferred to another Province. They would naturally prefer to have their children at the nearest college to them. This might be provided for either by bye-law or by leave being granted in special cases by the Syndicate. A college cannot do much for its students if they are constantly moved about. And if a student knows that any obnoxious restriction can be got rid of by going to another college at the end of the session, no moral influence can be exercised over him. In Oxford migrations are almost unknown, while here boys run about a great deal, and are ready to run about a great deal more. A contributing factor is the superior attraction of lower fees. Many colleges are quite ready to buy up a boy who is likely to do well in the examinations. Witness does not know how far scholarships are given to attract men from one college to another. After the Intermediate is a great time for change. Boys go round trying to see who will offer them the best terms in the way of reductions in fees or scholarships.

No migration.

Witness' scheme does not deal with the Science course. At present in practice a boy has to decide right down in the school whether he will go in for the Arts or Science side.

In the M.A. course witness proposes to reduce the position of Philosophy.

M.A. Course.

There is at present an M.A. course of two years in Philosophy alone. Witness proposes to abolish that and reduce Philosophy to a position subordinate to the study of classics. In the same way in the proposed alternative course English literature is reduced to a subordinate position. It would come in simply as a special subject under History. At present it is by itself a subject, and by far the most popular subject, for the M.A. It is difficult to understand how the courses and the paper set have any connection with education. If witness were responsible for anyone he would not allow him to go through the present course of literary flummery. For instance the passages on page 574 of the Calendar do not seem to have much educative value.

Although witness proposes to abolish migration for under-graduates whom he regards in this country as corresponding to boys of the highest class of public schools at home he should encourage it for M.A. students.

In Mathematics for the matriculation witness proposes to have three papers

Matriculation Examination.
(1) Mathematics.

in each of which the candidate must pass, *viz.*, Arithmetic, Algebra and Euclid; and to considerably reduce the compulsory Algebra and Euclid by way of compensation. There should be two parts in the paper in Algebra; one part (*a*) including quadratic equations with one unknown quantity, and the other part (*b*) carrying the student up to the binomial theorem with positive integral exponents. He would have to pass in part (*a*) only, but if he passed in part (*b*) he would obtain extra marks. This suggestion is taken from the Cambridge Local junior examinations. In reply to a question put by Mr. Justice Banerjee, witness said that he thought the proposed standard in Mathematics is too low rather than too high. It is lower than the present standard.

Part (a) of the English examination should consist of translation into English and dictation. The candidate should be required to get one-third marks

(2) English.

in this part of the examination.

Part (b): (i) set books and repetition, (ii) unseens and grammar. The examination in the set books, apart from the repetitions, should be in the vernacular, and the examination in the unseen passages should consist of translation into the vernacular. All questions on grammar, however, should be answered in English. Similarly in the classical language examination the medium of examination should be the vernacular.

All candidates should be required to take a classical language ; classical language being understood to cover Persian. A suggestion has been made that

(3) Languages.

the University should only recognise as vernaculars Hindi and Urdu, and further that the vernacular as a subject should appear only as one of a number of alternative optionals. Also that it should take the form of Hindi for those students who offer Persian and of Urdu for those students who offer Sanskrit, because it is considered desirable that persons should know both vernaculars in Government service and in many branches of practical life. Witness does not think the University ought at any stage to grant a certificate for excellence in vernacular to a student who does not know the corresponding classical language.

The proposals made by witness with regard to the constitution of the University will leave the Senate very much

The Senate.

as it now is. At present the number slightly exceeds 100. The proposal is that it should be not less than 75 and not more than 100.

WITNESS NO. 5.—MR. RICHARDSON, Ph. D., F. C. S., Principal Central Hindu College, Benares.

Witness read a brief statement (Paper No. 5 in Part II) regarding the aims of the Central Hindu College, which the Commission were to visit on the following day.

WITNESS NO. 6.—MRS. ANNIE BESANT, Central Hindu College, Benares.

The following are the special features of the Hindu College :—

(1) It gives religious and moral training to every boy in the Hindu scriptures. The first lesson every day is a religious lesson, which comprises reading from the scriptures in Sanskrit and the teaching by a pandit in the vernacular of some moral lesson illustrated from a Hindu book, followed by five minutes' speech from the Principal on the virtue to be practised for the day. The college is bringing out, in order to make this more definite, a series of text-books, copies of which will be sent to the Director of Public Instruction. These books consisted of a catechism for the Primary, an elementary text-book for the Middle and Entrance and an advanced text-book for the college students, so that every boy who leaves the college will have a competent knowledge of his own religion.

Religious teaching.

(2) The college gives the best education it can, both literary and scientific. It hopes to gain both B. A. and B. Sc. affiliation in time. In the school, Science is taught to all the boys. The instruction begins with object-lessons.

Instruction.

(3) The third point is cheap fees. The college charges a very low fee to the students and this is rendered possible by the teachers being willing to teach for a small sum, much less than they could get elsewhere, and by contributions from the Hindu public who sympathise with the objects of the institution. On that point, *viz.*, cheap education, they feel very strongly, because the Indian tradition is for free education, and learning and wealth do not go together in India. There is a large class of boys well born and intelligent who cannot afford to pay the fees of Government colleges and the Hindu College aims at reaching them. If they are left uneducated, they grow up discontented and without proper employment, while if they are educated they will become useful servants of the State. The college takes students as they come, but the majority belong to the poor intelligent class. In a Government report the rather curious statement was made that the Hindu College attempts to get the poor and intelligent, while the Government College obtains the rich and idle. There are also some scholarships and freeships. These are only given to boys whose circumstances are not good. The boarding-house fees are Rs. 10 and there are several students whose fees are paid for them. Witness would like education to be free all over the world, but more particularly so in India. There are 72 students in the college, out of which five are free. The remainder pay Rs. 2 a month. There are peculiar features in India which make it desirable that even college education should be made available at low fees. The old habit of learning and poverty going together still influences the whole thought and life of the people and it is, therefore, very important that no difficulty should be put in the way of higher education of men who will be of great service to the State if they were educated, and the very reverse if they are not. Cheap education producing a large number of educated men, would not be likely to engender discontent, for discontent generally arises from the frustration of natural and rightful ambitions.

Fees.

Mr. Mackichan.—And sometimes from wrongful ambitions too?

Witness.—Yes. The danger of discontent, if it exists, might be removed by turning the course of education less in the direction of the learned professions and of Government service, and more in the direction of the products and industries of the country. The strongest existing tradition of the country is that of contentment. For that reason religious and moral training has been introduced into the Hindu College.

In the matter of the religious teaching witness expects discontent from the extreme, but the approval of the moderate. Difficulty would be experienced in the way of imparting religious instruction to a mixed class of students if the

Religious Instruction (continued).

Vedas were chanted before such a mixed class, but that it is not proposed to do. The daily prayers are from the Puranas to which any one may listen. There are a number of Vaishyas and Jains and some Sudras in the college.

The *Sandhya bandan* is not recited in the presence of a mixed class. That is only done in the boarding-house, each boy according to his own family custom. The statement is not true that a Brahmin pandit who had to recite the *Sandhya bandan* objected to do so because he had to do it before a mixed assembly and that resigned on that account. There has been no difficulty of that kind. Such a difficulty could not arise because the *Sandhya bandan* is never recited in public. An Assistant Superintendent who used to keep the accounts, when asked if he would take the *Sandhya bandan*, declined to do so. The difficulty which arose with regard to him, however, was that he was not thought to be entirely honest in the matter of his accounts. The objection alluded to might have arisen because the pandits at first thought that they would have to recite the Vedas in a public place, that objection was sent up in writing, but it was a mere rumour of what they thought they would have to do and not what they really had to do.

It was thought that many difficulties would arise in the institution, but far fewer have arisen than was expected. There are only two boys now who will not join their fellows and these have separate kitchens and separate rations given them which they cooked for themselves. In all such matters the Committee try to meet the feelings of fathers who send their boys to the institution, and very few difficulties have arisen. The question of the Vedas has only arisen since the *pathsala* was located in the college. In the college it is much more private than it was in its former location, where any passer-by could hear the reading of the Vedas. The *pathsala* is an institution founded by the father of the Maharaja of Kashmir to further the teaching of poor students. It had been very much neglected and the Maharaja asked the board of trustees of the Hindu College if they would take it over and supervise the teaching. It has been taken over in consequence. This *pathsala* corresponds in a measure to the Sanskrit College, Benares.

The reason why the Committee of the Central Hindu College desire that
Spheres of influence. no local limit should be placed on the
right to affiliate colleges is that they receive many letters from parents who wish to send their boys to the college because of the religious and moral training, and who also wish those boys to go up to the University of the province to which they themselves belong by birth and association. It is therefore very desirable that a college should be allowed to affiliate itself to more than one University. The feeling of the Committee is that a college ought to be affiliated primarily to its own local University, but that it ought not to be prevented from being affiliated also to other Universities. This would be easier if there were greater uniformity among the Universities.

The Senates are very unwieldy bodies at present time and contain non-
Senate. educationists on them appointed for
diverse reasons. 150 would be about the right number. The changes suggested in the printed note of the Committee* do not imply any serious dissatisfaction with the present constitution of the Allahabad Senate. The Senate has always treated the college very well. The point to which they object is that some Fellowships have been conferred upon gentlemen without any special educational qualification, such men could have the D. C. L. conferred upon them or they might be made honorary Fellows; the great majority of them do not come to meetings of the Senate.

* See Part III.

WITNESS NO. 7.—The HONOURABLE MR. JUSTICE G. E. KNOX, I.C.S.,
Vice-Chancellor of the Allahabad University.

Witness presented a written statement (No. 7 in Part II). He selected the three following points to bring specially before the Commission :—

1. The length of the college course.
2. Economy of power in collegiate teaching.
3. The establishment of hostels and residential colleges.

Witness proposed that the F. A. examination should be held at the end of the first year, and that students should then have three years for specialisation.

University course.

The President remarked that one reason for keeping the F. A. as it now stands is that it is the entrance to the professional courses. Witness remarked that this does not hold good in the Allahabad University. There is no Medical College and the B. A. is required in the case of the B. L. students. Witness is not sure whether the F. A. is required as a qualification for entrance to the Roorki College. The President remarked that it is laid down on page 45 of the Calendar that the F. A. in Allahabad is equivalent to the F. A. of Calcutta. Witness continuing said that he wished the students to have time to turn round and digest their knowledge. Little more than that is needed for the Intermediate. After the Intermediate should begin specialisation. At present there is not enough time for specialisation, and again the Intermediate examination ought to be held when the student is more fresh from school. Further more, when the schoolboy has been accustomed to constant examinations, if he comes up to the college and is not examined for two years, he is likely to neglect his work. Mr. Pedler asked whether if the condition of boys from school were improved, it would not be better to keep the F. A. at its present stage in the course. The witness replied that if the boys were better prepared then they could prepare for the F.A. in less than two years. Dr. Mackichan asked whether it is not desirable to give breathing space after school. Witness said he would prefer to give breathing space in a subject for which the student has some taste. The Intermediate should be held at a later time in the year than the Entrance in order to give full year's instruction between the two.

Mr. Justice Banerjee said that the Intermediate examination proposed by witness is in the nature of a supplementary Entrance Examination to make up for the deficiency in English. He asked whether that would be a sufficient advanced stage at which to begin the specialisation or whether it is not desirable that before specialisation the students should have a comprehensive view of more subjects than at the Entrance. Otherwise the graduate of the Indian University may know nothing of History, or of Mathematics beyond the first 4 books of Euclid with a little Algebra. To prosecute studies deeply in almost any branch of knowledge, he would want to know something more of Mathematics. Witness replied that many persons have not equal facilities for both Mathematics and Classics, they require different qualities of brain. Boys are dwarfed and kept back by the strain of having to pass the Mathematical examination. If one could be sure that the real benefit of Mathematics would be gained by the students, that would be another matter. But witness has examined the answer books and sees that no attempt is made by the majority of students to do anything more than repeat Euclid by rote. Mr. Justice Banerjee said that the F. A. standard of Mathematics is not too hard for any boy to grapple with. The inaptitude of students to grapple with Mathematical problems is partly due to the fact that too difficult problems are given to them at an early stage. Mr. Justice Banerjee asked whether it would be right to give students an opportunity of neglecting branches of knowledge which are of a disciplinary character and go on with those which are not. Witness replied that a good knowledge of Sanskrit is an equally good training and discipline. Mr. Justice Banerjee rejoined that the person who can acquire such a knowledge of Sanskrit will have no great difficulty in Mathematics. It is the inefficient student who hopes to scrape through in a language.

In the time of Sir Antony MacDonnell a plan was introduced to shorten the college course to 3 years adding at the same time one year to the school course. This plan was nearly adopted. A majority of the Senate, including some of the

educational members, were in favour of the proposal. Judging from the Entrance papers witness doubts whether another year at school would bring the students up to the level for a three years' course. In the college they have the advantage of listening to the English Professors and of wider companionship. They are also collected in a few centres where more satisfactory arrangements can be made than in a large number of schools. To a certain extent the colleges do the work of schools and they do it better than the schools can as now constituted.

Reverting to Mathematics witness said that he had been told that they were essential for accuracy. He does not think that accuracy can only be got through Mathematics. In studying under a Sanskrit Professor it was at once revealed to witness that close observation and accuracy were acquired.

Dr. Bourne argued that a reason against witness's proposal is that at the F. A. stage the students do not know what they want to study. They may first take up Mathematics and then change over to Logic and so on. Witness said that the Professor ought to be able to choose for them. Dr. Bourne replied that the students may come from another college.

Witness then read his scheme for a Central Teaching University with hostels belonging to the affiliated colleges.

Teaching University.

He said that at the University centre there practically exists at present only the Muir Central College; the Kayasth Patshalla is only affiliated up to F. A. and the Jumna Mission College is still in embryo. Dr. Bourne suggested that the scheme would mean that the Government should make over the control of the Muir Central College whilst still paying for its upkeep. Witness said that at first Government would have to make large contributions but in time colleges and benefactors would contribute. The Muir Central College would be split up and the higher part of work it now does would be done by the University. Mr. Pedler asked whether the affiliated colleges would not object to losing some of their best Professors. Witness said that they are trying to give instructions in Law and Science which they cannot do efficiently and they should not object to giving up this attempt and contributing Professors or funds to the University. They probably would not, however, like doing this. To take the case of a student at Bareilly as an instance; he may be able to get good Arts education at that college, but his teaching in Law or Science would be distinctly inferior to that which he could receive at the Muir Central College. Under the proposed scheme he would continue to be a Bareilly man, holding a Bareilly scholarship and living in a Bareilly hostel under a Bareilly warden, but he would get the advantage of the better University teaching. If it is not worth while for a single college to have a hostel at the University centre, two might join together. The scheme would be a real economy and would greatly improve the teaching. The small outlying colleges with no representation on the Syndicate and without funds to maintain first class Law or Science instructions will, as railway facilities increase, lose their pupils to a greater and greater extent. The Bareilly College will lose many of its men altogether, and they will become Canning College men or Muir Central College men; but if the witness' suggestion is adopted, they will always remain Bareilly men and will reflect credit on their college. Dr. Mackichan asked whether the Muir Central College could not do this as well as the University. Witness replied that if the Muir Central College were to be so far above the local colleges, it would induce despair and slackness in these latter, which would nevertheless continue to exist owing to the ignorance or affection of parents. A University with separate colleges affiliated to it gives scope to this local affection. The President remarked that centralised Law teaching to the same extent increases the expenses of students and might prevent some poor students from being able to adopt the legal profession. Witness replied that the case of such students should be met by scholarships. Mr. Lewis expressed an opinion that the University should step in and refuse to affiliate colleges in Science or Law which cannot provide proper instruction in those subjects. Thus the student would be left at the beginning of his course to choose a college at which he can get the best education. Witness said that this would in the long run stifle all private attempts. His system enables

the local colleges to provide a good preliminary education and under Mr. Lewis' system they would not try to compete with the Muir Central College. Mr. Lewis said that local benevolence would then be diverted to the improvement of schools and that would be better. As long as the small colleges are affiliated, the benefactors aim at the higher goal and give small and insufficient donations for colleges. It would be much better if they would develop the schools. Witness said that under his scheme a part of the money would find its way to the University. The benefactor would recognise the Bareilly hostel as a link between his own surroundings and the University. The system is one of co-operation instead of competition. It aims at getting the highest University that is procurable without cutting it off from the roots it may have all over the country. Money is at present wasted in colleges by their attempting too many courses. But merely to prescribe courses of study to be maintained by colleges, however, without some system, such as the witness advocates, would cut the local student off from his college and force him to become a student of Lucknow or Allahabad.

Residence in colleges should, in general, be compulsory. An exception should be made in the case of those who are living at home, though even in their case they would do better to go to the hostel. Mr. Justice Banerjee observed that the witness' proposal is that the hostel should be open to all who wish to come. He asked whether the advent of persons belonging to some class might not cause disturbance to persons of other classes already in the hostel. Witness said that that should be left for the hostel. It should not be forced to take in persons of all creeds, but a hostel would probably have greater influence if it were able to overcome this difficulty. It should certainly not be made impossible for Hindus to live according to their customs.

Witness is not cognisant of any evil in connection with the Senate except that there are on the rolls certain persons who might be retained *honoris causa*, but who are not effective working members. Fellows remain on the rolls for as long as four years who are absent in England or America. Some men are retained on the rolls who have even left the University altogether. This is a weakness. Such persons should be put on the Honorary List and their vacancies filled by working members. Benefactors might also be put on the Honorary List. It would not be desirable to go so far as to have an attendance list. The absentee Fellows might be useful, although they cannot attend. It is the people who get out of all touch with the University, who ought to be removed from the Senate. Witness has received great help from Senators who have never been inside the University doors.

No qualifications are laid down for the elected Fellows. No difficulty has hitherto resulted from this. The elections have been judicious. Those independent men who really take an interest in the University are among the elected. Difficulty may eventually arise, but it has not arisen up to the present time. There is undoubtedly canvassing, but it has been for men who are felt to be men of weight. It has not been improper canvassing. Witness has had no experience of election by graduates. It is an attractive thing to give the graduates a voice in the management of the University, but witness would not like to pronounce an opinion about it without greater knowledge.

The objection to terminable Fellowships is that the University might lose good men after five years if they had taken up an unpopular cause. There would also be a sentiment against the change as lessening the distinction of a Fellowship. On the other hand, witness does not advocate the retention of Fellows who can no longer be of use.

The popular element on the Senate is well represented. The majority is educational and official. The popular element would probably come to about one-third.

Witness is not satisfied with the Syndicate. Taking into consideration the difficulty of getting men together it is not too large. The outside colleges are not well represented. Witness always feels that he has not the means of knowing what they think about the questions which arise. There is an opinion that the decisions are one-sided, and that is a grievance which should be removed. The outside colleges are not adequately represented first, because they are in the minority and, secondly, because they are at long distances from the University centre. Witness is in favour of an attendance rule for the Syndicate, *ex-officio* members being excluded from its operation. The business is done by argument and vote. There are, as a rule, substantial majorities. If some outsiders were present, the questions would not probably be decided differently, but people would be more satisfied. Their presence would no doubt tend to lengthen the meetings. Witness is not cognizant of any antagonism between the Syndicate and the Senate. There has been a difference of opinion in one or two cases. Practically the Senate recognises what the Syndicate proposes. There are two Law Fellows on the Syndicate who represent the popular element. Mr. Justice Banerjee asked whether there should not be one or two members on the Syndicate to represent the students and their parents in matters with regard to which they are specially interested. Witness replied that no such want had been felt: there are some members on the Syndicate on whom reliance can confidently be placed for knowledge regarding the views of students and their parents.

The examiners are appointed by the Faculties, and the Syndicate confirms the appointment. The Syndicate merely accepts the list. No difficulty has arisen about the examiners.

The names of examiners are not published. That is a wise precaution. Students do not always succeed in discovering the names of the examiners. Mr. Lewis said that in this University the Board of Examiners go through the papers and moderate them as they please; they are therefore responsible and not the examiners.

There is no real talk at present about the Faculty of Medicine.

It has never been reported to the witness that the Faculties have not sufficient power. They cannot finally decide matters. This has never been mentioned as a grievance or weakness. It has sometimes happened that technical recommendations of the Faculties have been set aside by the Senate, but that is a matter of very rare occurrence. Matters are sometimes referred back by the Senate to the Syndicate.

All students should have some knowledge of a classical language; and vernaculars, other than Persian, should not be included as alternative subjects in the University course.

A system of inspection has been introduced with regard to Science. Witness has not considered whether general inspection on the same lines should be required. The Science rules are new. Two members of the Syndicate were selected who made inquiries on the spot and reported to the Syndicate. The existing rule of the Syndicate is that every five years there should be a revision of the affiliation in Science. At first sight it would seem desirable that such a system should be introduced generally in the University, but witness would not like to give an opinion without further consideration.

The penalty of disaffiliation should not be inflicted without the most careful consideration. Every circumstance should be thoroughly examined. Before the penalty of disaffiliation is imposed, there should be some real permanent defect which is not remedied after warning and after time has been allowed for its cure.

WITNESS NO. 8.—PANDIT SUNDAR LAL, B. A., Advocate, High Court,
Allahabad.

Witness read a written statement (Paper No. 6 in Part II).

Hostels should be under the management of a Committee of which
the Principal should be chairman. There
Hostels. should be a sub-committee for religious
training. Eventually it should be compulsory in all colleges to provide hostel
accommodation. It is best that the hostel should be confined to the stu-
dents of a particular college. Where funds are wanting several colleges may
combine together. In such case all the Principals cannot be on the Committee and
arrangements as to who should have the main control would have to be made
to suit the requirements of the case. The hostels should be under proper super-
intendence and affiliated to the University. The rules of affiliation should refer to
accommodation, messing, provision for attendance in case of sickness, and
general discipline. Most students are married and those who reside in the city
where the college is live with their parents and families. Those who come from
a distance always leave their families behind.

Official and non-official Fellows should be in equal proportion. The non-
official Fellows should include educational-
The Senate. ists and heads and professors of unaided
colleges. Educationalists should predominate but there should also be some
representation of the non-official non-educational element.

Witness is on the whole opposed to giving graduates a voice in the election of
Fellows. From what witness has seen of voting in the United Provinces,
he would not be disposed to change
Election of Fellows. the system into that which is in force
in Calcutta. Votes are given for the election of Fellows in Calcutta by persons
who do not know for whom they are voting. Witness would prefer to
confine the election to the Senate which is a more responsible body. Witness is a
graduate of the Calcutta University and went up from the Muir Central College.
He has been frequently canvassed, but has never given his vote to any one with
whom he was not acquainted. There are many who give votes to persons
whom they do not know on the recommendation of their friends. The system of
election no doubt keeps graduates in touch with their University. The two
systems of election—one by the Senate and the other by the graduates—might
co-exist, but the present system of election by the Senate is preferable. A very
small representation might be given to graduates. If three vacancies are filled
by election one might be given to the graduates. Last year only two Fellows
were elected in some years there is only one. In such cases the election should
be solely by the Senate.

At present Colleges affiliated in Arts can send up candidates in any subject.
After next year they will no longer be able
Science Teaching. to do so because Physics and Chemistry will
be removed from the Arts course. This proposition was passed by the Senate
although there were a large number of Fellows who dissented. The grounds of
their dissent were, first, that the new policy would discourage the study of science,
and secondly, that there are colleges in which the money spent in getting apparatus,
etc., for teaching Chemistry and Physics will be thrown away. These colleges
were teaching the two subjects properly. In the Allahabad University there has
always been practical work in Physics and Chemistry for the B.A. Science
forms a portion of general culture, and some science might still be included in
the B. A. course. At present the same course in Physics and Chemistry is
taught for the B.A. and the B.Sc. The practical work in Chemistry and Physics
for the B.A. Examination is getting more difficult in the Allahabad University than
it used to be in Calcutta. Witness does not know whether it has been made
more difficult in Calcutta.

The salaries of teachers ought to be raised, otherwise competent teachers
will not be procurable. In the United Pro-
Salaries of teachers. vinces there are no Government schools; all
the schools are under the Local Boards. There are only five or six appoint-
ments of teachers which carry pensions. The result is that the best men will not

take up Education. The Local Boards cannot make pensionable appointments. As a rule Universities should not be allowed to go outside their natural sphere of influence, but exception should be made where education of a special kind is given. For instance students come even from Madras to the Central Hindu College. They are under a great disadvantage because they have to learn the local vernacular for purposes of translation. Mr. Pedler remarked that in Calcutta 13 vernaculars are recognised for this purpose. Witness said that in Allahabad only 6 are recognised—they are Urdu, Hindi, Bengali, Maharatti, Gujarati and Parbatia.

Sphere of influence. A 15 years age limit would be objectionable but not so objectionable as the present limit of 16. The Director of Public Instruction made a calculation some two or three years ago showing that 250 or 270—witness is not quite sure which—were excluded by the age limit in the United Provinces and 115 in the Central Provinces. This gives a proportion of 16 to 17 per cent. The age limit is hard on the brighter students. The rule is strictly enforced. Each candidate has to give his exact age when joining school. That age can only be altered with the sanction of the Inspector of Schools.

Age limit. There is sometimes difficulty in examining boys in English. In answering questions many of them cannot explain themselves properly. They should not for that reason be made to answer questions in their own language. They should be required to have a better knowledge of English.

English as a medium of Examination. Witness is in favour of centralising Law Teaching. It should be placed under the supervision of a body similar to that which governs the Law College at Madras, *i.e.*, a body composed of officers of the University and of men appointed by Government and the High Court.

Law Teaching. Every member of the Senate is not a member of the Faculties. The Faculties are limited in their numbers and are supposed to consist of specialists. Honorary Fellows are in this way practically eliminated. The Faculty of Law consists of 13 members, while there are no less than 26 lawyers on the Senate.

Faculties. It would be difficult to work this system except in the case of the M.A. degree. Principals would have to arrange mutually about fees.

Combined Lectures. Aided Colleges are required to charge three-quarters of the Government rate of fees (Mr. Lewis said that the rule is not always strictly observed). In schools there is a rule by which 5 per cent. of the candidates may be taken without any fee or with half the fee. There is no such written rule in colleges, but a similar rule is practically observed.

Fees.

WITNESS NO. 9. THE REVEREND. J. P. HAYTHORNTHWAITE, M. A.,
Principal, St. John's College, Agra.

Witness presented a written statement (Paper No. 8 in Part II).

Witness said that he had given more thought to this matter during the
Teaching University. previous six weeks and had written a further statement on the subject. Witness
read this statement (see supplement to Paper No. 8) before proceeding with
his main deposition.

In a Hindu hostel about three or four systems of cooking would be required,
Hostels. special internal arrangements being made
whereby members of the same class may
be able to mess together; about 20 students at the outside generally sit at one
table. In the St. John's College there are four Brahmin cooks for the Hindu
hostel.

A certain number of general hostels may be started for the benefit of those
persons who are prepared to depart from the caste system. A good number
of students are so inclined, and have the approval of their parents. Witness
remembers to have received two applications from Hindu parents to admit
their sons into the Christian hostel specially for the benefit of Western customs.
Such applications are more common in the case of Muhammadans.

A majority of the Senate should be educational experts, *i.e.*, persons who
The Senate. are able to deal with questions regarding the
curriculum or the well-being of the colleges
or of the University. These are purely educational questions. Matters like
the age limit are of a somewhat broader character and the popular element should
be allowed to have a voice in them. The educationalists should, however, be in a
substantial majority. The Government is the chief offender with regard to the
nomination of non-educational men. At present, however, the educational men
do form the majority.

The election of Fellows by the Senate is on the whole very sound. There is
no harm in votes being given by proxy. Witness has not known of any cases of
abuse of the privilege. It might be an encouragement to allow M.A.'s to elect a
very limited number of Fellows.

The Syndicate considers all questions that come before it by the extreme
The Syndicate and the Muir Central College. standard of the Muir Central College which
receives enormous allowances from Govern-
ment. The exhibition of a high standard might be advantageous, were it not
that it is practically impossible for other colleges to compete with such a
rival. The present policy of Government with regard to the Muir Central
College is opposed to the policy which was recommended by the Education
Commission of 1882. The aim of that policy is that higher State education
should gradually decline and ultimately cease to exist, giving place to aided and
private educational institutions. In regard to science in the Muir Central
College, the Government has spent three and-a-half lakhs of rupees in erecting
buildings and equipping them with all the latest and most expensive apparatus.
This circumstance has made it utterly impossible for other colleges to compete
with the Muir Central College, whilst according to the educational policy of
Government as enunciated in 1884 State education should not compete unfairly
with private institutions. If the representatives of this unique college dominate
the Syndicate, that body will naturally look upon its standard as the normal
condition of things, and other colleges which cannot compete with it in Science
teaching will suffer. At present few students pass the B. Sc. except from the
Muir College. Why, witness said, should colleges like St. John's be com-
pletely stifled by a standard of that kind? It is a Christian College drawing
students from Bengal, Bombay and Madras. Students come to it and wish
to graduate in all subjects and as a missionary institution the College is not
prepared to tell them to go to Allahabad. The College values moral influence
so highly that it would like to keep all the students who offer themselves,
and it is prepared to pay to do this if it be allowed to advance more slowly
than the Government. It may take ten or fifteen years now but in time it will
be done. Witness is not a champion of slipshod scientific education, but wishes

the Government to moderate their councils. Up to the present year the Muir Central College was not so well equipped as now, and the St. John's College will reach its new level before long. Mr. Pedler asked whether it is not the policy of the Government of the United Provinces to maintain a model College of high standard. Witness referred him to the Education Commission Report. Mr. Pedler replied that there has been some change of policy during the past twenty years. Mr. Lewis asked how the Department can make private institutions their principal care except by holding up a standard and offering inducements to follow it. Witness said that all the College asks for is fair play and that there should not be such bolstering up of Government institutions as to make its work harder.

Dr. Mackichan said that the complaint seemed to be against the Government and asked in what way the Syndicate had injured the College. Witness replied that the College had not been affiliated in Science because an Inspector deputed by the Syndicate had said that it is not sufficiently equipped. The College was inspected by two members of the Syndicate, one of whom was a Professor of the Muir Central College and the other a Professor of the Cawnpore College. The officer of the Muir College said that the College was competent to teach Chemistry; but the other gentleman was not prepared to recommend its affiliation in Physics until certain apparatus was added. It is invidious to mention names, but there are other colleges (not as well equipped as St. John's in Chemistry) which were not inspected and whose affiliation for the B. Sc. continues. They have never passed any standard. They are aided colleges. They secured their affiliation at an earlier date without any examination. Witness does not in any way imply that the inspection of his college was not perfectly straightforward. He does not doubt the Inspector's integrity. But the standard of efficiency of the college should not have been determined by those who were interested in the success of their own institutions. Such a system may be followed in India, but would not be tolerated for one moment in England. Mr. Lewis said that the Inspector might prove the best friend of the college; another year he might report that the college was fit to teach Physics, and then it would start with a better equipment than would otherwise have been the case. Witness replied that he took exception not to the principle of inspection itself but to the appointment of persons to inspect who are interested in the results. The Muir Central College being the premier college of the Allahabad University is strongly represented on the Syndicate and practically dominates the whole body to the exclusion of other educational interests, especially those of the unaided private institutions.

Dr. Mackichan asked the witness whether he did not agree that the requirements of modern science are so great that it is desirable that the equipment should be provided by the University or the Government. Witness admitted that there is much waste. At Agra there are three laboratories within half a mile of each other. If there were a teaching University and some system of amalgamation, then one of the Agra Colleges might teach Chemistry and the other Physics, so that money need not be wasted in unnecessarily equipping them with a double set of similar apparatus. It might be desirable that Colleges should be affiliated in literary subjects and in Science up to a B.A. standard, separate arrangements being made for the B. Sc. Witness is one of those who do not approve of the idea of Physical Science being totally abolished from the Arts course.

As things are in the United Provinces it is not a disadvantage to have a fairly large Syndicate, because not more than about twelve can attend at one time. Two or three more colleges who are worthy of representation should be added to the list. A proposition on this subject had been placed before the Senate, and was postponed in consequence of the appointment of the Universities Commission. It would be well to set apart two seats on the Syndicate, one for a Muhammadan gentleman and the other for a Hindu. They should be members of the general public, not Educational Officers as at present. The *ex-officio* representation on the Syndicate of the principals of leading colleges is in itself sound and would work more satisfactorily if it were more representative.

That condition may continue along with the election of the Hindu and Muham-
 madan gentlemen to represent the outside views on education. It may be open
 to some objection to draw a distinction in the University between Europeans and
 Indians, even so far as to specify that a certain number of the Syndics should be
 Indians and a certain number should be Europeans. It is a serious matter
 that in an Indian University everything should be carried out on Anglican lines, *i.e.*,
 according to the standard of Oxford, Cambridge or London. If there are two
 Indian gentlemen on the Syndicate it will on the whole be better.

The number of Professors is much the same in every college. Some
 colleges have a greater proportion of Euro-
 peans. In the Muir Central College there
 is one European Professor for Chemistry and another for Physics. No other
 college can afford that luxury.

Witness complained of the system under which Professors examine in
 the subjects in which they teach. He
 said that students are willing to pay high
 fees to go to the Muir College because there is considered to be a better chance
 of passing from that college because the professors in it frequently examine. The
 students go to the colleges from which the teachers are appointed examiners.
 They know in good time because the examiners are appointed two years before
 the Examination takes place. One case has been brought to the notice of witness
 in which questions were set in a test paper which were identical with those set in
 the University Examination. The two papers were set by the same person. This
 may have been through inadvertence, but the system is wrong. Last year the
 students were told that the essay would be on one of two subjects, and they learnt
 the wrong one. The Superintendent of the Examination at a certain centre
 last year was told that the examination was unfair because some of the candi-
 dates knew four questions which had been put to them in a test paper by the
 Examiner. Witness did not ask the Syndicate to inquire into the case because
 he did not consider it to be his duty to do so. He would have mentioned it to
 the Syndicate had he been allowed a place on that body. To remedy this state of
 things papers should not be set by persons teaching in the Allahabad University,
 or else the inside examiners should be associated with outside examiners, the
 one checking the other. Or again questions may be set by the outside examiners
 and the answers marked by the inside examiners. If it is difficult for
 outsiders to appreciate the curriculum the remedy might be to appoint the F. A.
 Professors to set B. A. papers and the B. A. professors to set F. A. papers, that
 is to say professors teaching a particular subject should not be appointed exam-
 iners in that subject.

Mr. Lewis.—At present there is a regulation that one of the three examiners
 should be an outsider.

The principle of University inspection is sound and very few colleges
 will object to it. Inspectors should not
 be interested in colleges. If the Director
 of Public Instruction went round he would be most warmly welcomed.

WITNESS NO. 10.—The REVEREND. G. H. WESTCOTT, M. A., Principal, Christ Church College, Cawnpore.

The most important moral influence in an Indian college is that exerted by the teacher over the student. It is a question of personality. In English universities students would object to what would be regarded as an intrusion on the part of dons, but in Indian colleges the active assistance of members of the college staff in the conduct of athletics and literary institutes has always proved welcome, if not essential for their proper maintenance. In debating and literary clubs opportunities are afforded for a better mutual understanding. Every college should have a recreation-ground. The hostel system should be encouraged. Many of those who live with friends show themselves unable to enter into the spirit of college life. Every student should live either (1) in a licensed hostel or (2) with some near relation or approved guardian. The Principal of the college should be acquainted with the name, etc., of the responsible guardian of each student. Religion is too personal a question to benefit by legislation. The introduction of any religious or moral text-book—a knowledge of which would be tested by examination—would merely result in the preparation of keys and other enormities. It is desirable that there should be some power to remove people of bad character from the neighbourhood of schools and colleges. It is very difficult at present to rely on the assistance of the local authorities in this matter. They say that if residents in the neighbourhood object and these people become offensive, then something may be done. Students of his college have told witness that there is hardly a street in Cawnpore where bad women do not live.

Personally witness would like to see classes limited to about 40, because a man's personal influence cannot extend over more than a limited number. He had hoped to limit the classes in his college to 30, but he found that impossible. The third and fourth year classes can be limited most easily, because of the ploughing in the F. A. If they were to limit the numbers of their first year class, the students would merely go to other colleges. More professors could be provided if there were more funds.

The Christ Church College receives a grant of Rs. 100 a month and charges fees at 75 per cent. of the Government rate. That rate is Rs. 8 up to the F. A. There are about 105 students in the five classes. At present there is a small M. A. class. It has been in existence for two years. There are about 36 students in the first and second year classes, about 14 in each of the other two and 5 in the M. A. There is a school attached to the college, quite distinct, but in the same compound. In the Entrance class there were about 15 or 20 students; and more in the lower classes. Witness does not think there are more than 40 in any class. There are a good number in the law class, but witness has not prepared any statement about them. He is trying to get the law class put on a better basis.

Management of hostels.

The proper principle is to choose the right man as superintendent and have as few rules as possible.

In the Cawnpore hostel the main rules are—

- (1) all students to be in the hostel by 9 P.M., and
- (2) all students to behave as gentlemen.

These rules are found to be quite sufficient and the tone of the hostel is extremely good. The Superintendent, who is a European, lives in the hostel. He is one of the brotherhood. Students who live in the hostel are charged Rs. 2 for rent and Re. 1 for servants per month. They make their own messing arrangements. There are many castes represented. There are four messes and students arrange among themselves where they will mess. There are 38 students in the general and seven in the Christian hostel. When witness last made enquiries, there were five students living elsewhere than in their homes or in the

hostels. It is not made a condition that students shall live in the hostels. Witness has not examined the places where these outsiders lived. There should not be any difficulty in enforcing a rule requiring residence in hostels for all students except those living with their parents or near relations. Witness invited his students to come and talk the matter over with him and they were all in favour of it. The University should sanction rather than frame rules. Every hostel should receive from the Syndicate of the University a license holding good for a limited period of time. It is undesirable to create too much excitement about the matter or inferior hostels will arise.

The management of a hostel in applying for a license should supply information as to (1) supervision, (2) accommodation, (3) rules, (4) inspection, and (5) surroundings.

College hostels should be exclusively for the accommodation of students belonging to the college. Witness would not like to have his students living in some other hostel. The Christ Church hostel is in the same grounds as the college. A hostel should not be large. Even the smallest colleges have a sufficient number of students to make a hostel. A limit of (say) 50 should be placed on the number of the inmates of a hostel, unless there are a set of teachers as superintendents. One man cannot exercise influence over more than a limited number of people, whether in college or out of college.

It is desirable that colleges through the University, on the recommendation of the Director of Public Instruction, should be able to secure sites for the erection of hostels and other college buildings, or provision for recreation grounds under the Land Acquisition Act. It may be very difficult to get a proper site for a hostel, unless the University has some such power. Mr. Pedler said that in Calcutta they had referred a case somewhat akin to what witness suggested to the Government Solicitor, and he ruled that the University could not acquire land under the Land Acquisition Act. Witness thought Government could modify the Act to meet such a case.

A great number of those interested in college work feel that college and school should be kept distinct as far as possible. The Christ Church College students feel that strongly. Witness does not approve of calling college students boys. It is desirable to develop the idea that they are men.

University teaching in the United Provinces should be given in local colleges as at present up to the B.A. standard. Central Teaching University. As regards teaching for the M.A., which represents an honours degree in an English University, two courses seemed practicable, involving greater or less specialisation. Either (1) one or two centres specialising in several subjects, or (2) all colleges affiliated up to the M.A. standard specialising in particular subjects. Due notice of such specialisation to be given to all colleges through the Registrar of the University upon instructions received through the Syndicate, and every college so specialising to undertake to maintain a course of instruction on its special subjects for at least two years.

It has been suggested that there might be a system of extension lectures; the lecturer to visit different colleges: his salary to be found by Government. Witness does not think that very practical, and it would be a difficult thing to accommodate a lecturer while he is wandering about. Besides he would not know the students.

Most colleges in these provinces find their M.A. classes very small, and in many cases the University has been obliged to admit students to the M. A. without any real preparation in the way of lectures.

Mr. Lewis.—The rule with regard to M.As. on page 29 of the Calendar says: "Unless specially exempted by the Syndicate, every candidate shall be required to attend a regular course of study, etc."

Witness thinks that the general tendency, if college work is at all pressing, is to give leave to the M. A. students.

The proposal to remove all colleges to one centre seems to be impracticable. In addition to difficulties connected with the expenses of transfer, consideration must be paid to (1) expenses to students, a probable check to higher education; (2) difficulties in the way of an inter-collegiate system of lectures arising out of (a) the distance between colleges, (b) the sectarian character of many colleges; (3) the injury done to local centres through the loss of a seat of learning; (4) the occurrence of epidemics.

Witness has made enquiries into the financial position of students, and thinks that the expense of education is just about as heavy as they can bear. Many parents get into difficulty for the sake of their children's education, and they could not stand much additional expense. It has been suggested to witness by old students that if Cawnpore lost its college it would lose an institution upon which the greatest value is set. They said that the college in the city has done a great deal to raise the ideals of the people, and witness himself fancies that a college in a town does exert some general influence. Up to the B. A. things should remain as they are, but there is no objection to the higher teaching being concentrated in one place with the appliances and laboratories, and so forth, necessary to conduct it efficiently. Witness would not concentrate the B. Sc. teaching if it can be efficiently done in local colleges. It is very expensive work and it might be impracticable in the case of the Christ Church College, because the Missionary Society would not, in all probability, give the money required to teach Science properly.

Dr. Mackichan.—Even if separate colleges could do this properly, I doubt whether it would be a wise expenditure of money.

Witness said that it would be almost necessary if the proposal made by the late Director that no one might take up Mathematics, unless he took up Science also, came into force. That gentleman would have made this a University rule. It would have been passed by the Syndicate if he had proposed it, as Government had a majority on the Syndicate. Witness does not mind Government being represented on the Syndicate, but he does not like its representatives to have to be compelled to vote according to orders. This state of things did exist at one time; the present Director was not then here. Personally witness would not wish to take up Science at the college at Cawnpore unless anything in the regulations makes it necessary to do this to preserve the college.

There is now on paper a School Final in addition to the Matriculation. No one is likely to take it up and it will cease to exist. The Matriculation is now divided into two parts—(a) corresponding to the old Entrance Examination and (b) corresponding to the old School Final, and the student can take up whichever he pleases. Both are called Matriculation examinations and both admit to the University. In addition to this there will be the School Final which is supposed to be a leaving examination for those not going to the University. The Government has not yet granted any privilege to the School Final. Mr. Justice Banerjee said that the two examinations seemed much alike and inquired whether it would not be better to have one only. Witness said that the existence of the two is harmless as no one will take up the School Final. Mr. Pedler asked whether it is not desirable to have a departmental examination to close the school course, and a separate University examination for entrance into the University. Witness said that it would be difficult to have this in practice. The size of the Matriculation examination has not yet become a difficulty in the United Provinces.*

* In a letter, dated the 8th April, the Revd. Mr. Westcott made the following remarks:—

"There was a point with regard to the School Final examination that was not made clear. In these Provinces a Government circular gives—so I have always understood—the preference to candidates for Government employment who have passed the School Final examination, *i.e.*, in these Provinces to those who have taken up Science and Mathematics in lieu of language. It is on this account that many of the more intelligent choose when they have the chance Science and Mathematics to the neglect of language.

"The object of the Government circular was not to discourage the study of language—so I understood from what members of the Commission said—but to encourage a School Final examination, success in which did not entitle a student to admission into college.

"The difficulty will disappear in part at least when the new Matriculation Examination regulations come into force' but tradition will still favour the scientific side."

The desirability of any bifurcation of studies in schools seems very questionable, especially if (1) made at an early age and involving a choice for all time, *i.e.*, if to the end of the scholar's course; (2) the greatest care is not exercised to make the alternative courses of equal difficulty in the eyes of scholars. As an illustration, witness said that in the United Provinces the school Science course is regarded as light in comparison with that in Sanskrit. A scholar chose Science and discovered when too late that he had no Mathematical ability. There seems to be a general agreement that students are rather frightened by the difficulty of Sanskrit whilst Science seems to them interesting and entertaining and they take it up on these grounds and not because they have any aptitude for it. Some schools are not in a position to provide alternative courses, to the loss of promising pupils who do not foresee the bearing of this circumstance upon their future career. In schools they now bifurcate four classes down, which is much too early for a student to choose whether he will take up Mathematics or Languages. Some schools with a weak staff only prepare boys for the Entrance Examination and no scholar may take up the B course of the Matriculation, because there is no one to teach him Science. Parents do not see the bearing of this at the time. They let their boys go on reading at the local school and then these boys are forced to take up the literary course in their college career whether they have got literary ability or not. All schools should provide one course, and at the end of the school course the boy or his parent or teacher should make a choice. The one course must be fairly general.

Witness has not considered the suggestion that there should be a general examination at the end of a boy's career, and separate to that a special test to see whether a candidate ought to enter upon a college course. Mr. Lewis remarked that this would be a serious blow to the University, and witness said that it is desirable to encourage boys to go up to the University.

The age limit of 16 affects the relations of the Allahabad with the other universities, and this is a matter of some importance. The arguments that many feel against the 16-year rule is first of all that it necessitates an alteration in the bye-law of the Syndicate which recognises the Entrance Examination of other Universities as equivalent to that of Allahabad. In other universities a student may go up for this examination at any age—13, 14 or 15, and at present if they produce a certificate of having passed the Entrance Examination of any other University, the principals of colleges in the United Provinces can accept them. The Syndicate now consider it their duty to strike out this rule and refuse to recognise the certificate of any other University. This will be distinctly inconvenient to boys whose fathers are transferred from one province to another. If there is to be an age limit, then it ought to be a general rule for all Universities. Witness does not like age limits, not that he objects to the principle that underlies the rule—he does not want to see small children in colleges—but if the school course is sufficiently severe, then only boys of very exceptional ability will pass at an early age. In the United Provinces very few boys pass at the age of 12. A sub-committee of the Syndicate asked that enquiries might be made on this point, but this was not done, and the actual facts are not therefore known. But private enquiries tend to show that the number of students under the age of 16 going up for the matriculation is very small. In this year the number of small boys was reduced still further. Education is backward in the United Provinces except in the case of children of Bengali parents. If there is to be any age limit at all, witness would suggest 15 and not 16. Fifteen means 14 to some and 16 to others. Even with 15 as the age limit, the practical effect would be very little, because very few boys under 16 pass. The trouble is on the other side, as there are many boys in the schools above 19 years of age. It is not desirable to have a number of old students in the schools, and there is more to be said for a maximum than for a minimum age limit.

The University had before it last year a proposal that the course should be shortened to three years, while no steps were taken to find out whether other

Bifurcation of studies in schools.

Age limit.

Relation to other universities.

universities were willing to shorten their course. It seemed to many highly desirable that no such radical change should be made unless other universities were willing to do the same. If they were willing, then the thing might be done. The proposal was very nearly carried, but the Chancellor was good enough to withdraw it at the last moment owing to the appointment of this Commission.

The sub-committee of the Syndicate also suggested that if there is to be an age limit, it might be applied to admission into college instead of admission into the Entrance Examination. That would get over the difficulty in relation to other universities. One could not, however, say what a precocious boy would do during the interval. A suggestion was made that such a boy might go in for the Entrance Examination a second time, and that if he did well, he might receive a Government scholarship.

Several members of the Senate feel rather uncertain as to what their relation is to the Education Department and whether they have as members of the Senate the right to speak and vote according to conviction, or whether those who happen to be Government servants can be compelled to vote contrary to conviction. They feel that they ought to express their opinion as members of the Senate, and that Government has at all times the right to refuse sanction to anything that is done and to veto any proposal. Some of the Senate were told that they were disloyal, because they simply spoke out their minds in a courteous way. There is an order to Government officers to vote according to instructions.

Dr. Mackichan.—That is quite a unique phenomenon in University history. I have seen Government officers oppose the Governor as Chancellor at meetings of the Senate openly, and dispute points that he had proposed.

Witness said that it was stated in the public press and never contradicted. He saw the letter himself from the Director of Public Instruction to Government officers requiring them to give their support to Government proposals. Witness had forgotten what the exact occasion was; probably it was the three years' course.

Witness is satisfied with the constitution of the Senate and Syndicate. He does not like voting by proxy in the Senate. If a man wishes to vote, he ought to take the trouble to attend the meeting. Voting by proxy is only for the election of Fellows. There should be fewer *ex-officio* Fellows on the Syndicate and more Principals of Colleges should be elected on their merits. That is to say, there should be more close elections for Principals of Colleges and fewer *ex-officio* appointments. There are two seats on the Syndicate practically wasted, namely, those reserved for Secretaries in the Public Works Department. They hardly ever attend.

Mr. Justice Banerjee asked what was the opinion of witness as to the desirability of what might be called the popular element being represented on the Syndicate. By "popular element" he meant persons neither officials nor actual teachers or professors. Witness did not quite see what rules could be laid down. If the Senate chose to elect such gentlemen, they could do so. There are five open elections for the Syndicate. Witness did not care to express an opinion as to whether it is advisable that they should be filled by people of this class. He would like to see them filled by people who would attend the meetings. It is desirable that in the Syndicate there should be a preponderance of gentlemen more or less actively engaged in teaching.

Mr. Justice Banerjee.—For instance, in discussing the age limit question, ought not the student's side of the question be considered?

Witness.—Such a question comes before the Senate where the popular element is represented.

WITNESS NO. 11.—MR. G. S. CAREY, M.A., Principal, Bareilly College.

The only way to improve the teaching of English is to do away with text-books. It may perhaps be necessary to have one or two set books, because a certain fixity is thereby given to the teaching of English, but English should be taught as a language and examined in as such by translations of unseen passages, and if possible colloquially right through up to the B.A. There should be colloquial examinations in the Matriculation. It would no doubt be a great undertaking, but it might be done by examining only those who pass in the written paper. A colloquial test is held every year in the Bareilly college. The standard in English should be high; an easy standard and easy pass marks results in some instances in raw untrained material for the colleges. The students should be made to do something simple and to do it thoroughly. The comparative backwardness of the students is due to a great extent to so few parents knowing sufficient English to be able to help their sons. The teaching at present does not make the boys think.

The Bareilly College is an aided college, next door to a Government High School. The college classes have grown out of the high school. The college is supported by a Government grant of Rs. 540 a month (municipal subscriptions) and tuition fees. The number of students at present on the rolls is 83.

Teachers are very inadequately paid. There should be Englishmen in High schools to take up the teaching of English from the lowest classes. The difficulty is their ignorance of the vernacular. At present there are even B. A. students who cannot argue consecutively for two minutes nor express their ideas correctly. Under the present system it is possible for a man to take his B. A. degree without being able to open his mouth in English. It must be admitted however that matters are improving. In reply to Mr. Lewis, witness said that he ascribed the improvement in the attainments of his students to the improved teaching given in the schools. English as spoken by Englishmen is a difficulty with Indian students. If *vivâ voce* were made compulsory students would learn to talk. At present, they do not know how to talk. It is a mistake to teach English *Literature*. Students should be taught English as a *language*, Science and some Philosophy and Logic. They might have one or two plays of Shakespeare, but the plays should be chosen with a certain amount of judgment. Most of the English Literature at present taught is not understood, and therefore not appreciated by students.

It is necessary now to teach English as a language in the F. A. classes because the Entrance standard is so low. Boys should not come to college until they are 18 years old, and the Entrance should then be equivalent to the present Intermediate. Then when the student enters college he should follow a definite course of study like that at Oxford.

There are 20 Law students in the Bareilly College with only one teacher. It is desirable that Law should be taught in a Central place, such as the Muir College at Allahabad. Witness would be glad to get rid of the Law class which he cannot supervise. The students do not understand the lectures and attend them merely for the necessary certificate. The Law lectures are in the morning from 9 to 10. The Professor does no tutorial work with the students. He is a local vakil who has taken up the work for the position it is supposed to give, and he draws a salary of Rs. 50 a month.

There ought to be some definite instructions to Examiners as to what they are examining for. For instance, in English it should be known how far the examiner is to examine in the matter and how far in the language. Then teachers would know what they were teaching for. The students at present get hold of the papers for a certain number of years, and obtain written answers or notes from their teachers which they learn by heart. It should be an understood thing that students will have to write a piece of good English instead of being obliged to

learn up allusions, metaphors and the like. Even in the Intermediate Examination candidates can hardly parse a single sentence of English and yet they are able to pass by getting up answers to critical questions and the like. That is not education. Witness feels strongly on the subject because he is fond of his students and they tell him that they are killed by the amount they have to study. At Oxford students are not given history books to learn but are advised as to their reading and consult the authorities on the subject they have to study. Here they simply learn the text books by heart.

A student should be required to pass in language or Mathematics and then should be allowed to take up one subject, such as Philosophy, History and Political Economy, or Science.

There is great variation in the standards because the definite point to be aimed at is not shown. When students are asked to explain a lot of things out of a book there is nothing definite to go on. During the last few years the B. A. Examination has been getting easier. Last year witness passed 12 out of 16, some of whom he was very sorry to pass. All the B.A. class are sent up. When so many pass it would be hard not to give every one a chance.

If the B. A. degree were to depend partly upon a college certificate, then the extraordinary importance which was now attaches to examinations would be done away with. The college staff would have a certain responsibility with regard to the degree and would demand from the students something more than a mere successful acrobatic performance in the examination.

Every student should be required to live in a boarding house unless there are special reasons for excusing him. There are three hostels attached to the Bareilly College. The general rules

Hostels and physical and moral welfare.

are that a student is required to be in by 9 o'clock at night and must keep his room tidy. The Superintendent of the Hostel is a Bengali Professor of the College. A student should be required to live in a hostel even if he can live with his parents. In reply to Mr. Justice Banerjee, witness said that there are students who do not get the best home influences and who would be far better away from home. He is an English public school man and has a certain prejudice in favour of a residential school and a residential college. It ought to be a Principal's business to get to know his students as much as he can. The great influence in schools and colleges is the personal influence of the Principal and staff and anything which brings the English Principals and Indian Professors into touch with their students should be encouraged. Witness knows all his students, has free intercourse with them, and plays cricket and football with them when he can do so. Students from the hills are fond of foot-ball; a certain number of students play cricket. There are debating and literary societies and every year there is a gathering, on which occasion they act scenes from Shakespeare, deliver specimen essays and recite poems in honour of the chairman. These debates and essays turn their thoughts to topics outside their regular college course. The great thing in which Indian students are lacking is general information. The debating and literary societies help to expand their minds and give them a broader view of things in general.

WITNESS No. 12.—MR. L. TIPPING, B.A., Professor of English Literature, Muhammadan Anglo-Oriental College, Aligarh.

Witness said he wished to dwell on the importance of the residential system as a means of education. It is the only way in which the personal influence of the Principal and Staff of a college can be brought to bear upon the students. One must, however, remember that it is quite useless to bring together a large number of students into a hostel unless one is prepared to do a very great deal for them. Otherwise it may not only be of no use, but it may be of positive harm. A very large increase of work is involved by this, and the proper conduct of a residential college therefore requires a much stronger staff than is required for the conduct of a non-residential college. In this connection witness read the following short minute of the late Mr. Theodore Beck :—“ I beg to state that the work of the college has suffered, in my opinion, on account of my inability to find leisure to carry out the necessary organisation through the amount of lecturing, which, out of deference to the needs of others, I have had to discharge. I look upon a certain amount of lecturing as an essential part of my work. On the other hand my first duty is administrative, and if I were to neglect this work the machinery of the college would rapidly become disintegrated and its prosperity would decline.”

The following is an outline of some of the main duties which devolve upon professors and teachers in residential colleges :—The first point is discipline. If a college is to be successful discipline must be maintained, but in India, as a rule, there is very little difficulty in the matter of discipline. Students in India are more docile and orderly than English students of the same class. Whilst discipline must be maintained, care must be taken not to suppress individuality. The main problem is not so much to keep students in order, as to rouse them to some kind of effort and to the expression of their individuality. Whilst repressing mischief and disorder, some other outlet must, therefore, be found for the energy of the students. With clubs, societies, etc., the students can be made to find life so interesting, that the discipline is almost forgotten. One of the surest tests of the success of a residential college is whether the students are really happy or not.

The maintenance of discipline requires a somewhat elaborate machinery. The following is an outline of the machinery employed at Aligarh. In the first place the head of the whole discipline is an official they had called the Provost—below him there is a Proctor and then in the various parts of the boarding houses there are a number of sub-proctors whose main duty it was to keep discipline. (Witness presented specimens of sub-proctors' weekly reports.)* The sub-proctors are all members of the staff, either teachers in the school or assistant professors in the college. Below the sub-proctors there is a system of monitors, who also send in weekly reports. There are two classes of monitors. One class looks after the food arrangements, which is always a difficult matter with a large number of students. They do very valuable work in looking after these things and they represent the interests of the students to the authorities of the college who have the ultimate control. The work is not only very useful to the college authorities, but also to the students themselves. A year or two ago a number of these students went on famine work in Bombay and the Central Provinces and several of them did very well indeed. They got good certificates, and when they came back witness remembered Mr. Morrison asking one of them whether he found the work difficult, to which the student replied: “ No. It was very like being a food monitor, except that I had more people to feed.” The general discipline and administration he had learnt in college served him very well indeed.

In the same way there is a system of house monitors. These are the senior students who work under the sub-proctors. Under each sub-proctor there are two or three house monitors, whose duty it is to look after the interests of the students, to keep order generally, and, as it were, to represent their side of any difficulty to the college authorities. This system is also was of great service

* See catalogue of miscellaneous papers (No. 14, Allahabad).

to the students. It teaches them self-reliance and in many cases develops a good deal of administrative capacity. At the same time these posts are looked upon as very honourable and there is great competition to get them, which is a good sign.

The various clubs and games in the College are left as far as possible in the hands of the students. In many cases this answers very well. When the cricket and foot-ball clubs and debating societies have been once started by the European members of the staff, a little occasional supervision and interest is sufficient to keep them going, and the College authorities do not interfere in these affairs, unless some trouble or other arises. Without these various societies the life of the college would lose all interest, and the place would tend to become a barrack or mere *sarai*, which probably would be worse than useless.

These various societies are very useful in assisting students in their studies. First-year students take part in the debates. Entrance students have a debating society of their own. Witness does not take such a pessimistic view of the English of the students as the last witness Mr. Carey. There are two Europeans on the school staff and therefore the English attainments of the school boys are probably better than in other schools. Most of the students in the college are above 16, a few are about that age and none below it.

As regards foot-ball and cricket, the house matches excite the greatest interest, and in some of them the rivalry is a little too keen. A little while ago a difficulty arose in this connection. It is a danger to be guarded against.

With regard to other matters of interest, a course of lectures has been started on subjects entirely outside the college course, and it seems to interest most of the students. A course of lectures on astronomy, which had nothing to do with the curriculum, was attended by a good many students. Just now a course of lectures is being delivered on general subjects of interest. For example, next Wednesday, an American gentleman who took part in the civil war, is going to deliver a lecture on that subject.

The point to be emphasized is that the whole basis of work should be that, as far as possible, the professors and sub-proctors should have close and intimate connection with the students. Witness produced a sample of the books which are kept by all sub-proctors, in which they enter for their own private information and for the information of the college authorities the students' parentage and ages, the characters they bear and their particular abilities.

A useful practice prevails in the college under which professors teach all classes. For example, the Principal takes the B.A. class for three months and then the second-year and the first-year classes in turn, and so on. This has a good effect upon the students and also enables professors to know their students better than if they confine themselves to teaching one class.

Next may be noticed the less interesting, though by no means less important, matters of sanitation and food-supply. All of them involve a large amount of work, and witness would again emphasize the fact that in a hostel a much larger staff is needed than would be required for a non-residential college.

Another important point is the size of boarding houses. They should not be too large, especially in the case of junior students. In the school they should be still smaller, because the younger a boy the more close supervision he requires.

Asked by the President what careers students follow when they leave the Aligarh College, witness said that a large number of them seek Government service. There are a certain number of zamindars who go back to their work and some of these have lately been pursuing a course after leaving college at

the Cawnpore Agricultural School. The number who are doing that is increasing. A good many take to Law, and a few to teaching. The latter is still a despised profession, because of the low salaries.

There is one Law Professor in the Aligarh College and five subordinate professors who are all voluntary teachers. The state of law teaching was until recently in a very unsatisfactory condition, because the students used to go merely to obtain their attendance. The law lecturer himself was much disgusted, and so five of the old students residing in Aligarh arranged to give lectures, each taking a separate subject one day in the week. Now attendance at these lectures is made compulsory in the case of students who get scholarships. There are between 20 and 30 law students. The law lectures are delivered in the evening. If a well-organised law college is established at Allahabad, the disappearance of the law class at Aligarh would not be a great misfortune. The law students in many cases take very little part in the ordinary life of the college, and the authorities know very little about them. A certain number of them lived in the boarding house, others live in the city.

Discipline and work would be greatly facilitated if boarding houses were remote from a large city. In a city these are the difficulties of controlling students to which Mr. Westcott referred. If it could be arranged for the college to be at some distance from a city, it would make the work very much easier.

For Hindu students there are separate arrangements. A number of Bengali youths live in the college. They are under the same control and discipline as the others except that they made their own arrangements for food.

There is a system of drill and physical exercise at Aligarh College, and all school students and junior students of the college are compelled to attend unless they are physically incapacitated from doing so. The students manage the whole drill themselves. They have their own lieutenants, and the system is handed down from one generation to another. The drill consists of dumbbells and physical exercises. The Captain of the drill is elected by the students, and if there is no reason against it, his appointment is recognised by the college authorities. The Captain of the drill is one of the students. Compulsory drill is confined to resident students, because it is held in the morning before school, and there would be great difficulty in getting non-resident students to attend. There is also a riding school. A native cavalry officer who resides on the premises teaches riding to the students. There was a sergeant at one time to superintend the drill, but he was a rather unsatisfactory character, and the College got rid of him. Extra drill is sometimes awarded as a punishment.

Witness had been asked to speak about Arabic. He is in no way an authority on Arabic, but has endeavoured to collect the opinions of one or two people in Aligarh. Their general opinion is that the reading of students is too limited and that perhaps some of the courses are too difficult. It would improve the students' grasp of the language if they read more simple Arabic and a larger amount of it, and also if they gave more attention to prose. In the B.A. examination prose is set but the students get very low marks for that part of the paper. A very large number take up Arabic, and if the new rules of the University come into operation, it will be practically compulsory, the option of science being withdrawn. Already low down in the school, in the 7th and 8th classes, some boys are beginning to take Arabic in view of these changes.

The study of Theology would be a very difficult matter and it would be quite impossible for ordinary colleges to undertake anything of the kind. The main difficulty lies in the fact that it is very easy to raise a religious outcry if there is the slightest conception that anything is being done which might possibly be inimical to religion. Quite recently when the question of appointing a Science master to teach in the school arose, there was very great opposition to it on the ground that science is hostile to the Muhammadan religion. That may seem foolish and childish, but facts have to be taken into consideration.

The college loses students who would perhaps continue to attend if there were a Science section, but the staff is not sufficient for the purpose and the college does not intend to take it up. Witness would rather the students went elsewhere, where they could get better instruction.

Science.

There is a Pandit to teach Sanskrit. He is a competent man. There are only three or four students in the college learning Sanskrit, so that the Pandit is able to give them individual attention. Many Muhammadans do not study Sanskrit. Some learnt Hindi when the rules for the Deputy-Collectorship examinations were altered.

Sanskrit.

Witness is against the reduction of the college course from four to three years. It would be a great mistake to reduce the period, because it takes a certain time to get to know students and to influence their character. The professors get to know their students best, and get the best results out of them, in the 3rd and 4th years.

College Course.

Just now there are about 80 students each in the first and second year classes. There are about 230 in the whole college. The College carries the students on to the M.A., but very few remained for it. Science is not taught beyond the intermediate.

The concentration of University teaching in Science and in the M.A. in a centre like Allahabad would be a great advantage. It would not interfere with the work of the Aligarh College. The College usually starts with a class of 6 or 7 M. A. candidates, but they get appointments quickly, and in the end the class diminishes to about one.

University teaching.

It is the ambition of the Aligarh College to become the centre of a Muhammadan University. It would welcome the establishment of similar Colleges at Aligarh, for they would enable teaching to be made more efficient.

No class is excluded from the college. Religious instruction and attendance at prayers is compulsory for Muhammadans and services are conducted by Shia and Sunni moulvies in separate sections. Hindus and Christians are not affected by these regulations.

Religion.

Witness has no particular fault to find with the Intermediate Examination. It is useful as it stands. It might, however, be possible to maintain the standard a little more even by giving instructions to examiners.

Intermediate examination.

If, as has been proposed, the University were to decide, in connection with any new Matriculation examination that the Entrance examinations of other Universities should not be accepted the change would have a serious effect upon institutions like the Benares and Aligarh Colleges, which are not local, but are more or less on a national basis, and such Colleges would have to consider the question whether they would remain affiliated to the Allahabad University. For example, in the Aligarh College there are a large number of Punjabi students who have passed the Entrance examination of the Punjab University and students also come from Madras, Burma and other parts of India. The Aligarh College is not affiliated to the Punjab University. It is affiliated to Calcutta, but that is a matter of history which does not mean very much at present.

It would be an advantage for the University to inspect colleges to guard against the danger that they may decline in efficiency after affiliation or alter their staff in such a way that they are no longer what they were in the beginning.

Inspection of colleges.

The scheme for enlarging the Aligarh College with a view to its becoming the Muhammadan University for India has not taken any very definite shape. Mr. Beck recommended it to Sir Syed shortly before the latter's death. Sir Syed thought it was rather fanciful, but Mr. Beck pursued the idea.

Muhammadan University.

Witness promised to send a copy of Mr. Beck's address on the question.

WITNESS NO. 13.—MR. A. MONRO, M.A., B.C.L., Director of Public Instruction, Central Provinces.

There are in the Central Provinces three colleges affiliated to the Calcutta University and one to the Allahabad University. This causes great inconvenience.

The whole of the Central Provinces should be affiliated to Allahabad. Witness would suggest that there should be a separate University for the Central Provinces, the Berars and Central India. The universities should be smaller in area and more in touch with the people. There are four colleges in the Central Provinces, and one college each at Indore, Mhow, and Gwalior. Besides these there are a number of high schools: 16 or 17 in the Central Provinces and about 10 to 12 in the Berars. There would probably be room for a college in the Berars.

Dr. Mackichan.—The Berars' students study in Poona or Bombay.

Witness.—Seven colleges would be enough to form a University, and there is a sufficient educated public round the colleges.

Berar students would not mind coming to Nagpur whilst students from Central India would go to Jubbulpore. Indore and Gwalior are both Mahrati speaking. Jubbulpore would be a more central position for a University, but Nagpur has the advantage of being the head-quarters of the administration.

A small University will be better able to look after its colleges than a large one. The size of the University is not of great importance and we should not be deterred from starting a University because we have got a small number of colleges. The time has come when an attempt should be made in this direction. Mr. Fraser is anxious to place before the Commission the information that it is proposed to have a laboratory in the Victoria Technical Institute for teaching Physical Science and Chemistry and to throw it open to the three Nagpur colleges. It will also serve the Agricultural Department. It will be a Government institution to be used by the professors of the different colleges, and looked after by a Government officer. There will also be something like the Oxford arrangement for inter-collegiate lectures. Encouragement is to be given to a system under which each college will have one man as a specialist in each branch of Science. In the laboratory the specialist in Physics will teach Physics to the students of the three colleges and the specialist in Chemistry will similarly teach Chemistry to them. The laboratory will not be more than a mile and-a-half distant from any of the colleges. No attempt has yet been made for inter-collegiate lectures in other subjects; it might be done. Few students go up for M. A.

Witness would be very glad to have on any terms students from other parts of the province to study Science in this laboratory. In their case arrangements will be made for hostel accommodation. They need not join any college for the purpose of studying Science in the laboratory. If they want to appear for the B. A. of the Allahabad University, they will have to take Mathematics as well as Chemistry and for that they will have to join one of the colleges.

There are law lectures in Nagpur and Jubbulpore. At Jubbulpore there is one lecturer only which is not a very good arrangement.

Law teaching.

President.—Do you think there would be any opposition if it were proposed to have a better organised law school at Nagpur?

Witness.—The Jubbulpore people would not care to come to Nagpur. They would prefer to be in their own country. They might come to Allahabad if better hostel arrangements were made. At Jubbulpore the law professor is paid by Government, while at Nagpur he is paid partly by Government and partly by one of the colleges.

The University ought to insist upon students coming from outside living either under the care of their guardians, or in proper lodging-houses or in hostels.

Hostels and residence of students.

Three months ago an order was passed in the Central Provinces that no boy whose parents do not live in the place is to be admitted to any college or school unless he lives with his guardians approved by the principal of the college, or in a lodging-house that is licensed by the Director of Public Instruction, or in a

regular hostel. There should be a system of licensed lodging-houses as in Oxford or Cambridge, with a board to visit them once a fortnight and see that they are in proper order. This experiment has been fixed in the Central Provinces by introducing the tutorial system. Each professor is made responsible for a certain number of boys who live in his locality and are not necessarily in his class. He must visit them to see that they are properly housed, or, if they are sick, that they are properly attended to. He also looks after their moral and physical welfare. The masters are sufficiently distributed throughout the town for this purpose, but special arrangements have to be made in some cases. The hostels are in charge of resident superintendents. The masters are expected to visit the students wherever they may live in order to see how they are getting on. It would be much better to make the boys live in the hostels, but that is a question of money; sometimes there is no room in the hostels and the boys are allowed to live in regularly licensed lodging-houses. The hostel question is very important. When witness was in Madras as Acting Director of Public Instruction he was obliged to go round some of the students' houses and was struck with their overcrowding. It is impossible to exaggerate what he found. A considerable number of the lodging-houses were kept by ex-dancing girls. It is some years ago now, and things have probably improved, but what witness saw led him to the conclusion that it is very desirable that steps should be taken to regulate such matters.

The Government of India should reserve the right of vetoing any text-book prescribed by the University. As an illustration witness mentioned that some six

Text-books.

years ago they prescribed the *Life of Gordon* by Sir William Butler. It was objectionable as a text-book, because it dealt with party politics. Its author abused the Government for what it had done in South Africa, and quoted with approval the remarks of somebody that the Indian mutiny was the result of Government having starved the people. He also said that the Government was one of oppression veiled by specious declarations. That book was prescribed for the F. A. by the Calcutta University. Although what he said may be true it is hardly the kind of thing to teach the boys.

Syed Hossein Bilgrami.—Is it not true that sometimes very indecent books are prescribed as text-books, not in English but in the Indian languages? I have heard of such books being prescribed in the Telugu, Hindustani and Arabic languages?

Witness.—I have not come across any such books. The oriental idea of decency is very different from ours.

Dr. Mackichan.—There was one such book in Bombay, but it was withdrawn.

Dr. Mackichan.—If you could ensure that the Board of Studies would read the books before prescribing them, there is no reason why they should not be as circumspect as the Government and it would not then be necessary to have the cumbersome procedure of sending books to the Government.

Witness.—The Government should have a right to veto books. Now they have not got such a right and they cannot stop the use of a book should the University decline to do so. They should have the power to veto a book on any ground whatever.

President.—If some person is made responsible to read the books and if he says that he has read them would that go some way in meeting your objection?

Mr. Munro.—Yes.

It is desirable to make the examinations simpler without lowering the standard. English books are selected which are much too difficult. A paper was once set on the novels of Sir Walter Scott and contained Scotch colloquialisms which an Englishman could not readily understand, and yet Indian boys were asked to explain them. The books prescribed should be modern and that there should be no archaic English in them. Books like Arnold's "Essays and Criticism" and the novels of George Meredith should not be prescribed for the Indian students because they are hardly intelligible even to an Englishman. The Syndicate at Madras once prescribed one of George Meredith's

Simplification of the English course.

works and witness had great difficulty in fighting it out. It was recommended by one of the professors of the Presidency College and admitted by the Faculty, but witness opposed it. The limitation of books need not apply to the M. A. students. If difficult critical questions are prescribed for the F. A., the students do not exercise their own faculties, but answer from the notes dictated to them by their lecturers in class.

The High School course is too short; it ought to be three instead of two years. Boys cannot get up in two years enough English to fit them to master the subjects taught in the colleges. They want at least three years.

Mr. Justice Banerjee.—Why do you call it a two years' course?

Witness.—In the Central Provinces we have a two years' course. After passing the Middle School Examination boys enter the High School and at the end of two years after joining it, they are able to enter college. They learn English for six years altogether before going up for the Entrance. The period should be increased to seven.

Witness would not reduce the vernacular course. The boys ought to be four years in that course. As a rule students do not take the full vernacular course before beginning the English course. Witness has no experience of students being remarkably superior in their English education on account of their having taken the whole six standards of the vernacular course. There are technical subjects such as Agriculture and Chemistry in the vernacular course. These subjects are very elementary and students are able to understand them. All the Science and History in the vernacular is contained in the books which are read every day. There are no separate text-books for Science, Agriculture or History. One text-book contains all these subjects. It is better to have one book because the students are bound to read it, whilst if they had separate books they would not read them.

English is commenced in the fifth standard, which is called the first class, that is the rule in all schools, aided as well as Government.

It is better to have a text-book for Matriculation, though there is a risk of leading the student to cram from keys. Witness has occasionally found keys of text-books in schools. There are compilations in which the original and the key are published side by side. Such books are not approved.

Those who are well-grounded in Sanskrit are good at English. Very little Sanskrit is taken up in the schools. Boys begin to learn Sanskrit when they come to the High School and not when they are in the Middle School. They begin their English first. A man who has studied Sanskrit, Latin or Greek is a better English scholar than a man who has not. Classics are the foundation of an English scholar.

Witness approves of a 16 years' limit for the Entrance, and also of a 4 years' course in Arts.

If the suggestion for a new University is carried out the Administration will not be involved in very great expenditure. The Administration is prepared to meet it. The University would not be started without inquiries to find out exactly how many students there are in the different colleges in the Central Provinces. The University should at first be aided by Government and as it grows that aid should be gradually diminished.

Mr. Lewis.—I do not think the Allahabad University had much relief from Government except a little assistance for printing papers in the Government Press free of charge.

Witness.—Much of the expense would be met by subscription.

Witness has visited the colleges in the Central Provinces. There is one Government college and three aided colleges. The Inspector of Schools visits the aided colleges. No objection has been made to the inspection. It is not a University inspection. Witness cannot say whether the colleges would welcome University inspection.

Mr. Lewis.—The University inspection would be to see that the colleges are maintained up to that degree of efficiency which they were supposed to have reached when they secured affiliation.

Witness.—The University ought to take the word of the Government officer for that.

Mr. Pedler.—In the event of their being private colleges Government officials would have no right to inspect.

Witness.—That is so. But there is no use in having University inspection when there are Government officials on the spot. If they are not fit to be trusted they are not fit to be appointed. The Educational Inspector will not be biassed in the case of a college likely to complete with a Government college and induced to make a prejudicial report against the affiliation of such a college if he has studied the Education Commission's Report.

Witness would be altogether opposed to the idea of one college with very low fees being opened in close proximity to another which is doing its work in an efficient manner. In the case of aided colleges the Government insists upon their charging certain fees. There are no unaided colleges in the Central Provinces. Where they exist the University should deal with such colleges.

Witness is not in favour of free education except in the case of primary education.

Witness has not considered the question whether, when a school opens college classes, such classes should be altogether separated from the school in order that the teachers may not treat the college students as schoolboys.

Witness favours the idea of recognised teachers because colleges may start with a good staff and gradually change it. Periodical inspection by Government officers would be a good check on such deterioration.

The establishment of a University for the Central Provinces would facilitate the concentration of M. A. teaching. But even then some parts of the Province differ so much from others, that it would be difficult to centralise much higher work in one place. The Nagpur men would not like to go to Jubbulpore and the Jubbulpore men would not like to come to Nagpur. They would prefer to remain in their own country and amongst the people who talk their own language. In the case of an M. A. candidate the college from which he passes his B. A. would try and insist on his keeping his terms there. That is a waste of teaching power, but they like it; that is the feeling in the matter.

Witness has had experience of two universities: one at Allahabad and the other at Madras. The Senate of Madras it is too much of an ornamental body. Witness has been a member for the last 18 or 20 years and knows that there are many members who never attend at all. Those people who cannot attend the meetings of the Senate on account of their residence being in distant places, but whose connection with the University is of great advantage to it, should be made Honorary Fellows, e.g., the Chief Commissioner of the Central Provinces. Similarly in the case of the witness. Although he cannot attend it is an advantage both to him and to the University (who are able to consult him) that he should continue to be a Fellow. There are some persons who never attend or take any interest in the University, but who are appointed simply because they happen to be distinguished barristers or doctors. They should be made Honorary Fellows.

The members should consist of educational officers, professors of colleges and inspectors of schools. The Government should also be represented by some administrative officers, such as Secretaries in the Public Works Department. Educationalists and Government Officers are sufficiently in touch with the people to deal with questions such as the "age limit" from the point of view of students and guardians. The Syndicate should, however, contain some non-official Indian members.

WITNESS NO. 14.—MR. H. SHARPE, M.A., Inspector of Schools, Northern Division, Central Provinces.

Topics.

Witness said he wished to speak on the following points :—

- (1) the curriculum ;
- (2) the hostel system ;
- (3) the course of instruction having relation to schools and colleges ;
- (4) the Jubbulpore Law College.

With regard to the curriculum a good deal might be done in the way of altering certain courses of study, especially in English.

The English books appointed for the F.A. and B.A. are unsuitable for the students. For instance, witness has to teach for the B.A. examination "Selections from Carlyle's French Revolution." That is not the right kind of book which should be laid before students either as regards style or matter. It cannot be called a classical work. It is merely German put into English. It is written in an exceedingly declamatory tone and is most objectionable and unsuitable for students. Witness does not wish to suppress the book on political grounds. Its style and the one-sidedness with which it is written do not recommend it as a text-book. Then there are other books like Lamb's "Essays of Elia" which for Indian students are difficult and uninteresting. They are intentionally written in difficult styles which the students cannot appreciate. Poetry should be almost totally excluded and generally the books prescribed should be written in as modern a style as possible. The amount of poetry prescribed at present is excessive. Shelley and Keats are specially unsuitable. History and Biography should be made an integral part of the English course. It would be a very good thing to make students incidentally learn History even though they may not take it up as a special subject. They should read History for the style of its English, for instance, such a book as Green's History. The "Citizen of India" is too difficult for Entrance students. Some portion of Lee-Warner's or Strachey's book might be appointed for the Intermediate course.

English Text-Books.

Dr. Mackichan.—Would not the "Citizen of India" be suitable for the improved Entrance Examination ?

Witness.—I do not quite know what the standard of that examination will be. There are some passages in the book—especially in the first chapter which are very difficult.

The History course in Allahabad and Calcutta is patchy and too ambitious.

History.

The same remark applies to Political Science. A general History such as Gardner's might be included as a ground work and fully half the course should deal with Indian History, which should be studied, if possible, with some original author. Classical History should be cut out of the B.A. and the course confined to Indian and English History.

It is a very good thing to have an examination two years after the Entrance.

Intermediate Examination.

With an examination after one year and then a three years' course the students would become stale for the B.A. The F.A., as it now stands, is a very good thing although its text-books, especially in English, are conducive to cramming. The cramming is due partly to the fact that the students are not quite strong enough in their English to take notes, and supplement their lectures with bad notes. It would be better if rather less were prescribed, and especially if the English books were easier in style. There is a tendency to make them harder.

It is a common thing in the Central Provinces for a man to give up the college course after passing the Intermediate, because on that certificate he can get an appointment in an English Middle School or in a Government office. The certificate is not essential for Middle Schools, but preference is given to its holders.

The Principal can keep students back for the F.A. When he was in the Jubbulpore College, witness used to hold a test examination every year and to keep back a few students on its results. The standard of the test examination was a little lower than that of the University, in order to leave a margin. The University standard is not too high.

Although the Jubbulpore College is affiliated to the two Universities of Calcutta and Allahabad it practically only sends students to Allahabad.

Affiliation of the Jubbulpore College.

A rule regarding private students is needed in the high schools because students try to appear as private students at the Entrance if they are not sent up from their schools.

Entrance Examination.

In the Entrance Examination students invariably take up Persian or Sanskrit, usually the latter. Sanskrit is not alternative with Elementary Physics or Chemistry. These subjects are optional for the School Final. Balfour's Elementary Physics is taught practically in the Middle and High Schools. There is always a good deal of simple scientific apparatus in these schools. The apparatus is kept in fair condition, though the air pump and the electric machine are apt to get out of order and the masters are not able to repair them.

Classical Oriental languages should be compulsory for the third year of the Middle School; *i.e.*, 4 years before the Entrance Examination. Even science students should be required to take up a classical language, although that will increase the number of their subjects.

At present there are two courses—the School Final and the Matriculation. The first does not lead to the University, but the second does and requires the student to study a classical language. There is no compulsory classical language for the School Final and candidates should not be allowed to take up the subject. There would be no objection to their taking up Persian which is comparatively easy.

The School Final should be conducted by the University, which is likely to keep a more uniform standard than the Department.

It should be made compulsory for every boy to live in a hostel unless he is with his relatives. Witness could like to confine the exception to parents. Even

Hostels.

boys whose parents live in the college town, would do well to come to the hostel, not for the sake of the supervision but in order to share the common life, and to derive the physical and mental training that it offers. Mr. Justice Banerjee suggested that home life is more varied and enables a boy to see more of the world. Witness replied that a hostel is a little world which is more varied than a student's home life.

Hostels attached to the colleges should be under the control of the college authorities. The heads of colleges should make their own rules and their own arrangements for supervising the hostels. They should be given a free hand.

The condition of affiliation with regard to hostels should be made more stringent and colleges should not be allowed to take more students than they can accommodate in the hostel, in addition to those who live with relatives. Witness has not had experience of the expense and difficulty that might arise in large towns. The Government should liberally aid the colleges in starting boarding houses. That is merely a matter of initial expenditure. There should be a responsible person living in close proximity of (or better inside) the hostels. Provision should be made for sanitary arrangements. There should be sufficiently large rooms with furniture and proper lighting. There should be a recreation ground if possible and a gymnasium. Gates should be closed at a fixed time.

The school course should be increased by one year for the better study of English, without cutting off a year from the college course. The four years' course in the college is not any too long. The 16 years age limit is a sound rule. If the High School course is raised from two to three years, it will give occupation to precious boys. In the Central Provinces from the beginning of English study to the Entrance is 6 years, and there are four years of pre-English study. It would

The College course in relation to the School course.

be well to increase the English period by one year. Many boys who pass the Entrance cannot follow the lectures. The six years' English study are, on the whole, well utilised. The teaching of English in the Middle School is good. Critics lose sight of the relative capacity of boys and owing to the influence of the stereotyped examinations expect the same standard from all. The number who cannot understand lectures is at least less than of those who can. The increase of a year will prevent over-driving and allow the instruction of the more clever to be more extended. The standard of the Entrance Examination should be left as at present.

It is undesirable to have an Honours course with a lower pass course than
 Honours Course. that which now exists, so long as college life has so few social advantage.

The Vernacular course of the student before he joins the High School is
 Vernacular course. good and popular. It includes a vernacular translation of Balfour Stewart's Physics.

Physical Geography is included in the Hindi text-book called the "Fifth Reader." The book also contains natural history and a little simple history.

No student (including a private student) can appear at the Entrance unless he has passed the school examinations of the Central Provinces or their equivalent in other Provinces. This is a departmental rule. It would be difficult to check the statement of a private candidate, but the number of private candidates in the Central Provinces is so small as to be negligible. Witness gets very few applications from private students in the Central Provinces. He receives some applications from private students in Central India and always makes inquiries about them. Witness has never come across cases in which the Head Master of a school has given private certificates to the boys of other schools who were not allowed to go up to the examination from their own school.

Mr. Pedler.—The Head Master of Saugor High School said he had himself sent up one such candidate.

Witness.—It is possible he may have done it, but it has not come to my knowledge.

The qualifications of English teachers are that they must have passed the
 School Teaching. Matriculation, F. A. or B. A. There is now a training Institute at Jubbulpore for giving teachers special instruction. Men without the above qualifications may be appointed as a temporary measure.

Teachers in the lowest classes are paid Rs. 15; trained men can be got on this salary because they know that they will rise. The pay of the Head Master in a Middle School is generally Rs. 80, and that of the Head Master in a High School from Rs. 100 to Rs. 150.

In aided schools the teachers are not of the same qualifications as those in the Municipal schools and their pay may be less. Their work is not so satisfactory. There is a scheme on hand for improving aided schools. The majority of boys go to the Municipal schools.

Classes, or sections of classes, generally contain about 30 students. In elementary schools the rule is that the number of boys in each class should not exceed forty. There is no such rule for the English schools, but thirty is recognized as the general limit.

There is no European School Master in witness' Circle. Some Mission schools have European teachers.

It is desirable that, so far as possible, each school should teach for a different option. Where there are several schools in one place they may co-operate and divide the work.

Last year more students passed from the Jubbulpore Law College than from
 Law College. any other. This had nothing to do with the lectures, the candidates pass on their own merits and reading. This has led witness to think that it may be an unnecessary

hardship to compel students to study Law at a prescribed centre. Witness has no special knowledge of Law teaching. He has looked upon the Law classes as a name only. The Professor of the college gets Rs. 100 a month. The rate of fees is Rs. 5 per month.

There are a considerable number of girl's schools in the Central Provinces and there is also a Training school for female teachers. There is no special

Female Education.

High School or college for girls. There have been no cases of girls wishing to join the college. Some girls go to the Entrance from the Central Provinces. They are educated privately or in the Mission High School. The Female Training College is a vernacular institution. It is at Jubbulpore and has a European Lady Superintendent. Married couples are taken as far as possible, and while the men are trained in the Training Institute, the women are trained in the Female Normal School. There is a boarding-house for unmarried women and widows. Enough students cannot be procured to supply the large demand for lady teachers.

WITNESS NO. 15.—THE REVEREND D. WHITTON, Principal, Hislop College, Nagpur.

Witness presented a written statement (No. 10 in Part II) on which he was examined.

There is a syllabus of Philosophy in connection with the Calcutta University.

Text-books and syllabi.

It is good to have a syllabus but it is also accompanied by some risk. When the syllabus first came out, the Professor in Philosophy in the Hislop College drew up a set of lectures based on it. He found that his students could not follow him when he read his notes, he had to dictate and explain them as far as possible. If there are other places like Nagpur—which is a backward country—much good cannot be accomplished by the syllabus system. It certainly gives a certain freedom to lecturers which cannot be obtained if text-books are prescribed. The present system is to prescribe a syllabus and also to recommend a number of text-books; consequently the Professor of Philosophy has to summarise the contents of the text-books and to prepare his own lecture on it. With a syllabus only there is more work and thought in the lectures. (Mr. Lewis explained that Physics and Chemistry are the subjects in which the University relies most on the syllabus system.)

Examiners can do something to diminish cramming but the real difficulty is now

Cramming.

to get better teachers. Good and reliable teachers are a sure remedy against students' cramming up their books both in schools and colleges. Cramming is a special evil in this country on account of the highly imitative character of its people. They have also extraordinary memories. Cramming may also be partly attributed to the students having to learn in a foreign tongue. Teachers simply put phrases and sentences into the heads of their students and the latter get a hazy notion of their subjects without really understanding them. The main object of the teachers is to get their students through the examinations.

The Hislop College does not wish to be affiliated to the Allahabad University

Affiliation.

on account of the frequent changes it makes without sufficient reason. Frequent changes are in themselves most undesirable, although sometimes although not always they may be improvements. Witness favours the establishment of a University for the Central Provinces. He is not sure whether Central India would consult to unite with the Central Provinces.

Witness approves greatly of the hostel system. It was introduced in Nagpur

Hostels.

five years ago. So far it is working very well. A rule was passed at the commencement of this year's session that all students attending the colleges and High schools in Nagpur must live within Hostels—either those which are connected with the Hislop and Morris Colleges—or other suitable hostels that may be erected in the city. These new hostels will be licensed by the Director of Public Instruction on the recommendation of the Principals of the colleges, and the students, residing therein will be subjected to a stricter system of supervision than has obtained heretofore. There has hitherto been no control over the bulk of the students outside the college walls. Witness has consulted a great many parents and guardians on the subject of compulsory hostels and has found that none of them object to the project. For the sake of private institutions, the University should make a rule that it will not recognise any college or school which has not got a hostel attached to it. Generally the Hislop College Hostel is under the superintendence of an advanced or an ex-student. At present there are two superintendents; one has been a teacher in the High School for a long time and is respected and liked by the students; the other is a Native Christian who has been one of the students but is now a teacher. He also has the confidence of the boys. Witness himself exercises a general supervision. This hostel is practically limited to the Hindu and Mahomedan students. There is another hostel for the Christian students which is directly under the supervision of one of the Missionaries, belonging to the college staff. The City hostel is not directly under European supervision.

Witness sees that nothing goes wrong and keeps the accounts. The charge is Rs. 9 for a room on the upper and Rs. 8-8-0 for a room on the lower storey. These rates include all charges for board, lodging and extras. The superintendents are respected and looked up to by the students. The ideal would be to have the Principal or a Professor residing permanently close to the hostel.

With reference to the remark in the witness' statement that the popularity of University education may be regarded as a test of its efficiency, Mr. Lewis suggested that if education were cheap and valuable prizes were obtainable at the end of it, crowds of young men would pursue it, however bad it might be. Witness admitted the force of this but considered nevertheless that the principle of his remark is sound.

No provision is made for the religious services of the Hindu and Muhamman students in the hostel, and the college authorities do not inquire what they do in their own rooms. All kinds of students have to attend religious instruction every day in the college.

With Hindus food has been the great difficulty. A Brahmin cook has been engaged for all the Hindu students but some of the Brahmin students will not take food from him. In their case provision is made for them to cook for themselves.

WITNESS NO. 16.—MR. PRYANATH MUKERJI, M.A., Professor of Physical Science, Morris College, Nagpur.

Witness presented a printed statement (No. 11 in Part II) from which he read extracts.

The Senate.

Two points were specially noticed in connection with witness' proposals regarding the Senate:

- (1) They involve an increase in the total number of Fellows. Witness said this would not be counteracted by removing some of the existing Fellows, because they were not given to understand that their Fellowships would be terminable.
- (2) There will be *life* Fellows appointed by the Government and *term* Fellows elected by colleges. Witness does not think that the co-existence of these two classes will be open to objection.

The Government should continue to nominate Fellows.

The number of the Syndicate in the Calcutta University should be increased to 15, so that there may be at least five Professors representing different subjects.

The Syndicate.

They may or may not come from the same college, but it would be better if they came from different colleges.

Heads of colleges sometimes address letters on educational questions to the Registrar, but they are not authorised to do so by any rule in the Calendar.

Representations to the University.

Such a rule need not necessarily be defined, as the right to send a letter could not be disputed, still if there was such a rule it would be better, for then there would be a greater chance of the letters being attended to. The rule is required not so much to authorise the heads of colleges to address letters to the Syndicate as to compel the Syndicate to take into consideration the proposals which are submitted by them.

In paragraph V of his note witness gives a list of subjects, which he regards as excessive, for the 6th class of a Bengal school. Mr. Pedler pointed out that to

School Course.

bring the list up to date numbers 2, 3, 4 and 14 must be omitted. No. 14 (Geology) had never formed part of the course.

Failed candidates should be required to reappear in those subjects only in which they were plucked, because, at present, the examination system tells much

Passing by compartments.

on their health.

The University should encourage Professors to improve the religious and moral condition of the students. Professors are now taking up the matter. The

Religious Instruction.

Morris College is a Hindu institution and it gives instruction in the Hindu religion. The College is conducted by a committee and aided by the Municipality, Government and a private endowment fund which was raised by public subscription in memory of Mr. Morris, the Commissioner. It is not possible to organise any system of religious teaching which will satisfy all classes of Hindus; but individual teachers may give instruction in the general principles and may teach students to revere their own religion. In the Kayasth Pathshalla boarding-house there is a small temple with arrangement for *pujah*. Hindu teachers should give religious instruction to Hindu students, Muhammadan teachers to Muhammadan students and Christian teachers to Christian students.

According to the present affiliation rules the University requires to be informed that there is a competent staff of teachers in any college that applies for affiliation.

Recognised Teachers.

Witness does not think there has ever been an instance in which a college had an efficient staff of teachers when applying for affiliation, and reduced it and appointed incompetent teachers shortly after the affiliation was secured. Instead of introducing a list of recognised teachers, a college may be disaffiliated if it gradually shows worse and worse results. Control may be maintained by a system of inspection, say, by the Director of Public Instruction, whose report should be accepted by the University.

Students should be examined in their own vernaculars in addition to a classical language. In the B. A. and M.A. some selections from the vernacular should be appointed. This will not lead to an undesirable multiplicity of subjects.

Higher education is in general confined to the upper classes of society. In the Morris College, about ninety per cent. of the students are Brahmins. It is desirable that the lower classes should also be given the advantage of higher education.

There are some lower grade Bengali schools in the Central Provinces, chiefly from Nagpur and the Southern Mahratta country.

In making a plea for a University for the Central Provinces witness said that more higher education was needed and would be fostered by a local University. With such a University the present total number of 300 college students would rapidly increase. There are no professional colleges in the Central Provinces. The Morris College has never thought of affiliating itself to the Bombay University, because that would be open to the same objections as the present system.

WITNESS NO. 17.—MR. G. F. THIBAUT, PH. D., Principal, Muir Central College, Allahabad.

Witness presented a printed statement (No. 12 in Part II).

University teaching of the European type is hardly to be found in India at the present time, and it is necessary to give, as it were, a higher tone and a higher character to the teaching by establishing an institution of altogether higher aims and of a higher type. The colleges in the United Provinces are practically limited to B.A. teaching, with the exception of one subject, namely, English Literature, which is fairly represented up to the M.A. stage, and this B.A. teaching is not of a type which would be called University teaching in Europe. The B.A. teaching in such subjects as Mathematics, History and Classical Languages is certainly not more than what would be done at home by a good school. Perhaps it is saying too much to limit the comparison to good schools but witness does not want to overstate his case. The idea had spread in the minds of students and people in general that it is quite sufficient to study up to the B.A. This has led to the neglect of all higher branches of study. In all branches, but English Literature, the number of M.A. candidates in the Provinces has not advanced since the foundation of the University; in fact, it has gone down. To exemplify this: at the last examination there were 24 candidates in English Literature, one in Philosophy, no candidate in History, one in Persian and perhaps two or three in Mathematics, and it is well known that, with the exception of those who took up English Literature, most of the candidates were not properly taught. At present no college teaches Philosophy beyond the B.A. A man who takes up the M.A. course must do it at his own risk. No college teaches History, and though Mathematics are taught, there are hardly any candidates. At present the Muir Central College has one student for the B. Sc. in Chemistry and one for the B.Sc. in Physics, and it is quite possible that the whole Science movement may die out. Certainly in English Literature there are always a fair number of candidates, but witness has given in his note the reasons why he considers this exclusive study of English Literature in the M.A. stage to be somewhat disastrous.

In reply to the President witness said that there is a demand for teaching in the higher branches, and that it is because it is not satisfied that it is gradually dying out. At the beginning of last year in the Muir College five of the best B.As. wanted to read for the M.A. in History, but there was no one to teach them. The same thing had taken place in Philosophy. Every year candidates want to be taught M.A. Philosophy, but it is a very heavy task and there is no time to do it in the Muir College. On the literature side the staff consists of witness himself, one Professor of English and one native Assistant Professor. They have to teach all the English and all the Philosophy and Political Economy up to the B.A. and also English Literature up to the M.A. It is impossible for them to do anything more. If there were concentration of teaching, numbers of students from other places would come to Allahabad, or to any other place at which the concentration might take place.

The number of passed M.As. in the Allahabad University is 152 in English, 11 in Mathematics, 16 in Physics, 21 in Chemistry, 6 in Philosophy, 7 in Sanskrit, 13 in Persian, 4 in Arabic and 6 in History. M.A. students do not go to other Universities except in very small number.

Mr. Pedler said that in Calcutta the number of M.As. increased from 1 at the beginning to 120 to 130 a year, and that there appeared to be no reason why the History in the Punjab should not be similar. In Calcutta the progress during the first 10 years was small. Witness said that in Allahabad there had been some increase on the whole, but a decrease in individual subjects, and this is to be ascribed to the fact that no teaching is provided in many branches. Witness can not say whether openings for M.A. candidates in the United Provinces are smaller than in Calcutta, but practically for most appointments the B.A. is considered sufficient, and no distinction is made between a B.A. and an M.A. At present anybody who has passed the B.A. can appear in the examinations for Deputy Collectors. For teaching, presumably an M.A. would be preferred to a B.A. There is nothing corresponding to the rule in the Calcutta High Court that applicants for enrolment for the Subordinate Judicial Service have preference shown to them if they were M.As.

The large number of M.As. in English, as compared with the few in other subjects, is partly because there is no teaching provided in other subjects, whereas there are arrangements for teaching English Literature. Another reason why so many students go in for English Literature is because it is considered easier than the other subjects. There is some foundation for that impression. English Literature is certainly easier than the M.A. in Philosophy, and very likely it is easier than the M.A. in a classical language. Another reason which may account for the preference for English is that it is likely to be useful to the students in after-life. On the other hand, the kind of study in English carried on in the M.A. class does not much facilitate the use of English of a practical kind. There is as much practical use of English in Philosophy, History and perhaps Science. There are facilities for M.A. students in the study of Science. Nevertheless witness does not feel particularly hopeful in regard to Science. The symptoms in the Muir Central College are distinctly unfavourable. Mathematics are not liked at all.

The introduction of Philosophy into the B.A. course is a decided mistake.

Philosophy. Witness himself takes a very great interest in Philosophy and has been teaching it all the time he has been in India, but he does not think that students at the B.A. stage are sufficiently mature for its study. They have not that amount of knowledge which students in Europe are supposed to possess before they began the study of Speculative Philosophy. In Europe at present the study of Philosophy is approached in one of two different ways: either by means of a classical education (Latin, Greek and History) when it generally begins with the study of Plato and Aristotle; or else, from the more scientific side, by the study of Physical Science and Physiology. Allahabad students possessed neither of these qualifications. They read their classical language most imperfectly; they know nothing about Science, very little about History and have only a smattering of Logic. They are, therefore, not mature for the study of Philosophy, and the results of their study are at present most unsatisfactory. Students pass because they remember a number of answers to the most important subjects, but 9 out of 10 do not really know what the subject is about. They pass because they have been well prepared. Philosophy is one of those subjects which lend themselves to careful preparation. A book like Barclay can be reduced to 10 or 15 questions, and if students are prepared in those questions they will pass. A certain amount of Ethical Philosophy with some simple Physiology might be taught at the B.A. stage, but to try anything more ambitious is an absolute mistake. In reply to Mr. Justice Banerjee witness said that an improvement might perhaps be made in the course, and that he had no desire that Philosophy should be excluded altogether from the University. It should come at a later stage, or at any rate the B.A. course, as it now stands, should be retrenched.

Witness would make an Indian student begin the study of Philosophy at the M.A. stage and prepare him for it by a course of scientific education on the one hand or a good classical education on the other, which should include the study of Sanskrit and History.

Witness always thought it would be an excellent thing if the better students, who are really in earnest about true culture, should take up Latin or Greek, but it seems somewhat difficult to carry out this idea. Sanskrit and Latin or Sanskrit and Greek would be an excellent combination.

Witness would retain an ordinary B.A. college at Allahabad whether it be the Muir Central College or any other college, and quite distinct from and over and above that he would have another institution for the teaching of higher subjects. Possibly the B.A. college and this other institution might be brought under one name as branches of the same institution; but it would be better to separate them from one another, in order that the higher teaching may stand on equal relations to all colleges in the Province.

This scheme does not imply that the existing professoriate of the Muir College should leave the present B.A. course to be taught by others. The staff of no college should be weakened. None of the colleges are strong enough at present to teach the B.A. efficiently. The staff requires to be strengthened ; there is no room for reduction. If any of the present Professors of the Muir College were transferred to the new institution, their places would have to be filled by men of similar standing.

Witness had not taken the question of transferring men from the present college to the new institution into consideration, though such a course would not be excluded from the scheme.

Teaching for the B. Sc. might or might not be transferred to the new institution, for the D. Sc. it certainly ought to be.

Undoubtedly there would be opposition to the scheme in certain quarters, but if witness was in power, he should not attach much importance to that opposition. If they took away the M.A. teaching from the present colleges, they might do a certain amount of harm, but the advantage on the other side would be much greater. The colleges should be glad to be relieved of a burden which they are ill-fitted to bear. Sanskrit is the only subject for which there are special reasons for making an exception. They might be able to make special arrangements for the teaching of Sanskrit at Benares, but even with regard to that, witness would be very unwilling to see Sanskrit, and more especially the study of Indian History, excluded from the Central University. Witness did not see much objection to a scheme of the kind proposed by the Vice-Chancellor, namely, that a man should remain a student of his own college and get his higher teaching at Allahabad. The essential is that they should be taught in the Central University.

The Professors in the University institution should be allowed freedom in following their own course of teaching. That is essential, as the thing that stands most in the way of teaching at present is that the University undertakes to lay down one course for everybody. Taking, for instance, the case of History it looks about for some text-book and prescribes it, though it is a recognised fact that large periods of Indian History cannot be properly treated on the basis of text-books. There was a most striking example of that the other day when a course had to be fixed for Indian History for the B.A. As there are no suitable books for the Hindu period, they were on the point of leaving it out altogether. On the other hand, a Professor with a knowledge of Indian History with the rich material at his disposal would be in a position to compile a most interesting course of lectures. If the same Professor were told by the University that his students would be examined in two or three text-books only, his work would lose enormously in value.

A syllabus might perhaps work well if it only indicated the outlines, but in the M.A. examination especially the whole course is laid down in text-books ; there is not merely a syllabus. It is the same in Calcutta.

Teachers should also be examiners, but to guard against any risks, they should examine their own pupils with the co-operation of Professors in similar institutions in other parts of India. This would guard against possible misunderstandings.

Witness observed that he had laid stress in his note somewhat especially on History and Philosophy, because it appeared to him that higher teaching is very much wanted in these subjects. He had referred very little to Science, because he is quite certain Science will not be left out in the higher teaching, while there is some danger of History and Philosophy being neglected. By this he did not mean that he did not fully realise the importance of Science.

In the beginning Government would have to start the scheme and very likely Government will always have to bear some part of the expense, but it may be hoped that some Professorships will be endowed. Whoever provides the funds, should have a voice in the appointments made. If Government has to maintain the institution, or bear a considerable part of the cost of maintaining it, it would naturally fall to Government to make the appointments. In continental countries—

Germany for instance—there are different ways of making appointments of this kind. They are partly made by the Minister of Education who is supposed to consult specialists, or else they are made on the proposal of the University itself. For instance, a certain Faculty of the University proposes two or three men for an appointment and then the Minister of Education makes a selection from these. The Professor might come from another University, but he might also be a junior Professor of the same University, and sometimes he might be a teacher of a high school who is promoted in this way. In Prussia at present they follow the two systems. Sometimes it is left to the University and sometimes the Government take the initiative. Just now there is some discussion as to which of these two plans is the better, but they are still both in practice.

It was the original intention of the Government at the time when the Allahabad University was founded to do something of the sort that witness is now advocating. In a speech made at the first Convocation Sir Alfred Lyall said: "Our University is likely for a very long time to come to be one that directs and organises education, that uses affiliated colleges as its instruments and as the medium for the dissemination of learning, and tests the results by great public examinations. I do not say, however, that no attempt should be made to lay the first stone of a great change in its design. On the contrary, I have already proposed to strengthen gradually the Muir College which is now the local habitation and meeting place of the University by increasing the number of its teaching staff whenever it is possible and desirable. We cannot attach Professorships to the University itself, but it is possible to improve and expand the teaching power at the Central State College."

Original theses testing the capacity of the students should be expected from them in the higher examinations. These theses should be published by the candidate. The publication of theses would tend to keep the standard up to a high level, because, if inferior theses were published, it would go against the reputation of the University. In continental countries where theses are required they are always published. In the Allahabad University a thesis is optional in the D.Sc. One thesis has been submitted in History. About Science witness could not say.

Asked whether he wished to say anything as to the constitution of the University and whether any improvements might be made in regard to the Senate or Syndicate. Witness said the remarks he had to make would necessarily refer here and there to remarks made by a previous witness before the Commission, because a number of statements were made the other day by the Principal of St. John's College, Agra, which were misleading. Witness said he would endeavour to be as little personal as possible.

The constitution of the Syndicate of the Allahabad University is quite a unique experiment in Indian Universities, because it allows adequate representation of educational interests. In the other Indian Universities Principals and Professors of Colleges have no seat in the University at all. They may come in, he supposed, by election, but there is no certainty of their coming in, while at Allahabad the Principals of five colleges, according to the constitution, have permanent seats on the Syndicate and in addition the Principal of one aided institution who is elected. This is an excellent feature, and it is the general opinion that it has been a great success. Certain difficulties of course arise. Of the five Principals, or six Principals, counting the elected one, only one resides at Allahabad and the others have to come in from outside. This is not at all conducive to the transaction of business. The distances are very great, and travelling in India, especially at certain seasons, is very disagreeable. These members are also fully occupied in their own places and therefore find it difficult to come in regularly, though most of them sacrifice a good deal of time and do not spare any trouble. Nevertheless the University could not work regularly unless it were for a permanent element of the Syndicate which resides at Allahabad. This permanent element is provided partly by certain elected members not belonging to the educational body, as Pandit Sundar Lall, and partly by other

elected members, who, as a matter of fact, at present are all Professors of the Muir Central College. This strong representation of the college has given rise to a great amount of ill-feeling. But witness himself cannot see how matters could be managed otherwise. It is not possible to count on outside members coming in and when they do come in, they have not much time to spare and business is very often hurried through. Another disadvantage is that all the important business of the year has to be transacted at two meetings. There is one meeting in November and one in March, and it is for the convenience of outside members that all important University business must be despatched during these two meetings. But notwithstanding these disadvantages the local members are of great importance for the proper management of the University.

Besides the Professors of the Muir Central College, other gentlemen of Allahabad are members of the Syndicate. For instance, the Vice-Chancellor—a judge of the High Court—presides over their meetings. Then there is Mr. Conlan, a distinguished member of the Bar, and Pandit Sundar Lall who is a most useful member of the Syndicate. The outside world is represented, as it were, by them. It is also, however, essential to have educational men in sufficient numbers on the Syndicate, and this is recognised as a necessity by the Senate which always freely elects Professors of the Muir Central College to fill the five open vacancies. No pressure of any kind was put on the Senate for this purpose, and under the arrangement, as far as witness can see, the Syndicate has on the whole worked very well. There have been complaints now and then, but there is not any serious defect. If there were to be any change in the constitution of the Syndicate, it should certainly not be to add more Principals of Colleges. The Educational Department, as far as Principals and Professors of Colleges are concerned, is quite adequately represented. It would be of advantage if they could find a few more outsiders of the type of Pandit Sundar Lall, who would add to the strength of the body. That is the only change he would propose. In the early days of the University the High Court took a greater part in the government than they did now. It would do no harm to have the number of Syndies increased by two or three members for the purpose of adding more outsiders. Though the Senate do elect educationalists to the Syndicate, yet it is as well to have the constitution of the Syndicate defined by statute; a point of that kind should not be determined merely by the election of the Senate. The quorum for the Syndicate is four. In the early days of the University they had sometimes failed to get a quorum. That was before the Professors of the Muir Central College were elected to the Syndicate. They are the only people on whose regular attendance it is possible to count. There is not any difficulty now in getting a quorum. The Revd. Mr. Haythornthwaite had said that all Principals of outside colleges should be on the Syndicate, so that if one did not attend a meeting, another might. That arrangement would be most undesirable, as it would destroy all continuity of management. Even now inconvenience is experienced from different persons attending successive meetings. There is no canvassing whatever for seats in the Syndicate, and there is hardly ever a contest of any kind. In most cases the Senate is practically unanimous. There is voting by ballot, so that there can be no mandates with regard to these votes. Absentee members do not send in their votes for elections to the Syndicate. For elections to the Senate proxy voting is allowed.

On the whole, the Senate has been working very well and a majority of the members take an interest in the work. The educational element is very largely represented on the Senate. Witness has nothing to say against this representation; his sympathies are on the educational side, which is now as strongly represented as it possibly could be. When a Professor comes out to one of the Government or chief aided colleges, he is made a fellow of the University within a year or two. At present almost everybody in the Education Department who could be a fellow is on the Senate. The proportion of educationalists on the Senate is not less than half. On all important educational matters it is not difficult for the Senate to carry what may be called the rational view. Roughly speaking, on the Senate there are two sections—the

The Senate.

moderated in October and the examinations are held in March. There has to be a long interval to allow for printing and for the papers being properly moderated. There is difficulty about the printing of papers ; they are always printed away from Allahabad. The higher examinations such as the B.A. and M.A. are held in Allahabad. The Entrance and Intermediate examinations are held at centres. For the Entrance Examination there are 14 or 15 centres. Witness knows the Bombay plan for printing and distributing papers and thinks that it is a good one.

The increase in the number of centres for the Entrance and Intermediate Examinations had been slow in recent years. Examination Centres. Centres meet a reasonable demand, considering that some colleges are affiliated to the Allahabad University at such distant place as Rajputana. The wish for separate centres in the United Provinces is very strong. Allahabad is maintained as the only centre for the B.A. examination with great difficulty. Applications are constantly made for the multiplication of centres. For the Entrance there are a larger number of centres than for the Intermediate. That may be due to the willingness of other Universities to give centres,

In reply to Mr. Justice Banerjee witness said that in the course of last year secret circulars from the Officiating Director of Public Instruction were issued to educational officers, informing them that they were expected to be present at the Senate meeting and to support a certain measure. It was definitely stated that they should support the measure. The Government and the Senate.

WITNESS NO. 18.—MR. HOMERSHAM COX, M.A., Professor of Mathematics, Muir Central College, Allahabad.

Witness was examined on a printed statement (No. 13 in Part II).

The control of the University should be in the hands of the Faculties.

The Faculties and the Senate.

Faculties should consist exclusively of experts and each Faculty should be to a certain extent independent, that is except in points which concern all the Faculties together. Such matters as fixing the dates of examinations or the age of admission into the University must be settled by all the Faculties in common. That is to say, the Senate should be a joint meeting of the Faculties. The subject of Fellowship would then become a matter of little importance; it would be only a title. The essential point is that technical subjects should be dealt with by specialists in those subjects. Mr. Justice Banerjee suggested that each Faculty would desire that its standard should be high, and that an examination settled by a combination of the Faculties would be too severe. Witness replied that each Faculty should give its own degree.

Mathematics should be struck out of the Faculty of Arts and put into the Faculty of Science. In reply to Dr. Banerjee witness said that the study of Mathematics with Philosophy is not a satisfactory combination. He agreed with what Dr. Thibaut had said about Philosophy, that it is unsuitable for a man at the stage of the B. A. student. It is not necessary for a B. A. to have a knowledge of Mathematics in addition to his literary subjects. If the course were made as severe as it ought to be, a student of History and Political Economy would have no time to follow a proper Mathematics course. Mathematics, Physics and Chemistry go well together. Witness could like to see one Faculty reserved for Science subjects such as Mathematics and Physics and the other for literary subjects such as Philosophy and History—a Royal Society side and an Academy side. He would not however, object to having Mathematics in the Arts Faculty if they would not give way to the tendency to lower the standard.

The Syndicate at present prescribes courses on the recommendations of the Faculties. It may, however, disregard these recommendations and has occasionally

The Syndicate.

done so. It also affiliates colleges. Witness cannot agree with Dr. Thibaut that the constitution of the Syndicate is satisfactory. There are very few scientific men on the Syndicate. Mr. Boutflower was not for a very long time a member. At that time there was no man with a competent knowledge of Mathematics and Science on the Syndicate.

Colleges have been affiliated by the Syndicate in Physics and Chemistry for the B. A. without proper laboratories. When the B. Sc. was introduced there was a

Affiliation in Science.

provision made that no college should be affiliated in the B. Sc. without proper laboratories. This was avoided by a number of colleges which did not send up their students in Physics and Chemistry for the B. Sc., but sent them up for the B. A. in the same subjects and thus avoided the necessity of having to maintain proper laboratories. To put a stop to this Mr. Boutflower very rightly carried the resolution through the Syndicate, of which Mr. Thibaut has already spoken, to exclude these two subjects from the B.A. Witness would go a little further and exclude Mathematics as well as in his opinion it is also not properly taught. It is not likely to be properly taught and the standard is not likely to be kept up, if it is retained as a subject in the Arts course.

Dr. Mackichan remarked that Mathematics had been most flourishing when in the Arts course. Witness said that

Mathematics in the Arts Faculty.

would depend on the value attached to the B. Sc. Mr. Lewis suggested that the exclusion of Mathematics would lower the B. A. degree. Witness said not if its own subjects were raised in a proper manner. For a B. A. the scientific study of History is of great importance. English, History and a classical language would be a proper course for a B.A. Mr. Lewis asked whether it would not be an advantage for a B.A. to take a lower course of Mathematics than that suitable for the B. Sc. Witness feared that such a plan would ruin the mathematical classes. Dr. Mackichan said that if students did not take to the B. Sc., the study of Mathematics would languish.

Witness said that it remains to be seen whether students will not take up the B. Sc. when Mathematics is included in it. A certain number will want to take Mathematics, Physics and Chemistry. At present only one a year takes up Mathematics for the B.A., and it is not worth while retaining it in the Arts course for one student.

It would be well to concentrate the teaching of Science in one or two good colleges.

Mr. Justice Banerjee questioned witness with regard to his statement that the B.A. standard in Mathematics is if any thing below the standard taught in high schools in England, saying that the Special in Mathematics at Cambridge did not seem to be higher than the B.A. or B. Sc. standard in India. Witness explained that an English school is not reduced to the level of a University Entrance Examination and that many school boys make great progress in their studies. A graduate, one of witness' best pupils, who is now studying at Oxford, wrote to him two years ago that he found very much to his annoyance after joining college that he knew a good deal less than English school-boys who had just come up to Oxford.

There is great waste of teachers under the present system. There are about 20 candidates going up for the M.A. and six or seven teachers instruct them in six or seven colleges which are scattered about all over the province, each college having to provide for the teaching of a small class. Again the special capacities of teachers are not utilised. For instance, Dr. Thibaut has a knowledge of Hindu Astronomy combined with a knowledge of Sanskrit which is unique and yet he has had no opportunities of lecturing on that subject. Such men might be encouraged to work in a teaching University but not in a college which is practically a school.

No exemption from attendance at lectures should be allowed to students who come up for the M.A. That is a point to which witness attaches great importance and he has brought it before the Syndicate on several occasions. A B.A. does not know more than a sixth-form school-boy, can he be expected to learn as much by reading by himself as he would learn at Oxford or Cambridge University? He is not mature enough to be left to private study. Attendance at lectures should be compulsory to enable a student to qualify for appearance at the M.A. Examination. If a sweeping reform were not desired, it would be very easy for the Government to appoint certain University lecturers and require candidates to attend them. Witness said he would give an instance of how this would work. Recently Mr. Munro was on leave and witness taught Physics as a temporary measure. He was no Physicist and did not consider himself competent to teach it for the M.A. and when a candidate come to him for the subject he told him to go to either Mr. Hill or Mr. Ward at the Canning College, Lucknow, as he (witness) was not competent to teach Physics. The student would not listen to his advice and is now going up for the University examination without having been properly taught. Supposing that there had been a recognised University lecturer at that time this could not have happened.

Dr. Bourne asked whether it is not a mistake to make lectures compulsory, such compulsion lessening the value of the lectures in the eyes of the student as well as their actual value. Witness did not agree. In reply to Mr. Justice Banerjee he said that at present the M.A. students practically require coaching.

With reference to paper setting Mr. Haythornthwaite had said that a number of the examination papers were set by members of the Muir College. Out of 19 papers set in the last seven years in Mathematics only two had been set by Professors of that College. One of witness' colleagues tells him that the proportion is about the same for English Literature for the B.A. The other colleges which contribute to the setting of mathematical papers for the B.A. examination are the Canning College, the Christ Church College and the Roorkee College. Wherever a competent mathematician is found he is appointed.

WITNESS NO. 19.—MR. E. G. HILL, B.A., Professor of Chemistry, Muir Central College, Allahabad.

Witness presented a paper (No. 14 in Part II) on centralisation, Science in schools and boarding houses.

Centralisation should be sought as far as possible, and one of the first things that can be done in that direction is to abolish many of the small colleges. There is a table in witness's note showing the number of candidates sent up for the examinations for the B.A. from the various colleges which are affiliated to the University. No less than half of these colleges have less than 10 candidates a year, and many of them considerably less, especially Ajmer, Jeypur, Jodhpur and Ujjain. At Ajmer, which was affiliated in 1888, the average for the last three years was 7; at Jeypur, which has also been affiliated for 14 years, the average for the last 3 years was 3; Ujjain, which was affiliated in 1893, sent up 4. Most of these colleges are really schools with college classes, in itself a highly undesirable arrangement. The amount of money thus spent on University education would be very much better utilised in improving the quality of teaching in the school department. For the three years previous to 1900 the number of students sent up by the small colleges was less than at present, and this seems to show a tendency to migrate to the larger centres.

It would be possible to group education for the B.A. standard at five centres—Agra, Aligarh, Allahabad, Benares and Lucknow. The Native States might institute their hostels at these centres, and students from colleges in Native States might live in their own hostel at whichever centre they selected to attend. It would be natural for Gwalior, Ajmer and Jeypur to go to Agra; there is no reason why hostels should not be started for them at that place.

To the argument that Native States like to have their own colleges, witness replied that they ought then to have their own universities. Even if the colleges were well endowed and equipped, witness would object to their continuance because they show no tendency to increase their numbers and their students fail to get any of the advantages of university life. They might teach up to the Intermediate, but after that these students should have the benefit of contact with their fellows. It would be very difficult to lay down what the number of students in a college should be in order that it may gain affiliation, but witness would prefer to deal rather with affiliation of cities as recognised centres for educational work. It is a striking fact that such a large city as Cawnpur with so many inhabitants should have no college, except Christ Church College, which sent up 14 students. So many students go to Allahabad and Lucknow; there is no reason why all should not come there. Witness has no means of judging whether, as the Reverend Mr. Westcott contended, the mere existence of a college tends to raise the ideals of the people of a city. There is far too great a multiplication of colleges. Aligarh is as an ideal college and Muhammadans from all over India come to it.

Mr. Lewis said that the small colleges had damaged the schools. The best teachers have been transferred to colleges and graduates think it a degradation to do school work.

The standard for the B.A. degree is a very low one and very few go beyond it. In a class of 70 Science students only one or two at the utmost go as far as the second B.Sc. This could be remedied by making the B.A. a three years' course and constituting it the qualification for Government appointments in place of the Intermediate.

As far as Chemistry is concerned the Oxford School Certificate Examination, which witness passed at the age of 18 before going to Oxford, is equal to the Chemistry for the B.A. degree. In making this comparison witness had taken into consideration the fact that the Indian student has to read everything through the medium of a foreign language. He has never found that in the learning of Chemistry language proved a difficulty to the Indian student. For

the first six months the voice of the European professor is strange to the student, and he did not therefore assimilate what he heard, but the learning of his text-books does not present any difficulty.

Decentralisation has been carried on in the United Provinces to an almost ludicrous extent. At Roorkee there is Engineering; at Agra the Medical School; at Cawnpur the Agricultural School, whilst in Allahabad a speciality is made of Physics and Chemistry. This effectually prevents the University from combining Physics and Chemistry with Agriculture or Chemistry with Medicine.

One of the great drawbacks to the Science course is that it unites Chemistry, Physics and Mathematics. That prevents a great many students from taking the B.Sc. Many students have not the natural faculty for learning Mathematics, and yet they must learn it if they take up the B.Sc. That is a lamentable state of affairs.

The Medical School should be transferred to Allahabad and a Biological Laboratory should be opened there. The school should be raised to the status of a college.

Witness referred to the cutting out of Science from the B.A. No proper notice that this resolution was to be brought up was given. Unfortunately witness was ill at the time and was unable to attend the meeting, but when he received the news he was struck with surprise. Witness is not at all opposed to Science subjects being taught in the B.A. He differs from Professor Cox in that he thinks that both Mathematics and Physics and Chemistry might be taught with great advantage in the B.A.

The President pointed out that Mr. Cox's proposal had special reference to the inferior Science equipment of B.A. colleges. Witness replied that B.A. colleges should be affiliated by subjects.

The teaching of Science in schools is confessedly not as good as it should be. The practical demonstrations in schools are not, as a rule, satisfactory, and the teachers themselves are very often not properly qualified. There is at Allahabad an excellent institution for the training of teachers. A teacher, who has been through that institution, is worth three or four times as much as an untrained man especially if he has only passed the B.A. Text-books in Science should not be prescribed for the Entrance. The sort of syllabus which was settled by the Incorporated Association of Headmasters might be adopted in Indian schools. To improve Science there must be good teachers who should receive adequate training at Allahabad or Lucknow. There should also be thorough inspection. There should be a Science inspector for all schools which teach Science. It is advisable that this inspector should have a European qualification, not that there are not many excellent Indian teachers of Science, but because a European has generally more knowledge of the work of teaching.

It is very desirable that residence in recognised hostels should be compulsory as at Oxford and Cambridge. The Muir College is very badly off for hostel accommodation, and despite the efforts of the Principal to improve it the accommodation is little short of scandalous. The University might pass rules to make residence in a college hostel an essential qualification for a degree, and hostels should be an integral part of every college. That is to say, the Principal of the college should have full powers over it. The rules for hostels should include gate rules. Although private hostels would be welcome they should also be subject to the Principals of the Colleges and they should not be protected hostels. No Muhammadan in the Muir College is allowed to go to another hostel until the Muhammadan boarding-house is full. That is most undesirable. No hostel should have a definite claim on any religion or any caste, and competition between hostels should be invited rather than discouraged. They should

not, however, be a common mess. Students should make their own arrangements. In short, hostels should be residential institutions with a superintendent to look after the moral welfare of the boarders and should be part of the college rather than of the University. Residence at hostels should be compulsory except if students live with their parents.

Physics and Chemistry are not popular for higher degrees because there is nothing technical to which students can turn except agriculture. The exceptions are few. At Cawnpur an application was made for a student to do sugar analysis. The Agricultural Chemist to the Government of India asked witness for a man a little while ago. The demand for commercial analysts is not great.

The numbers in the B.Sc. will probably decline greatly when the new grouping of compulsory Mathematics, Physics and Chemistry is introduced. At present witness examines 50 or 60 students in Practical Chemistry, but when this rule comes in he will not examine ten. Chemistry ought not to be a subject for the B.Sc. by itself, but these should be an alternative group. A student might be allowed to take up Chemistry with Botany or Chemistry with any other subject.

WITNESS NO. 20.—PANDIT ADITYA RAM BHATTACHARYA, Professor of Sanskrit, Muir Central College, Allahabad.

Witness presented a written statement (paper No. 15 in Part II) mainly on the study of Sanskrit.

There is a danger that if the University were to take over the examinations from the *tolls* they would degenerate into cram, especially if *vivá voce* were not required in addition to paper work.

Study of Sanskrit.

The Benares College has not a large number of pupils, but it has given an impetus to Sanskrit learning. There is an endowed *Pathshala* on the other side of the Ganges where 20 to 30 students read with a pandit, and he has sent some of his pupils up for the *Pratham Parikya*; this shows that the influence is spreading. The system of teaching Sanskrit in Benares does not encourage cram, although there is no *vivá voce* examination. In the beginning of the course there is memorising without comprehension, but in the end the college turns out good scholars, better than the M.A.'s in depth and accuracy. These pandits have

Sanskrit.

a real knowledge of literature. They know very little, however, of the critical and historical aspect of the language. That is what witness wishes to be introduced into the system. A defect is that specialisation begins too soon. A man may take up Philosophy from the very beginning without reading any grammar. He should read grammar to understand the Sanskrit in which the Philosophy is written. The *Parikyās* do not encourage cram, but there should be *vivá voce* examinations to guard against it. In English schools the old method of study cannot be followed, a simplified form of grammar must be used. There are too many subjects to allow students to follow the old system. The pandit should be taught in one way and the University students in another. Mr. Justice Banerjee asked whether the learning of the old class of pandits would not be lightened if they had some general culture. Witness agreed and said that if there comes a time when teaching Universities are started and when there can be three or four Sanskrit pandits of established repute teaching the M.A. class, then through them something could be done to bring the modern system in to line with the old system of teaching Sanskrit. That could be done at Benares and nowhere else. When witness was a student in Sanskrit he used to attend lectures in Sanskrit in the morning at Queen's College and after college hours he used to sit at the feet of pandits and thus it was his good fortune to be versed in both methods. Some students do the same thing now. Mr. Justice Banerjee also said that in the Sanskrit College, Calcutta, there are some specialists though not of the stamp of the old men mentioned by witness. M.A. students are taught special subjects, philosophy for instance, by professors trained under the old system. Some M.A. students in Sanskrit of the Allahabad University continue with their Sanskrit after taking the degree. Pandit Gangadhar Jha and Professor Pitambur are instances in point.

The Sanskrit examinations of the Allahabad University are as good as the Calcutta examinations. The Punjab University papers in Sanskrit are not superior to those of Allahabad.

The Calcutta cram editions of the Sanskrit classics come to Allahabad, but the questions are not such as to encourage cram. Witness prefers the Allahabad system because it requires more knowledge of the language and includes unseen passages. Witness would not object to candidates being asked to translate from Sanskrit into their own vernacular. Care should be taken in any translation paper that it is the knowledge of Sanskrit for which the marks are given. For this reason translation into the vernacular is preferable to translation into English.

In reply to Dr. Bourne witness said that to make Sanskrit and Bengali optional, is not on all fours with a choice between Sanskrit and a Dravidian language. Nevertheless the Dravidian literature draws its ideas largely from Sanskrit.

Education has become too expensive. Many of the students in Sanskrit are poor Brahmins who cannot afford to pay Rs. 12 a month in fees. If education were cheap there would be more encouragement to study. Witness has

Cost of education.

to pay Rs. 12 a month for his son in the M.A. class. He himself was a poor Brahmin in his time and his old friend who sat there (pointing to one of the audience) paid all his expenses. The fee was then annas 8 at school, Re. 1, for the B.A. and more for the M.A. Some men have to part with their family ornaments to pay for the examination and college fees of their sons; not however for love of learning, but because it is a good investment. At present they were creating new brains out of Khansamas. Witness objects to the money premium which has been placed on education. The result is that education is given to the sons of Khansamas instead of to the more able Brahmins. Witness did not wish to exclude anybody, but why make the fees press heavily on indigent Brahmins. Of course, as suggested by Mr. Lewis, an appeal could be made to orthodox Hindus on behalf of poor Brahmin students. While a Kayasth or Chamar can get education, Brahmins are debarred from the benefits of higher education simply because they cannot pay for it. If Brahmins are still in the majority, that is because they were first in the field of education, and have inherited the brains of their ancestors. Education in general should be so cheap that the poorest of the poor may avail themselves of its benefits. Let teachers and professors be content, as the old Brahmin was, with little pay.

WITNESS NO. 21.—SHAMS-UL-ULAMA MAULAVI SAVED AMJAD ALI, M.A.,
 Professor of Arabic and Persian, Muir Central College, Allahabad.

Witness presented a written statement which he read to the Commission
 and on which he was questioned. The
 following is a summary of his replies :

Paper No. 15 in Part II.

The Muhammadan hostel attached to the Muir Central College is under the
 superintendence of a Manager who is not
 a whole-time officer. He is employed in
 some office and stops in the boarding house at night. He is a good man and
 graduated from the Muir College. The Muhammadan students of the college
 are inmates of the hostel. Witness very rarely goes to the hostel. It is difficult
 for him to do so because it was started by a man opposed to a person with whom
 witness is connected. There is no direct European supervision, but the in-
 stitution is under the general supervision of the Principal of the College to whom
 serious cases of misconduct are referred for decision. It is not supposed to
 be a part of the Principal's regular duties to visit the Muhammadan hostel, but
 Dr. Thibaut visits it occasionally. The former Principal never visited it.
 There is no sect difficulty between Shiaks and Sunnis. The students of the two
 sects are on friendly terms. The only times when any disturbance might be
 feared is during the Mohurrum festival.

Hostel.

The knowledge of Arabic in India is extremely limited. Even during
 Muhammadan times there were hardly any
 Arabic students. There are only two
 families in India who have produced real Arabic scholars. One lives at Bilgrami
 and one at Delhi.

Arabic and Persian.

Syed Hossein Bilgrami opposed the sweeping assertion of witness regard-
 ing the moral tones of Persian literature ; he said that there is a large field of
 modern Persian literature to which the remarks of the witness did not in the least
 apply.

Arabic is the only ancient language which can claim to be a living
 language. Hebrew died almost before the birth of Muhammad. Arabic is un-
 doubtedly the most perfect of Oriental languages. Oriental scholars have
 said so. The Imperial Government should encourage the study of Arabic. In
 reply to Mr. Justice Banerjee, witness said that he did not know Sanskrit
 but formed his opinion by the judgment of great authorities in the matter.

For the B.A. examination students should be able to use an Arabic
 dictionary. At present this is a very great difficulty : students who read Arabic can
 not consult an Arabic dictionary and are therefore always dependent on their
 teacher and cannot study by themselves. The reason of the difficulty is that the
 use of the dictionary implies a knowledge of the Arabic roots. The standard
 work for the B.A. suggested in witness' note contains both simple and harder
 passages. (Dr. Mackichan doubted whether the standard proposed is equal to
 that maintained in other languages.)

The five books suggested for in the written statement for the M.A. course
 are selected from the five great periods of Arabic literature. In the M.A.
 examination students might be required to write a poem. If one can grasp
 Arabic verse making is not difficult.

The prospects in the Educational Department are very poor, with the
 result that the best men are not attracted
 to the Department. Professors should get
 enough to eat. Witness was advised to go in for law, but devoted himself to
 Arabic for love of the subject.

Bad prospects in the Education Department.

WITNESS NO. 22.—MR. C. F. DE LA FOSSE, M.A., Inspector of Schools, Third Circle.

Witness presented a paper (No. 17 in Part II) on the courses of reading for the Matriculation and School Final Examinations.

Indians, who teach English, should be trained in a college where elocution, etc., is taught. As this is not always possible, the University should enquire into the fitness of the native teachers to teach English before recognising the school. Attention should be paid to the English pronunciation of the student from the very beginning of his English study. Once a boy has learnt bad pronunciation, it is very difficult for him to get rid of it. It would be better in some ways to have one master to teach English to all the classes. On the other hand, especially in the case of the lower classes, it is an advantage for one teacher to take all the subjects for the class, in order that he may get to know the boys intimately. An exception might be made in the case of English. It would be an advantage to have European or Eurasian teachers to teach English; they need not be graduates; they should simply have sufficient qualifications to teach the Entrance class. It would be difficult to get graduates on the pay that could be offered. All the trained teachers who come out of the training college are not satisfactory teachers of English. Their time in the college is so occupied with the study of other subjects that they have not time to devote much attention to the study of English. They are, however, better in the matter of English than the untrained men.

The rule in the United Provinces is that boys must pass the upper primary standard in the vernacular before they proceed to study English. They do all the better for this postponement. The above is the rule in the State schools. The aided and recognised schools are recommended to follow it, but are not compelled to do so. They prefer to teach English in the lower classes. Municipal schools are under no discipline in the matter. After passing the upper primary, boys learn English for two years and then have to pass the Middle School Examination. The whole English course is as follows:—

Lower Middle School = 5th and 6th years : English studied as a 2nd language.

Upper ditto = 7th and 8th years : English the medium of instruction.

High School = 9th and 10th years : ditto ditto.

That is to say, two years as a language and four years as the medium of instruction. If a 7th year were added to the student's English school course, he might not be able to finish his University career before the age of 22, after which he cannot enter Government service. If Government were to alter this rule, witness would certainly be in favour of adding another year to the school course.

The vernacular course may extend over six years, but for clever boys it is less. There is one year for the A infant course, one for the B infant course, two for the lower primary and two for the upper primary. Headmasters are allowed the privilege of making double promotions, so that they can promote boys through the course within four years. The boys who do not want to go to the Entrance can continue their vernacular education for another two years. They then take the vernacular middle examination which is the highest standard for the vernacular. There are special classes for such boys at Fatehpur to which they can proceed after passing the middle examination and study English for two years. Afterwards they are admitted into the High Section. Witness has invariably found that they do better there than boys who have had a shorter vernacular education. They find it difficult to speak English, but they write it well and usually pass their examinations very high. Parents greatly object to putting off the study of English. For boys who mean to go up to the Entrance it is compulsory that they should pass the upper primary in the vernacular before they commence the study of English. The University does not make the upper middle a compulsory examination. There was a complaint that the boys are over-examined, but that is not the feeling now.

The students have to read fractions, decimals, the rule of three and simple interest.

The age varies a great deal at which the students pass the upper primary. The average age on joining the English school would be between 12 and 13; but many boys are much older. According to the system a boy who enters the school at the age of 6 passes the upper primary at the age of 10. Many boys are older than that when they pass the examination. A boy who passes at the age of 10 can pass the middle examination at 14 and the Entrance at 16. The average age for the Entrance is, however, about 18—much higher than in Bengal.

Witness thinks that at the age of 10 a boy can understand a subject like recurring decimals if he is under a good teacher. The questions set in arithmetic for the upper primary are extremely easy. The rule of three was included in the course, because it was understood that the students had learnt something about it in their vernacular schools. Interest is extremely useful to them. In the vernacular schools Arithmetic is taught very well.

The opinion of the witness is that it is a good thing to let boys begin English very late. A boy who studies in the vernacular learns to think, and when, therefore, he comes to study English, he is better trained to undertake that study.

Some of the High Schools have European Headmasters, their pay ranging between Rs. 200 and Rs. 400, which is the highest except where there are boarding-house allowances. This does not refer to the European schools. There are in all about half a dozen European Headmasters.

European Headmasters.

Dr. Mackichan.—In the Bombay Presidency there are European Headmasters in the two leading High Schools.

Bengali is not recognised as a vernacular in the United Provinces. The Local Government considers that the boys should learn the vernacular of the Province. Most of the Bengali boys in the United Provinces know the vernacular very well. If Bengali gentlemen establish their own school and make their own arrangements for teaching the boys through the medium of Bengali as the vernacular, there would be no objection to such a school being recognised by Government and the University.

Bengali as a vernacular.

Mr. Pedler.—We had a similar difficulty in Calcutta. There are so many Hindi-speaking boys there that we had to recognise a school in which the language is Hindi and not Bengali. We recognise the Hindi, Bengali, Urdu and the Uria vernaculars.

The *viva voce* in the school final is not a sufficient test to secure good pronunciation. The examiners content themselves with requiring grammatical correctness. All the examiners are not Englishmen. More attention should be paid to pronunciation in this examination.

Viva voce examination.

Witness considers that the changes made in the English course alluded to in paragraph 8 of his note are a considerable improvement on the old course; the new examinations will be more practical.

Most of the Pandits and Moulvies are really competent scholars in their own subjects; they can teach grammar and interpret the texts. They could not write passages of Sanskrit or Arabic. Usually they have no knowledge of English and they are therefore useless for translation work. Graduates are not employed in their place for want of funds. (Mr. Lewis said that it is rather a matter of custom. He has been trying to gradually substitute graduates for the old classes of teachers.) The discipline of ordinary Pandits and Moulvies is not good. They give instruction through the medium of the vernacular.

Teaching of Oriental Classes.

Witness approves of the introduction of preliminary scientific teaching in the schools with practical work. The result has been good in the vernacular schools. Before the University recognises a school it should make it an indispensable condition that the schools should have properly equipped laboratories and competent teachers. The apparatus used in the schools is made in this country and costs Rs. 300; it is apt to get out of order. If witness' scheme for practical work is found to be more expensive, then fees might be charged to the students. Witness' meaning is that boys should be shown how to do experiments in class, not that all boys should handle the apparatus and do practical chemical experiments. Similarly in the examination the boys should be made to prepare the apparatus for experiments. In some schools they do not perform experiments at all, for witness has found the apparatus rusty or covered with cobwebs.

Some years ago there was an exodus of Bombay candidates to the Allahabad University. But is now stopped by a rule which limits the places from which candidates can come to the examination. There was actually a school in Bombay to prepare candidates for the Allahabad University Entrance Examination.

The position as regards the recognition of schools has remained about the same for the last five years. The number of unrecognised schools remains about the same. For recognition the University accepts the departmental list. Unaided schools are inspected by the department before recognition [Bye-Law 40 (b), page 99 of Calendar].

Boys from unrecognised schools are sent up as private candidates. An attempt was made to stop private candidates by a rule raising the fee to Rs. 16 in their case, but it was found quite useless for the purpose. It is proposed that in future only such private candidates shall be admitted as are certified to be such by the Inspector.

Witness is in favour of making the School Final independent of the Matriculation. It will be best to let the University conduct it, for it will thus acquire a greater prestige; but if the syllabus is a good one, it is not of great consequence who conducts the examination. Mr. Justice Banerjee asked whether it would not be better to have one examination for the two purposes so as to avoid needless duplication of examinations. Witness said he would prefer that there should be a separate examination for those who want to enter Government or other service. It should include short-hand, typewriting, etc., as optional subjects.

Witness has heard that 60 per cent. of the students who pass the Entrance go on with the University course.

WITNESS NO. 23.—MR. G. N. CHAKRAVARTI, M.A., L.L.B., Inspector of Schools, Second Circle.

Witness presented a written statement (Paper No. 18 in Part II).

The age limit.

Witness would fix the Entrance age at 16 in the interest of a sound college course.

The Department has done its best to stop the use of keys in the schools.

Keys.

In the State Schools the Head Masters have orders not to allow any keys. The

Calcutta keys are sometimes used for the Matriculation Examination. Formerly some teachers and professors used to prepare keys but this has been stopped.

Witness would not say that there are many schools on a commercial basis.

Schools started on commercial basis.

He has in mind one or two only. The evil of underselling has not yet appeared.

The Training College should be affiliated to the University for the purpose of granting diplomas to trained teachers. One

Training College.

Training College is not enough for the pro-

vince; more are required; but the question of funds comes in the way. The larger the number of Training colleges the better for the teaching institutions.

Schools are recognised, some by the Department and some by the

Recognition by the University.

University. For the Middle Examination they are recognised by the Department

and for the Entrance by the University. The University at present does not require the Inspectors to look into any points other than the competence of the staff to teach up to a certain standard, it is desirable that the Inspectors should be asked to look into other matters also. (Mr. Lewis mentioned that the University rule is that the Inspector should certify that the staff is competent to teach the entrance course).

In reply to Mr. Justice Banerjee witness said that it seems to him logical

The Vernaculars.

that in the elementary stages Bengali boys should be allowed to study in their own vernacular. Witness is a believer

in the doctrine that education in the primary and preliminary stages is best imparted in the vernacular language. But Bengali boys should also be compelled to acquire a knowledge of the vernacular of the United Provinces. No Bengali boy should be admitted to the middle section unless he passes in the vernacular of the province. At present the Department recognises only Urdu and Hindi as vernaculars, but if the members of the Bengali community can make their own arrangements for teaching Bengali to their boys in the Lower primary and preliminary sections it would not be right to put any obstacles in their way; but witness would insist upon the boys learning the vernacular of the province also. As a matter of fact the Bengali boys know to a certain extent the local vernacular because, although they speak with their parents in Bengali, they speak with their servants in Urdu or Hindi. It is very desirable for a person living in the United Provinces to know the vernaculars. Witness is a Bengali but when he came to live here with his grandfather the latter wisely determined to teach him the local vernacular. He insisted upon his reading Persian at a very early stage of his education and the result is that he has never been handicapped in his career. Witness knows of some Bengali gentlemen who have lost their prospects of getting good employments because they have not passed in the vernacular of the province. It is therefore in the interest of the Bengali boys that they should be made to pass the vernacular examination of the province.

Canvassing.

It should be discouraged as much as possible.

The Senate.

Witness would not cut down the Government nomination, but the Government should nominate persons known to take an interest in the University instead of persons holding certain offices.

A three years' course should be enough. There should be a higher stan-

The college course.

dard for the Matriculation so that the students may be better fitted for college

instruction than they now are. The three years course should apply also to

the B. Sc., a reasonable amount of Physics and Chemistry being included in the Matriculation. (Dr. Bourne objected that three years is too short a course for a science degree). Witness admitted that a longer course would be better, but said that there were other circumstances which made it undesirable to have a longer course. In reply to Mr. Justice Banerjee witness said that the schools are competent to give the higher education which would be expected of them under his scheme.

Double promotion means skipping over a class. It is allowed in the case of clever boys with the sanction of the Inspector. In the case of the Upper Primary classes the Head Masters are allowed the discretion of giving double promotion without applying for the sanction of the Inspectors and witness does not think that the concession has ever been abused.

WITNESS NO. 24.—MR. SANJIBAN GANGULI, MA., Director of Public Instruction, and Principal, Maharaja's College, Jeypur.

Witness read a printed statement (No. 19 in Part II) and was examined on it.

Six Arts' students of the Jeypur college appeared this year for the B.A. Examination, three of them at Allahabad and three at Calcutta. There are different hours and different professors for the two courses. At one time the college authorities thought of severing their connection with the Allahabad University, and therefore affiliated the college to the Calcutta University; witness has now discontinued teaching the Calcutta course and no one will go up for the Calcutta examination in future.

The Rajputana students are too poor to go to Allahabad to study for the B.A. degree. Very few of them go up for the M.A. It would not be more economical for the college for the M.A. students to go to Allahabad, live in a Jeypur hostel and attend the University lectures. All the M.A. subjects are not taught at Jeypur. There would be no objection to the students going to Allahabad for special instruction for the M.A. degree.

Concentration.

The Senate.

The Syndicate.

The attendance test should be applied to the members of the Senate excepting the honorary and *ex-officio* fellows.

Rajputana, equally with the Central Provinces, ought to be represented on the Syndicate.

The members of the Faculties living at a distance, such as in Rajputana, Central India and the Central Provinces, can attend all the important meetings of the Faculties and of the Syndicate. The management of the Faculties should be largely in the hands of experts. All the Provinces that are within the sphere of influence of the University should be represented on the Faculties.

The Faculties.

In connection with the remarks of witness regarding the slackness of the rules for the grant of certificates Mr. Lewis said that this year a large number of boys from the Aligarh College, who went up to the Punjab University, were not sent up for examination by their Principal. One holiday they went out into the district, a long way from Aligarh, where the Collector happened to be encamped and got him to sign their papers.

Certificates for Examination.

Age-limit.

Witness does not consider that a minimum age-limit is necessary.

There is no training institution at Jeypur. Boys who take up the School Final *vivá voce* try to improve their pronunciation. Witness does not think that there was better provision for teachers when there were fewer schools. In the lower classes inferior and poorly paid men were always employed as teachers; they get from Rs. 10 to Rs. 15, and they cannot teach English well. In the higher classes graduates of the college are generally appointed.

School teaching.

With reference to witness' remark that no examinership has ever been offered to a professor or teacher in Rajputana and Central India, Mr. Lewis said that if a man does not apply and his name is not brought before the Syndicate he is apt to be overlooked. Witness said that for the Calcutta University, a circular is sent round to the Principals of Colleges, inviting applications for examiners, and the Principals accordingly collect applications from the staff and send them to the Registrar. A similar plan might be adopted at Allahabad. The patronage of the University should be extended to all the colleges within its sphere of influence.

Examiners.

Affiliation of colleges.

To ensure obedience to the affiliation rules the colleges might be required to furnish information about the staff and other matters to the Registrar. If the

Syndicate deputed visitors they should include private persons and members of private colleges as well as members of Government Colleges.

Fees.

The college charges no fees.

The students are generally residents of Jeypur. They include many Banias and Jains. Very few of them are Rajputs. There is a special institution for

Students.

Rajputs ; only two Rajput boys have passed the Entrance up to this time.

WITNESS NO. 25.—LALA BAIJ NATH, RAI BAHADUR, Judge of the Small Cause Court, Agra.

Witness presented a written statement (No. 20 in Part II) on which he was examined.

In 1884 witness took up the question of social reform and with the help of two other gentlemen put forward the question of the prohibition of a boy's marriage before he passes the Matriculation. It was then discussed in the papers, but public opinion was not prepared for it. It is, however, now prepared all over the country owing to the efforts of the Social Reform Committee. A rule of this nature would make the boys more prepared to resist the pressure of college life. There would be no objection to making the rule applicable to all classes of the community throughout the country. It should be a general rule for all Universities. It would not cause any general inconvenience or hardship, although some inconvenience might be caused in the case of those boys who, according to the custom of their caste, must be married when they are children. Such a rule would prevent the parents from marrying their boys at an early age. At present the boys themselves are not responsible for their marriages. The Vaishnava Maha Sabha, of which witness is the Secretary, has put down the marriageable age at 16. While 10 years ago people did not observe that rule, they are now observing it even without any compulsion from the University or the Educational Department. A rule such as proposed, if passed by the University, will strengthen the hands of the Social Reform Associations throughout the country.

President.—The people may say that the Government is using the University for destroying their social customs.

Witness.—No; we are not suggesting anything new; we are merely going back to the good old days.

If Boarding Houses were properly managed, then students would be better trained than they are at present. The boarding houses should be well supervised and boys coming from outside stations should be required to live in them. There is a Vaishnava Boarding House at Agra founded by the Vaishnava Maha Sabha. It is only intended for the Vaishnavas. There is no difficulty in finding out whether the boarders are Vaishnavas or not, for there would be an outcry among the boarders if anything was wrong with a new-comer. There is a committee to superintend the boarding house.

Boarding Houses.

Adequate provision should be made for religious instruction in schools.

It is quite possible to do this and Government might assist by allowing each religious community to appoint a teacher to look after the students of their denomination. It has been done at Muttra in a school containing all castes of Hindus. Mr. Justice Banerjee suggested that sects not castes are the matter to look to. Witness replied that if there are a lot of Vaishnavas in one school, there is no reason why they should not have a separate teacher, if they pay for it. Dr. Mackichan asked whether the teachers would be able to deal with classes, and keep discipline. Witness replied that there are Pandits in most schools who teach classes. Syed Hossein Bilgrami suggested that college supervision of religion might be contrary to the principle of Government neutrality. Witness replied that he only means that the colleges should find accommodation and see that the instruction is regularly imparted. The colleges should not find the funds. In hostels maintained by the communities it would be possible to teach religion according to the ideas of each, but religious instructions could be conducted on a larger and more general scale in college. The hours of teaching do not much matter; they may be before or after the college hours. The reason for the proposal is that the young men, who are now coming out of the colleges, have no respect for any religion because they have not been educated in any. For these young men something must be done. Religious influence ought to be exercised at home, but it is not always so strong as is desirable. Religious influence should be exercised in the home, the hostel and the college.

Mr. Justice Banerjee.—The difficulty in giving religious instruction in the colleges would be this: there are so many sects that it would be extremely difficult, if not impossible, to impart it.

Witness.—In the Central Hindu College at Benares they are giving religious education not on any controversial grounds but on grounds which are common to all sects. They have compiled a text-book of Hinduism, of which I have received an advance copy. I find it will do very well, I am satisfied with it. I don't think many orthodox Hindus will take exception to it. I have gone through it very carefully.

Dr. Mackichan.—At Benares the orthodox do take exception to the methods of the Central Hindu College.

Syed Hossein Bilgrami.—Do you think that all students will join together in common prayer?

Lala Baij Nath.—They should be made to do so.

Mr. Justice Banerjee.—That is not the Hindu view. According to the Hindu practice, each student should offer separate prayers for himself.

Questioned on his proposal for introducing vernacular into the B.A. course, witness said that a proper knowledge of Hindi can be attained without a knowledge of Sanskrit. Witness would have the vernacular in addition to Sanskrit. There are in the United Provinces good Hindi scholars who do not know Sanskrit. Hindi has from the time of its great authors become a language independent of Sanskrit, although it drives new words from Sanskrit.

The evil of using English words in conversation, although there are Hindu equivalents, has become rampant. If you hear a number of young men talking together, you will find that their conversation is largely interlarded with English. Mr. Justice Banerjee suggested that this is because they have acquired their ideas through English and that English words are their readiest modes of expression. Witness said that even in ordinary conversation English words are used when they are altogether unnecessary.

With reference to the remarks on page 9 of his note, witness said that in the case of answers in English, the candidates write what they learn by heart from the notes of their teachers, therefore to see exactly how far they can understand English, they should be required to translate English passages into their own vernacular. That is done in the departmental examinations and it should also be done in the B. A. Examination. Witness would also place the vernacular on the list of subjects recognised by the University, so that students can take it as an alternative subject for Sanskrit or Arabic. There should also be regular examination in the vernacular for the B.A. This would not add unduly to the burden of the candidates. The number of subjects is less now than it was 30 years ago when the colleges were affiliated to Calcutta.

Fees. The cost of higher education to the students should be reduced. The Government can and should spend more on higher education.

Mr. Lewis.—The Government spends twenty lakhs a year and the fees come to something like ten or eleven lakhs. If these fees were given up, Government would have to spend an additional sum equal in amount.

Witness.—Education need not be given free, but the Government should reduce their fees, for they have now been raised to such an amount as to prevent many parents from sending their boys to college. The maximum fee for the B. A. class should be Rs. 6.

Mr. Lewis.—In every country fees prevent some parents from sending their sons to college.

Witness.—Exactly, but in the English University, there is the system of Extension Lectures. Here there is no such system.

Dr. Mackichan.—You are exaggerating the importance of the University Extension Lectures as supplying the place of University education.

Witness.—I may put before you the exact feeling of the majority of Indian parents. The upper classes who are rich and can afford to educate their sons do not do it. The poor men cannot do it from the very nature of their circumstances. It is only the middle classes who are eager to give their sons English education, and they are prevented from doing so by the heavy fees.

Dr. Mackichan.—I cannot admit that to be the fact. Many of our most brilliant students are of the poorest in the land. Many of them support themselves by doing private work. I know of noble examples. They have turned out the best boys.

Witness.—If you raise the fees you make education more costly and drive the boys from schools and colleges.

Dr. Bourne—Would you propose to tax everybody, including the poor, to educate these middle classes. Where is the money to come from? Government does not make money? Would you throw the cost of education upon the masses?

Witness.—I respectfully submit that there are many branches of the Government administration in which Government can curtail its expenses.

In conclusion, witness read figure from the comparative statement of the cost of education given on pages 10-11 of his note.

WITNESS NO. 26.—REVEREND J. N. WEST, M.A., B.D., Principal, REID
CHRISTIAN College, Lucknow.

Witness presented a statement (Paper No. 21 in Part II) which he read to the
Commercial Education. Commission. He first dealt with the

question of commercial education and said that he had not been in communication with any of the Chambers of Commerce about his institution. The chief branches of study he would include in a technical college are book-keeping, typewriting, stenography and general business methods. By business methods he means business correspondence, making of drafts, etc. There are a great many things connected with business and official work which cannot be learnt from books but must be learnt from personal instruction. He would include an elementary portion of the economics of industry in the course. The scheme takes it for granted that arithmetic and other elementary subjects have been already mastered.

In the business department of the Reid Christian College there are different grades of students. The lowest grade is the Entrance, but there are also F. A. students and sometimes B. A. students who take the commerce course after they have passed the degree examination. The higher the standard of proficiency before they enter, the better is their work in the department. They are not deficient in arithmetic as a rule. Witness said in his written statement that 95 per cent. of the students succeeded. There is a small percentage that are deficient, partly for want of capacity and partly for want of preparation. Witness' scheme is that the University should take up commercial education and examine pupils after they have been through a course. Dr. Bourne asked whether it would not be better if, instead of an examination, the best men should be picked out by actual practical success. Witness admitted that there is a danger in examinations. He has never received any grant-in-aid from Government for this department because he was afraid that a formal examination would be required and that the students, instead of continuing to master the subjects, would begin to cram for these examinations. The examination could, however, be made of such a character as to be practical and efficient, and in that case it would be preferable that there should be an examination instead of the Principal's assurance that a boy had worked well and was fit to be a clerk. If there were such examinations, the tendency would not be for some institutions to lower the standard it would be rather the other way; schools which did the best work would pass their candidates.

The examinations should consist largely of practical examinations, not simply of written papers. The examiners should examine personally rather than rely too much on written examinations. If the University took up these examinations, it would give an additional impetus to students taking the commercial course, just as the fact that Government requires the Entrance as a qualification inspires students to pass that examination.

If the University took over the examination, many more might go in for it and it might perhaps draw a better class of students. Witness did not contend that the scheme he is suggesting is perfect, but he desires to remedy a state of things in which nothing is done, as far as commercial education is concerned, from the beginning of the High School course up to the M.A. degree. There is only one subject—book-keeping—which is put down in the Entrance course, and that could be covered in four months.

The President said that he had received a letter from a commercial gentleman in Lucknow who, amongst other things, wanted languages taught in the Commerce School. The languages he had mentioned were French, German and Japanese. Witness is afraid that students will not be ready for that until they get a better knowledge of English. The Chamber of Commerce at Cawnpore takes students from the school, but does not patronise it in any other way.

As a rule, the English of Entrance passed students who came to the commercial classes is not as good as it should be. If witness had his own way, he would increase the Entrance course by one year, putting special stress on English. He would not shorten the college course. The present B.A. course is already deficient. The proficiency of the B.A. student in India is but very little above

that of the High School boys of England and America. The time for the study of the vernacular might be reduced by one year and then the study of English would be prolonged by the same amount without actually prolonging the school course. That would necessarily shorten the vernacular course.

The American Universities recognise commerce and give degrees in it—not all of them, but the chief ones.

In reply to Syed Hossein Bilgrami witness said that the teaching of truths to little boys does not engender distaste if done in a proper way. There is a way in which moral training can be inculcated to make it repulsive and there is also a way in which it may be taught by a good man so as to make it attractive. The latter is not a difficult task. The teaching of moral truths by biographical examples should be an element in a moral text-book. A necessary feature of moral training is the correction of every little deficiency of a student rather than the adoption of severe measures for cumulative faults. This would come under the head of discipline for which the managers of hostels are responsible. They must, therefore, be very good men. In the Reid Christian College they rely in the hostel to a large extent on students maintaining discipline, especially the elder students, who take an interest in the moral welfare of the school and exert a very good influence on the middle and lower classes.

There should be some compulsory study of elementary Science introduced into the B.A. course. For instance, simple text-books on Physiology and Astronomy should be introduced into the F.A. and simple text-books on Botany and Geology into the third and fourth year classes. It seems very incongruous that a student can take his B.A. degree without knowing anything about these elementary Sciences. Witness agreed with the suggestion that the various colleges should have students' societies in which such matters should be looked after. In the literary societies these subjects might be brought up, but usually these societies meet only once a week and as the students have many other things to attend to, it would be very difficult to give more than a few minutes in each session to one of these subjects, and this would not be sufficient. Witness is aware of the difficulty of putting new studies into the B.A. course—the students are already burdened—and while he is a great lover of Logic and teaches the subject himself, yet if students must do without Logic or Physiology he would rather they should know Physiology. It would be of more practical benefit to them. Of course it would be best if they could retain both. A book studied three hours a week to be completed in a year on Physiology and a similar text-book on Astronomy would be sufficient. A simple book on Astronomy would only require elementary mathematics. Trigonometry is presumably a compulsory subject for all F.A. students. These subjects could not be taught by the college if they were not introduced into the University course. Witness is afraid that in India the text-books laid down by the University are with a very few exceptions the only books studied by the students. It ought not to be so, but it is. All colleges try to set themselves against this, but when a book is prescribed for the examination that is the only book upon which students will put emphasis.

Dr. Bourne.—Do you not think colleges ought to aim at doing something not actually required by the University?

Method of study and instruction.

Witness.—Most colleges do make attempts in this direction through their literary societies and by public lectures and in other ways, and yet, as matters stand now in India, the emphasis will be put upon the course of study prescribed by the University.

Dr. Bourne.—That is surely the defect we want to remove by persuading students to do something more than what is merely prescribed.

Mr. Justice Banerjee.—That of course will depend on how much additional time they have at their disposal after getting up thoroughly the University course.

Witness.—Yes.

Mr. Justice Banerjee.—If the University course does not overburden them, they ought certainly to do something more.

Witness, continuing, said that there is a temptation also to the Professors as well as to the students to work up only that which will pay in examinations. The Professor is anxious that his students shall pass their examination, and if by taking an hour a day from their regular studies to pursue some other subject he is lessening their chance, in many instances he will not do it. Witness does not think that there is much pressure brought to bear upon Professors to pass their students. The general rule is that colleges which pass most students get most students, but apart from that witness does not know of any personal compulsion.

In the Reid Christian College they hold monthly examinations and a record is made of all the work that is done by the students. If a student constantly fails in one branch, it must be either the fault of the student or of the Professor. If it is the fault of the Professor he is dealt with. But usually it is the fault of the student.

It does not spoil a student's chance of success in the University examinations if he takes an active and intelligent interest in some subject which is outside his University course. Witness advises general reading and thinks that the better informed student has generally a much better chance of passing in his examinations. They try in their literary society to emphasize this by getting students to write on different subjects. Witness can hardly say that the courses of study prescribed by the University leave sufficient time to the student for voluntary reading. Some students, however, are intellectually better than others and can do private study, but there is not much time left to the average student for outside work. Nor is there much time left to the Professor.

The tendency of the Indian student is to commit to memory, and it is necessary to cater to this to some extent. Lectures have to be put in such a form that facts can be readily committed to memory, and yet the constant object of teachers is to encourage students to improve their original powers. Witness does not think that the mischief is so great that a subject which might be dealt with in 80 lectures in Europe or America requires here something like 160 lectures. In England and America a student by his own reading supplements what he gets in lectures. In India few students supplement their class work in the same way. They are encouraged to do so, but as a matter of fact a student who passes the B.A. degree in a subject such as Tennyson, reads the books that have been prescribed on Tennyson and outside of that he knows very little about his works. Students take out a good many books bearing on the subject of their studies from the college library. The difficulty is to a certain extent due to the fact of English being a foreign language to Indian students. On the whole, however, they get along with their English very well.

The great difficulty with the Indian student is lack of original thought on what he is reading, and that is carried right through all his work. There is too much tendency to take matters secondhand, and that begets the tendency to give too much instruction.

A point deserving notice is the long time that students are out of college work. For instance, a student who goes up for the F. A. Examination is in most colleges given leave for six weeks before the examination begins. In fact as soon as their names were sent up students leave of their own accord, and there is no hold on them if they have secured 75 per cent. of attendances. It is not easy to find any way better than the percentage, because a margin must be left for cases of sickness, etc., and there must be one rule for all students. A student says his grandmother is dead and he has to go to her funeral. It is impossible for the college authorities to make an enquiry into this. Such reasons are often given after a student has got his 75 per cent. Some such arrangement as is suggested by Mr. Justice Banerjee would be an improvement, namely, that besides physical attendance, the University might require that a prosecution of a regular course of study should mean the attaining of a certain aggregate of marks in class exercises extending over the period of study.

The examination leave and vacation added together make five months : too long for a student to be away from college. Students would do better work and would be more likely to pass their examinations if they had no examination leave whatever, that is, if they were in class up to the day of the examination. A student who in his instruction has failed to get some point or points when he goes on vacation leave crams up these points in this incorrect form and may put them into his answer. If he continued in the class he could receive instruction on these points. Many students fail because of this examination leave. They get themselves so muddled that they cannot answer the questions. Witness has tried to hold out against this practice, but it is impossible to stem the tide. As soon as a student's name is sent up, there is no further hold upon him. It might be an improvement if the attendance certificate were not sent in at the time of sending up a candidate's name.

In the hostels to a certain extent the students are under surveillance and restraint and watchfulness are exercised by those who have charge and, on the other hand, a certain degree of freedom is allowed to the students. The authorities trust to the students' honour to a certain extent. They do not encourage the system of espionage which is resorted to in French schools. As regards punishment they deal with each case on its own merits. There are no hard and fast rule. Occasionally expulsion is resorted to.

WITNESS NO. 27.—THE HONOURABLE MR. SRI RAM, M.A., LL. B., RAI
BAHADUR, Member of the Council of the Lieutenant-Governor.

Witness presented a written statement (No. 22, in Part II).

Students who enter college classes after passing the Entrance and School Final examinations have not a good knowledge of English, and this is attributable to two causes—(1) the system of teaching English in the school classes, and (2) the method in which the knowledge of English is tested in the examinations. Again when the students come to the college classes sufficient time is not given to teaching English. Generally only one hour is devoted to it, and that is not sufficient to impart a thorough knowledge of the English language and literature, and to remove the defects which exist in the students when they come to the college classes. In the schools English is taught for six years. The school course is a ten-years' course : in the first four classes the boys have nothing to do with English, and the remaining years do not suffice to impart a sound knowledge. Witness does not mean that boys should begin English from the first class and that a boy should not have any knowledge of his vernacular, but that the teaching of English should begin a little earlier, and that it should be taught for (say) seven years. Three years is quite sufficient for teaching Hindi, and to cut down the vernacular course by one year would not materially affect a student's knowledge of the vernacular. It is not the experience of witness that if a boy is grounded in his own vernacular so as to be able to make an intelligent use of it and speak and write it correctly, and then begins English that he would be able to master English so rapidly that at 16 would be a better scholar than a boy who began English at an earlier stage. Those are exceptional boys who, having passed the vernacular Middle examination, proceed to take up English and they may therefore make better progress than those who commence their English earlier, but generally boys would not do so well in the shorter time. It is very seldom that a college educated native of India cannot write his own vernacular correctly.

In the Intermediate Examination there is only one paper in each course of Mathematics.* The result is that some of these subjects are left out altogether. The examiner should be instructed to examine on the whole range of the subjects and either the number of subjects should be lessened or there should be more papers. There is no use in prescribing so many subjects when no means are adopted to test the knowledge of the students in them. It is not a fair assumption that because they answer the questions set well, that they know the other subjects equally well.

In order to lecture properly a Professor must have adequate time to prepare his lectures. He cannot have this if he is obliged to deal with several subjects. He must then confine himself to the text-book.

The grouping of subjects for the B.A. is faulty. In addition to English there are the following two groups:—

(a) Philosophy, Political Economy with Political Science, Mathematics and Physics.

(b) History, a Classical Language and Chemistry.

A candidate must choose one subject out of (a) and another out of (a) or (b). His tendency is to select the easiest, for instance Political Economy and Persian. In this way subjects which have no affinity with one another are taken by candidates; for instance Political Economy and Physics rather than Chemistry and Physics. Candidates who chose badly have great difficulty in the M.A. A candidate who has taken up Political Economy and Chemistry for the B.A. would not have time to go through the Science course for the M.A. The new system which will come into force in 1907 will remove this defect, but witness would like to see it introduced sooner. The main evil is that candidates pick out the easiest subjects. (Mr. Lewis said that the new scheme would not prevent that.) The colleges is not able to stop students from pursuing an ill assorted course.

* For courses see pages 231-3 of the Calendar.

There should be an Agricultural college in the Provinces affiliated to the Allahabad University, and at the completion of a prescribed course and according to the results of a Final Examination, a University degree should be conferred on successful students. The object would be secured by adding two more subjects to group 2 of the B. A. Examination, namely, Rural Economy and Agriculture with Agricultural Chemistry, and by introducing into the second group of the subjects prescribed for the Intermediate Examination, 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. In an agricultural country like India institutions are required for imparting agricultural knowledge on scientific principles. Students who afterwards become Deputy Collectors or Munsiffs should have a practical knowledge of agriculture and they will not take up the subject unless the University induces them to do so.

The only Agricultural school in the United Provinces is the one at Cawnpore and it is a very small school. There are about 16 students. The Cawnpore Agricultural school should be raised to the status of a college and the course of study there should be on the lines witness has suggested in his note. An additional staff will be required to teach the general subjects included in the course. Agriculture should be placed on the same footing as Medicine and Engineering. It is a technical branch of knowledge.

As an encouragement certain posts under Government should at first be given to holders of Agricultural degrees.

There are a few land-owners who are represented among the students of the Agricultural school at Cawnpore. If they impart mere agricultural education in the proposed Agricultural college, it will not attract this particular class, but if they impart general education with agricultural education, then it will do so. There are some who would like to join such an institution as witness has suggested.

Students who fail in any subject in the Arts course should be re-examined only in those subjects in which they fail. The contrary rule often burdens students with useless labour. The principle should not be applied lower than the Intermediate Examination.

Passing by Compartments.

WITNESS NO. 28.—MR. A. H. PIRIE, Principal, Canning College.

Witness presented a written statement (paper No. 23 in Part II) from which he read extracts to the Commission.

In supplementing this statement witness said that before a Central Teaching University could be established the vested interests of existing colleges would have to be reckoned with. In a centralised teaching University on the lines of the evidence given by Dr. Thibaut there would be more Professors than students. About 26 students go up for the M. A. The Canning College sent up 7 in English this year. It sent up more than any other College. The Muir College sent up 4, also in English. There would not be 50 students to pursue the very high course that the centralised College is intended to teach.

In reply to the President witness said that the Vice-Chancellor's scheme would be much better. He had not seen it when he prepared his note. If such a scheme could be drawn up without friction it would be good, but the claims of the colleges must be taken into account. If the higher teaching is directly under the University it would be in the natural course for students to proceed after college to the University centre, but witness cannot admit that in the Muir College students are better taught than in the Canning College. In the Canning College there are adequate arrangements for teaching M. A. students in Sanskrit or Philosophy. The college could arrange for Science if they had students, but the difficulty is to get students. The President pointed out that an advantage of the Vice-Chancellor's scheme is that it will facilitate the provision of a good library for the use of students.

Dr. Bourne said that Professors would be sorry to lose even one M. A. candidate. They feel his being there is an incentive to them to keep up their higher reading. If a teacher were kept down to B. A. work in class he would himself deteriorate. Witness agreed and said that the Committee of the Canning College would not consent to see its status reduced in favour of another college. He is not sure how they would view such reduction in favour of the University.

Witness in his written statement said that Indian students do not stand in the same relation to their Professors as students in England. Mr. Justice Banerjee asked if that is inherent or due to circumstances. Witness was unable to say. The Indian student is very subjective in character. One point on which there is a great difference is the method of preparation for lectures. In England when students are going to listen to a lecture they read up the subject before hand and expect the Professor in his lecture to finish off and complete their knowledge of it. This is not often done in India, as a general rule the student comes with an empty mind to the Professor and expects the Professor to tell him everything. Mr. Justice Banerjee suggested that the teaching in English and the difficulty of the text-books might be the cause. Witness said that he referred to spoken lectures rather than to text-books. Indian students are very good at studying text-books but are not very good in following the lecturer. They can take notes, provided these notes are emphasised for them or dictated to them, but left to themselves they will not take notes or are quite as likely to take wrong notes as right ones.

The English course is too long. It is not possible to give that close study of the language without which students cannot learn to write and read easily. Professors have not time for revision because it takes the whole time to get through the course.

If it were not for the examination leave there would be a month more. As soon as the candidates' names are sent in they cease to attend. The Canning College has proposed to the Syndicate that the rule with regard to this should be altered and that a list of the class should be sent to the Registrar two months before the examination which he might have printed, and that a fortnight before the examination the names of those in the class who are not going

up (they will not amount to more than one or two) should be sent in, the fees and certificates of those who are going up being remitted at the same time. In reply to Dr. Bourne witness said that the Indian Student has not yet come to the stage at which he would value lectures more if attendance were not compulsory. If attendance at lectures were voluntary the discipline of a college would be a very difficult matter. The college has tried the plan suggested by Mr. Lewis that a lecturer instead of finishing the whole of his work might keep back a certain portion to be done during the last six weeks, but this has not succeeded. Even the month or six weeks that might be gained by abolishing examination leave would not suffice for revision. Revision is an important matter because it enables the lecturer to give a more comprehensive view of his subject.

There is too much pure literature in the English course. It should not be omitted altogether. It is a great test of a student's knowledge if he can appreciate literature. Page 194 of the Calendar for 1901-02 shows the literature prescribed for the B.A. Examination. There are three plays of Shakespeare and two books of Milton's Paradise Lost. One of each would be enough. The list includes Keats' Hyperion and selected Odes. The students cannot appreciate Keats. There were two of Tennyson's works: again one would be enough. Carlyle's "Heroes and Hero worship" is a difficult literary work.

Witness then read his remarks about the study of Philosophy and said that Indian students are quite as fitted to take up the study of Philosophy as Scotch students, who begin it in the second or third year. Of course the general education of a Scotch student is more comprehensive than that of an Indian student, his mind is more mature and he has done more thinking for himself, but then Indian students do not take up the study on its subjective side till the third year. If a Licentiate of teaching is instituted, Psychology should certainly be included in the course. One of the reasons why the study of Philosophy is taken up late in an English University is because it is made to include Aristotle and Plato in the original in Greek.

Witness objects to the present neglect of the study of Indian History and he has protested against it at Allahabad for the last three years without success. In the new prospectus there is no Indian History after the Entrance, except in the M.A. for which there is nobody to teach the students. There is a great field for research in Indian History. If a student studies it in college and takes a liking to it, he will have an incentive for research. There are not many good text-books. If encouragement were given a good history would no doubt be written. Elphinstone's History is a good book, and is read enthusiastically by Muhammadan students.

The standard in Political Economy is too low. The text-books are good but the questions are too easy.

There have been a great many complaints, mostly from fathers of students, against the new regulation, which will compel all students to take up either Mathematics or a classical language for the B. A. At present they need not do so. It is a retrograde step. Students at Oxford and Cambridge are not now obliged to take up a classical language for their degree though of course they must have a good deal of classical learning before they get very near the degree. Allahabad is going back to the last century in this matter. The strongest protest against the proposal was made to witness by a Munsif who once officiated as Sanskrit Professor in the Canning College. He does not want his son to learn Sanskrit, not because it is difficult, but because he has taught his boy Sanskrit and wants him to get mental training in other subjects. The father wants his boy to learn History, but under the new regulation he cannot take up History. He could take up Philosophy, but he would also have to take up Sanskrit. The frequent changes in the curriculum of studies is due to the large percentage of experts in the University. There is too much quicksilver.

Witness then read the statement on his 6th point (Natural Science) and supplemented it by saying that he had never known a single student of the Canning College make a collection of birds' eggs or of flowers or of animals in the 31 years he had been in India. They would make collections of these things for the study of Natural Science if the subject were included in the University course. They do not do it now because they get nothing for it. It does not count. They are very fond of beautiful flowers but cannot tell the names of flowers or in what way one differs from another.

The standards of the Entrance Examinations of the Calcutta and Allahabad Universities are very much the same. The lowness of the standard is exhibited in the degree of difficulty of the papers, the way in which they are marked and the small percentage required, which is made still smaller by the addition of grace marks.

Witness then read his remarks on the college course and said it should not be reduced to three years as this would lower the standard. Some witnesses had suggested that the school course should be lengthened by a year, the college course being proportionately reduced. That would be good if it would secure that the students would be better trained when they came to college. Witness has had no experience of schools.

Most of the B.As. take 6 and 7 years to go through the course, not more than 20 per cent. pass straight through.

In reply to Dr. Bourne witness said that he did not think it at all likely that the papers of the outside examiners would be largely altered by the Board. Outsider Examiners are hard to get and the Board are afraid of offending them. For this reason the Board once refrained from altering a ridiculously easy paper set by an outside examiner. It is the inside examiners whose papers are most altered. Witness does not think that the principle is wrong. The Board make the alterations and are responsible for the paper. An outsider usually means a member of another University, but sometimes he belongs to Allahabad.

The unanimity of the Syndicate in the appointment of Examiners shows that they know pretty well who are the best men. In committee there is a good deal of discussion on the relative merits of applicants. Every attempt is made to get the best possible men for the Entrance Examination, its importance is fully recognised. The selection is made from amongst those persons whom the Syndicate know, it is not confined to the list of applicants. It might not be a bad thing if the University have to allow heads of affiliated colleges to send up the names of the members of their professional staff who are willing to conduct examinations, but at the same time if a man wants to be an examiner and is not already one, it would not cost him very much trouble to apply.

It is not desirable that the University should affiliate or hold examinations beyond its own natural sphere. It would be far better if its limits were strictly demarcated. The Allahabad University suffers at present from the irruption of the Punjab University. The Punjab University Entrance is easier than that at Allahabad, where restrictive rules as to age have been introduced, and the standards have been raised. The number of Allahabad students going up to the Punjab University is therefore increasing very rapidly. After they have passed the Punjab Entrance they come back to study in the Allahabad University Colleges and have to be admitted to the Intermediate Examination. Last year about three or four hundred did this, and in the present year 436. Witness does not approve of a student taking one examination in one University, and the next in another. Supposing the standards of the different Universities were such that the examinations of one would be something like equivalent to those of another, the objection would not then hold. There would then be no reason why students should not migrate from one University to another. Dr. Bourne remarked that there would also need to be uniformity in the course, otherwise a candidate might escape a particular subject which is prescribed at different stages in the courses of different Universities. The witness said that in these days of transfers and rapid locomotion it is not possible to prevent migration.

WITNESS NO. 29.—MR. A. W. WARD, M.A., Professor of Science and Mathematics, Canning College, Lucknow.

Witness presented a printed statement (No. 24 in Part II), which he explained and on which he was examined.

Witness said his general idea is to reform the Universities in India and to model them on the lines which experience of Universities both in England and Germany shows to be the best. Students enter college at far too early an age and are not only without sufficient knowledge, but also without sufficient reliance to enter upon a course of studies. The age should, therefore, be raised to 18 years. Witness then compared Indian with Scotch Universities. In the Scotch Universities the age of entrance is very low and it has been found by experience that this has not worked well. Very often graduates of Scotch Universities proceed to Oxford or Cambridge to complete their course of academical study. On turning to Germany one finds that the age there is high. Students do not enter the University until they have passed 18 years of age. Witness recommends as a preliminary that the age at which students should leave Indian schools should be raised to 18. He would then allow them to enter the University, and whether the course should be a three years' course or a four years' course, he has not decided. If the principle were accepted, the detail might be discussed afterwards. Witness then read the ten conclusions (page 6 of his statement) which he considers warranted by the histories of Universities all over the world.

Witness next referred to those portions of his written statement which relate to the financing of his scheme and to the expenditure of the Universities of the United Kingdom in 1876, and of the Prussian Universities taken *en bloc* in 1882 (page 7) and other statistics on pages 7 and 8.

Witness suggests in the body of his note, that in order to carry out his scheme it would be necessary to have a series of high grade schools. The present affiliated colleges might very well be turned into schools. It is especially to be remarked that missionary colleges have not sufficient funds at their disposal to run a college on proper lines, whereas they have sufficient funds to support very good schools. If all attention could be concentrated on a Central University it would mean a large saving of expenditure and a real abode of learning could be established.

Mr. Justice Banerjee.—You say the right thing to do would be to raise the age of entrance into the University to 18. In making that recommendation have you taken note of the fact that life in the tropics is shorter, on an average by 15 years, than life in temperate climates, and that as if to compensate for that nature makes an Indian boy of 16 of about as serious a temperament as an English boy of 18.

Witness.—On the contrary, an Indian man of 36 years of age is not so serious sometimes as an English boy of 18. That is the difficulty. We want men to care nothing about what their fathers did, but to think for themselves and do the right thing. Indian boys of 16 or 18 are not equal to English boys in mental capacity. English boys have wider sympathies and a greater knowledge of life and of men. Witness doubts whether life in the tropics is on the average 15 years less than in European countries. It may be if you take the average life of all the people living in India, but given a proper supply of food, there is no reason why the native of this country should not live as long as the Englishman. At any rate life assurance offices do not think there is that difference, for the lives of natives are taken at the same rates as those of Englishmen.

Each University should be located in a single town. There should not be more than one such University in the United Provinces; on the contrary it might be open to question whether one University would not do for the United Provinces and the Punjab. There should be University professors in addition to

college teaching. The University professors should be of the first rank ; the college professors will look after the students on the college premises. The colleges should all be in one town within easy reach of one another.

Witness then read the part of his note (page 4) dealing with the system of school education in Germany and said

School Education.

that in Germany there is one marked contrast to India. In Germany, University education has been pushed too much to the disadvantage of schools, whereas in India it is the reverse. There is a very large demand for properly trained University graduates in India, but practically there are none. It is true that the University has gone too fast in turning out a certain article, but it is not the article that is wanted.

Unless teaching in schools is improved a mere raising of the age limit and detention of students for two years longer in school will not tend to make things better. The raising of the age limit, however, will compel schools to improve; they will have more work to do. This has already been one of the effects of the 16 years' rule in Allahabad. Witness heard the Inspector-General of Education in the Central Provinces say that they have had to improve their schools on account of the rule.

There need not be many schools of the class mentioned in the statement (bottom of page 4). Three hundred of them in all India would be quite enough to start with. It will, however, be essential to separate the High from the Primary Schools.

For his scheme witness asks for exactly the same sum of money as had been noted in the budget this year.

Finance.

He asks for five lakhs of rupees for each University or twenty-five lakhs of rupees in all. It would not be possible to do it with much less than that and more would be very desirable.

Mr. Lewis.—I once made a calculation from which it appears that in order to raise the expenditure on education from public funds per head of the population in these provinces to what it is in more favoured parts of India we ought to spend another twenty lakhs.

Witness.—Fully. Even that would not be too much if you consider the high return to be got from it: look at the immense progress Germany and America have made through their education.

President.—Suppose the Finance Department tells us it is simply impossible to get the money in order to carry out a scheme such as you suggest, do you see any use in the much more modest scheme put to us by other witnesses of centralising the higher studies of the University in one place?

Witness.—The scheme suggested by Dr. Thibaut and other professors of the Muir College of centralising teaching in Allahabad is unsuitable. Besides it would have a very unwholesome effect upon colleges. Colleges will cease to do their work properly, and professors of high calibre will not join them if they only teach up to the B.A. standard. They would cease to be colleges.

Mr. Lewis.—Are there good teachers in the German gymnasia which would seem to occupy much the same position?

Witness.—They have a system of "private docents" under which teachers are trained as assistants to professors.

The objection to Dr. Thibaut's scheme does not apply to that of the witness; for he would do away with the present B.A. colleges altogether. What becomes of them does not concern the scheme. Another objection to the M.A. centralised scheme is that it does not give the student the advantage of University life until nearly the end of his career.

Under his scheme witness would compel everybody to go to one place for University education. This would not be

Central University—*contd.*

a very great hardship. There are railways all over India. Besides boys would be 18 years of age before they entered on their University course. There must be some age at which a man becomes capable of going about alone. An English boy of 18 is quite capable of travelling by himself.

One advantage of a student residing at a distance from his home is that he will not always be wanting to interfere with his term's work and go away on some such pretext, such as his sister's marriage or his aunt's death. Dehra Dun would perhaps be the best place for the University centre, but Allahabad and Lucknow would do. They have the disadvantage of being large towns.

As regards the working of the present constitution of the University witness

Constitution of the University.

said he had prepared a statement in answer to the slur cast by Mr. Haythornthwaite upon the University and the Muir College and he thought that as those statements of Mr. Haythornthwaite were made public, it was advisable that the answer to them should also be made public. Witness then read the statement which he subsequently made over to the Commission.* He also gave two personal instances to show how easy it is in a test paper to light on questions set in the subsequent public examination.

A statement has been made before the Commission that the natives of this

Cram and Memory.

country have wonderful memories. Witness has been in India for nearly 16 years in Madras and the United Provinces and has examined for Madras, Allahabad and Lahore Universities and during the whole of that time he has never met a native who has a memory that compares with that of Europeans. Students attempt to get a thing off by heart instead of bringing their intelligence to bear upon it and fail in the one as in the other. The number of students who pass their examinations is exceedingly small, although the standard is very low. If they were even able to learn a few questions by heart they would pass. (Mr. Justice Banerjee said that the experience of the witness is diametrically opposed to that of other witnesses.) One reason for cram is that the boys are persistently idle and put off work until just before the examination. They then either fail or just scrape through. Few get a second class and a slight rise in the percentage would plough 50 per cent. (Mr. Justice Banerjee said that many students get a first class at Calcutta.)

Witness does not approve of having a separate Honours and Pass course. Such a thing would be a fatal mistake. If they turned to the Calcutta University, which is in such hot water at the present moment, they would be able to trace all its evils to this; and if the Allahabad University had the same thing witness is quite sure it would be attended with similar disastrous consequences.

The usual custom in most colleges is to prepare a boy to get through his examination by hook or by crook and nothing else. This fault can ultimately be traced to a faulty system of instruction. Much depends on the professor, the boys will follow where he leads. If he teaches them to learn, they will learn; if to cram, they will cram. Naturally the students are very idle. Witness finds that he does not get any work done outside the class by his students. Witness has taught Mathematics, Physics, Political Science and Political Economy. On one occasion in teaching Political Science witness had occasion to allude to the Dreyfus case. It was in the B. A. class and only four of the students had heard about Dreyfus and only two knew what the Dreyfus case was about. This shows that the boys do not take the slightest interest in what is going on about them in the world. That is a very bad feature; their faculties should be trained to take interest in general matters. It was pointed out to the witness that events in France are very remote from an Indian student.

The proposal to raise the entrance age to 18 is made in order to enable boys

Age limit.

to enter college with more mature minds, and to get a sound school education without undue pressure. Boys who pass the Entrance at the age of 12 or 13 have been improperly forced on.

The college alone should decide whether a boy should be sent up for an

Management of the University by experts.

examination or not. Witness is not empowered to keep back boys from going up for examinations and the consequence is that they often waste time and money

* See Part II, paper No. 24, supplement.

in attempting to pass. In the Canning College a system has been introduced by which if a boy persists in going up for an examination, if unfit, he is not allowed to re-enter the college if he fails.

The affairs of the Allahabad University are managed by educational experts who know their business.

Mr. Justice Banerjee.—Still there are questions sometimes arising for determination by the University which may require a knowledge of the outside world and for which the co-operation of men of general culture may be required?

Witness.—The educational man is generally a man of culture and sometimes knows the outside world.

Mr. Justice Banerjee.—His business with the outside world is not so direct as that of other men.

Witness said he did not think that is quite right. He is an educational man and is also concerned with a great many other things. He has as much knowledge of the outside world as any one else, and he does not think that he is an exception.

WITNESS NO. 30.—MR. NANAK CHAND, B.A., Head Master, Government High School, Saugor.

There are no ancient seats of learning in the Central Provinces, but there is a Madrassa with Oriental teaching but not with a University standard. It is impracticable to have a Teaching University in India as very few students would go far afield on account of poverty. Few, if any, could go on to the M. A. for want of money. With scholarships they might go in order to get better posts afterwards but not for the sake of learning, as few only learn anything for the sake of learning. Students would naturally go to Allahabad if they intended to study further. Literature—in Sanskrit or English—attracts most students. It would be a good thing to have a list of recognised teachers, as many teachers take up subjects in which they are not sufficiently proficient.

Colleges in the Central Provinces were at first affiliated to Calcutta but are now affiliated to Allahabad as well. The students would like to go back to Calcutta, at any rate for Matriculation, as Calcutta is easier, judging chiefly by the age of passes and also by the papers. For instance, in Sanskrit, a different kind of preparation is required for Calcutta and Allahabad; in the Second Language more knowledge is required at Allahabad. In Calcutta the English knowledge helps the student to get through the second language. Witness' candidates are taught Sanskrit and Persian through the medium of English—if taught through the medium of the vernacular, the method of teaching would be different—they would then begin with the rules of grammar committed to memory. The students study intelligently without any great tendency to commit matter to memory. The text-books in English are beneficent—keys are not used by order of the Director. As Assistant Professor, witness always found Matriculates able to understand his Logic lectures given in English, but he thinks there has been deterioration in English in the class of students who come on from the Middle School. A smaller proportion of the boys entering the High School are good than was formerly the case, and this is to be attributed to the multiplicity of subjects at the Middle School examination. Inter-school rules are carefully observed but the private school in Saugor shows great laxity in promotion. Boys not promoted in the Government school join the private school and are then sent to the Punjab University which is considered easy and requires no certificate. The curriculum at Allahabad is too hard in the second language—there is not a large percentage of failures but the boys have to spend too much time on the second language. In English there should be more prose than poetry. Witness thinks that the boys read a good many other books than those prescribed, but considers the books selected satisfactory. The translation test is satisfactory as the boys secure marks in that way and it is moreover a good test. Unseen passages at the Entrance Examination are not a good test of the knowledge of English—at any rate, they would be very difficult. An oral test makes the boys nervous and a uniform standard cannot be secured. European teaching secures a better knowledge of English.

All boys with 75 per cent. attendance are sent up for the Entrance Examination—Departmental orders prevent any boys being kept back. It would be sound to keep some boys back as it wastes their money, etc., and reduces the percentage of passes. It would also be a good thing to do away with the attendance certificate and for the School to take the responsibility of sending boys up or keeping them back. With the permission of the Inspector of Schools, boys are not promoted from Standard IV to V and V to VI. As many as 50 per cent. are sometimes kept down. Discipline and attitude towards superiors is in Government schools, at any rate, as good as it used to be. Most of the boys are from the town, but a good boarding-house for the remainder is very desirable. There is at present a tutorial system.

The age limit should not be enforced as at present; it would be preferable to have the limit at the beginning of the school course.

The School Final at Allahabad is more satisfactory than the Matriculation, in that only boys from recognised schools are admitted.

WITNESS NO. 31.—MR. ACHYUT SITARAM SATHE, M. A., B. L., Extra Assistant Commissioner, Central Provinces.

Mr. Achyut Sitaram Sathe, M.A., B. L. (Calcutta), Extra Assistant Commissioner in Judicial Service, Central Provinces [for some time Professor of English in the Mahavarhtra (2nd grade) College, Poona, which was closed a few years ago], gave the following evidence before the Honourable Mr. Justice Gooroo Dass Banerjee and the Rev. Dr. Mackichan at Government House, Nagpur, on the 10th March as follows :—

The standard of the English examination for Matriculation at the Calcutta University is defective as compared with that of the Bombay University Matriculation Examination. An improvement would be to assign greater weight to the translation and the unseen passages—say 100 marks to each paper instead of 120 to the text paper and 80 to the unseen as at present.

The standard in Sanskrit is still more defective as compared with that of Bombay although it is higher than that of Allahabad. It is defective specially through the absence of general questions on grammar, grammatical questions being confined to the prescribed texts. The amount of "cramming" is greater in Sanskrit than in any other subject. Voluminous notes and keys are published in Calcutta by eight or ten different authors. In English keys are used but not to the same extent, and the boys are better prepared in English than in Sanskrit. In the schools such books as Professor Bhandarkar's are used, but in the higher examinations the questions are set from *Kaumadi* which is not taught in the schools. Thus the schools are regulated by the Bombay system and the colleges by the Calcutta system. Out of 200 only 8 or 10 take honours in Sanskrit. In Sanskrit the Matriculation Examination should be modelled on the Allahabad scheme. Questions should be set on grammar *generally*, not simply on the grammar of the texts. This conduces to "cram." For the purposes of a degree examination the system of teaching Sanskrit through the medium of English is to be preferred.

Marathi should be added to the vernaculars recognised by the Calcutta University. Next to Urdu and Bengali, Marathi and Hindi have the greatest number of students. Hindi has been recognised, not Marathi. Burmese and Uriya have been recognised and not Marathi although Marathi is the vernacular of three times as many candidates. The same applies to the F.A. and B.A. extra composition paper.

History should be retained but not Geography, which is sufficiently taught in the rest of the school course. An introductory primer on Science should be prescribed. Miss Thomson's History was a suitable text-book for Matriculation on that subject. In Indian History Babu Haraprasad Shastri's History of India has not been found suitable.

The F. A. History course should be changed. Instead of two primers, one text-book, such as the "Students' Greece" or the "Students' Rome," should be prescribed. There should be a bifurcation at the F.A. Examination—one side of the examination to lead to the B. Sc.

In the B.A. instead of Philosophy, History should be compulsory in the A course.

In Philosophy there should be a return to the text-books.

In English the reduction of the number of prescribed text-books has not been followed by any raising of the standard.

The complete writings of an author should be prescribed, so that students may acquire the habit of reading.

In the M.A. Sweet's Anglo-Saxon Primer and Morris' "Historical Outlines of English Accidence" should be abolished. These are regularly crammed. Instead of them there should be prescribed additional courses of 19th Century literature.

In Indian History more text-books should be prescribed. Of the two papers one should be constitutional (such books as Lee-Warner's or General Strachey's would suffice).

In all the language examinations more attention should be given to unseen passages. This is the reason of the superiority of the Bombay examinations, at least in Sanskrit.

Languages.

Students should reside (a) with parents, (b) with guardians or (c) in hostels licensed by the Inspector General of Education acting in concert with the College Principal.

Hostels.

If possible there should be a university at Nagpur representing the Berars, Central Provinces and Central India. This would be the university centre for a group of ten colleges containing excellent material. The B.A. results of Nagpur are better than the Calcutta average. In the Entrance Examination the results are worse, in the F.A. they show the same average as that of the University of Calcutta. School instruction is unsatisfactory. The English course extends over only six years after the vernacular stage. The witness admitted that the higher average of successful candidates in the B.A. Examination might be due to the smallness of the number of students in the B.A. classes.

University for the Central Provinces.

Better prospects should be placed before our graduates so far as the Educational Department is concerned. No encouragement is offered to 1st class graduates to become professors. These take to law not to learning.

Prospects of graduates.

There should be more nominations to fellowships of the representatives of private colleges and so far as native scholars are concerned merit in vernacular literature should be rewarded by such nominations.

Fellows.

For all stages above the B.A. and B.L. as, e.g., the M.A. and D.L., the university should be a teaching university. This is not necessary in the case of the first degrees. Power should be given to the university in the Act of Incorporation to undertake the duties of a teaching university in this behalf.

Teaching University.

The sphere of a university's influence should be defined. If Nagpur does not obtain a separate university it should be affiliated with Bombay, because the Bombay courses are more difficult and also because Bombay graduates obtain better recognition in social and literary circles.

Sphere of influence.

Affiliation with Calcutta is infinitely to be preferred to affiliation with Allahabad. There is no objection to different affiliations in one province.

The Senate is not too large or unwieldy. Hereafter the nominations should depend on literary qualifications. Witness would not like any measures that would alter the constitution of the Senate. Benefactors of the University might be recognised as honorary fellows, and non-resident gentlemen might also be honorary fellows. Fellowships should be tenable for five years with reappointment and re-election. This would not interfere with the independence of fellows, except that there might be a possibility of considerations in regard to reappointment influencing the independence of fellows.

The Senate.

The Syndicate.

Witness had nothing to suggest in regard to the Syndicate.

The right of graduates to elect fellows should remain unchanged. Although witness is not satisfied with the methods employed in connection with such elections, he is, on the whole, satisfied with the result.

Election of fellows.

There should be no age limit at the Matriculation Examination. The prescribing of an age limit would lead to fraud. Witness himself matriculated at the age of 17.

Matriculation.

In regard to affiliation the university should have the power of supervision and regular visitation of colleges would be the best method. The Director of Public Instruction might be requested to perform the duty on behalf of the university.

The Director of Public Instruction and the Chief Commissioner should be *ex-officio* Fellows of the Calcutta University.

UNIVERSITY OF THE PUNJAB.

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- (c) To develop in every way such originality in literature as may already exist in the country, not impeding the progress of the movement by unnecessary rules and restrictions.

The next phase is that of official correspondence. A meeting was held in consequence of which a letter was sent to the Government of India asking for a Punjab University. The proposal was at first negatived as premature. This led to some remarks from Sir Donald McLeod, from which the following are quotations:—

Extract from a letter No. 486, dated 12th November 1868, from T. H. Thornton, Esq., Secretary to the Government, Punjab and its Dependencies, to E. C. Bayley, Esq., Secretary to the Government of India, Home Department.

4. The basis on which this movement has been founded, His Honour desires me to state, is the desire on their part to be allowed some really effective share in directing the progress of education, and in regulating the constitution and aims of educational institutions in this province, with a view to impart to them a more national and popular character than they consider the existing institutions, as a rule, to possess.

5. By far the greater part of the subscriptions and donations collected, with a view to the attainment of this end, have been derived from the native chiefs having political relations with this Government; and it is certain that, if matters take a course which they approve, further assistance may be looked for from them when urgently called for.

* * * * *

9. The question involved then, in the present discussion, appears to His Honour to be practically whether the leading men of the Punjab shall or shall not be allowed a prominent and really effective share, under the general control of Government, in regulating the educational efforts of the Province; though to those who may view the subject from a purely European point of view, and are deeply imbued with the intellectual training, and accustomed to move in the intellectual atmosphere of the Universities of Great Britain, the matter may naturally present itself in a different light.

Even then the Supreme Government were not convinced, and subsequent to the above and another letter Sir Donald McLeod had a chance of discussing the matter with the Viceroy, Sir John Lawrence, and other persons. Afterwards he wrote a minute in which he again set forth the two main objects of the University:—

Extract from a Minute by the Hon'ble the Lieutenant-Governor, dated the 10th February 1869.

4. The main objects which the Punjab Government, prompted by the people themselves, has in view are in fact two:—First, to give to the leading and most enlightened portion of the Native Community a share in directing the educational efforts of the Government, as affording the only means of really popularising our educational system. And, secondly, the creation of a more effective machinery than has heretofore existed for forming a vernacular literature imbued with the knowledge of the West, and creating a series of educational works in literature and science suitable for imparting that knowledge to the rising generation.

In the same note the Lieutenant-Governor made the following interesting remark:—

12. * * It is desired and hoped that the examiners shall on every occasion be obtained from amongst persons unconnected with the Educational Department of the Province.

Notwithstanding the distrust with which Sir Donald McLeod at first regarded the agitation he became in the end convinced that it was a real movement and that the intelligent and upper classes were vitally interested in the question of education.

The special objects were defined in a manner practically identical with the first of the present University statutes. At that time the discussion was fresh in the minds of the authorities and they closed the controversy with a notification defining the conditions under which they considered themselves at liberty to dispose of the

The Statutes.

funds. These conditions have an equal force at the present time. The following is the portion of the notification dealing with this point :—

Extract from Notification No. 472, dated the 8th December 1869, in the Punjab Government Gazette, dated the 23rd December 1869.

Statutes of Lahore University College—

1. The special objects of Lahore University College shall be :—

- (1) To promote the diffusion of European Science, *as far as possible*, through the medium of the vernacular languages of the Punjab and the improvement and extension of vernacular literature generally ;
- (2) To afford encouragement to the enlightened study of Eastern classical languages and literature ; and
- (3) To associate the learned and influential classes of the province with the Officers of Government in the promotion and supervision of popular education.

The above are the special objects of the institution ; but at the same time every encouragement will be afforded to the study of the English language and literature, and in all subjects which cannot be completely taught in the vernacular, the English language will be regarded as the medium of examination and instruction.

The next stage is that of legislation. Sir Charles Aitchison was the most prominent member of the Committee to support the University scheme in its early

Legislation.

days. It was he who saw through the Council the Bill which is now the Act of Incorporation. In the course of his speech he referred to the objects of the scheme of the University as follows :—

Extract from the speech of the late Hon'ble Sir Charles Aitchison, Lieutenant-Governor of the Punjab, delivered in the Legislative Council on the 5th October 1882.

Besides endeavouring to revive an interest in Oriental learning, to teach as far as possible through the vernaculars, and to stimulate the production of original vernacular literature, one of the chief aims of the proposed University, which should never be lost sight of, was the introduction of a popular and national system of education on the principles of the Education Despatch of 1854, by giving the people a large and direct voice in the regulation of their own educational affairs. This was very strongly insisted upon by Sir Donald McLeod, who desired as far as possible to promote spontaneity of action on the part of the Native Community, and who was opposed to their being too much guided by the opinions and advice of European gentlemen. In the University as now to be established, this popular element is fully secured. The learned and influential classes of the province will, by the statutes, be associated with the Officers of Government in the promotion and supervision of popular education. The Senate will be a consulting body in all questions of education, including primary education. It will assume, in fact, the position of a Board of Education for the Punjab, and become in educational matters an embodiment of the principles of local self-government as recently enunciated by the Government of India.

It will be observed that the aims of the University had been defined years before the term Local self-government was used, and that the term was used and the principle supported by a man thoroughly acquainted with the conditions of the country. In another part of the same speech Sir Charles Aitchison said :—

I will no longer trespass on the indulgence of the Council though there are several distinctive features of the proposed Punjab University to which attention might usefully be directed, for example, its freedom and catholicity, whereby students of every language or race or colour, no matter where educated, can be admitted to its privileges and honours, provided only they come up to the standard prescribed, its teaching capacity, its literary function.

The above sentence is specially important because questions are now and then raised as to the admission of private candidates to the University examinations. Apparently the idea of Sir Charles Aitchison was one of great freedom and catholicity.

After the Act had been in force for some time, Sir Charles Aitchison had again occasion to discuss the question alluded to above. The following are extracts from two of the Resolutions on the subject :—

Later remarks of Sir Charles Aitchison.

Extract, paragraph 9, from the proceedings of the Hon'ble the Lieutenant-Governor, in the Home (Education) Department, No. 51, dated the 14th April 1886.

The term "Oriental University" had by this time been abandoned, and "Lahore University" substituted. The reason for this

* "The use of the term 'Oriental' did not commend itself to my judgment, as I deemed it certain that without a large infusion of European literature and science with the studies to be promoted by the establishment of the proposed institution, the object in view could not possibly be obtained and after some discussion that designation was given up."

was afterwards fully explained by Sir Donald McLeod in his inaugural address* of 11th January 1870 at the first meeting of the Senate of the Punjab University College.

Extract from the Proceedings of the Hon'ble the Lieutenant-Governor of the Punjab in the Home (Education) Department, No. 52, dated Lahore, the 15th April 1886.

18. * * * That, as explained in Resolution No. 51, dated 14th April 1886, the obligations of the University towards Oriental learning so far as they affect its general funds are those set forth in the preamble of Act XIX of 1882, which embodies the substance of the principles expressed in the rules of the Punjab University College on which the University movement was commenced; but that there is no obligation, express or implied, to spend these funds on an Oriental College or in any other particular way than the Senate, having due regard to its other obligations under the Act, may from time to time determine; and that the particular manner in which the Oriental College or any other school or college which the University may establish is to be administered is a matter solely for the judgment of the Senate.

It is to be inferred from these and other remarks that the Punjab University is not essentially an Oriental University nor essentially a Western University. It gives encouragement to Oriental and Western studies alike. Resolution No. 52 deals with the general endowments of the University. There was a separate Resolution dealing with donations for specific purposes; to that witness was not referring. Regarding the general endowments the conclusion which Sir Charles Aitchison came to after a very careful examination of the case was in the words embodied in Resolution No. 52 of 15th April 1886 quoted above.

The President.—The chiefs and people of the Punjab took an active part in the constitution of the University and the element of compact must be borne in mind in suggesting any changes.

Witness.—The point on which I wish to lay special stress is that one of the original objects was the association of the people of the province with the officers of the Government in the supervision of education.

Witness continuing said that he had referred at length to the association of the University with Government in matters of education at the close of the third paragraph of his memorandum and had used the following words: "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." In illustration of this he had caused a statement to be prepared of the fourteen colleges which have been opened and recognized by the University during the last 20 years which he presented to the Commission.* The list shows an extraordinary growth of college education. Some of these colleges are sectarian and denominational. There are two Missionary Colleges, one Aryan College, one Mahomedan College, one Hindi College, one Sikh College and three colleges established by the Native States. The experience to be drawn is that the interest of the people of the Punjab in education has not flagged, whereas in 1865 they were ready to find funds to establish a University they are now spending money on the maintenance of the different sorts of colleges they require. The Punjab University, having regard to its history, should welcome the establishment of these colleges with the greatest cordiality. Large sums have been spent by the Native States; Patiala spent five lakhs on building; Kapurthala has a budget provision of Rs. 28,000. A full account of these colleges will be found on pages 516 to 531 of the University Calendar. This has a bearing on a point referred to in another part of the memorandum, namely, that the heads of recognised colleges should always be *ex-officio* fellows. The heads of these colleges are in communication with the communities and will help the Government to get into touch with them. No distinction need be made between 1st and 2nd grade colleges. There is no objection to a school having an extra college class.

The question of the Oriental College is highly controversial. It formed the subject of one of the Resolutions of Sir Charles Aitchison quoted above. The conclusion at which witness has arrived is that the University is bound to maintain the Oriental College in view of its original connection with Oriental learning, and more than that it serves a very useful purpose. But

* See Punjab papers, Part II, page 9.

for the Oriental College it would be difficult to furnish schools with Oriental teachers. Probably it would be necessary to add a class or classes to the Central Training College. Dr. Stratton will be more competent to speak on the subject of the maintenance of the Oriental College.

The Oriental School is a different thing, and witness is open to conviction on the question whether that school should be maintained out of the funds of the University. There would be a saving of about Rs. 3,000 a year if the school were dissociated from the University. Unaided or aided institutions might take over the school, for instance, the Khalsa College might manage the Gurmukhi classes.

The Law College is a weak spot in the University. It is a most difficult subject. The matter has been for a long time under consideration and the upshot of the complicated Regulations which exist under the Legal Practitioners' Act and the University statutes is that the students are forced to pursue their Law and Arts courses simultaneously. That spoils both the courses. Complications have arisen partly from the fact that the University was originally only allowed to grant Licenses and subsequently was allowed to grant degrees. It is necessary to work in co-operation with the Chief Court and to take into consideration their requirements. It is a very complicated and difficult subject, and witness hopes to be able eventually to lay before the Commission a formal memorandum dealing with this particular matter at greater length. A question has been raised regarding the establishment of a Law College elsewhere than at Lahore. When witness went to Delhi that proposal was made before him by St. Stephen's College, but after a careful consideration it was negatived. There was a great deal of discussion in the Senate about the proposal. The Vice-Chancellor, Sir Charles Roe, gave his opinion against the proposal. One of his reasons was that the Chief Court can exercise a better control at Lahore. Details of the Law School are given on page 515 of the Calendar. The principal is Dr. Serrell. There are six Law Lecturers. The number of the students has fallen off very materially of late, and the University has asked the Government to renew the grant-in-aid which it made some years ago and withdrew when it found that the institution was more than self-supporting. The College is a whole-time institution. Only the principal devotes all his time to the College. The professors practise in the Courts.

Paragraphs 5 and 6 of the memorandum deal with suggestions for an Honours' course. Educational Officers are in the best position to advise on the point. Centralised teaching and an Honours' Course. However excellent a thing it may be to have professors who are intended for higher teaching only, it would involve a great change in the present system. At present Pass students are arranged in three divisions—first, second and third—beyond the Pass if they go up for the M.A. degree then it is there that their real higher work begins. To change all this would be difficult as it would involve the taking away of men from their own colleges to be taught in some other institutions. Speaking from western experience witness thinks that an Honours' course tends to degrade the Pass course. At present the stage of education is collegiate rather than University and professional. It might be arranged that some colleges should give instruction in one and others in another special subject. For instance there is great waste of time, power and money in providing the needful staff and plant in a number of colleges for science teaching. It would be a good thing to get all the science teaching done in one institution. It would be well if inter-collegiate lectures could be arranged for in other subjects; but at present the colleges are severed from each other by a variety of circumstances, among them being the fact that some of them are sectional and denominational, the very differences which have done so much to create and foster them. Until the higher aims of the University are more generally and definitely recognized they could not be induced to combine freely in an inter-collegiate system. A beginning may be made, in course of time, by University Professors being engaged to deliver a certain number of lectures during the course of the year.

If the Government were to found a Central School of Science which while teaching Science up to the University standard to the whole province would have

no collegiate individuality of its own but would allow the credit of its successes to reflect on the particular colleges from which the Science students would be drawn, some of the most important objections would be met, but it is nevertheless doubtful whether the colleges would be prepared to accept such a scheme.

At present very few students take up higher studies, but it is desirable to be somewhat ahead of the demand. The strongest argument in favour of an Honours' course is that it would enable the stronger students to read more extensively and would prevent them from being kept back by the weaker. But the time is not yet ripe for an Honours' course. Witness would be glad in course of time to see the Government College a college for honours' men, but that is not practicable under existing conditions.

It is doubtful whether spheres of influence should be limited by locality.

Spheres of Influence.

For instance people in distant parts of India might wish to follow the Punjab course of Oriental learning. Probably the Punjab University would not wish to affiliate any institutions in Bengal or the United Provinces, nor would such institutions wish to be affiliated to it. It would be wisest to let the spheres of influence gradually acquire their own limits. The difficulty of supervising distant colleges might be partly met by the co-operation of the different educational departments. The spheres would in general arrange themselves by provinces, but a rigid rule would result in hard cases.

A number of candidates from the United Provinces pass the Entrance of the Punjab University. The reason that they

The age limit.

come is not that the examination is much easier than that in their own Province, but because there is a difference in the age rule. The Punjab University discussed the question of the age limit long ago and came to the conclusion that it was not desirable. It is not right that the regulations of different Universities should interfere with one another, and the question of the admission of students from different Universities should be settled by a conference between the Universities concerned. There should be general harmony between the different Universities. It is inconvenient that examina-

Harmony between Universities.

tions should be held outside the University limits; for instance that the Punjab University should hold examinations at Lucknow. Such examinations would be held entirely beyond the possibility of control. Witness does not know why the practice exists. He has not heard of students coming to the Punjab University from the Central Provinces. Dr. Bourne pointed out that the number of United Provinces students taking the Punjab Entrance is too great to be accounted for by the age limit. Witness said he would be happy to make inquiries into the matter if the Commission desired it.

Some time ago Mr. Robson urged the desirability of introducing affiliation rules. A statement was prepared of all the affiliation rules in force in all the Universities, and after it had been most carefully considered, a set of rules was

Affiliation.

drafted. They were placed before the Senate, and on the 14th May 1901 were postponed *sine die* on a motion for which witness was largely responsible. The reason was as follows. There had been some ill-feeling between the Hindu College at Delhi, in connection with the opening of which these rules were taken into consideration, and the St. Stephen's Mission College. It is not necessary to go into the allegations which they have made against each other. But when the affiliation rules first came from the Syndicate to the Senate Mr. Madhan Gopal acting on behalf of the Hindu College at Delhi on, no doubt, general grounds moved that the rules should be referred back to the Syndicate for further consideration in the Faculties. Witness feared a discussion of a racial and religious character. It appeared also that there was some misapprehension regarding the rules; there seemed to be a fear that they were designed to check the growth of the unaided and independent sectarian institutions. Witness said then and says now emphatically that if he believed the affiliation rules would produce any such effect nothing would induce him to support them. He afterwards asked the Hindu College gentlemen to tell him frankly what their substantial objections were to these rules. They said that their first objection was to the right of affiliation being vested in the Syndicate rather than in the

Senate ; and, secondly, they were afraid of rules in the matter of fees. As regards the first objection, the wisest course would be to yield to it. Witness hoped till lately to keep the work of affiliation in the hands of the Syndicate on account of the danger of importing into the Senate bitter sectarian disputes. However, if the Senate is strengthened in the way that witness has suggested in his memorandum and be made representative of all interests, which he has contended that it should be, then he would be prepared to leave to it the decision on questions of affiliation. The decision may be made subject to the sanction of the Government. The Senate as a body would be capable of dealing with the question of affiliation. It would be difficult but not impossible for them to do so. They would have to exercise the power on the recommendation of the Syndicate. Colleges are at present recognised by the Syndicate for the purpose of awarding scholarships, etc. A rule to that effect will be found in the College Directory in the footnotes of pages 517-18-19 of the Calendar. In one or two cases the Senate revised the operations of the Syndicate, and that gave rise to canvassing of an improper kind.

The proposed affiliation rules did not allow private students except (1) females, (2) *bonâ fide* teachers, and (3) persons engaged in medicine or engineering, and (4) candidates who have failed after a full course. There are many in that position. Witness has heard it said that some colleges send up their duller students as private candidates so that in case of their failure no disgrace should attach to the college. It is an evil which ought to be fought against as much as possible. It is almost a fraud on the regulations [Mr Bell said it existed in the case of schools not of colleges]. Government servants should also be admitted as private candidates on the understanding that the Head of the Department certifies that he is satisfied that the candidate has been *bonâ fide* pursuing a course of study.

Private Candidates.

Witness said he is prepared to take up the question of affiliation vigorously. Mr. Bell remarked that a number of colleges have been recognized by the University but Government scholarships cannot be held in them until their efficiency has been ascertained.

Members of the Senate should be invited to sit on the Text-book Committee and at the annual Educational Conference, and the Government should ask their advice, as it asks the advice of the Director of Public Instruction, in deciding important questions in the subjects mentioned in the Statutes.

The rule requiring discussions in the Senate to take place in the vernacular, as far as possible, is very inconvenient and is hardly necessary at the present day. The discussions should take place in English, but it should be left to the option of any member of the Senate to ask for an explanation in Urdu of the substance of what has been said. Members should have the privilege, which is accorded to the members of the Legislative Council, of putting in written speeches in English composed by themselves in their own language and translated for them by an officer of the Senate. The present system leads to tedious reduplication and attendance is not popular among European members. The present tendency is for the Syndicate to do all the work and too little is left to the Senate. Witness is opposed to election for the Senate. He prefers nomination as in the case of the Legislative Council. Public sentiment in the Punjab still prefers nomination to election as the more honourable thing. Witness attaches importance to having as Fellows junior men who are fresh from the experience and traditions of Oxford or Cambridge. The University would gain great advantage from their enthusiasm and knowledge. He also attaches some importance to the suggestion in paragraph 10 of the memorandum that the Syndicate should have the power of co-opting by unanimous vote for short periods. The power could be used to include young Government officers and thus induce them to take an interest in the affairs of the University. It is desirable that there should be some one on the Syndicate able to represent every point of view, and for this purpose co-option for special purposes might be resorted to. It is 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 retain the privilege. The successors of the Ruling Chiefs who were the founders of the Punjab University College or its eminent benefactors should be nominated Fellows for life by the Chancellor.

The Senate and Syndicate.

Witness said that in the same way as he had associated the name of Sir Donald McLeod with the inception of the University and that of Sir Charles Aitchison with its introductory legislation, he would associate the name of Sir Mackworth Young with its recent development. In December last Sir Mackworth Young gave a long address in which he dealt with the weak points of the University. It has been referred to a sub-committee of the Syndicate. The following are some of its most important points:—

(1) Sir Mackworth Young suggested that the question papers after leaving the hands of the examiners should be considered by moderators. The matter has been considered and the feeling of the Syndicate is against it. It has the disadvantage of admitting more men into the secret and of diffusing the responsibility for secrecy. It is difficult to prevent premature leakage of examination questions. If the system were carried down to the schools there would be a danger of persons being approached for improper purposes.

(2) Witness quite sympathises with Sir Mackworth Young's objection to the existing rule. In examinations above the Middle School and Entrance when a student fails by not more than five marks in one subject only, the examiner is asked whether he will give these marks. It depends entirely on the personal equation of the examiner. A rule has been devised to meet the difficulty adapted from the Medical School. The proposal is that when a candidate fails in only one subject and obtains considerably more than the minimum aggregate, he may be permitted to proceed with his course subject to re-examination in that one subject.

(3) Witness agrees with Sir Mackworth Young's remarks regarding the need for boarding houses. The matter is receiving attention. As regards the Law College, Dr. Serrel is sending up a scheme.

(4) This raises the question of what has been done to fulfil the first and second objects of Statute I. More might have been done than has been done; at the same time the record has not been altogether a barren one. Witness presented a list of 27 books published under the auspices of the University, all but three of which are written in either Hindi or Punjabi. Witness referred to his own scheme that teachers should give occasional *quasi*-professional lectures which should be translated into the vernacular.

(5) The last point raised by Sir Mackworth Young is very interesting; it relates to the construction of a University Hall. The main difficulty hitherto has been as to the site. Witness will press the matter forward and hopes soon to get some practical result. Witness would like for the promotion of *esprit de corps* a hall for the use of the University, in addition to an examination hall, to provide a home for Unions like those of Oxford and Cambridge. Witness would like to see good debates started and is not afraid of discussion. A good library should be established in the proposed buildings. Some time ago it fell to witness to inspect the Punjab Public Library and he found that its readers were mostly University students. This library should be transferred to the University, supplemented and used both for the students and the public at large. The University has a small library for the use of professors.

Witness is not in favour of graduates electing any members of the Senate. Nomination is for the Punjab the better plan. The time has not come to change it. With the present system of Fellows being Darbaris, there would be a danger of influence being brought to bear for the sake of the seat in the Darbar. Witness is opposed to Fellows being *ipso facto* Darbaris; the two are conferred for different reasons. The privilege should not be continued to future Fellows.

Appointments to the Senate should in future be for five years. This does not apply to ruling chiefs who are Fellows on different terms.

WITNESS NO. 2.—THE HON'BLE MR. P. C. CHATTERJI, M. A., B. L.
RAI BAHADUR, Judge of the Chief Court.

Witness said he had little to add to his written statement (No. 2 in Part II).

Teaching in the Oriental College could be made more efficient than it is at present by introducing other higher subjects of study in the various languages.

The Oriental College.

The branches of Law and Medicine which are taught in the Oriental College should be studied more thoroughly. There is a difference of opinion on the subject and witness fears he will not be able to carry his opinion far. Syed Hossain Bilgrami asked whether improved teaching would increase the number of students of whom there are at present very few. Witness said that the Vedic system of medicine is becoming more popular, but that students will not come to listen to low paid teachers. At present Rs. 30 and Rs. 15 are paid to the teachers of the Ayurvedic and the Yunani systems respectively. For

Indigenous systems of Medicine.

these small salaries, it is not possible to provide efficient medical teaching. There are men now available who are proficient in the systems and who could be procured if adequate pay were offered. A man has recently been obtained from Calcutta whose lectures are much more popular. He teaches in Sanskrit and Urdu. He has good certificates and was medical adviser to a Maharaja. The good men are known by repute in their community. At present students are only taught theoretically and to prepare medicines. Chemical and practical instruction could be given if there were more funds. The Ayurvedic system is not all of it hundreds of years old, there have been more recent additions. The two indigenous systems should be studied in the Oriental College so that the students of the English system of medicine may also know one of them. They can then apply their combined knowledge to the improvement of both systems. In reply to Mr. Pedler witness said that he did not agree that the ingredients of the vernacular systems are unknown. The Oriental College is practically the only institution of its kind in India and ought to be maintained for the study of Sanskrit, Arabic and Persian. Sanskrit had almost fallen into disuse when the College was founded. The system under which the Principal of the College is also Registrar of the University was introduced by Sir W. Rattigan 15 years ago. It would be better to have a man entirely at the disposal of the University. From a monetary point of view the College does not pay—but that is not the chief point of view.

The latest law regulations give some privileges to persons holding title degrees. The Chief Court used to hold the

Oriental Titles and admission to the Bar.

examinations and they were subsequently made over to the University subject to the control of the Chief Court. The "First Certificate" entitles the holder to practice as a Mukhtiyar, and the "Licentiate in Law" to be a Pleader. For the Licentiate the candidate must have passed the First Certificate Examination and must fulfil certain other conditions or receive the permission of the Chief Court. The Judges have framed rules under which the candidate must be (a) a B. A. or a Mukhtiyar of ten years standing, or (b) a Mukhtiyar of seven years standing and a Shastri or Moulvi Fazil, or (c) a Mukhtiyar of five years standing and a B. O. L.

There should be a single Law College under the control of the University.

The Law College.

The other Arts Colleges should not be allowed to have Law Colleges of their own. The University spends a great deal more money on the Law College than other colleges could afford. The expenses are not less than Rs. 10,000 or 12,000 a year. The pay of the whole-time Principal is Rs. 700 a month; and that of the other five Lecturers ranges between Rs. 100 and Rs. 150 a month. This means a thorough instruction. The question of allowing Mofussil Law Colleges came up on the application of St. Stephen's College, Delhi. The main point was that law classes can be conducted after the F.A. and therefore that law students left the college before graduating. The University held that law

instruction ought to be thorough and that it was not desirable to flood the country with ill-educated lawyers. No local college could give a thorough education and the proposal was therefore negatived. Witness would not allow students to read law before completing their Arts course. Three or four years ago the Law Faculty placed a scheme before the Senate for cutting down the Law course from three years to two years, but the Senate, at the instance of Sir W. Rattigan and Sir C. Roe, disallowed it. A two years post-graduate course would remove all reasonable ground for complaint. Students do not attach much importance to law lectures if they are doing B.A. work. Law students are obliged to attend to their lectures because they have to pass three examinations. The first year's examination is of a preliminary character; the second year's is what is called the First Certificate Examination if it is on the Chief Court side, or the Intermediate Examination if it is on the LL. B. side. The third year's examination is for the LL. B. or the Licentiate in Law. The Law college lectures are in the morning and evening. This avoids the college hours. The Lecturers are legal practitioners and are occupied during the day. There is now one whole-time Lecturer who could give lectures during the day. The decrease in the number of law students has brought about the bad financial position of the University. The diminished popularity of law studies is due to the fact that the profession of Law is overcrowded and is not so remunerative as formerly. Rs. 500 a year is allowed for the library, it is fair but not good. The Law school will soon be again in need of a Government grant.

If there were funds it would be possible to start a teaching institution which would not interfere with existing colleges for either post-graduate or science instruction. There is no provision for teaching in some branches of science. Mofussil colleges would not participate in the benefit. [The President explained the Allahabad scheme to surmount this objection.]

In considering any scheme for recognizing teachers the point must be borne in mind that it would be very undesirable to diminish the prospects of graduates getting employment.

For reasons explained in his memorandum (page 14, Part II), witness objects to the existing senators being disqualified *en bloc*. If graduates are allowed to elect some fellows, they might be appointed for a number of years to test how the system works. There is no election by graduates at present, but it should be allowed to a certain extent. The object of giving this privilege to the graduates is to induce them to take interest in the affairs of the University. The difficulty is whether the candidates would vote intelligently. In Calcutta there is some undesirable canvassing, but it is to be hoped that in course of time a better spirit will be infused into the graduates in the matter of electing candidates. Witness is not very keen on the point but thinks that some concession should be given to the graduates, the proportion to be elected might be $\frac{1}{3}$ rd or $\frac{1}{4}$ th but witness has not considered the point.

No matter should come before the Senate unless it is recommended by the Syndicate and the Senate should have the power of revising the decisions of the Syndicate. There are no complaints as regards the constitution of the Syndicate.

Twenty members are elected by the various Faculties. Witness has not heard of any complaint that outside colleges are not sufficiently represented on it. The difficulty in their case is about attending the meetings. All sections, including the missionary bodies, are well represented.

There ought to be rules for the affiliation of colleges. The Vice-Chancellor has stated the difficulties: (1) whether the power should rest with the Syndicate or Senate, and (2) the question of fees. With regard to (1) the Senate ought to have the power, the Syndicate is only an Executive Committee of the Senate and the latter should not be ousted without good reason. Affiliation questions should be brought before the Senate by the Syndicate. There would have been no opposition if this had been allowed.

In the matter of fees, if a college is endowed and thoroughly efficient,

Fees.

there is no reason to require it to charge a particular rate of fees. The President

pointed out the difficulty that the new colleges may interfere with properly efficient existing institutions. Witness thought that if the new college were also efficient, this might not be to the injury of education. Dr. Mackichan said that witness was putting an extreme case and that practically low-fee colleges were not in general endowed to such an extent as to allow them to be efficient. In reply to Dr. Mackichan, witness said that scholarships might meet the needs of poor students but that if a benefactor wanted to endow a good cheap-fee college, it would not be right to prevent him from doing so. It is scarcely proper for the University to say "education shall not be cheap". It is entirely opposed to a Native feeling which is that education should always be free. In old days the teacher not only provided free education for his students, but also paid for their food. Even now the same system is observed in the *tols*. There are no doubt drawbacks in having two institutions running side by side, the one with high fees and the other with low fees; but if the latter has endowments and can afford to charge low fees, the University should not say to it "don't charge low fees." On the whole, it would not be beneficial to say that a college shall not be affiliated because it does not charge certain fees. To prevent venture colleges from charging cheap fees the affiliation rules must be enforced and means must be taken to make them efficient. Results are some indication and there should also be inspection. Syed Hossain Bilgrami pointed out that there is no prospect of a college being run by a benefactor. Witness replied that he had said in his note that for improved teaching the money must come from the Government.

Teachers make the best examiners but there are complaints that, without attributing undue partiality, the students of

Teachers as Examiners.

the teacher-examiner get an undue advantage.

The University is strong on this point.

There is no imperative necessity to start an Honours' Course in addition to the Pass Course unless there are sufficient funds for the purpose. If the B.A.

Honours' Course.

course is not wide enough for a good man, he should be allowed to take more subjects; if he does not want to take more subjects then the M.A. Examination is sufficient.

There should be no age limit fixed for the Entrance. This question has

Age limit.

been discussed from time to time since July 1886 and was ultimately decided in the

negative in March 1891 after a good deal of consideration. It was found as a matter of fact that the number of students under 15 were very few.

The following figures refer to passes in the Matriculation Examination in 1901 :—

1	candidate	under	11
2	candidates	„	12
15	„	„	13
17	„	„	14
114	„	„	15

Regard must be had to the conditions of the country. It must not be forgotten that students are married very early. If a very late time is fixed for Matriculation their educational career will be unduly prolonged. The President pointed out that a boy of 11 or 12 is not fit to begin college life. Witness said he himself was in favour of 14 but that the majority were against a limit. Witness has known some who joined under 14 and did very well. If any limit is fixed, it should not be more than 15; witness would prefer 14 or better still no limit at all.

University course.

The subjects of the University course might be reduced and the examination

made more thorough.

The subject of Theology would be objectionable and would lead to endless controversies and difficulties.

Theology.

If a student fails in one subject but passes well in the aggregate, he should be allowed to qualify by passing subsequently in that subject alone. It would be a pity to make him go up for all his subjects again if he has done well in them. The question is a difficult one and the above appears to be a good compromise.

Grace marks.

WITNESS No. 3.—Mr. S. ROBSON, M.A., Principal, Government College, Lahore.

Witness presented two general notes, also a note on the arrangements of College terms and University Examinations, and a summary of the remarks he made on the occasion of the visit of the Commission to the Government College (Part II, pages 21 to 49).

Witness said that he wished to emphasize the following matters :—

- (1) The quality of the students as they come from the schools.
- (2) What is done with them in College.
- (3) The character of the examination to which they are subjected on leaving college.
- (4) The constitution of the University.

The first point is vital. Unless there is a solid foundation, the superstructure must be worthless. What is pre-eminently required in order to improve the condition of school education, are teachers with higher qualifications, with better pay, and with a provident or pension fund. They must also be required to reside on or near the school premises. More intelligence in the methods of teaching is the most crying need of early school life. Other needs are more holidays, suitable playgrounds, no examination before the school final, examinations so conducted as to discourage cramming, a separate matriculation, an age limit; stricter discipline, and recognition of schools. It is not necessary to enlarge on these points—they are self-evident. To improve the qualifications of teachers better pay must be given. It is unreasonable to expect good teachers on the pay of coolies. The lowest pay of a teacher in English schools is about six rupees a month, nominally eight rupees. Mr. Bell said that very few teachers in English schools get less than Rs. 8. Witness said that from bottom to top good men are required and must be paid for. There is great need for intelligent teaching, boys should be taught to think and observe for themselves, and not have text-books crammed into their heads in such a manner as to kill the power of thinking. Owing to the school system boys seem entirely to lose the power of thinking for themselves. Little boys—perhaps too young to be learning at all—are kept hard at work in school for five or six hours every day, for six days every week and for nearly 52 weeks every year. They get only a fortnight's holiday. For children so young the method of teaching is monotonous and wearisome, and the slow grind lasting for ten years without a break seems absolutely to paralyse all power of thinking.

Mr. Bell.—Have you yourself seen anything of primary schools?

Witness.—Nothing directly. But the best boys come to the colleges, so that I may fairly say I see the results of primary and secondary education.

Dr. Mackichan.—Does not the evil lie in the fact that the instruction is given in a foreign language—English?

Witness.—No; but the system is in fault which makes the boys go through the same subjects twice, first in Urdu and then in English.

Dr. Banerjee.—Does not the blame lie with the system of teaching foreign ideas in a foreign tongue?

Witness.—If so, the fault is in the text-books, not in the language which is the medium of the text-books.

Holidays are a matter of the greatest importance for the teachers as well as for the scholars. Fresh, enthusiastic, magnetic teaching is required but cannot be got from worn-out drudges, especially in a climate like that of India. In England preparatory schools have a vacation of three months, and it is not too long.

Mr. Bell remarked that in India boys are often happier in school than anywhere else, and instanced the case of zamindari schools where boys are required to attend only once yet insist on attending twice a day.

It would be quite possible for parents to settle whether or not their children would go in for a University education. In England the choice has to be made very early with a more remote outlook. The persons who mistake their vocation are those who are led on to a University course by passing the Matriculation. Sometimes they are miserably poor both materially and mentally and infinite harm is done to them and to the cause of education. That there are good poor students is beside the case, every possible provision should be made by scholarships for the exceptional cases.

The teachers for the Matriculation classes should be graduates. A teacher who prepares boys for the University ought to be a University man himself—one who has been through the mill. It is always so in England. Mr. Bell said that the Department is trying to work up to this. Schools sending up boys for Matriculation should be "recognized" by the University. The Government model schools may be assumed to be efficient, and if other schools prepare for the University, the latter should see that they are of a similar class. For schools inside the province the University might call for reports from the Education Department. Schools outside the province should not be recognized.

As a general rule private students should not be permitted. Some exceptions would be required and could be made by the Syndicate,

Residence in boarding-houses should be compulsory for all students in the college stage whether their homes are near or not. Where possible every boarding-house should have a European superintendent. He would have to be a bachelor and in sympathy with the work. It would be difficult to find such men. The professors ought to reside on or near the college premises; otherwise effective supervision outside the class is very difficult. The head of a college should not be an ordinary lecturing professor doing a full day's professorial work, with the additional burden of the Principalship which when properly done is itself a full day's work.

Dr. Mackichan.—If you remove students from their homes you must give them something at least as good—something like Aligarh for instance.

Witness.—That can only be done in sectarian colleges. It would not be possible where Hindus, Muhammadans and Sikhs are mixed together.

There should be a system of "caution money," as in English colleges. Students sometimes leave without saying good-bye and without having paid their fees and messing dues. The system was introduced into the Government College three years ago, but was disallowed by the late Lieutenant-Governor, the reason being that caution money was not levied in other colleges. It appears to witness to be wrong that the *model* college of the province should not introduce any improvement that is not already known in the other colleges to which it serves as a model.

The want of affiliation rules has demoralised the Punjab Colleges. It is not possible to speak too emphatically on the subject of this evil. College fees should be fixed at a high rate and should be uniform. Scholarships should be provided tenable by poor children of exceptional ability.

To satisfy itself that the conditions of affiliation are fulfilled the Syndicate will have to delegate a person or committee to go into the matter. Conditions will have to be laid down, not too rigid, regarding building, grounds, staff and appliances. Probably no single individual would be able to give an opinion on all points. It would be difficult to find men qualified to give an opinion except men belonging to other colleges. It would be a very difficult and a very invidious task for such men and the inefficient colleges will greatly resent the inspection. But the difficulty is one the University must face.

A minimum fee should be one of the conditions of affiliation.

One must admit the difficulty in the case suggested by Mr. Justice Chatterji, where owing to an endowment a college might be able to afford to charge very low fees, but even in that case the University should insist.

The President.—In Jeypore there is an endowed college which charges no fees at all.

Mr. Pedler.—There is another in Burdwan.

Witness.—I believe there is going to be one here. An endowment of ten lakhs has been obtained. Even in such a case the minimum fees should be required, it is harmful not to charge it.

Dr. Bourne.—Suppose you allowed such a college to entertain a certain number of free students, on condition that it charged the minimum fee to all others.

Witness.—That might perhaps be allowed to meet the case of very poor boys of exceptional ability. But generally speaking free education in colleges is a mistake because it tempts boys to matriculate who are utterly unfit for a college course.

The present arrangement is : University Examination in March, results out early in May, classes open on 15th May.

Arrangement of terms.

Classes to end of July and vacation to 15th October. Classes again to end of February and then preparatory leave for the examination. There are 16 months' teaching in the two years and they include July twice over. It is impossible for young students to do brain work in July. The professors have to do 19 months' work, again including the two Julys. The following would be a better arrangement. Begin on 15th October and continue to the end of June=8½ months. Vacation from beginning of July to end of October. The same for the second year. This gives 17 months and avoids work in July. The climate makes it impossible to hold examination in June or July, the examination should therefore be held at the end of the long vacation. This will also give the students time for more leisurely preparation. The gain to the staff and students would be great. So also would it be to the University, because examiners would not be occupied elsewhere and would therefore be more easy to procure them. The extra month might be used to give a fortnight's break at the beginning of April in each year.

The teaching of Oriental classical languages should be by men who know English, other languages and comparative philology. This is not the case at present. Students are required to translate into and explain in English and they cannot be taught to do this by men who do not know English. Those Oriental lectures are also not under the control of the Principal of the Government College. This is inconvenient. It is proposed to introduce the tutorial system and it would have been a help had they been available for the purpose.

Mr. Justice Banerjee.—Is not an Indian teacher more likely to interpret correctly from the standpoint of its author than a European ?

Witness.—Yes, if he is otherwise qualified. It is desirable that he should know Latin or Greek because in order to teach a classical language scientifically the more a teacher knows about other classical languages the better. The M. B.'s of the University are a great improvement in many of the old class of teachers.

Witness desired to lay stress on the following matters regarding the examinations at the end of the course :—

Examinations.

- (1) The examination to be on subjects not on text-books.
- (2) The pass B. A. to be easy and a separate Honour Course to be instituted.
- (3) No rigid system of marks.
- (4) Scholarships to be given for proficiency in separate subjects.

The President remarked that the third suggestion implies implicit confidence in the examiner, marks being the only check. Witness doubted whether they

System of marks.

are a satisfactory check and said that the system of attaching a fixed maximum number of marks to each question encourages superficiality; to illustrate this point witness quoted the following questions from an examination paper :—

Give biographies of Chaucer, Bacon, Locke and Addison—3 marks. Name their principal writings and give a summary of the purpose and contents of each—5 marks. Trace their influence on English thought and literature—6 marks. Describe the change from the lyrical to the romantic in English poetry—3 marks.

Describe the improvements introduced by Hume, Roberts and Gibbon in the method of writing history—1 mark each. Describe the growth of the English novel from the commencement to the present time—5 marks. Write a history of the Arthurian legends—4 marks. Compare in detail Spencer with Tennyson—5 marks. Quote from the *Fairy Queen* and from *The Passing of Arthur* to illustrate your answer—4 marks. State the evidences of the chronological order of Shakespear's plays—3 marks. These questions are contained in a three hours paper. The only chance of satisfying the Examiner would be by a display of superficial knowledge such as is to be obtained only by cramming. No man knowing anything of English literature from direct study could pass it: he would know too much. It would be impossible to answer even one of the questions to one's own satisfaction in the space of three hours. Each question would need a volume to itself. The only kind of person who could pass in such an examination is the boy who knows nothing about English literature but has crammed a text-book and memorised a mass of general remarks which he is able to repeat without understanding them.

Mr. Justice Banerjee.—If you do away with the marks how is a candidate to know which questions are the most important—which questions will procure him the most marks if he answers them correctly?

Witness.—It should be part of the test that a boy should be able to decide for himself which questions are the most important. If he cannot do that he is not fit to pass. In a rational system of examination it does not matter what questions the student selects. It is the answers that are important and the Examiner will be able to gauge the students' knowledge from them. It is open to special objection that boys are compelled to answer questions concerning authors whose books they have never read. The ordinary boy knows nothing about English literature at first hand: he has merely crammed the text-book on the History of English literature. The book should be omitted until the student is advanced enough in his study of English literature to profit by it. It is a book of between 300 and 400 pages which at present the student is obliged to commit to memory if he is to answer such questions as those cited above.

English Text-books.

The President.—What I understand you to urge is that a boy ought not to be asked to criticise an author whom he has not read.

The system of re-examination is unsound. It is a disguised and worse form of grace marks. If grace marks are given they are allotted on broad considerations of aggregate marks, etc., to deserving students. If an appeal *ad misericordiam* is made to the Examiner the result depends simply on his individual inclination.

Re-examination.

The Government Scholarships on the results of the B. A. Examination should be given for separate subjects rather than for the aggregate in several subjects. This is no proper way of testing the aggregate. It may mean anything. The B. A. can be taken in 35 different ways. There are different papers and different examiners. In one subject the papers may be unusually difficult, in another unusually easy. The whole thing is haphazard except that no student has a chance if he does not take Mathematics. Mathematics is an exact science; literature is an inexact art. In Mathematics a candidate either answers the questions or he does not. If he answers them he gets full marks. On the other hand a candidate rarely gets full marks for answering questions in literature however successfully. The result is that scholarships hardly ever fall to the best all-round students but usually to the best man at Mathematics. A candidate taking up Sanskrit has no chance of a Government Scholarship. In 20 years only four non-mathematical students have got such scholarships. From his own knowledge of the students witness can say that good men have been defeated by inferior men who have taken Mathematics. The only objection urged against the grant of scholarships for special subjects is that it is not desirable to encourage specialisation. That is unsound. Provided a good general standard is exacted it is desirable to encourage special proficiency in particular subjects.

Scholarships.

Pass men should be arranged in alphabetical order. The present work of tabulation is enormous. The University ought to publish its own results, no other publication is required. There is long delay in appearing in the Gazette. (Mr. Bell explained that the reason of the practice is to save the cost of printing.) Directly the list is settled it should be determined who are to get scholarships. There is a long and unnecessary delay from May to October involving hardship to poor students. There is no reason for it, the marks are the only criteria.

The calculation of percentages is carried to an absurd extent. It is wrong to judge only by percentages and the practice leads to great abuse. The number of passes depends on the sort of students sent up. By offering inducements, such as remission of fees, a college can make sure of good results. Another abuse is to send up for the college only those who do well in the test examination, the remainder going up as private students. This last abuse has been stopped by a change in the regulations; it has been very common. Percentages seem to be the only standard looked at. Mr. Bell said that this was not the case in the last report. Dr. Mackichan pointed out that the University Calendar gave similar prominence to percentages. Witness said that a short time ago the Principal of the Government College was called upon to explain a small percentage. It is a most demoralising system.

The nature of the questions set needs controlling. It is a very difficult matter. In the Punjab there is an absolute prohibition against teachers being appointed examiners. It is necessary to seek in remote parts for examiners and it is not possible to find suitable moderators. A moderator from another province will know far less than the examiner who will probably have examined for the University several times before. Questions should be set by Boards of Teachers, one or two of whom should also correct the papers.

To discourage the present practice of looking on the B. A. as a competitive examination for higher appointments in the public service, special examinations should be held for such appointments, the B. A. being only one element of eligibility. This is already done in some cases, but in the majority of cases the appointments are given directly on the results of the B. A. Examination.

Witness said he did not wish to add to what he had put down in his memorandum (Part II, pages 33, 34) regarding the University course. The Honours and Pass Courses should not be held together, it would not be possible to go faster than the pace of the average Pass man. The institution of an Honours course must mean a doubling of the staff if the instruction is to be efficient. It is not a substitute for an Honours examination to put the best students into 1st and 2nd classes, the whole of the present system is a Pass one.

WITNESS NO. 4.—THE REVD. J. C. R. EWING, M.A., D.D., Principal,
Forman Christian College, Lahore.

The Syndicate is fairly representative and is as large a body as would be workable under the circumstances. The Director of Public Instruction should be made an *ex-officio* member. As a matter of fact he is always a member, but it would be better that he should be *ex-officio*.

As regards the reconstitution of the Senate, without meaning any kind of reflection on the character or capability of its members it may be said that there is room for a decided change for the better. A properly reconstituted Senate might be, and probably would be, the best authority to deal with the question of affiliation. It should have educational experts to a considerable degree and also an adequate representation of the enlightened class of the community. As to the proportion, two-thirds might be nominated by the Government, one-fifth elected by the Senate, and the rest might consist of representatives of the Ruling Chiefs, etc. There is no objection to the election of a very limited number of graduates—electors, and elected to be of ten years' standing. There is a certain danger of canvassing but the system might give the University some useful men. The one-fifth elected by the Senate will be sufficient to satisfy the educated public and induce them to take an interest in the University. In reconstituting the Senate it will be necessary to devise some plan by which the present members will cease to hold office. It will perhaps be best to dissolve the present Senate. It will before dissolution elect representatives for the new Senate.

The number of members of the reconstituted Senate should not exceed 125 and not be less than about 100; their term of service should be limited to 5 years. A Fellow should not be deprived of his privilege and dignity of Fellowship for failure to attend. It is quite possible that some Fellows living in remote parts of the Province may be unable to attend, and yet be very helpful. After 5 years the Fellows may be re-elected.

The Syndicate is sufficiently representative, but may possibly be made more so with a little care. With 22 members every class of the community might be represented.

Witness said he would like to emphasize the importance of adequate affiliation rules.

The subjects that have been recently most discussed are the establishment of an Honours' course and the changing of the system into that of a teaching University. The time has not come to attempt anything in the way of a teaching University. The Law School and the Oriental University which are under the control of the University are doing excellent work in their own way, but these institutions, even conducted as they are, form a strong argument against the extension of the teaching principle. The Law School would be better managed if it were under the direct control of Government or of a private body. Its history during the last ten years is not such as will encourage the idea of a teaching University in any other branch of study. In connection with the idea of a teaching University witness again emphasised the importance of adequate affiliation rules, just so soon as such rules are introduced will the University become a teaching University in a definite sense.

At present the University has no control over the colleges and has nothing to do with the quality of the teaching in them. The sending up of college students as private students is an instance of this want of control. Under proper affiliation rules the University can control the colleges by means of inspection. The rules should be so framed as to work freely but gently.

Witness has much sympathy with private institutions. The great development of private effort is a healthful sign and private institutions may be expected to exhibit a sound development. Affiliation rules should be framed with some regard to such institutions. Honest private effort can be recognised and encouraged by the adoption of suitable affiliation rules. The better amongst the private institutions would not object to inspection, some of the younger ones might object, and if so they should not be affiliated. Regulation regarding buildings, space and laboratories might tell hardly on some private institutions. Temporary affiliation subject to improvement might be allowed. Hostels should not be permitted without proper space for the inmates. Witness agreed with Syed Hossain Bilgrami that private effort that begins in squalor is not worth encouraging, but said that some of the private institutions have a large amount of money at their back. Witness also agreed with Dr. Bourne that the colleges attempt too much and might be affiliated by subjects.

A uniform minimum rate of fees should be charged. There is a probability that an institution will be started in the Punjab with an endowment of 10 lakhs in which no fees will be charged. While he has no definite solution to suggest, witness would like to ask for help in this matter. The affiliation of an institution charging no fees would be a mistake. In the inception of such an institution all existing colleges might be largely emptied of their students. That would not last long but irreparable harm might be done in the interval. Also for the sake of discipline the University should insist on a reasonable minimum fee. Witness would like complete uniformity. He feels it awkward, as an aided institution, that he charges less than the Government College. He cannot charge the full Government rate for two reasons. (1) The lower rate enables him to receive boys who might not be able to go to the Government College (Mr. Justice Banerjee pointed out that this is a principle of general application); and (2) his college has not such a long purse as that of the Government College. The difference in the fees does not make much difference in the class of students attending the college.

Inter-Collegiate rules are desirable. The rules prevailing in Lahore are due to Mr. Robson. They were drawn up by a Conference of members of the four Arts Colleges and have been accepted by all of them. Before that there was anarchy. A student could walk over from one college to another at pleasure. The new regulations should be made a part of the affiliation rules.

Students reading for the B.A. should not be allowed to specialise for an Honours' course. The majority of them are not ready for it. There would also be great difficulty in providing teaching for the course because there is no money. The University now suffers a loss of more than Rs. 10,000 or Rs. 11,000 a year owing to the expenses incurred by the Law School, the Oriental College and the Medical College examinations. There is no money for providing professorships, and there is no likelihood of getting money from the Ruling Chiefs or any body else in the Province. Unless the Government is able to grant aid there is no possibility of employing teachers for the Honours' course, which would require the existing staff of professors to be doubled. That is out of the question. Besides there is this objection to an Honours' course that it depreciates the Pass degree. It would be almost certain to degrade the value of the ordinary degree. If one college tries to teach the Honours' course, all other colleges will follow suit; and they will not do it satisfactorily.

Three of the colleges in Lahore are in very close proximity to each other, and it would be possible for them to enter into an arrangement with regard to certain classes. Notably the Oriental College has now taken charge of the teaching of the Government College candidates in oriental languages. The classes of Arabic and Sanskrit are always small and might be made available for other institutions. Such an arrangement would help to remove what is felt very keenly to be an unpleasant rivalry between local institutions. The distribution of fees would have to be arranged between the colleges as a matter of account. Witness tried to amalgamate with the Government College for the M.A. degree but the Director did not approve.

If the University ever does undertake teaching functions, and if it ever finds money for the purpose it might deal with the M.A. and the D.Sc. Degrees. It would be no reflection in a college to be told that the University is willing to relieve it of this duty.

Cramming is one of the saddest features of Indian Education. It can be remedied not by any new method of teaching but by changing entirely the character of the examinations. Witness' memorandum contains suggestions for improving the present system of examinations. Moderation is not altogether a popular suggestion as applied to the Punjab. The plan witness would propose is that within three weeks of the examination, after the close of lectures, a committee of teachers should set the papers or appoint one of their number to do so and meet together to moderate it. This would enable the University to have teachers for examiners. At present it is necessary to go to other Universities, a fact that accounts in great measure for the variable standard. The following is an instance of the way in which the scheme would work. The University might appoint three Professors of Philosophy in the Lahore Colleges to examine in that subject; one would set the paper and the other two would mark it. In the following year another of the three would set the paper and the remaining two would examine. This would remove any risk of unfairness and would secure careful work. It would cost more but would be worth the additional expense. Witness has had no reason to question the honesty of the examiners but has had great reason to question their judgment—they are whimsical. There must be marks, they are necessary for the control of examiners. If it is necessary to take precautions to prevent students from seeking an advantage from a teacher examiner, the names should be kept secret as in the case of the Allahabad University.

The "Under Consideration F.A." should be abrogated as soon as possible. In his second note (Part II, page 55), witness has made proposals regarding candidates who fail in one subject. They would apply only to good students. For instance if a B. A. candidate shows high proficiency in two subjects and fails in a third, he should be examined in that subject only in the following year. On the whole it will perhaps be better that he should lose the year, but he should not be burdened with having to do again the work he has already done well. He should be permitted to put all his energy into the subject in which he failed.

The giving of grace marks is a distinct lowering of the requirements of the University, it permits a student to pass when he has not fulfilled the conditions laid down by the University.

American experience is against University Examinations. Under the American system the University would impose upon the colleges the most thorough rules of affiliation which would necessitate the maintenance of a very high standard of education. This high standard can be further secured by direct and constant supervision. Once the desired standard is attained, the University might give to the Colleges the power of holding examinations of their own and of recommending deserving students for degrees, and it would be for the University to accept such recommendations and confer the degrees without further tests. There are some obvious objections which it is not necessary to dwell upon. The advantages are great. At present a fixed uniform value which is fictitiously inflated attaches to the University degree. That value should depend upon the College in which the holder of the degree is trained. The general tendency of the scheme is to make colleges extremely jealous for their reputation so that they will be slow to give degrees to students who would reflect discredit upon them. The colleges should also be allowed within limits, to settle the details of the course; then a degree in itself would mean nothing; its value would depend entirely on the College in which it was obtained. The President said that the existing colleges would give degrees too freely and that it therefore seemed desirable that the University should exercise an outside check. Witness said that the University might have a general checking power but that the

final decision should rest with the college. Public opinion would prevent unfit men being recommended for degrees because the degrees would be valueless apart from the reputation of the college. The President asked what, in these circumstances, would be the use of a degree. Witness said he was not sure that there need be degrees. The United States have them, but the main point regarded is the place where the graduate studied. Doctor Mackichan pointed out that degrees are accepted as a passport to government service. Witness said that any affiliated college might be trusted to produce men at any rate equal to the present standard. The colleges would hold examinations. Mr. Justice Banerjee asked why, this being the case, the University should not hold them. Witness said because the University examinations are no test of culture, the present degree represents a certain power of getting up books but does not represent any type of education. Mr. Justice Banerjee suggested a combined system. Witness said he would prefer to leave the whole responsibility to the College. Special arrangements would be needed for private candidates.

There should be more intimate personal relations in colleges between teachers and students. There is a need as teachers of more young men from the West filled with enthusiasm for their work and a love for this country to whom the students could go in confidence. The colleges do not want men who hold aloof from the students, surround themselves with a barrier of reserve and professional dignity, and who consider that they have finished their work when they have finished their labours in the class room.

Witness does not approve of Mr. Robson's suggestion for the levy of caution money. He has never had experience of students running away without paying their dues. The idea is objectionable as it puts the student in an attitude of defence.

Witness heartily agrees with Mr. Robson that there should be scholarships for special subjects and not for the aggregate marks. A man of inferior intellect who takes up mathematics gets more marks than a better man who chooses Sanskrit. About two years ago a student who was a Government of India scholar and stood first in English, first in Philosophy and second in Sanskrit, was only seventh on the pass list.

WITNESS NO. 5.—MR. A. W. STRATTON, PH.D., Principal, Oriental College, Lahore and Registrar of the Punjab University.

Written statement No. 5 in Part II.

Witness said that in view of some of the evidence that was given on the previous day he should like to state more emphatically his reasons for believing in the absolute necessity of instituting an Honours course, not only for the sake of the better men but also for the sake of the Pass men. It is not possible to train both men who are proficient in particular subjects and others who have little interest in them by means of the same courses and the same classes. The Honours system of the Calcutta University has wholly failed to meet the need because it does not overcome this objection. If the institution of the Honours degree leads to the depreciation of the pass degree in the sense that it will be less highly regarded that will be due simply to the fact that Honours men will get a more thorough training and the superior value of the course will be recognised. That will be a gain and no loss. It of course remains to be seen whether with the institution of an Honours degree, all the best men would take Honours courses. Some really good men would probably prefer to study more subjects, while others would prefer to study with greater thoroughness the subject they most care for. Witness has explained how the necessary provision may be made for the Honours teaching in the second part of his memorandum. It would certainly involve a large addition to the staff if every college undertook independently to provide the courses, but even if this were practicable and colleges all had money for the purpose, it would be most disastrous to allow them to undertake the work. Colleges feel at present both in the B.A. and M.A. that they are preparing men for competitive examinations and they tend to adopt the methods of a cramming school and not to aim at the culture a University should provide. All such competition is injurious. One method of securing instruction without competition would be by the appointment of University Professors, the equipment of University laboratories, the gathering together of University libraries, or if this course is altogether beyond the means of the University by choosing from time to time such men in the colleges at Lahore as are admitted to be best suited for Honours work. Some colleges might by mutual consent arrange that, say in English, a man from one college should take the Elizabethian period and another the 19th century; or in Sanskrit, that one college should take the Vedas and another the Vedantas, and so on. There are obstacles in the way of such an inter-collegiate system of lectures, but the system could be worked between the Government College, the Forman College and the Dayanand Anglo-Vedic College and also the Islamia College if it secures a permanent building in the same neighbourhood. The students would continue to belong to their own colleges and come to common lecture rooms and work in common laboratories for their Honours work. They should not be detached from their colleges because they do good in them and exercise a healthful influence on their intellectual life. For the Honours course a student should take one Honours and one Pass subject and if the Honours subject be any but English, his Pass subject should be English, whilst if the Honours subject be English, the Pass subject might be such a subject as a Classical Language or History or Philosophy. For the Pass subject the student must still belong to his own college. The Honours course should be entirely different from the Pass course. It should contain nothing of the Pass course as a Pass course. The teaching would be different and the results of the teaching would be widely different.

The Calcutta University scheme fails in this respect.

Mr. Justice Banerjee.—Wherein does its defect consist?

Witness.—I understand that a bright student can take both the Pass Course and the Honours Course.

Mr. Pedler.—He cannot take both courses. He cannot, for instance, take both pure and applied Mathematics in Calcutta. The Honours Course includes the Pass, but the questions in the Pass subjects are of a higher standard.

Witness.—And the tuition in the Pass subjects?

Mr. Pedler.—Very often it happens like this that in the third year the Honours and Pass men work together and sometimes Honours men have additional lectures, but in the fourth year the Honours men work separately.

Witness.—My understanding was that the Honours man takes part of his work with the Pass man and the objection to that is this that having much higher proficiency than the Pass man, the association with the latter is apt to create disgust in him for his subject and for that reason I would insist on the absolute separation of the two, for the sake of the Honours man in order that he may have greater enthusiasm for his work, and for the sake of the Pass man in order that the instructor may not be tempted to consider the interests of the Honours man only and allow the Pass man to go insufficiently trained. What is really required is an Honours College and a Pass College.

The Honours course must be logically arranged; *e.g.*, if a man takes Physics he should be obliged to show a knowledge of the necessary Mathematics.

It will suffice at present to institute an Honours course for the degree of Science in the B. A. course. B. A. It is not really necessary to maintain distinctions of degrees in Arts and Science. In America the Arts degree represents a course of classical training, which it does not in India. The B. A. in India is a man who has studied English throughout his course. There is no objection to a man at home obtaining the degree of B. A. without a knowledge of Greek nor is there any objection to a man obtaining the B. A. in India without a knowledge of Sanskrit or Arabic. The best course is to give to all men whether they study Science or Oriental Literature the same degree of B. A., provided they exert the same amount of mental effort in the attainment of that degree.

If anywhere it is in Lahore that University teaching work is possible because with one exception all the strong Punjab colleges are in that city. These colleges would not be degraded in any way, because they would still be able to do the same work that they are doing now. There is work which must be done and which no one college is able to do and which must therefore be undertaken by the University.

It is not necessary to begin with any large scheme of Honours courses drawn up on paper, but as occasion arises from moderate beginnings the system may be extended so as to include more and more subjects.

Witness cannot answer definitely what subjects are most popular at the present moment in Indian Universities, but his impression is that in the B.A. English, Mathematics, Physics and Chemistry are the most popular. Unfortunately the Punjab University which was founded to promote the intelligent study of Oriental languages has largely tended to discourage that study by its system of scholarships. The student who wishes to receive assistance in prosecuting his studies for the M. A. is virtually compelled to take two courses of Mathematics. It is a virtual compulsion which students recognise and men whose interests are in literary subjects are apt to say they cannot go on with their Sanskrit because they must take two courses of Mathematics.

The Oriental College has been rigorously attacked by some critics. It performs a service for education in the Punjab which no other institution in the province is fitted to perform. It trains as no other institution can train teachers of Oriental Classical Languages for the colleges and high schools. The B.A. who has taken Sanskrit or Arabic has very little acquaintance with those languages and Arts students come largely under the influence of men who know nothing of the Classical Languages of the East, but are most ready to speak in their dispraise. Among many students of the Arts College there is a foolish and most erroneous impression that there is no use in studying Sanskrit and Arabic. That the work of the Oriental College is practically recognised will appear from the two following statement :—

Of 31 teachers of Sanskrit, Arabic and Persian in the recognised colleges (excepting the small colleges in Amritsar)—

- 15 are holders of titles trained in the Oriental College.
- 4 are holders of titles trained elsewhere.

2 are M. A.'s and holders of titles.

1 is a B. A. who studied for some time in the Oriental College.

9 are men trained in the old way under Pandits and Maulvis.

These last are old men who when they go cannot easily be replaced from the same class and the Oriental College or colleges like it must be called upon to supply men to take their place.

In the 102 High Schools recognised by the Department out of 164 teachers of Sanskrit and Arabic—

71 are holders of titles trained in the Oriental College ;

4 are former students of the Oriental College who do not possess titles ;

28 are holders of titles trained elsewhere ;

47 were educated in Maktabas or Pathshalas of the old type ;

14 are reported as having studied in Arts Colleges or having received certificates from the Central Training College or Normal Schools.

The titles courses are given on pages 112 to 119 of the Calendar. They are much more thorough than the B.A. and M.A. course. The course which extends over six years differs from the course in Benares in that it is not specialised. A student is required to study from the beginning grammar, prose literature, poetical literature, drama, rhetoric and may elect to study another subject for the second and third examinations. It is objected sometimes that the teachers of Arabic, Persian and Sanskrit in the Arts Colleges fail because they have not a sufficient acquaintance with English. That is not the fault of the Oriental College. The fault lies in this that a good student of an Arts College finds the practice of law most attractive, both because of the greater income to be derived from it and because of the higher social estimation attached to the practice of law. That difference in social estimation is in part due to the comparatively small salaries given to teachers both in schools and colleges. Furthermore the salaries paid to Oriental Teachers are particularly small and Orientalists have not the same chances of entering law and the professions that pay well as graduates of Arts Colleges. Therefore generally men who have taken the M. A. degrees in Sanskrit or Arabic do not wish to enter the Oriental College. If the salaries given in colleges were sufficient to attract such men they could be trained in the Oriental College, so that they would be better men than those who are only *Shastris*. But it is essential that they should take as thorough a course as the men who only study Sanskrit or Arabic or Persian. If sufficient inducements were offered a fair number of M. A.'s in Sanskrit and Arabic would enter the Shastri and Maulvi-Fazil classes and they would be the best men the College could secure.

In the University of Toronto where witness received his B. A. degree there are several Honour courses. The one witness followed was the Classical. There

Specialisation in Oriental Languages.

was a distinction between the Honours and Pass Matriculation, but in the Honours Matriculation students were not excluded from taking general subjects. Beginning, however, from the first year the man who gives himself specially to Honours studies takes far fewer subjects than the man who follows the general course. The results of that system are altogether admirable. Students of the University of Toronto who have gone to the leading American Universities have taken the very first rank and witness has heard Professors in two American Universities speak of their success and express their belief that it was due to the thorough grounding which they had obtained in their work. A man who has thoroughly studied one subject is in a good position to appreciate studies in another field because he understands the methods of study better than a man who has only a slight acquaintance with several subjects of different sorts. Holding these views witness is fully in accord with the suggestion of the Honourable Syed Hossein Bilgrami that it would be well to allow specialisation in a classical language and English throughout the course. But this is not the general opinion in the Punjab and witness would therefore be content for the present with an Honours Course for the B. A.

In answer to Mr. Justice Banerjee witness said that to acquire a working knowledge of Sanskrit the easier course

Study of Sanskrit.

would be to follow the Western method, but for students in the Titles' branch he would recommend the study of Panini.

Advanced books are the subjects of study in the Titles' branch, but it is not wise to allow a man with so little acquaintance of Sanskrit as a B.A. to take up the study of Indian Grammatical Science. The first object should be to give men the power of reading with ease the better known books of Sanskrit Literature and of expressing their ideas with some accuracy in Sanskrit.

Witness then referred to the courses of study in Sanskrit for the F.A. and B.A. on pages 147 and 168, respectively, of the Calendar.

In connection with this Mr. Justice Banerjee asked whether witness did not think the Rigveda was introduced too early and for purposes of comparison asked whether there was any Chaucer in the English B.A. course. Witness said that there is no Chaucer in the B.A. Course, but that the comparison does not hold good. Sanskrit is not such a foreign language to the Indian student as is English. In an English or American University Chaucer would form a natural part of the English B.A. course. Similarly, the Vedas should form a part of the Sanskrit B.A. course in an Indian University.

In reply to the Honourable Syed Hossein Bilgrami, witness said that six hours a week are, as a rule, devoted to lectures in Arabic in Arts Colleges, and that the time allotted is not sufficient to make a man a competent Arabic scholar in four years.

Mr. Robson commented on the want of English on the part of the staff of the Oriental College. As far as possible witness secures for the teaching of the college classes, men who have some knowledge of English, an adequate knowledge if possible. For instance, the Sanskrit reader is an M.A. and is quite competent to instruct any class through the medium of English and two of the other teachers have a fair acquaintance with English. They would not be able to help a man in polishing a translation into English, but they understand the grammatical system and can converse in English. The point, however, is this that if one meets students walking along the roads one finds that they are not talking in English, but in Punjabi. English has not become the language of the student body here to any such extent as it has in Bengal. A student understands much more readily instruction given through the medium of his vernacular.

Witness here diverged to the subject of the efficiency of the teaching on the degree side of the Oriental College. Students are seriously hampered by the difficulty of securing adequate books on the subjects of the course in the vernacular. At the same time they have an advantage over the B.A. candidates, first in the better understanding of their subjects, the lectures being delivered in their own vernacular, and, secondly, in the adequacy with which in examinations they can express their ideas. The percentage of passes among the B.O.L. students and the percentage of marks secured by the best B.O.L. students are distinctly higher than in the case of B.A. students.

General subjects need not be studied for the Titles' Branch, but the B.O.L. course is the same as the B.A. course and there is no objection to a man taking English for the B.O.L. He would then be examined in English through the medium of English and in the other subjects through the medium of the vernacular. There has not been a demand for English in the Oriental College and if there were witness would not undertake to provide for it directly. He should ask that some provision might be made in one of the Arts Colleges and the student would then take his English in that college and the rest of his subjects in the Oriental College.

The B.O.L. degree is very unpopular, because in Government offices B.O.L.'s are not wanted; they do not get such good pay as the B.A.'s. At the same time witness has heard it said that students are bribed to come to the Oriental College. Government service is a bribe to men to take the B.A. degree rather than the B.O.L., and that inducement is many times stronger than the inducement held out to men by the Oriental College of getting a paltry stipend of Rs. 4 conditional on their doing good work. The fee in the Oriental College is a rupee a month.

No students take up English for the B.O.L. A man taking up the B.O.L. examination and selecting English as one of his subjects would thereby have a fair acquaintance with English and a much better acquaintance with other subjects than a B.A., but he would not have as thorough an acquaintance with English, because he would probably have read only the English books prescribed for his examination and that would be unfortunate. A man gains a very thorough acquaintance with History and Philosophy through the medium of the B.O.L. examination.

Law students who have been unsuccessful in their papers sometimes send them to witness asking him personally to go over them and see that the examiners have not made a mistake. He has gone over some such papers and found that the reason of failure was that the students were not proficient in English and could not express all that they had in their minds. In the Medical College students of the Hospital Assistant class have a much fuller appreciation of the little they are taught than students of the L.M. S. and M. B. classes have of their more extensive subjects. Hospital Assistants are taught through the medium of Hindustani; L. M. and S. and M.B.'s through the medium of English. On the other hand, a man who takes his B.O.L. without English has not the same advantages as a man who knows English, because there are not books in the vernacular which will help him in his after college reading. On the degree side witness does not compel the students to take up English, he prefers to leave the matter to them. On the titles side every scholar must study English two hours a day. The results are not commensurate with the effort put forward, but one must always remember that the first object of these students is to study Sanskrit, Arabic or Persian, and it is the only encouragement that the Principal gives them and the greater prospect of doing well when they have an acquaintance with English that leads them to study it at all. At present there are classes reading up to the standard of the Entrance in English, but there is no chance of testing the students in their work. While the University rules permit these men to go up for the Middle School Examination in English and obtain a certificate of having passed in that subject, they are not allowed to enter for the Entrance Examination in English. Witness wishes they might be permitted to do so and thinks that there should be no obstacle to their taking English in any examination.

The Oriental College by giving its students courses of greater thoroughness in the oriental classical languages than they can get elsewhere and by giving them also an acquaintance with English—slight it must be admitted—is doing a great deal for the direct as well as for the indirect encouragement of such studies in colleges and schools.

Dr. Bourne.—We are informed that whenever the office of head pandit or head moulvi falls vacant in the Oriental College the authorities have to go outside to get suitable teachers.

Witness.—That is not the case. The head of the Sanskrit Department comes from Jeypore. He is known throughout Europe and America as a Sanskrit scholar. The University was wise in getting a man of such distinction when it had a chance. The head of the Arabic Department is a graduate of the Oriental College who was formerly in the Calcutta Madrasa. The head of the Persian Department is one of the earliest and most distinguished graduates of the College and has been in the service of the University from the time of graduation.

The University has not yet produced much vernacular literature. Most of the books issued are small and consist mainly of translations and compilations. Syed Hossain Bilgrami remarked that some original works of a high class had been produced and instanced the "Reconstruction of the times of Akbar" prepared 12 or 15 years ago. Witness said that one of the Munshi Fazil Scholars, who is now a District Judge, has been most prolific in Arabic and Persian works. One of the present readers has been hailed as successor of the old Urdu poets.

The examinations for hakims and vaidas were never held or were held very irregularly. No one entered for them because of the condition, introduced at

Study of indigenous Medicine.

the instance of the Medical Faculty, that a course of Western medicine must first be pursued.

Witness has been asked to make some reference to the Middle School Examinations. The original letters cannot be traced in the office. The Lieutenant-Governor of the Punjab in a letter to the University towards the close of 1893 indicated that the best way to carry out in the Punjab the recommendations in section 282 of the Education Commission's Report so far as the Middle School Examination was concerned was to transfer it to the University, and it was proposed to pay a certain sum to the University for two or three years and that the University should be allowed the services of Departmental Inspectors for the purposes of conducting the examination. The letters that passed between the Government and the University at the time cannot be traced, but it appears that the first reference was from the Government.

Another point on which witness has been asked to speak is with reference to the allegation that the Punjab University acts unfairly towards the Allahabad University in allowing boys from the United Provinces who are barred from the Entrance Examination of the Allahabad University, because they are under 16, to take their Entrance Examination under the auspices of the Punjab University. The statistics do not bear this out.

Entrance Examination—Sphere of influence.

Number of candidates appearing at the Punjab Entrance Examination from places outside the Province.	1901.		1902.	
	Sixteen or over.	Under sixteen.	Sixteen or over.	Under sixteen.
North-Western Provinces ...	216	38	420	54
Rajputana	11	3	32	3
Central Provinces	2	2	15	1
Central India	7	1	21	1
Total of candidates appearing at the examination	2,398	402	2,630	358

The age limit not being in question, witness does not know what is the reason for all these boys flocking from outside places to the Punjab instead of to the Allahabad examination. It may be due to the same conditions as have prompted applications from Hyderabad and Jubbulpore for the opening of centres for the Entrance Examinations at those places. The Syndicate refused to give a centre to Hyderabad because it felt that it was geographically too remote. Witness refused to bring the application for the constitution of a centre at Jubbulpore before the Syndicate because the application was not forwarded by the local Director of Public Instruction. Witness is not aware that the Punjab University Examination is lower in standard than the examinations of other provinces, but even if it is the Punjab University has a perfect right to fix its own standards with reference to the condition of education in the province. A uniform stereotyped scheme for the Entrance for all India would lead to the most disastrous results. The Punjab University has outside centres for the Oriental Titles Examinations, but no outside centres for other examinations.

One of the objections taken to the Oriental College is the absence or small rate of fees and the number of stipends given to students. But the Oriental College on the Titles side is purely and simply a Training College for Oriental teachers and it ought therefore to be compared not with ordinary Arts Colleges but with Training Colleges and Normal Schools. Of the 72 students in the Oriental College reading for titles, 24 receive stipends and of the 34 reading in the school department, 12 receive stipends. In the Central Training College

out of 76 students 63 receive stipends, amounting in the aggregate to Rs. 8,000 per annum, whereas the total of the stipends in the Oriental College is less than Rs. 1,000 per annum. In the Oriental College besides the 24 who receive stipends in the Title class, three receive stipends in the B.O. L. and M. O. L. classes. Mr. Pedler pointed out that a reason for giving stipends in the Training College, which does not apply to the Oriental College, is that many of the students are taken away from actual teaching by which they are earning a livelihood.

Dr. Bourne.—I see from your calendar that in 1900, 50 per cent. of the candidates passed the Entrance, 45 the Standard of the Entrance Examination. Intermediate and 30 the B. A. Is it always the case that the higher the examination the greater the percentage of failures?

Witness.—I think that is generally the case.

Dr. Bourne.—It has been suggested that the reason for this is that the Entrance course is not high enough nor sufficiently extensive and particularly that in English it is too weak and, therefore, the higher the students go the more failures there are, most of them occurring in English.

Witness.—I cannot say whether the figures justify that conclusion. I cannot suggest any reason except that I believe it is largely owing to our prescribing no text-book in English.

WITNESS NO. 6.—The REVEREND J. W. T. WRIGHT, M. A., Principal, St. Stephen's Mission College, Delhi.

Witness prefaced his remarks by apologising for the shortness of his statement (Paper No. 6 in Part II). He said that there are two reasons why he did not furnish a longer statement (1) people are apt to forget that the object of a University is to make people better as well as more learned; (2) there are only certain definite matters with which the University can deal, as for instance: (a) the position of the University as an examining and teaching body; (b) constitution; (c) affiliation rules. The Bishop of Lahore has put these matters in a very practical manner in the memorandum which he has presented to the Commission (Paper No. 2 in Part III).

The Senate of the Punjab University is a standing disgrace; no milder expression would be adequate. It does not understand anything that has to do with learning except of a very limited type, and it obstructs all progress. Any of the English Universities would repudiate with disdain such doings as the Punjab Senate are guilty of. There may be reasons for this, which witness does not understand, but a body which obstructs everything which has anything to do with learning can have no claim to be called progressive and can be of no advantage to the University. The number of members of the Senate should be reduced, the real nature of the body should be strengthened and a seat on the Senate should not be regarded as a reward which, failing any other reward, the Government may bestow.

Witness is given to understand the Syndicate is very much of the same nature, and if his statement concerning it is wide of the mark, people in Lahore are largely responsible for its being so. It has no knowledge except of the foggiest sort of the requirements of University education. There seems to be an element of helplessness about the situation which is most distressing and numbs all hope of better things, but witness trusts that the long needed visit of the Commission to the Punjab will lead to material changes. He does not himself pretend to be able to say what can be done to improve matters, but if the Commission will help some remedy will be devised.

There is a complete absence of affiliation rules. An enquiry into the events of the past two years at Lahore would show the need for reform. A few years ago the University gave recognition to the Hindu College in Delhi. If a competent authority were to inquire into the way that was done and into the attitude the University took towards it, the circumstances would cover the University with confusion. If witness is wrong there must be hidden reasons for the action of the University which are too deep for him to fathom. If any new college were started in Delhi on a sound foundation, he would welcome it with delight. It would be an encouragement in many ways. If the Commission were to take the trouble to investigate the origin and constitution of the Hindu College, it would be found that it could not lay claim to any such consideration. The University recognised it in allowing it to hold Government and University scholarships. The Punjab University has no affiliation rules, but it recognised the Hindu College as far as it was in its power to recognise it. He admitted that power is small, but he happened accidentally to see a letter from the late Director of Public Instruction containing a recognition of the institution and an encouragement to the founder and when that came—officially or not—from the head authority of education in the province, recognition could not go much farther.

Mr. Justice Banerjee.—What is there specially objectionable in the recognition of that institution?

Witness—It is not fit to be recognised. It has no buildings: no play-ground no staff, no qualified body of Governors, no any thing. It has students who do not seem to profit much by the education they receive and who pay very considerably less than the market value for their education.

Witness did not represent to the then Director his objections to the college being started, because it seemed to him to be useless, but everybody who knew him knew what his feelings in the matter were.

The Government and the provincial authorities have for sometime past expressed great earnestness in the matter of the physical development of students.

Play-ground—Government aid.

Witness very heartily coincided with that. Although there are two colleges and a considerable number of schools in Delhi, there is only one play-ground. For that play-ground witness has toiled almost singlehanded for the last six or seven years and spent upon it some Rs. 5,000 or Rs. 6,000 which he got together with considerable difficulty. In the hope that the Government, as represented by the Director, would do something to encourage him in this matter, as Government professes an attitude of sympathy and helpfulness towards private enterprise of this sort, he wrote for a grant-in-aid, and received in reply a stiff formal note, of a vague nature, amounting to just nothing at all, which he threw into the waste paper basket, and he never applied again. He took it that when he asked a man for something and instead of replying frankly that man wrote in studied phrases which conveyed no meaning at all, that he meant to evade what he had not the courage openly to refuse and witness would not ask that man again. The President suggested that this action was somewhat hasty: the Government has many claims on its funds, and must deal with them in order of urgency. Witness replied that so doubt he laboured under the disadvantage of not having been disciplined in official methods of correspondence, but if the letter had contained a single kindly or sympathetic word, if it had even suggested latent willingness on the part of Government to help him, he should probably have brought the matter up again. But he could discern no such spark of hope in the cold and studied phrases. However, he merely mentioned this as an example of the meaning to be attached to the Government's profession of a desire to encourage private educational effort. So little encouragement indeed had he ever received that if he were not a very robust man he should long ago have been overwhelmed with disappointment, and should sadly have concluded that his labours might be better employed elsewhere. Witness said that he laid stress on the point because it is one of the few matters in which outside help is of use. His remarks, he explained, had reference to the past régime.

The fact that the St. Stephen's College is a Mission College simplifies its position with regard to moral education.

Moral and religious instruction.

They have a perfectly free hand to teach, as they do most vigorously teach, their own faith. It is a regularly understood thing that the first three-quarters of an hour every morning is devoted to religious instruction in every class. The class books in the first year's class are the Books of Genesis and Exodus and Kingsly's "Good News of God."

Asked as to whether there was any objection to this on the part of students or their parents or guardians, witness said he sincerely wished that parents would make any sort of appearance on the scene. What the feelings of the parents were on this or any other matter he had never had the means of knowing. He had never yet succeeded in even unearthing the parents, much less in bringing them into touch with work at the college. He might teach his students anything he liked without its rousing any deep feelings in the minds of parents.

In the second year class witness tries to teach the students to understand the relationship between the Old and New Testaments. An Indian member of the staff, who is a Christian, lectures on alternate days on St. Luke's Gospel. Witness has taught St. John's Gospel to the third and fourth year classes for the last eighteen years and he believes that some of them enjoy it as much as he

himself does. On alternate days one of the English members of the staff gives instruction on the Incarnation. In the M. A. classes they teach on alternate days the Acts of the Apostles and Butler's Analogy. Out of these regular hours witness never talks religion to any student. A student knows that if he wishes to speak to him on the subject, witness is entirely at his disposal.

The outcome of all this has been that there has never been a baptism in the college and it would be very interesting to know what would happen if there were. No pressure is exercised on the students to make them Christians, the only kind of compulsion is that they must attend the religious courses if they are to attend the college at all. Witness can hardly think that many of them would wish not to attend from what he has himself seen.

The person most responsible for the discipline of the students is the Principal himself. Every student who comes to the college knows that he comes to be taught on their terms and not on his own.

There are at present only 15 students in the boarding house. The senior among them is more or less responsible for discipline. The fact that it is a college and not a school is borne in mind and as few rules as possible are enforced. Professor Rudra, a Bengali gentleman who is a Christian and also Vice-Principal of the college, resides in the boarding house and is of the utmost assistance. There are 66 students in the college, the balance live with their parents or guardians or some responsible person, but witness does not know where they live. Most of the boarders in the boarding house are Hindus, though there are also a few Mohamedans. There is one Christian boarder. The boarders are entirely responsible for their own food.

Witness believes that the ordinary fee for aided colleges is charged at St. Stephen's. He is of opinion that fees should be the same everywhere. Anything which suggests competition between Mission and Government colleges is very pernicious. Witness does his best to ignore the difference. He would be delighted if the fee in St. Stephen's College could be raised.

In reply to Mr. Justice Banerjee witness stated that he did not say the Hindu college had no committee. He believed it had a committee. He did not say it had no house. He said it had no adequate building.

Mr Justice Banerjee.—There is an account given of it on page 531 of the University Calender. Is that in your opinion correct?

Witness.—I have not studied it. The college may have many latent merits. I have no desire to minimise them in any way. I have not cared to examine the details.

Continuing, witness said that the play-ground to which he had already alluded is the joy of his life. It surprised him sometimes to see throughout last hot weather how the students respond both intellectually and physically when they are given the sort of thing they ought to have. It was a splendid thing to see 50 students at tennis and 30 or 40 vigorously playing hockey and football all through the hot weather. Witness has not discovered any student who is not prepared to charge him at football, though he is the heaviest weight on the field.

When witness considers that three to four Professors play these games with the students, week in, week out, and that the students treat them with quite as much respect as they do in the class room, his belief in the capacities of this country for development is distinctly encouraged. One feels that there is a real relationship growing up between students and their Professors, and if witness were to tell the Commission some of the things said to him by students in the last month, it would tend to encourage them as it had encouraged him.

One of the great problems in this country at present is to get nations so opposite as the west and the east to work together and witness has no hesitation in saying that the relations between him and the Indian section of his staff are most happy; the greater number of them are his personal friends.

Staff.

Witness does not think it would be possible to carry on the college unconnected with the University. He has perhaps said hard things about the University, but the real University to him is not the Senate and Syndicate which are composed of outside people, but the teachers. He has the deepest reverence for them and the one thing he has been aiming at during the last two or three years is to bring the college nearer to Lahore. If a resident University were possible in Lahore it would be worth any sacrifice on the part of other colleges.

Relationship with the University.

The President.—Is it part of your college practice to meet your staff in council or a common room to discuss matters?

Witness.—Very seldom. I am in constant contact with them one way or another. My Vice-Principal, Professor Rudra, is in my room for twenty minutes every day and I very seldom do anything without consulting him. I do not know whether it would interest the Commission and whether it is altogether relevant to the question, but I may mention that the Christian members of my staff meet together in my room once a week for religious purposes. I regard this as one of the most important things we do. It makes us realise what we are doing and how much there is to draw us together.

Staff (contd.)

There is no need to meet to discuss the distribution of work. It is all fixed at the beginning of the term by the witness. Every Professor is left free to follow his own methods of teaching.

The term "lectures" is misleading as regards the F. A. classes. All that is attempted is to explain to students the books they read. They are discouraged from reading annotated editions. There are English essays and repetitions. Witness' own method in class is to read the book through out loud and to comment upon it as opportunities arise. Essays are set once a month as the ordinary rule. They are returned corrected. Students are not conversant with English when they first come to the college, nor are they when they go away. The whole standard is very low. The students are not ready for an Honours course. It would be most undesirable to separate the better students from the others. They help to form a standard, and afford some incentive to teach.

Teaching—F. A. Classes.

Honours Course.

The quality of the students is inferior because of the low intellectual level of their surroundings. The teachers also are disappointed, overworked and depressed and have little time for study and little opportunity for intellectual intercourse. Witness is trying to get two young Cambridge graduates to be at his disposal to aid in the work of the St. Stephen's College.

Quality of students and conditions of staff.

Another need is greater sympathy between missionary and Government educationalists. If a missionary means to educate at all he ought to be perfectly honest with the Government and give his whole services to the cause. If he does that there is some chance of his really understanding his Government brother and *vice versa*.

Missionary and Government Educationalists.

If the Convocation as held in Lahore is any sort of outward and visible sign of such inward and spiritual grace as exists in the University, one must come to the conclusion that it is very small. At the Convocation the teaching staff retire almost entirely into the background and as for students one would not know they were present. Only recently the late Lieutenant-Governor suggested that they might be induced to make a little noise. When the assembly is collected the Government walks in, in the persons of its representatives, and takes possession of the whole proceedings and throttles them. One devoutly hopes that the time may come in this and other Universities when the teaching body will not be prepared either on these occasions or others to take a back seat.

Convocation.

WITNESS NO. 7.—MR. G. SERRELL, M.A., LL.D., Barrister-at-Law, Principal,
Law School, Lahore.

(Written Statement No. 7 in Part II.)

It would be better if a student completed his Arts course before he began reading Law. The Law course is quite enough to keep a man's mind occupied after he has got rid of work incidental to his Arts preparation. The college will also be able to make better arrangements for the studies. At present the two courses are taken simultaneously and attendance at the Law College has to be made subsidiary to attendance at Arts classes. By finishing the Arts course witness means finishing up to the B.A. degree. The Law course is a three years' course. It has been proposed and remains to be confirmed by the Chief Court, that students should commence their Law course after they have graduated as B.As. and that the course should be reduced to two years. Having regard to the fact that a student would thus be able to devote his undivided attention to the study of Law, a two years' course would probably be sufficient. The position of the University with regard to Law is a little different from what it is with regard to any other subject in this respect that the examinations of the University are not merely academical examinations; they are an admission to practice and that admission to practice is what the students mainly come for. If the University altered its standard of requirements and this did not carry with it the approval of the Chief Court, and if the University examinations were no longer a passport to practice, then there would be a considerable decline in the number of those who offer themselves for examination. This makes it desirable that the Judges and leaders of the legal profession should have some part in the management of the Law College. Two of the Judges are at present on the Committee of the College. Students can combine study in the Law College with work in an office. Some of them do so. Witness once put down a certain time between 11 and 12 during the cold season for lectures. Then he found that the arrangement would exclude some students in business whom he would have been sorry to lose and he therefore considered it desirable to alter the hours. At present the lecture hours are entirely in the early morning and in the evening.

There is a very strong wish among the students for a boarding-house attached to the Law College, and there is a proposal on the subject at the present moment before the authorities. Witness was asked to formulate a scheme, saying how he thought it could be managed, whether it would be self-supporting, and if not, what the expenditure would be. Witness has prepared such a scheme and sent it in for consideration, but he has not yet heard if anything has been decided in the matter.

It did not appear to witness that attendance at lectures should be compulsory. It is against the traditions to which he himself has been accustomed at the University College, London, where a student may attend such classes as he thinks fit. There is no connection between a certain number of attendances at class and graduation, and witness himself does not think such compulsory attendance desirable. If there is no compulsion, some students will still attend, but the number will not be by any means as great as at present. At present students do not care to attend when their names have been sent up as candidates and they have been present at the requisite number of lectures. Witness came to the college in the latter part of October and when he proposed to continue the lectures during November, some of the students were anxious to know whether attendance would be compulsory. Witness said it would not, and he found that the classes were not attended. If students do not think it worth their while to attend the classes, witness would be rather disposed to let them go without attending and regret it as their loss, or if it appears that they can study equally well without attending classes, they will have justified their position. It is not satisfactory for a lecturer to feel that persons are there to listen to his lecturers, simply because they must. If students have found by experience that they get as much benefit by reading as they can get by oral instruction, it is not right that

they should be compelled to receive oral instruction. Nor is it satisfactory to the lecturer that he should be compelled to be giving them something they do not feel the benefit of. Witness is not at all sure that class examinations by the lecturer once a week on the lectures of the previous week would tend to make the students work.

There is no individual teaching in the Law College. Students have a difficulty in taking notes of lectures. At first witness thought that the fact that they did not take notes was due to the unusually powerful memories which he understood natives of India very often possess. But that is not the reason; students do not themselves consider it the reason. As far as witness can judge, it is because of the difficulty of making a summary of what they hear in a foreign language. The result is that witness finds it necessary (and he has been told by other lecturers that they also find it necessary) to dictate lectures to a very much greater degree than would be necessary in England. One has to a certain extent to prepare and dictate to students summaries which one would perhaps rather expect or desire the students to be able to prepare for themselves. In class witness often asks the students questions, more particularly in the way of testing their recollection of what they had studied on previous occasions. Whether to ask students to give concrete instances of legal principles in the different sections of the codes is a matter each lecturer would determine for himself. Witness has often given such instances, but he has not often called upon his students to do so.

In the examinations too much knowledge is required in the way of legal facts. The recommended books on which the examination papers are set appear to be in many cases not such as are suitable for students. They are too much in the way of practitioners' books--books in which, for instance, certain acts of the legislature are collected together and set out as far as possible with all the cases decided on them. For the practitioner this is very important as a ready reference, but it is not the sort of book that is suitable for students.

Students sometimes complain to witness of grievances connected with the examination. A grievance that is much felt is the restriction that a candidate may not present himself for examination for the degree of Licentiate in Law more than three times. Witness does not know the reason for the rule; it seems to him not to be a sound one. To pass the licentiate examination the student must get 60 per cent. aggregate marks. This is excessive. For the LL.B., the percentage is less. The Licentiate Course is not a simple one. Entry to the legal profession is more difficult than in England. (Dr. Bourne pointed out that the percentage of passes is high.)

Witness does not see any reason why in the nature of things there should not be law classes in Delhi, or for the matter of that anywhere in the Province, if adequate instruction can be given. He does not know how far the instruction would be adequate.

WITNESS NO. 8.—COLONEL S. H. BROWNE, M.D., M.R.C.P., C.I.E., I.M.S.,
Principal, Medical College, Lahore.

(Written statement No. 8 in Part II.)

Only a few students in the college who happened to be educated in England know Latin; none of them know it who have been educated in this country. Latin is a very desirable thing for medical students to know. It greatly facilitates the study of medicine. Students who go to England are not required to pass any preliminary examination before entering on their medical studies; the extent to which they have been educated in this country is recognised by most of the examining bodies in England. They are not called upon to pass in Latin. Although it is a very desirable thing for a student to have a knowledge of Latin, witness does not insist upon it as absolutely necessary. Students who pass the junior examination for the L. M. and S. diploma at Lahore are admitted to the further examinations in England without any test in Latin.

Dr. Mackichan.—We were told in Bombay that Medical College students going to England are informed that they must pass in Latin.

Witness.—As far as I know, our students are not required to do so. The majority of our students go to Edinburgh and take the diploma of the College of Physicians and Surgeons. I have only known of one instance in which Latin was required and that was at Glasgow.

It would not on the whole be desirable that the preliminary scientific training of a student should be pursued outside the Medical College. Most of the students are being trained for employment under the Government, and it is important that they should be kept under supervision of a definite kind throughout their course. If they were to go for one part of their course to one college and for another to another, they would hardly be susceptible to proper control.

It would no doubt be possible to have the scientific ground work completed before the students joined the Medical College, but it is very difficult to separate the purely medical from the scientific. For instance, Chemistry touches Medicine and Physiology, and Botany touches Materia Medica. Witness is inclined to take the view that students ought to be in the Medical College during the whole of their course. It might conduce to economy to have only one chemical laboratory and one physical laboratory for all students; but, on the other hand, in a place like Lahore, if all the Chemical students were concentrated in one place, it would be necessary to spend a great deal on original outlay, and the classes would be so large that it would be necessary to employ a number of demonstrators and assistants.

Medical students who are studying Physics and Chemistry, do out-patient work at the same time.

There is a very strong complaint in the college that the staff is overworked. If Science were taught elsewhere, it would not however remedy this state of things. It would relieve the college of an overflow of students, but it would not relieve the Professors who are at present overworked. For instance, the Professor of Surgery teaches two subjects in the senior class. If the Professor of Chemistry were set free, he could not possibly take up either of these subjects.

Dr. Mackichan.—If these scientific subjects were taught outside, then in place of their Professors, the Government might perhaps provide a Professor of some other subject.

Witness.—That might possibly be done.

Witness is in favour of students coming to the college after taking the Science degree; it is a main reason for encouraging that degree.

Many of the Medical College students would be the better for being accommodated in a boarding-house. Some of them do night work; they have rooms in the college where they sleep. Witness is in favour of establishing a boarding-house in connection with the Medical College, provided suitable arrangements are made for its supervision. There must be a responsible Superintendent, who would be respected by the students. An officer of the grade of Military Assistant Surgeon (retired) would be wanted. The work would occupy the whole of his time. There is a sum set apart for the purpose in this year's budget—a lakh of rupees—witness doubts whether it will be sufficient. No estimate had been made: the thing was done without any reference to witness. The site would be a very expensive matter.

Witness is not in favour of teachers being examiners. He prefers outside examiners, although there are great objections to the system. College examiners are at present associated with outside examiners. The oral examinations are conducted by teachers in the college. A main defect of this system is that there is no opportunity for examiners to discuss a doubtful case. One examiner may decide on a case in Bombay and another in Madras. An instance occurred in which a student failed by two marks; if the examiners had had an opportunity of meeting and discussing the matter, the student would probably have been passed.

The oral examinations are made as thorough and practical as possible. One central examination for the whole of India would increase the value of the degree, but that system would again be open to the objection that examiners could not be present at the centres. It might be possible to send the students to the centres.

Very few students go up for the M.B., because they have to be graduates in Arts. This restriction might be removed and the L. M. and S. abandoned. The medical instruction for the L. M. and S. and the M. B. is identical except for one subject—Comparative Anatomy. The B. S. (Bachelor of Surgery) degree should be given after a special examination in Surgery.

Witness has not taught students in Bengal, but he has examined students there. There is not very much difference between Medical students in different parts of India. The students in the Punjab, as a whole, are more practical than those in Bengal.

Mr. Justice Banerjee.—To revert to the separation of the scientific subjects, would not that separation have the effect of prolonging the Medical course?

Witness.—I should not think so. It could be arranged that the time spent in the preliminary scientific subjects should count as part of the curriculum of five years. I should oppose any lengthening of the period of study. The College of Physicians and Surgeons in London is discussing whether to accept certificates of scientific instruction from certain outside educational institutions in lieu of one year of its curriculum.

WITNESS NO. 9.—LIEUTENANT-COLONEL D. ST. J. D. GRANT, M.A., M.D.,
F.C.S., I.M.S., Professor of Chemistry and Toxicology, Medical College,
Lahore, and Chemical Examiner to Government.

(Written statement No. 9 in Part II.)

Witness said he was thinking of all the Arts Examinations under the M.A.

Teaching of practical Physics and Chemistry.

when he said in his memorandum that the practical side of science was neglected. In all the Arts Examinations except the M.A. the practical work is most unsatisfactory.

Witness has had many years experience as an examiner especially in the B.A. and has found that the book-work of the men is good, but their practical work extremely bad. The only real value to be got from scientific training is from the practical side; the mere working up of text-books is of very little educational value. As an example of the unscientific mind of the science students, witness mentioned the following incident within his own experience. He was examining in the B.A. and he handed a piece of apparatus used in experimental chemistry—a glass vessel—to a student. From the way in which he seized it, witness saw that he had no idea of its use, and meaning to be mildly sarcastic he said to him: "Take care you don't break it. There may be a *jinn* inside it." The student rushed off in terror and reported witness to the Board of Studies for having asked him to handle a vessel which contained a *jinn*. Witness submitted that a man who goes up for the B.A. and whose superstitious ignorance is so profound as to allow him to imagine that a chemical vessel contains a *jinn* has not been trained to the standard which the University desires.

There is no proper apparatus or proper place for carrying out practical ex-

Examination in practical work.

aminations. The practical examination is a farce. There are crowds of students

to each of whom only ten minutes can be allotted. This is specially the case in the Entrance and F.A. and to a lesser extent in the B.A. examination. The reason of the defective teaching of science is that to teach science practically would require the spending of money on proper apparatus and a proper building. The University should insist upon certificates of actual practical work from students and before that can be done proper buildings and apparatus must be supplied.

The practical examinations of the Punjab University are supposed to be conducted at all the centres and the questions are generally good, but without time, place and apparatus the examinations cannot be carried out and therefore they become a dead-letter.

In reply to Mr. Justice Banerjee witness said that the students are supposed to be able to answer questions mathematically. They must make their practical observations and then work them out by mathematical formulæ.

Dr. Bourne.—But they don't know how the formulæ are obtained?

Witness.—That lies between teacher and student. They should be taught the meaning of the formulæ.

Elementary scientific subjects should be taken up by students who intend

Preliminary scientific training of medical students.

to become medical students, so that when they enter the Medical College they may

be in a position to go on with their instruction. At present in Physics students do not get the fundamental grounding they ought to receive. When they first enter the Medical College, they are so ignorant of elementary scientific subjects that they are unfit to commence their curriculum and a great deal of time is wasted in giving them the necessary elementary instruction. They learn little science that is of any use in the F.A. course, even the Mathematics are too elementary to be practically useful. The teaching of Science in the Punjab University looks very well on paper, but in practice the students are far from what they ought to be. There should be a University College sufficiently equipped

with all apparatus for examining and perhaps for lecturing in Physics and Chemistry and other scientific subjects. Witness would not approve of separating these subjects from the medical instruction, strictly so-called, if the students came ripe to begin medical studies, but they do not. They come to the Medical College at the stage of undeveloped school boys, and it is with the greatest difficulty that they are brought to a proper preliminary stage to apprehend what is taught them in Medicine. They would undoubtedly be more mature than they now are, if they went through the preliminary science course before coming to the college.

The knowledge of English of the students is remarkable from a linguistic point of view, but is insufficient to enable them to follow closely reasoned lectures.

English.

Latin is desirable for medical students, but witness could not say that it is essential.

Latin.

It is to some extent a personal question whether it is a good arrangement to combine the duties of Professor of Chemistry and Chemical Examiner. Witness finds that the combined duties are too much for him. He has the whole analytical work of the Province to attend to. He has two assistants. There is more medico-legal work in the Punjab than anywhere else, except Bengal, and it runs Bengal very close. There are on an average three human cases a day and nearly as many cattle cases and in addition to that articles have recently been sent by the Government for examination as explosives. It is impossible to cope with the work. There is no inconvenience in carrying on the medico-legal work in the same place as is used for teaching students. The teaching of students does not interfere with the analytical work.

The laboratories in colleges are very far from being satisfactory. For instance, the best laboratory, namely, that of the Government College, although well equipped with apparatus, has its physical equipment housed in such an absolutely unsuitable building that it is a wonder that the Professor can carry out his duties.

Laboratories.

WITNESS NO. 10.— LALA HANS RAJ, B. A., Principal Dayanand Anglo-Vedic College, Lahore.

The Punjab University is already a teaching University in legal and Oriental studies, but the Law and the Oriental Colleges are in no way better managed than the Arts Colleges which are only affiliated to the University. The following are illustrations of this statement.

(1) There are very few specialists as teachers. Take the case of Sanskrit Philosophy, there is no teacher in the Oriental College who is well up in the subject. There are only two teachers of Sanskrit who are specialists. One is the Principal of the College and the other the head pandit who is a Grammarian. The other pandits are not specialists. Again the reciting of the Vedic *mantras* it is a difficult task, and the pronunciation of the Punjabi students is very bad; the *Vedas* are taught but no regard is paid to pronunciation.

(2) There is no boarding house for Law students, though the question is under the consideration of the University. Law students apply to other colleges or to hostels or private hostels for admission and they are put to great inconvenience. The boarding house of the Oriental College is very unsatisfactory. There are insufficient arrangements for physical exercise.

(3) There is nothing to encourage corporate life. There is very little to encourage the idea that the Oriental College has much to do with the University. The University does not think the Oriental College fit to take part in the University Sports Tournament. The University actually ignores its child in this matter, because perhaps the students are poor and cannot speak English.

(4) The *Vedic* class is in a miserable condition. The University only allows a paltry Rs. 30 a month for this class. There was formerly a pandit for this class who was originally a teacher in the Medical College from which he was turned away. Since his death no examinations have been held by the University for the class. The Dayanand Anglo-Vedic College pay Rs. 70 to secure a more efficient pandit from Calcutta.

(5) The attainments of the students are not up to the mark. The work of diffusing a certain kind of Sanskrit knowledge has been well done by the Oriental College, but what is wanted is deep scholarship. The old pandits are superior as far as grammar and deep scholarship are concerned to the men turned out by the Oriental College. If an ordinary pandit is wanted a man who has passed the Shastri examination of the Punjab University is employed, but if a very good pandit is wanted it is necessary go somewhere else, generally to Benares, to find him.

The University could not undertake teaching on the side of Engineering. 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. At present Punjabi students of Engineering generally go to Roorkee. Roorkee men are considered superior to men educated in the Engineering classes of the Dayanand Anglo-Vedic College and the Mayo School of Art, because of the great demand; students who pass in the Punjab also get employment. The Engineering classes in the Dayanand Anglo-Vedic College and the Mayo School of Arts do not prepare students for the second examination in Civil Engineering, because the University only holds the first of its two examinations. There are two teachers in the Dayanand Anglo-Vedic College who have passed the Sub-overseer examination of the Roorkee College. It is merely an Engineering class whose object it is to prepare students for Roorkee as well as for the Punjab University.

Arts Colleges are scattered all over the province, and the appointment of University lecturers to deliver lectures in the B. A. courses at Lahore would be

University Teaching on the Arts side.

the ruin of these colleges. Specialisation should begin after the B. A. courses, and it is only then that University lectures can prove really helpful. The University ought not to enter into competition with existing colleges. Neither should a few college lecturers be recognised as University lecturers, their lectures being open to all colleges. Invidious distinctions would arise, and as the mofussil and private colleges are not adequately represented on the Senate they would suffer most. Moreover, it would necessitate the equalisation of fees, which would be a serious matter to the colleges as well as to the students. Every college has an ideal which it cannot be expected to forego. The Dayanand Anglo-Vedic College was founded with the object of encouraging the study of Hindu literature, and classical languages. In Sanskrit study is commenced in this college from the Vedas and goes on to the Mahabharata and the Ramayana and includes the Upanishads, the Darshanas and such other works as are included in a comprehensive classical course. This ideal would be sacrificed if the College were injured by the University becoming a teaching University.

The President explained the meaning of the proposal regarding recognised teachers. Witness said he would object to it. The college is likely to know its own interests better than the University and if colleges have to submit to such stringent University rules they might as well receive aid from the Government, Mr. Justice Banerjee remarked that witness appeared to confuse Government control and the supervision which the University should exercise over its affiliated colleges. Witness said that at present the University is practically a department of the Government. It is right that there should be rules of affiliation and certain qualifications may be prescribed by the University in certain matters. Colleges may be required to submit an annual list of their professors as at present and on receiving the list, the University may make any objection it likes, but colleges should not be compelled to take the sanction of the University at the time an appointment is to be made. From the lists submitted once every year the University can at once see whether a college is really a *bonâ fide* institution or one that tries to deceive the University, and in the latter case the University can take any action it likes.

Witness is opposed to any equalisation of fees or to a minimum fee. The ideal should be the ancient system in which there was no asking for a fee, and in order to encourage that system it would be well if a college could give a sound education without charging any fee at all. As far as the Punjab is concerned it would however not be possible to carry on any college long on no fees or on reduced fees, unless it were privately endowed or supported.

Syed Hossain Bilgrami.—When you speak of the old indigenous ideal of free education, you forget perhaps that a corollary was unpaid teaching. Are you prepared to recommend that, as in the old days, teachers should work without payment?

Witness.—I do not admit that proposition. They were given *jagirs* by the Government.

If a system of inter-collegiate lectures were adopted, the great difficulty would be with regard to time-tables. In England lectures are delivered at different times, but here the time is fixed in summer from 6 to 11. All colleges must provide teaching during that time. The lecture hours in the different colleges would conflict.

President.—In English Universities lectures are delivered between 10 and 1.

Witness.—Then how do they arrange their time-tables?

Dr. Mackichan.—Students do not attend so many classes.

Witness.—But here they have to do so.

Witness is not in favour of the institution of an Honours course. If Government is ready to establish another college or to specialise in a particular college for Honours students, that would be another matter. It is mainly a question of money. The professorial staff of the Lahore College is inadequate to teach both a Pass and Honours course. No college has enough professors for the purpose.

Honours Course.

The Punjab University can profitably extend its teaching functions by taking up the work of the M. A. class. The number of M. A. candidates is very small; for example, this year it was something like 19 students in the English class, two or three students in Science classes and about three students in the Sanskrit class. If competent special professors were appointed, the instruction would improve very much.

Advanced teaching.

The University can help very largely to foster a corporate life by the establishment of a University library and reading room; by the establishment of inter-college debating clubs (but unless the professors and principals of colleges participate in this, nothing will ever be done); by the establishment of a scientific museum; by the institution of occasional evening lectures; and by insisting on better management of boarding-houses. The institution of the University Sports Tournament has done much good.

University life.

The Senate should consist entirely of teachers together with a certain number of Fellows elected by the graduates.

The Senate.

Speaking generally the circumstances of the country and the great diversity of interests would not permit of the establishment of a Teaching University in the Punjab. If in time the country progresses and differences are settled, it may be possible, but in the present state of society it would be most undesirable. Even in the matter of appointments the Government has to keep the balance. If a Hindu is appointed to be a member of the Senate, then a Muhammadan must also be appointed, or if a missionary is appointed, then a Government official must be added. These considerations are sufficient to show that it is not possible to have a Teaching University at the present time.

Teaching University (concluded).

Professors should have 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 examinations. As long as the present state of things continues and a college is likely to be judged by University results, if the professor be given the power of turning out students whom he does not think fit at the time when the examinations come round, then he will only send up those students who are likely to pass and thus be able to show very good results as far as the University is concerned, whereas as a matter of fact the real results may be very different. It does not seem possible to stop the practice of judging a college by the percentage of passes.

Promotion in college classes.

Mr. Pedler.—A Principal might attain the same end by always keeping bad students back the first year.

The University should insist on the physical education of the students. Physical exercise should be made compulsory and the Principals of colleges should certify that candidates have passed through a Physical course.

Physical welfare.

Boarding-houses should be better looked after. One unsatisfactory point is that there are no good superintendents. There ought to be whole-time superintendents who will devote themselves to the welfare of the students. No such superintendents are to be found in any of the colleges. Superintendents should be of the same class of men as the staff of the college. The Government should spend money on superintendents of boarding-houses, just as much as on professors.

Hostels.

Punjab students are weak in English. One mode of remedying this evil is by commencing the study of English at an earlier age than at present, say in the 2nd primary class. The principle according to which the Education Department works is that a boy should first learn his own vernacular thoroughly and that after he has done that he will become proficient in English sooner than if he began its study earlier. The system has not given very satisfactory results in so far as English is concerned. If less time is given to the subject owing to its being taken up at a later period, students cannot be expected to be as proficient in it as if they had devoted a longer period to its study. At present a student learns English for five years in the Middle School and two years in the high department. The period should be extended to nine years.

Dr. Mackichan remarked that the experience in other Universities is that those students do best in English who first of all complete a thorough vernacular education.

Students are weak in the vernacular and a classical language is required to discipline the mind as well as to help the study of the vernacular. To give more time for the study of languages there should be four instead of five subjects for the Entrance, namely, English, a vernacular language, mathematics and a classical language or Persian. A vernacular language is not at present prescribed as a compulsory subject in the Entrance Examination. Unseen passages should be set for translation. That is already done to a certain extent. The present oral test in the Entrance Examination serves mainly as a help to students to pass their written examination.

Very few questions are set in Sanskrit Grammar and students are able to neglect the subject. Even in the Entrance a knowledge of grammar should be required. Students ought not to be obliged to read a grammar written in Sanskrit, but the papers should be drawn up in such a way that a student who has not studied grammar will not be able to pass. Some grammar ought also to be prescribed for the B. A. Examination.

Although the study of English should be begun at an early age, the study of the vernacular should be carried up to the Entrance, which is about the time that the taste for it is developed. Except for some books written under the patronage of the Text Books Committee, nothing has been done in the cause of vernacular literature. The Oriental College has done practically nothing in this direction.

There should be no interference with fees. The number of denominational institutions is growing and they are exactly the kind of institution required in this country. The education imparted in Government institutions is a godless education and it cannot be otherwise, because Government cannot do anything in order to give religious and moral education, and it is necessary for the people themselves to found institutions in which they may be able to impart University education, together with religious training according to their own ideals. The Government should extend a helping hand to such institutions, and if the Government does that, a large amount of endowments will be forthcoming to further the cause of secular as well as of religious education. Just as in England denominational education holds a very prominent position, so in India denominational institutions ought to occupy an important place and in future, schools and colleges founded with denominational ideals ought to be encouraged by the Government, and no conditions of affiliation ought to be imposed upon them except in a spirit of sympathy and catholicity. They ought to be brought up to the standard and not to be crushed and stunted as they are at the present time. To take the case of the Dayanand Anglo-Vedic College. When it first opened, it had not a good building, but now it has a good one which cost of Rs. 45,000. Supposing it could not have afforded it, it would have been very hard if for that reason the college had been refused recognition.

President.—Would you object to the University saying that a building is inadequate or that an institution does not make proper provision for teaching and for the physical welfare of its students and that it must be brought up to the mark or it will not be recognised?

Witness.—After a certain time that might be done, every opportunity should be allowed for amelioration.

Witness is not in favour of an age-limit. Of the number of candidates who appeared at the Entrance this year 239 were between the ages of 15 and 16, and only 27 were below 14. This practically means that there are only a very few students for whom the legislation is sought and no case is made out for such legislation. The evil ought to exist before legislation is resorted to. Witness has not gathered information as to whether the number of students below the age of 16 who appeared every year is increasing or decreasing, but the evil, if it is such, is at present inconsiderable. An age-limit would have the result of keeping the best students idle after they had finished their school course.

Mr. Justice Banerjee.—Cannot the evil you speak of be prevented to a certain extent by the rule about the age limit being postponed for some time so that parents will know how the matter stands and will regulate the progress of their children accordingly.

Witness.—There are very few parents sufficiently educated to understand these things.

Then again Indian students who gain Government of India scholarships will not be able to compete for the Indian Civil Service. One student passed the M. A. in the Punjab after studying in the Government College, and having obtained a Government scholarship went to England and there became a wrangler and entered the Civil Service. It would not have been possible for him to do all this if there had been an age-limit. He passed the Matriculation at the age of 13 or 14. An M. A. is naturally preferred to a B. A. for Government scholarships, and witness thinks that they are not given to B.A.'s in the Punjab. There is a proposal before the University for the M. A. course to be extended to two years, and if that is carried, then even if a boy passes the Matriculation at 15, he will be 21 before he passes the M. A. and after that he will have to wait some time to see if he is selected for a Government scholarship.

WITNESS NO. 11.—LALA LAJPAT RAI, Pleader, Chief Court, and Secretary,
 Managing Committee, Dayanand Anglo-Vedic College Lahore.
 (Written Statement No. 11 in Part II).

Inadequate and small text-books are being used for instruction in the vernacular. The oriental side of the Vernacular Literature and Vernacular Instruction. University has begun at the wrong end. There is a great paucity of vernacular books through which sound education can be given, whether in higher Mathematics, in Philology or in Science. The growth of the vernacular literature is grossly neglected. Scholarships should be awarded for the preparation of vernacular books. The savings of the University from examination fees may be profitably employed in encouraging the growth of vernacular literature. Very little advantage is derived from the endowed fellows. The rules should require them to devote their lives to literature or teaching. Now a reader after enjoying his fellowship for a few years takes to law and is lost to vernacular literature. In 1899, there were 56 scholarship and stipend holders in the Oriental College. It is very difficult to attract men to the Arts side of the Oriental College without giving them stipends. It would be better to spend more on vernacular literature before attempting the laudable but impossible.

A great difficulty lies in the existence of three vernaculars Urdu, Hindi and Gurmukhi: Some have a taste for Gurmukhi, Vernacular Languages. some for Hindi and some for Urdu. The primary schools begin with Urdu but with the exception of Delhi and the country round it the language of the people is Punjabi. The court language is throughout Urdu, and therefore great importance is attached to it in the school curriculum. The medium of communication between the Professors and students in the Oriental College is in general Urdu; but there are some books written in Hindi. Witness would prefer that the Punjabi language should take the place of Urdu in the schools. This would not cut off the Punjab from the rest of India. Technical words are derived from Sanskrit and there is not much difference between Punjabi and other languages derived from Sanskrit. The tendency will be for the languages of vernacular literature to become more and more alike. The language of the *Grant* is closely allied to Hindi. In the case of Urdu technical terms are either derived from Arabic or borrowed from English. The vernaculars of other provinces are richer than that of the Punjab. Witness does not merely mean that they have become more Sanskritised, but that they are more developed and have produced more literary works. In the arts course of the Oriental College it is not possible to teach adequately through the vernacular because there are no text-books. Also the lecturers are not experts and have no sufficient knowledge of the classical and vernacular languages. It is not an easy task to convey the meaning of higher Science in the vernacular unless the lecturer is an expert. One cannot get experts because the salaries are not sufficiently attractive. The University should offer high salaries and insist upon the lecturers having a thorough knowledge. In that case witness would be the first man to propose an arts course in the vernacular. Under the present circumstances it is a farce.

In eulogising the work of the Oriental College Dr. Stratton referred to a gentleman on the staff who had taken his The Oriental College. M. A. from that College. It cannot claim much credit for him since he received his education in the D.A.V. College and passed his B. A. from that College; only for his M. A. examination did he read partly in the D. A. V. College and partly in the Oriental College. The Pandit Mahamahopadhyay and the other head pandit all came from other colleges. There has been very little attempt at specialisation in the Oriental College. The defects in the college may be due to bad teaching or to time being wasted in a vain attempt to teach an arts course through the vernacular, but at any rate they exist. A large number of students go to Benares and try to get higher Sanskrit teaching there, notwithstanding that the prospects of subsequent employment are not bright. Syed Hossain Bilgrami pointed out that they belong to a different class and learn for the sake of knowledge and religion. Witness replied that some students in the titles side of the Oriental College do the same,

and that more would do so if the instruction were better. Either the Oriental College should be improved by the grant of higher salaries, or if that is not possible the funds should be given in the form of grants-in-aid to other institutions which make a speciality of oriental learning. The Oriental College has done good work in supplying teachers for schools but more funds should be spent on it or a better method devised.

The D. A. V. College besides teaching the boys the University course instructs them in the best part of classical literature so far as its moral and religious side is concerned. There are two alternative courses in the college. One is a higher course studied with English only and includes advanced grammar and the epic poems.

Those who get scholarships in the Oriental College should not be made to work in the college itself but should be allowed to give lectures, or spend their time in research and the acquisition of thorough knowledge of various subjects. The idea of the scholarships is not to provide teachers.

There is a proposal to divide the ordinary degree into two courses—the Honours course and the Pass course. Witness is afraid that the material in the Punjab is not yet ready for that step. The results of the different examinations show that there is a paucity of brilliant students. Perhaps it is due to deficiency in teaching, but more probably to the fact that the foundation of the educational course is very defective. The teaching in schools is still in many cases of an inferior character.

The suggestion was made to the Commission by the Principal of the D. A. V. College, that English should begin in the second primary class. Witness does not think that it should be studied so early. The defect in the students' English is due mainly to the classes being too large and to want of attention to translation and composition. It is also due to the students being made to study too many subjects in the Middle School. Witness would allow English to begin at the present stage. The teaching of history and geography involves much memorising and expenditure of time. If these subjects were omitted or the system modified, there would be more time for English.

In the B.A. course there is a noticeable absence of the study of grammar. There is also a sudden rise from Puranic to Vedic literature. There is a consensus of opinion among Indian scholars that the Vedas cannot be studied without a thorough knowledge of grammar. The Brahmana, Sudra and Epic periods intervene between Puranic and Vedic Sanskrit. Different formulæ of grammar hold good for the two periods. It is not possible to go straight from the one to the other. The Rig Veda being a subject of controversy ought not to be taught in the Colleges, the instruction shakes the religious belief of the students in the sacred works. They are taught not as the revered sages of the Hindu faith would teach them, but after the methods of Continental critical scholars like Ludwig and Roth. Pious Hindus object to the "higher criticism" being applied to the Vedic hymns. The sacred texts have their traditional meanings, preserved in inspired commentaries dear to the heart of the Hindu, but commanding no respect, from critical non-Hindu professors. The only idea of the College is to promote the philological study of Sanskrit, and that being so it should take for text book purposes other works of ancient Sanskrit literature less sacred, less inviolable, to the Hindu than the Vedas. The fact is that for ordinary purposes of philological interpretation many of the passages in the Vedas are of an extremely controversial nature. For a European professor to enforce the perhaps irreverent Western interpretations upon the reverent mind of the student is either to break down the student's religious faith, or if he is unshakeable, to compel him to answer questions against his conviction so as to satisfy the examiners. All this is very hurtful to Hindu religious sentiment.

Dr. Mackichan.—What would you substitute for the Vedas in the College course?

Witness.—Any of the later and less revered writings.

Dr. Mackichan.—Would you exclude the Upanishads?

Witness.—No: I see no reason to.

Dr. Mackichan.—But they also are of a controversial nature?

Witness.—Less so, however, than the Vedas. There is less discussion about them and they can be more readily understood by the students. In the case of the smaller Upanishads the student can read the whole and there is not the same difficulty as when different interpretations are given of isolated passages in the Vedas.

The same system is not pursued in Arabic. For the F.A. there are two standard works; in the B.A. course there are no selections from the *Koran*. There are some in the M.A. course, but they are expounded by a Muhammadan.

During the last century the history of India has advanced by studies, and yet text-books are given nearly a century old. Sir William Hunter's history and other later books should be prescribed.

I submit that if a student has secured a high percentage of marks in two out of three subjects he should not be ploughed for obtaining less than five marks in the remaining subject. If the percentages gained in the two subjects are very high the candidate might be passed altogether, otherwise he should come up again in the third subject only.

Specialisation in the grant of scholarships should not go so far as Mr. Robson suggests. A good all round man first or second in the aggregate might be passed over for a specialist much lower down in the list. Some scholarships might be given on the aggregate and others for special subjects. Till recently Philosophy, History and Persian carried low marks and this partly explains the success of mathematics. Now each subject except Persian carries 150 marks. The Government of India home scholarships might be given to specialists who would continue their special studies in England. Sanskrit has been left out of the Government of India scheme on the ground that it is an endowed subject. This course must tend to discourage the endowment of scholarships.

Much of the objection to the introduction of affiliation rules is based on fear of the way the Senate will work them. The present Senate has not been fair to private colleges. The D. A. V. College has been teaching since 1888, in 1893 it was recognised up to the B. A. and in 1896 up to the M. A. standard. The Principal was not appointed to the Senate until a representation was made on the subject. Two of the Senior Professors who are of more than 10 years standing are not on the Senate. The Principal has not yet been appointed to set the history paper although he has been a sub-examiner for ten years. Only Government and missionary college men are appointed head examiners, equally good men in private colleges are passed over. These remarks refer to the Entrance Examination, professors are not appointed examiners for higher examinations.

Witness would not like to see professors appointed examiners in the present condition of the Punjab. The colleges are not sufficiently independent and competition looks to the University results.

The Syndicate should be composed entirely of *ex-officio* members. The members should all be resident in Lahore. The principals of Lahore Colleges, including private colleges, should be members.

All the Universities should not be judged by the same standard. There should be different rules for different Universities. Most of the difficulties that are experienced by the Senate at Calcutta do not exist in Lahore and there is no likelihood of their occurring there. In making rules for affiliation for Lahore it must be remembered that it is a backward Province and that there is only one Government College, the rest being denominational. The religious feelings of the Province must also be considered. For these reasons it is not advisable to make hard-and-fast affiliation rules so far as the Punjab is concerned.

Residence in College boarding-houses should be made compulsory in the case of all students except those whose parents and guardians live in the city. It is very difficult to establish residential schools. If therefore colleges can be made residential, students reading up to the F. A. only should be freely accepted in order that they may gain a little culture and some of the benefits of corporate life.

The affiliation rules should be so devised as to recognise all *bonâ fide* Colleges (not being venture colleges) which have made sufficient arrangements for boarding-houses, physical exercise, and the supervision of their students' moral welfare. There should be no rigid rules relating to the recognition of professors or to fees. It has been suggested to the Commission that a number of scholarships should be provided for poor students. This is good as far as it goes, but it is not sufficient to provide fully for the needs of the case.

In the Hindu College at Delhi almost all the professors are M. As. In the face of this fact witness does not know what standard Mr. Wright wishes the University to fix as regards recognized professors when he says that that College has no qualified professors. The D. A. V. College when it started had a fund of Rs. 40,000 and has now 4 lakhs. When the St Stephen's College was founded it was in the city and was not so good as it is at present. It is very undesirable for colleges to sit in judgment on one another. Except the Vice Chancellor and the Director of Public Instruction there are few persons competent to supervise the Colleges. In the D. A. V. College several of the professors are only B. As. but they are well known to be good men. It is difficult to see how the University could ensure supervision by independent people. Private Colleges should not be hampered and there should be no hard-and-fast rules of affiliation.

Private Colleges should not be judged by the salaries given to the staff. There is a spirit abroad similar to that which actuates the missionaries. The President remarked that there are also cases in which low salaries are drawn not in a spirit of self sacrifice but because they represent the market value of the recipients. Witness replied that in such cases the University should interfere, but that there should be no hard-and-fast rules. The University might have the right of veto. That would be better than asking for confirmation for each appointment. It is easy for the University to distinguish between commercial and good colleges.

Law students should be passed graduates. The Law examinations suffer more from cram than any others because the courses are long and ill devised.

The examination papers impose a great tax upon the memory but none upon the intelligence. Questions asking for lists of amended Acts of a particular kind with their numbers and dates are very common and have to be answered from memory. Once the question was asked "state the amending Acts of the Indian Penal Code". The examination should be so conducted as to test the legal knowledge of the students and to encourage intellectual effort. Candidates should be required to show a general intelligent study of legal principles. Students should be allowed to read Codes and statute books in the examination and the Examiners should see whether they can readily understand them. The evil is worst in the oral examination. There are several oral examiners and specific questions are set to in order to secure uniformity. The examiners should be left

free to assign marks for answers which are not confined to the questions alone but test the students' intelligent knowledge of Law. The questions put in the oral examination do not appear in the Calendar. About 5 to 8 questions are put to each student in the oral examination and they carry 50 marks. No fixed time is allowed for answering these questions; it depends upon the whim of each examiner—generally 10 to 12 minutes is all that is given. The time is insufficient. The examination is useless as an oral test and it is a great hardship to the students. Dr. Bourne remarked that 70 per cent. pass the intermediate and 33 the LL.B. Witness replied that there is no *vivâ voce* examination for the preliminary examination.

It is impossible to get good teaching for the low salaries (Rs. 100 a month) at present paid to the law lecturers. In addition to the University lectures every college should be allowed to have its own Law classes. At present the professors in the Law College know that their salaries do not depend on the results of the examinations, and if for this reason they are lax it is very difficult to test their work. There is no continuous exposition of particular works.

Brilliant law graduates should be given judicial appointments after practice without further examination as in the United Provinces. In the Punjab they must pass competitive and departmental examinations.

WITNESS NO. 12.—Mr. T. W. ARNOLD, B. A., Vice-Principal and Professor of Philosophy, Government College, Lahore.

Witness has in his statement (No. 12 in part II) advocated the encouragement of oriental studies by the Indian Universities. He would now add a practical suggestion, namely, that a student who takes up English and one of the classical languages of India for the B. A. degree, be allowed to take up as his third subject a course of History or Philosophy in the same classical language. In Europe a student reading the History or Philosophy of Greece or Rome for his degree, is allowed—in some cases obliged—to study his subject in connection with original texts. But the Indian Universities refuse to its B. A. students the privilege of studying Sanskrit Philosophy, or Arabic History or Philosophy, in a similar fashion.

Narrowness and illiberality is shewn in thus refusing to extend the range of studies; and also a lingering trace of that ignorant contempt for oriental literature which found expression in Lord Macaulay's famous minute. In Europe they have ceased to believe that in these classical languages "there are no books on any subject, which deserve to be compared to our own." They have learned to respect and value the Sanskrit systems of Philosophy, and German scholars at least find them worthy of close study. They have come to appreciate the valuable contributions made to historical and geographical science in Arabic and Persian, better than to suppose (with Macaulay) that this "history abounds with kings thirty feet high, and reigns thirty thousand years long," or that this "geography is made up of seas of treacle and seas of butter." But the spirit of this contemptuous estimate of oriental thought and literature, so strikingly expressed in the document which laid the foundation of the present system of English education in India, still lingers in the Universities, and is nowhere stronger than among those Indian graduates who are the products of that system and are generally profoundly ignorant of the studies they so much despise.

All that is here asked for is that the Indian Universities should allow that liberty of study which grants a place to every branch of human knowledge—as is implied in the very word "University." The aim of the Universities of Europe is to include as many Departments of study as teachers can be found to teach, even though no students may be forthcoming. But here there are both teachers and students, but the Universities will not find a place for the studies.

It is characteristic of the narrowness of the present system that the University does not in any way recognize the excellent work that is being done by the D. A. V. College for the promotion of Sanskrit studies by allowing a place in the subjects that may be taken for the degree to their extended course of Sanskrit. The President asked whether a competent body of teachers could be procured to give instruction in the proposed course. Witness replied, not in the Arts colleges at present, and no college should be permitted to teach the course without showing that it has the means to do so. In accordance with witness' proposal for inter-collegiate lectures, provision might be made by the Oriental College, where there are men who are fully competent. In the case of Sanskrit Philosophy the D. A. V. College could probably provide lecturers. Mr. Beck brought forward the same proposal before the Allahabad University but it was not discussed. Witness merely wishes that students should be *allowed* to take up Philosophy in Sanskrit or Arabic as a special subject. He does not wish to make such a course in any way compulsory. The Universities in India should show the same liberality as the Universities in Germany. They should allow the students some freedom of choice. The study of languages such as Sanskrit and Arabic, with their elaborate grammatical systems and many-sided literatures, can provide the same intellectual training in method, thoroughness and accuracy, as is claimed for classical studies in Europe.

Asked whether it would not be better to defer the special course to the M. A. and whether B. A. students are in a position to make a choice of such studies, witness replied that few students take up the M. A. course and that many young students are able to exercise a choice in the matter. Some of them come

from learned Pandit or Maulvi families in which there is a tradition of learning. They enter the colleges possessing a knowledge of Sanskrit, Arabic, or Persian which is often higher than that possessed by B. As. who have studied these languages only in their college course.

It is of great importance to have a school of oriental study without any sectarian aim. There is in Lahore a good deal of zeal for the study of oriental languages. In the D. A. V. College the study of Sanskrit is made much of. In Lahore there are also several Arabic schools which are zealously supported, but the studies are on a religious basis. Their courses are accordingly different from those in the Oriental College and they often succeed in attracting students where the Oriental College fails to do so. It is well, however, that there should be an institution in which the studies are pursued on purely scholastic lines without any admixture of theology. If for this reason alone the continuance of the Oriental College is a matter of great importance. Mr. Madan Gopal has laid a paper before the Commission (No. 16 in Part III) in which, in a critical and adverse spirit he asks a number of searching questions regarding the Oriental College such as—Has the college furthered the systematic study of the classical languages of the East? Are its alumni famous? Have its graduates ever done any original work in the Indian classics, or even produced valuable compilations? Have any efforts been made to translate European literature into the vernacular? Have the graduates of the college shown themselves fit to do anything except to serve as masters in Anglo-Vernacular schools? Has the college been successful in instilling in the minds of Punjabis a desire to pursue oriental knowledge? It is very difficult to reply to these questions by a *yes* or a *no*. Mr. Madan Gopal has no hesitation in answering them all by a direct negative. Subject to reasonable modifications, witness would be inclined, if he were to answer the questions at all in that way, to reply with a direct affirmative. What he would prefer to say is that, so far as any institution in India has achieved all the things which Mr. Madan Gopal enumerates, the Oriental College has achieved them. Or he would say—if any college in India can answer these questions with a *yes*, then the Oriental College can do so. Allusions of a very unpleasant nature have been made to what some critics of the Oriental College have been pleased to call a system of bribes. It is entirely untrue to assert that students come to the Oriental College because they are given bread and butter which they might otherwise have to go without; and further that the graduates are utterly incapable of doing any good work after passing through the college. Witness then read a list of names of students who had taken the degree of Maulvi Fazil in the Oriental College. Leaving aside men who are holding educational appointments, there are others occupying distinguished positions in Government service, such as that of District Judge, Munsif, Assistant Inspector of Schools, Deputy Collector in the Canal Department, while others again are men of influence in their own community. Among the students of the Oriental College, who have taken the degree of Munshi Fazil is one of the Fellows of this University who is much respected in the city. All these gentlemen have distinguished themselves in Arabic and Persian. I cannot name persons who have similarly distinguished themselves for their proficiency in Sanskrit with the exception of the teachers. A similar list of distinguished men of the world cannot be given in the case of Sanskrit scholars. The reason is that the Pandits are of a more retiring disposition and have no desire to take up active professions. One is not therefore likely to find them appearing before the world as officers in Government posts or as organizers of society.

The institution of Readers in the Oriental College is worthy of imitation in other Indian Universities. A Readership corresponds very much to a Fellowship at Oxford or Cambridge. The Readerships are tenable for three years and are endowed for the pursuit of post-graduate study. They have attracted some very able men, several of whom have made their mark in the world. From among these Readers have come a number of distinguished members of the medical profession and a number of Government officers and Extra Assistant Commissioners. The Readers teach in the College. The amount of teaching they do varies.

Readers in the Oriental College and the encouragement of vernacular literature.

They have a good deal of leisure and many of them have used it well, some might have done more for the encouragement of vernacular literatures. [Mr. Bell pointed out that the Readers are not the product of the Oriental College—they came from Arts Colleges]

More translations are not published because no one has taken up the matter from a business point of view. If translations were published by subscription, in the same way that the Pali Text Society, the Shakespeare Society, etc., dispose of their publications, there would be provision for the sale of the books. At present the University often cannot publish the translations because its funds are too limited. It cannot therefore encourage the translation of books because they would remain in manuscript.

Readerships are tenable for three years. It would be better to renew them from year to year in consideration of the work that is done in each preceding year.

The Syndicate has laid down no particular lines on which the work of translation should be done. It has recently decided to have a compilation of technical terms made from the manuscript literature kept in the Oriental College in order to facilitate the work of translation.

It is frequently said that the Government colleges are godless institutions.

Moral aspect of Government Colleges. Witness has had no personal acquaintance with them elsewhere, but he can say, in regard to the Government college with which he is connected, that it is characterised by godlessness neither in the theological nor the ethical signification of the term. Having worked for ten years in a denominational college, he was especially interested on entering a Government college in observing the religious life of the students under such different conditions. What he finds is that there is a very strong religious element in the life of the students, which in many cases manifests itself in zealous and intense forms. The late Director of Public Instruction, Dr. Sime, who was connected with the Government College for many years as a Professor and afterwards as Principal, in his Convocation address (1900), speaks similarly of the graduates of his acquaintance as being, "almost without exception, decidedly religious men." Students are sent to the Government College whose parents shrink from exposing the religious beliefs of their children to the disintegrating influences of a Mission college. The Government College holds, indeed, a very important place in the religious life of the student world. There are within its walls representatives of all the religious bodies of the Punjab; they in many cases, probably, come for the first time in close and personal contact with members of rival creeds. They learn to treat one another's beliefs and prejudices with consideration, and in the case of some of the more zealous, this more liberal attitude is not achieved without a struggle and a considerable amount of self-repression. In a country like India, where religious animosity is so frequently the cause of social unrest and disorder, such a training is admirable. Denominational institutions run the risk of becoming narrow, if not fanatical. Fanatics sometimes come to the Government College, but they leave it with widened sympathies. In this part of the country there is no need to cultivate in the students the theological virtues; they flourish luxuriantly. But the social virtues (which the Pharisee is apt to lack), especially toleration, the feeling of common brotherhood, the sense of solidarity, find in the Government College a fruitful soil and are distinctly fostered by the training there given. Many of the leading members of the chief religious bodies in Lahore have been students in the Government College.

It would be most inadvisable to combine classes of Honours' and Pass men. If any system of Honours' courses is introduced only those students taking them up should attend the lectures intended for the Honours' men. Such a system could be introduced to a certain extent by inter-collegiate co-operation, although there are certain difficulties in the way. The financial difficulty would vanish if there were a willingness to co-operate on the part of the colleges.

WITNESS NO. 13.—MR. C. C. CALEB, M.B., M S., Professor of Botany, Comparative Anatomy and Physiology, Medical College, Lahore.

Witness said that the evidence given by former witnesses and specially by Dr. Ewing of the Forman College had taken the wind out of his sails so completely that it would be wasting the time of the Commission if he referred in detail to the points raised in his memo. (Paper No. 13 in Part II). He would therefore only touch upon some of these points by way of amplification, and then ask the Commissioners to permit him to lay before them two matters of considerable importance in connection with the medical examinations.

Preliminary remarks.

The transformation from the existing lines, which are purely those of an examining authority, into a teaching and examining body by making the existing colleges the instrument of the University's functions is nowhere in the whole of India more feasible than it is in Lahore. For Lahore forms to all intents and purposes the chief centre of higher University work and with its four first grade Arts colleges and three special colleges, *viz.*, the Oriental, Law and Medical colleges, two of which are already University colleges, affords an example of educational concentration without a parallel in other large Indian towns. This tendency seems to be likely to become still more pronounced in the future, whilst with one or two notable exceptions, higher education in places other than Lahore has a remarkable tendency to etiolate and fail. If therefore the experiment of giving a teaching side to Indian Universities is to be made at all, the case of Lahore is indeed a strong one.

Teaching University.

The necessity for and the importance of affiliation as well as the subject of the conditions necessary to secure the privilege of affiliation have been so fully and fairly put before the Commissioners that witness did not propose to say much more about it. He wished, however, to insist upon the importance of not affiliating a college as a whole (unless there are reasons to the contrary), but only in a stated faculty or even in a special subject. The object of this restriction is to ensure efficient teaching. For instance, if a college is affiliated in Mathematics, the University will consider whether it is fully and efficiently equipped for the teaching of Mathematics. If, on the other hand, a college is affiliated for the purpose of teaching Botany, the University will consider that the staff and equipment of the college are so efficient as to ensure the teaching of that subject in an adequate manner.

Affiliation of Colleges.

With regard to the fee question, witness entirely agrees with those who advocate that a college should not be affiliated to the University if the fees fall below a certain minimum fixed by the Syndicate. A restriction of this sort may mean hardship for some of the colleges, but inter-collegiate work and co-operation is impossible unless it is first rendered certain that one college cannot underbid another, otherwise the students will join a college where a low fee is charged and attend lectures in colleges which charge a higher fee. Witness was asked whether it would not be reasonable for a section of the community to establish a college for the intellectual and religious training of their boys, and to say to the University—"We have made efficient arrangements for teaching boys in this college, do not insist upon our charging the same fees as other colleges." Witness replied that high education not being a necessity, but a luxury, those who seek for it should be willing to pay for the desired commodity. Further, cheap education, especially in India, is very apt to be nasty education. The poor but really deserving students should, however, in all colleges be protected by empowering the head of each institution to admit poor students free of charge up to a limit of 5 per cent. of the total number on the rolls of the institution, and to remit half the fees to an equal number.

Fees.

In paragraph 7 of his memorandum witness has suggested a scheme of inter-college lectures. That scheme has been put forward by way of illustration only, and there are serious difficulties in its way, though they need not be insuperable in its practical application. But there can be no doubt that the

Inter-Collegiate Lectures.

notion is a valuable one, and witness has already put on record the *pros* and *cons* of the scheme. But what he has not stated, but only incidentally referred to, is that it involves the principle of the division of labour, which always means superior work. Taking the B.A. or the M.A. courses in Botany as an example, it will be readily conceded that, given three qualified teachers, it would be a distinct gain to the student, the teachers and possibly to the science itself if one of the teachers lectured on Morphology only, another on Physiology only, and the third on Classification only. Similarly, in connection with practical work, one man might do all the microscopic work, another the experimental work and the third field and garden botany. There would not be very much difficulty in arranging for a scheme of this sort.

Until comparatively recently the only sciences taught in the Punjab colleges were Physics and Chemistry, and to some extent even now science is looked upon as synonymous with these subjects. The official designation of the Professor of Physics and Chemistry at the Government College is the Professor of Science, and when students come to the Medical College who have passed in Physics and Chemistry in an Arts college they invariably speak of the lectures delivered at the Medical College on these subjects as the science lectures, and of all other lectures, by their proper names, as if lectures on science subjects other than Physics or Chemistry belonged to quite a different category.

This state of affairs is now passing away. Biology has been taken up by the Forman and Government Colleges as one of the subjects in which instruction is to be given up to the F.A. standard for the present, and it is to be presumed to the higher requirements of the Bachelor's, Master's and Doctor's degrees before long. Biology has already been taught for a number of years in the Medical College. It seems to be a waste of power and of financial resources, so far as the two Government Colleges are concerned, to relegate the teaching of this subject, still in a stage of inception, to two institutions. The whole of the biological teaching in these two colleges (witness says nothing of the private colleges, because he would not interfere with their liberty of teaching what they like, provided they satisfy the affiliation requirements) should be carried out under the supervision of a whole-time Professor, with one or more assistants, and having at his disposal a fully equipped and up to date laboratory, appliances and museum of animal and vegetable specimens. The same thing might with advantage be done for Chemistry and Physics.

Briefly, where two Government Institutions exist, both doing the same kind of work, there should be concentration—not dispersion—of effort and resources. The combination will be more efficient and less expensive.

The Medical College should soon, or at not a very distant date, cease to impart instruction in such subjects as Botany, Chemistry and Physics. The Professors in that college are already over-burdened with work, and it would be a great gain if the college made it a rule not to admit students who had not passed the F.Sc. or B.Sc. examinations, or if it admits them, to allow them to take up these subjects elsewhere. The F.Sc. examination should then be taken as the equivalent of the preliminary science examination. So far as medical education is concerned, only an elementary knowledge of Physics, Chemistry and Botany is required, sufficient to ensure that the students will be able to understand and appreciate Philological Physics, Philological Chemistry and Medical Botany. It is not necessary for the students to be Chemists, Physicists or Botanists. The Medical College standard of Science this year is practically the same as for the Intermediate examination. If therefore it were made a rule that only those students will be admitted in the Medical College who have passed the Intermediate, the whole difficulty would at once end. In default of this the students should, whilst on the rolls of the Medical Colleges, pass the preliminary scientific examination elsewhere.

As a corollary to the system of inter-college lectures and the abolition of text-book wherever necessary the time has come when the University should not only do its own teaching through its recognised teachers, but do its examining

through the same agency. It should become in a word a real examining and teaching University. In this respect witness heartily endorses Dr. Ewing's view.

So far as the Medical examinations are concerned, the objection of Mr. Justice Banerjee that the appointment of any particular teacher as examiner gives undue advantage to his own students cannot apply, because there is only one Medical College in the Province, and no students appear from other Universities. One may therefore safely begin the experiment by appointing the Professors of the Medical College to be examiners in the Medical Faculty. It would be a very great improvement. At present the teacher is of little account. The author of the text-book is the real teacher, and the examiner is the student's guide. The teacher is merely the interpreter. His personal influence is a very limited quantity. If Professors are allowed to examine students in the oral examinations, there is no reason why they should not also be allowed to conduct the written examination. There would be no objection to outsiders being appointed as examiners in conjunction with Professors, so that the public may be satisfied that the examinations are conducted fairly.

Of the immense value of boarding-houses from every point of view there can be no two opinions. The Medical College is the only institution which at present does not possess a boarding-house, but it is a matter for congratulation that a lakh of rupees has been already voted for supplying this deficiency, and it is to be hoped that a boarding-house for the medical students will soon be a *fait accompli*. From the student's point of view the establishment of a boarding-house is even a more pressing need than the need, pressing and urgent as it is, of adding to the Professorial Staff. It is no doubt true that students come to the college, when they are no longer school-boys, at an average age of 18. But it must not be forgotten that they go through a course of studies which tends in many cases to undermine religious beliefs and conviction and in the complete absence of other wholesome influences, such as home life and the like, tends to allow the student to fall into the temptations which abound all round him. Apart from this point of view, a boarding-house can do a great deal towards creating a healthy *esprit de corps*, and by affording to the student healthy surroundings to raise him to a higher physical and intellectual level.

The boarding-house for the Medical College, should it be ever established, ought soon to become self-supporting. The average cost of living to the medical student is Rs. 25. If there were accommodation for 400 students and each inmate were charged Rs. 10 a month, that would give a sum of Rs. 4,000 which would be enough for all needs.

Rule 20, page 278 of the Calendar, prevents a student from presenting himself for examination for the second L.M.S. examination more than three times.

Rule regarding L.M.S. Examination.

The operation of this rule means a wasted and broken life in many cases, or helps to swell that inglorious army of quacks who do so great a mischief throughout India. If a man enters the college at the age of 18, he passes his first L.M. examination at the age of 20, and if he is successful, he becomes an L.M.S. at the age of 24, but if he is unfortunate enough to be plucked three times, then at 26 he is thrown upon the mercy of the world, and on account of the technical nature of his education he cannot hope to find employment such as that which is open to a failed B.A. or M.A. He degenerates year after year, because he has lost all interest in life. Witness knows a number of such instances, about four or five of which occur every year. Many of these unsuccessful candidates become medicine vendors and open tiny little shops in the bazaar to eke out some sort of miserable existence by preying upon the public faith. As regards the men who pass the examination, some of them are taken into Government service, some into the service of Native States and others become private practitioners. No such restriction exists in connection with any of the other Faculties of the University, nor in connection with any other medical examination, with which witness is acquainted. The rule is objectionable and distinctly unfair, but no attempt has yet been made to alter it in the Senate.

There is no difference between the L.M. and S. and the M.B. examinations except that for the latter the student has to study Comparative Anatomy

and must have graduated ; otherwise the papers and the examinations are the same. It is unfair that the student should be made to go through an additional two years' course for this slight difference. There is no University in the world which grants licenses and degrees. In England the University grants the degrees and the corporate bodies the diplomas. In India there is only a University, the proper function of which is to give degrees and not diplomas. Before the Punjab College became part of a University, it gave only diplomas, but now the University grants degrees whilst retaining the power of giving diplomas. A number of Universities, such as Dublin and Edinburgh, do not require the B.A. degree for the M.B. Witness does not therefore see why Indian students should be required to pass the B.A. examination before coming up for the M.B. examination. The only object is to secure a better knowledge of English, and there is not very much difference in so far as English is concerned between an F.A. and a B.A.

Witness would abandon the L.M.S. diploma. If the B.A. qualification is to be retained the change should be gradual, and it should be notified that after five years no one will be admitted to the Medical College who has not taken a degree. **Medical degrees.** The Registrar of the University said, on a reference being made to him, that about 100 B.As. graduate in the Punjab every year. With reference to this witness said that many of the students of the Medical College come from outside the province.

It is a distinct hardship on the medical student who happens to be plucked in one subject to be called upon to again pass in all the subjects. He should be required to appear again only in that subject in which he failed. This is the rule in the English and Scotch Universities, and there is no reason why the Indian students should not be given the same privilege. If a student obtains very low marks in the subject in which he was plucked, he should be referred back to the college for a year, otherwise he should be required to rejoin the college for only three months. **Re-examination in one subject.**

WITNESS NO. 14.—MR. M. A. STEIN, M.A., PH. D., Inspector of Schools,
Rawalpindi Circle.

(Paper No. 14 in Part II.)

Witness looks upon educational problems in India from an historical point of view because his interest in India is largely antiquarian. The Indians have inherited notions of thought and the more one studies them the more one sees the difficulty of early translation. The education of India in Western knowledge is one of the great incidents in the history of culture. It is similar to what Japan is doing for itself and what the Greeks did for Egypt. One never knows how much time will be allowed for the purpose and the machinery should therefore be as perfect as possible. In India it has not been done so well as in the system which Japan has worked with such marvellous effect. Japan has succeeded, one might almost say within living memory, 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 an eloquent fact that more original research work in Sanskrit literature has been achieved by Japan in the last twenty years than by India in the last hundred years.

There are historical reasons why India should have been less successful. Love of research and thorough application to study are ancient characteristics of India, but European methods are diametrically opposed to those of India and must be brought to bear in their highest form, and not in the form of the school teaching which is now given under the term of University Education. The best opportunity has not yet been given to India, and will not be until there is a cessation of more teaching on text-books and professors are obtained and a system of the highest type is made obligatory on all colleges. In suggesting an improvement of the collegiate system witness does not mean to imply that that is the best system, but it is useless to hope for a system like the teaching University of Tokio. There should be a model institution in each province to show what European research is like. In the meantime the colleges are necessary as a preparation for education, although they do not correspond to the highest aims of University work. A European student would say that it is not University work but intellectual manuring. The colleges and committees are fit for their preparatory work and are doing it effectively, but it is only the State or a University under the State that could supply higher instruction. For at least the M.A., and preferably for the B.A. also, attendance at such University lectures should be compulsory, and the students would then gain some idea of what European science means. Indians reason to some extent on different lines from Europeans, for instance in the case of the notion that India never changes. It is only by the highest teaching that students can be brought to see that India does change. Indian boys often cannot understand what is axiomatic to an English schoolboy. An Indian student cannot see that the quotation must be later than the authority. Such things show a want of adequate instruction. There is enthusiasm for Sanskrit in India but no time or opportunity for research, and hence even in this matter India has been outstripped by Japan. Research and high academic teaching mean the same thing. With the materials which exist in India to get the best results, the methods must be taught, the results are less important. Professors should teach by example as well as by precept. It is hopeless to think of making such a start in this direction as has been made in Japan. The Tokio Calendar shows 48 professors to 300 pupils. It is by such intense work that a University succeeds. There is the wish in India but the progress is far slower. The most intense form of instruction that is obtainable should be given. There are professors in the colleges capable of doing it but the opportunity is wanting.

Oriental classes should take the place of Latin and Greek in Europe. Syed Hossain Bilgrami supported an education in English and a classical language. Witness said it is useless to encourage the study of classics on the traditional lines unless

the State is prepared to give emoluments and support. The other alternative is study on purely European lines. Syed Hossain Bilgrami then asked what is the academic value of a course of English and a classical language only. Witness replied that it would require an exceptional man to benefit by it. Very few would have the mental energy to utilise their knowledge of English to acquaint themselves with European methods and culture. It would require the very best brain, and then the student would repent that he had not received a more thorough training. It would be a good plan to give stipends to Pandits to induce them to study European culture.

Mr. Justice Banerjee.—You have spoken of a difference between the reasoning faculty of the European and that of the Indian mind. Are not the methods and processes of human reasoning fundamental in their nature and common to all races of mankind?

Witness.—By no means; nations are as peculiar for mental as for other habits, and the human brain often works quite differently in different orders of civilisation. What is clear logic in one country may seem hazy speculation in another. For instance, take a subject like History which to the Western mind is primarily based upon the scientific investigation of the precise order in which important events have occurred. The European student seeks to prove chronology almost as one would prove a proposition of Euclid, and he collects and co-ordinates innumerable detached pieces of evidence with tireless industry and patience. The Indian mind is not concerned in the least to prove anything, and accepts uncritically the dogmatic chronology taught by ancient books or oral tradition. Worse than this, the Indian student is not even sensible of the logical force of evidence when it is produced before him. If I take two ancient Indian authors; if I point out to the Indian student that one author frequently alludes to the other author; and if I argue that the author who makes such allusions must obviously have lived and written at some period subsequent to the author who is alluded to—the student will be quite unable to see that this reasoning is irresistible, and if it happens that indigenous chronology reverses the respective periods of the two authors—the student's faith in indigenous chronology will not be in the least shaken. This is the unfortunate product of many centuries of blind veneration for dogmatic teaching; it is the result of the inherent and deeply ingrained habit in the Hindu of delivering up his mind in absolute trust to his *guru*; it is the outcome of countless generations of intellectual self-suppression.

Mr. Justice Banerjee.—It is your complaint then, that a European teacher who argues, however convincingly in the logical sense, against inherited doctrine, fails to drive his conclusions into the student's mind?

Witness.—Not altogether. My point is that the student usually accepts any teaching from his recognised instructors only too readily, not because their arguments conquer him, but because it is part of his nature never to offer the least critical resistance. I would much rather see a boy deny my teaching intelligently than swallow it unintelligently.

Mr. Justice Banerjee.—The Indian mind in your opinion is unlike other minds in being incapable of exercising the reasoning faculty on logical and critical lines?

Witness.—I do not say that the Indian student cannot, but rather that he does not, exhibit intellectual independence; and that it is the ancient indigenous system of subordination to the *guru* that is the cause. It does not occur to a Hindu that he ought to be able to give a reason for the faith that is in him.

Mr. Justice Banerjee.—What particular article of faith for example is a Hindu not able to give a reason for?

Witness.—No Hindu, and for that matter no man, can give any *reason* for believing in the transmigration of souls. That doctrine is taught dogmatically and is accepted implicitly and without reflection. It is this, I maintain, that marks the essential difference between the Indian boy and the European boy. In this country boys do not start life with the same splendid mental inheritance

which gives European boys the advantage. The European habit of coolly and confidently referring every point to the ultimate arbitrament of the inner judgment is entirely wanting in the Indian.

Mr. Justice Banerjee.—Are we to understand that you are speaking from personal knowledge of Indian students?

Witness.—Otherwise I should speak much less confidently. For eleven years I was Principal of the Oriental College, Lahore, and during that time I often tried to strike sparks of reasoning from the minds of my students by putting forward in a carefully impartial way difficult questions for them to decide, or by confronting them with a variety of conflicting opinions and asking them which particular opinion they would prefer to adopt; but almost invariably the answer would be, "What is your opinion, Sir?" or "What do you wish us to believe about it, Sir?" Hence—to sum the matter up—the task which I conceive lies before the Indian Universities, a task I know most difficult to accomplish, but the only one in my opinion that is worth attempting from the standpoint of intellectual culture, is to supplant the indigenous methods of teaching, which are essentially dogmatic and non-logical, by the Western methods, which are essentially inquisitive and reasoning.

The Indian brain is capable but after the manuring process is over it is left unaided. Some Indians have done great things and are respected in Europe. Dr. Bhandarkar is an instance. His success is due to a Professor of the Poona College who instructed him in the method of study.

The Chinese system of elaborate examinations which has grown up in India is demoralising. In China it is indigenous and is likely to be altered on the model of Japan.

Examinations.

The Oriental College though not doing the higher work alluded to above fulfils a useful function in supplying schools with teachers. In inspecting schools,

The Oriental College.

witness has noticed that the Oriental College men teach much better than the men educated on traditional lines. It is a kind of oriental training college and if it were abolished there would be a sudden fall in the classical teaching in schools. It would be desirable to develop the pedagogic side of the college. The abolition of the college would lead within five years to the opening of an oriental side to the training college. Witness cannot say if it would be a less expensive arrangement. Many institutions in which the love of Sanskrit is much paraded

Sanskrit Schools.

do not give such good instruction. Boys are in such institutions supposed to read texts without grammatical preparation. One cannot blame the institutions—the study is impossibly long on traditional lines. The result is that the instruction is neither on the ancient or the modern system. The moral texts may do the boys good, but the course does not train them to be teachers. Witness has been shocked by the condition of the teaching in some of these schools and the success of the scholars in the examinations shows how bad these latter are. Schools pass boys high in the Middle School and Entrance Examinations who are absolutely unfit to pass, knowing nothing of their subjects. The low paid examiners fail to understand their responsibility. The teachers know the condition of things quite well but they have not the time to teach by the old methods nor the knowledge to teach by the new.

There is much forcing of students. Not enough time is given and there is a desire to pass a large number and a belief that this means good work. If the Universities reduced their numbers and turned

University Teaching.

out a few men who could work on western methods they could do more good. Intensiveness not expansiveness is required. The Japan University has few students and yet it has already made its mark. The needful training cannot be given to a mass of men, it requires the immediate direction of experts. Institutions have been allowed to grow up and expand without any heed being paid to the standard of instruction.

If the Indian Government had continued to develop the colleges instead of founding Universities, they would have by this time have obtained real teaching Universities in Calcutta, Madras and Bombay. To think that popular enthusiasm will create sound learning is to disregard all historical experience. Careful control and supervision are needed.

The amount of grammar required in the B.A. Course is sufficient. The traditional grammar could not be prescribed, its study takes too long. It would not be advisable to insist on the study of a portion in order to show the method of treatment. That would introduce both systems, and it would require an exceptional brain to study both. Mr. Justice Banerjee enquired whether witness approved of including a portion of the *Rig Veda* in the B.A. Course. Witness replied that it is not absolutely necessary, but is very useful. It brings the change in language and ideas home to the student. If they are allowed to retain the notions they get from the pandits then there will be the confusion of ideas discussed above. That there has always been change can only be brought home to the student by intensive teaching. The presentation of different interpretations to the student is interesting from the point of view of experimental psychology. It aids in inducing the Indian brain to discriminate and to realise that authority must not necessarily be accepted.

It is at present difficult to get the right type of Sanskrit Professors for the colleges. It is different in Southern India. There are historical reasons for this difference. The Punjab has suffered greatly from the breach of continuity in its traditional studies resulting from the Muhammadan occupation. In consequence there is great artificiality. It is easier to introduce European than traditional methods of teaching.

WITNESS NO. 15.—MR. A. S. HEMMY, B.A. M.Sc., Professor of Science,
Government College, Lahore.

Witness presented a written statement (Paper No. 15 in Part II).

Research in an Indian University is a matter more for the future than for the present, but the question of good teaching is one which is most pertinent to the Commission. The system of teaching in India is most unsatisfactory. The University settles the curriculum and the colleges have to accept it and have very little to say in the matter. What is wanted is teachers who have not to consider examinations. The students should be taught how to think not to memorise and draw conclusions from the examination papers of previous years. Now they pour out the facts they have accumulated on the examination papers and then forget all about them. The book work for an examination is inevitably forgotten, but one may hope that the student will retain the method of thought in which he is trained. The subjects learnt are of little use in after-life, but if the student has been taught to think much will have been gained,

For these reasons witness desires to see a system of good University instruction. The University professors should not teach the Honours men only, they should give instruction to all. To pass men they should teach the principles of their subjects and they should consider not the examination, but the capacity of the students to whom they are lecturing.

Mr. Justice Banerjee.—Why should the ordinary University course not be taught in this way?

Witness.—The college work will be supplementary to the University work; the University teaching should be of a different class and should disregard the necessary evil of examinations.

Mr. Justice Banerjee.—Cannot students be taught to think while they were studying for examinations?

Witness.—They are not at present. The professors can put them through the examination, but are not qualified to instil the spirit of the subject into them.

Mr. Pedler.—Is the science syllabus laid down in such a way as to debar the professor from a sensible system of teaching?

Witness.—It has been improved. There is now a syllabus and a number of recommended text-books. The first examination under the new system will take place next year. But definitions of curricula cannot do everything.

The plan proposed by witness is similar to the Cambridge system of professors and college coaches. At Cambridge there is only a slender attendance at the University lectures. For one thing there are so many good lectures, and for another the students are not encouraged to attend.

With a curriculum and examinations, however admirable they may be, there must be cramming and hence it is very desirable to have a body of lecturers unconnected with the examinations. The scheme will by no means do away with the need for colleges. At Cambridge much of the teaching in the Science side is done by the University. All the colleges cannot provide their own laboratories and much of the work is therefore done in the University laboratories and theatre. At the same time there are college lectures and extensive coaching.

The Melbourne University affords a more exact analogy. It started with a system of professors and no colleges, and provision was made for colleges that might arise in the future. There is now a complete series of University professors and also three colleges, supported by religious bodies. About half the students belong to one or other of the colleges, notwithstanding that they have to pay higher fees. The part played by the colleges is mainly in connection with coaching, moral and religious training and the social and athletic side of the University. The college teaching is supplementary to that of the University professors.

It is said to be necessary to give students six lectures a week in each subject. If that is the case a division of labour will be a great advantage and the University lectures will supplement those given in the college. It has been argued that the appointment of University professors will lower the status of the colleges. That is not the case. The University work will be above the present college work.

The University cannot bear the expense of maintaining a professoriate. But for the Middle School Examination the Punjab University would already be bankrupt. Private liberality also cannot be relied on, especially as it seems attracted at present to the provision of new colleges for different sections of the community. This extension of collegiate work will not further the cause of sound learning unless there is a central body of teachers to give an intellectual tone. The Government is the only possible source of funds, and as it would probably object to a large increase of expenditure on higher education witness would propose that the Government colleges should be done away with, their existing staffs becoming the first University professors.

Dr. Mackichan.—The staff has been recruited for a definite purpose, can you assume that it can act at once as a University professoriate and that it is fit for the work of higher teaching.

Witness.—A large proportion are fit and the balance might be utilised as inspectors. On the whole the intellectual qualifications of the members of the Indian Educational Service are higher than those of the staffs of other colleges. (Dr. Mackichan said that this is not the case in Bombay.)

Part of the work of the University professors might be the delivery of weekly lectures in colleges.

If suitable affiliation rules are introduced no difficulty with regard to private candidates will arise.

Alternative schemes for improving teaching.

Three schemes have been suggested for the improvement of teaching—

- (1) Inter-collegiate lectures. This scheme implies equality among the colleges, whereas in fact, they are most unequal. The extent to which this is the case may be realised by comparing the enormous difference in the annual outlay in different colleges. For an inter-collegiate system the colleges must be approximately equal or some colleges would be besieged by all students without getting anything in return.
- (2) The best professors in the various colleges to be called University professors and to teach Honours men, the Government supplying substitutes. This does not provide higher teaching independent of examinations, and would be difficult to work because of the very small number of Honours men.
- (3) The scheme suggested by witness.

Another point of difference between witness and Dr. Stratton is that the latter says that candidates for Honours in any subject but English should be required to take the Pass course in English. Witness would allow a candidate to take up that course previous to his taking up Honours either in his third or fourth year, leaving the fifth year free for the special work. The main difference between the Honours course and the M.A. would be one of teaching.

Syed Hossein Bilgrami.—Do you think that the M.A. student is not well taught?

Witness.—He only gets one year to concentrate his attention. Until he finishes the B.A. he is kept with all the dullards of the B.A. class. Honours men should be given three years in which they can work separately.

There must be a separate Honours class and a separate body of teachers for it. A system of Honours which is simply an enlarged Pass course is not worth having. It means quite as much trouble as a complete Honours course with men working separately all the time, whilst the students do not get so much advantage.

Affiliation should not be merely up to a certain standard, 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.

Affiliation of colleges.

The qualifications of any new member of the staff of a college should be considered by the Syndicate or a body appointed by the Syndicate, previous to his appointment, and no appointment to an affiliated college should be made without the approval of the Syndicate, otherwise a college might start well and gradually degenerate. If a teaching University be maintained according to witness' scheme, then the conditions of affiliation need not be so strict as when each college does its own teaching. It would not be undue interference and the supervision would be an advantage for the smaller colleges. Referring to the method of recruiting the Indian Educational Service, witness said that whether a teaching University be appointed or not, appointments in the Department should be advertised, and if that were done, there would never be any instances of men whose qualifications the University would dispute.

Recognised Teachers.

Mr. Justice Banerjee.—Might not the object you have in view be equally well served if the rule required affiliated colleges simply to report the appointment of a professor, leaving the University authorities to say whether they would accept it or not?

Witness.—That comes practically to the same thing. If the University is to have the power to reject a man is it not better that it should be done before a man is appointed? The amount of interference would seem very much greater if a man is turned out after he has been appointed.

There should be a central building for University teaching in Lahore. In the case of Punjab concentration would be less difficult than in other places, as the large majority of the students are in Lahore, and the Lahore colleges are adjacent to one another. The time table might be so arranged that a second year student should attend University lectures on Mondays, Wednesdays and Fridays, leaving him the other days free to study in his own college.

Teaching University (concluded).

The Senate.

There should be four classes of Senators—

(1) Ex-officio.

(2) Nominees of the Local Government. These should consist of such men only whose opinions on educational matters it is advisable to have. Men should not be given a voice in the University on account of their social position or of their being benefactors unless their opinion would really be of advantage to the University. If it is advisable to have such Fellows, they should be Honorary Fellows with no voting powers and should not be appointed to any Faculty.

(3) Persons elected by the staffs of affiliated colleges. Assuming all the teachers of affiliated colleges are recognised, then certainly they should be allowed to appoint delegates from amongst themselves.

(4) Persons elected by the general body of graduates of higher standing than B.A.'s. As to the exact qualifications of graduates witness has no very strong opinion. Some consider that B.A.'s of 10 years' standing should be allowed to vote. Witness has no objection to that. There is a strong objection against the system originally adopted in the Punjab University of the Senate adding to their number by election. The Senate should consist either of representatives of some community or body, or else advisers to the University. Men elected by the Senate do not represent anyone in particular except perhaps the leading section in the Senate.

A very large Senate is not required at present, because the number of people in the Punjab capable of forming a reliable opinion on higher educational matters is not very large. As a purely tentative measure witness proposes that the number should be 100 or 150. In order that the number may not be exceeded, existing Fellows, unless re-nominated or elected, should be made Honorary Fellows with power to be present at Senate meetings, but without a vote and without a place on any Faculty. Witness said he did not think it would be

invidious to invite them to meetings without a vote. Their principal function at present is as a rule merely to attend. They very seldom have a voice in any matter. Fellows of the University to be appointed in the future should not be made Darbaris. Fellows as such should be given no privileges outside the University.

With regard to the constitution of the Syndicate the only alteration witness would propose is that if University professors are to be appointed they should be allowed to elect certain of their number to the Syndicate. Further, the Director of Public Instruction ought to be an *ex-officio* member of the Syndicate.

The system of Boards of Studies in the Punjab University needs remodelling. At present there is a Board of Studies for each Faculty. In consequence of this, if a man taking science for the Arts degree has anything to complain of, instead of the matter being brought before the Science Faculty it is brought before the Arts Faculty. What is needed is Boards of Studies for each subject or group of subjects. The number of men competent to act on Boards of Studies in the Punjab is not very large and therefore it will probably be advisable to group certain subjects together.

With regard to the teaching of Science there seems to be in India too little practical work. In the Punjab certain alterations have recently been made and when the new regulations come into force, every student taking the B. A. degree will have to undergo a really practical examination in Science. The regulations in the past apparently implied this, but there seems to be a belief in India generally that oral examinations can take the place of practical examinations in Science and that ascertaining from a student how he would do a thing is as good a test as making him do it. Anyone who knows anything of Science knows that that is ridiculous. It is certainly the case that the practical examinations of the Punjab University in Physics are a farce, and with regard to Chemistry, the practical examinations here as everywhere else, except at Allahabad, are of very little value. Under the new scheme for the B. A. degree of the Punjab University a student in Chemistry will be required to prepare simple inorganic salts and to do some simple volumetric analysis and a little testing. Practical examinations for the Intermediate with the large number of candidates are at present impracticable. Endeavour is being made to make the oral examination as practical as possible. The examination for the Entrance is an oral examination. There the numbers are quite unmanageable. If the oral examinations were given up students would never even see a piece of apparatus, and it may do them some good even to get this slight acquaintance with practical work.

It is very difficult to make practical examinations an efficient test. Witness would be inclined to require that a student should send in a list of the experiments he has performed which should be signed by the teacher as a guarantee of good faith. At any rate this should be done in the case of Physics. The allotment of marks for practical examinations is a great mistake, because it is very difficult to adjust the marks equitably. There should be no marks; a student should simply pass or fail in his practical examination. Owing to the small number of Honours men, it would perhaps be possible to classify them. They might be divided into three or four classes, but marks should not be allotted.

Dr. Caleb raised the question whether any outside examination could be substituted for the preliminary Scientific Examination for the M. B. Looking somewhat superficially into the Calendar for the purpose of judging of the relative merits of the Intermediate Science and the Preliminary Scientific, it appeared to witness that in Physics the standard for the Preliminary Scientific is much the same as that for the Intermediate Science, but that in Chemistry it is higher as it includes a considerable amount of organic Chemistry which is not included in the Intermediate Science Examination. It is, however, less than the amount of Chemistry required for the B. Sc. Under these circumstances the Intermediate cannot take the place of the preliminary Scientific Examination but a student taking the B. Sc. or the science side of the B. A. has quite as

much knowledge as is required for the Preliminary Scientific Examination and should therefore be exempted from passing it. There is no reason for separating the teaching; it is not done in any University in England. There Medical students mix with Art students and they learn their Physics and Chemistry together. Besides this separation entails upon the Medical Colleges the expense of providing lecturers in Chemistry and Physics. In the Medical College there should however be classes in Physiological Chemistry, including Toxicology, that is to say, there should be lectures by the Professor of Chemistry on Toxicology at the Medical College. In the preliminary scientific course there must also be some elementary Biology, but upon that subject witness is not competent to speak.

The Entrance Examination for Science as apart from Arts is practically a dead letter, because students can take up the Entrance in Arts, and then go on to the Intermediate Science. If it is not a dead letter, it ought to be. It serves no good purpose. Witness has no personal knowledge of what the practical examination for this Examination is, except that it is an ordinary oral examination, probably more difficult than that for Arts. That paper shown to witness by Dr. Bourne would be a practical examination if conducted properly.

Science Course.

The Intermediate examination in Science as far as Physics and Chemistry are concerned is the same as that for the Intermediate Arts. Candidates have appeared for it.

The B. Sc. has been held only in Mathematics and Astronomy this year. There have as yet been no examinations in the other subjects. There is no proposal before the University to remove any portion of the Science from the B. A., in consequence of the introduction of Science degree.

There is a tendency at present for the formation of numerous local colleges. In the Punjab, there are three colleges in Lahore with 866 students and nine colleges up-country with 286, giving the latter an average of about 30 students each, and of these nine colleges three have been established recently.

Small colleges.

The calibre of the students in the small colleges is inferior and such colleges cannot afford the best class of staff. If it is desired to coach students it is rather an advantage to have small colleges, but good coaches are not always to be found in such colleges. If colleges have large endowments then they get a large number of students. Of the nine colleges referred to, four teach up to the B.A. Provided there was a staff of University teachers, it would be a positive advantage to have small colleges, at present it is a disadvantage.

Multiplication of colleges.

Syed Hossein Bilgrami.—If they had good teachers, would not small colleges be an advantage.

Witness.—They have not good teachers. The method of their formation is against them. In most cases small colleges commence by adding classes to High Schools and they have the same class of teachers for the Intermediate class that they have for the school class. That is one reason why the work needs strengthening. The student's mind is not formed by being brought into contact with men of great attainments. University professors and college lecturers are both needed in such cases.

Witness said that subject to certain reservations he agreed with Dr. Stratton in the matter of Honours degrees. The Honours course should extend for three years after the Intermediate Examination?

Honours Degree.

Syed Hossein Bilgrami.—In that case what difference will there be between the M.A. and the Honours.

Witness.—The difference will be that the Honours man will be separated from the Pass man after the Intermediate and will have three years' special work. The M.A. degree should be given to a man who takes Honours without any further examination. For all Pass examinations whether for the B.A., or the M.A., there should be no classification or order of merit. It should be either "passed" or "failed," but in the case of Honours men there should be classification. Witness would still keep the M.A. in order that Pass men may have an opportunity of entering for it.

WITNESS NO. 16.—The REVEREND H. C. VELTE, M.A., Vice-Principal and Professor of English, Forman Christian College, Lahore.

(Paper No. 16 in Part II.)

There are two ways in which a Teaching University may be established : (1) by direct teaching in institutions maintained by the University and by University Lecturers and Professors and (2) by the affiliation of colleges in such a way that they may become an integral part of the University. As regards (1) the Punjab University is in a certain sense already a teaching University, and as regards (2) it is purely an examining body and has never attempted to be anything further or higher than this. The question then arises whether it is desirable at present to extend the operation of the University in the line of direct teaching. With regard to that witness would say emphatically "No". In the first place there are more important things to be done. The most urgent of these is the affiliation of colleges with the University, that is to bring the Punjab University into line with the other Indian Universities. In the second place a teaching University is not needed in the Punjab. It is doubtful whether there is material for it, and if it were established it could only be a very small affair. If anything is to be attempted in the direction of a research institute, it would be far better to have a single institution for all India such as the John Hopkins University of America. The experiment would show whether it would be possible to have a teaching University or a research institute in other places. The success of the Punjab University in this line has not been such as to justify it in desiring at present to undertake anything further. A great deal had been said in depreciation of the work done in colleges and of the Indian students, and that depreciation is not deserved. There are some poor specimens of students who derive little benefit from the education they receive, but there are also a very large number of excellent men and all that is necessary is to get hold of them and use the material well. Indian students compare very favourably with students elsewhere, considering their conditions. The President suggested that the University might, as far as teaching up to the B.A. is concerned, rely mainly on raising the standard in colleges by proper rules of affiliation, but that after the B.A. the University might itself undertake the instruction of advanced students. Witness said he quite agreed with those who said that the M. A. course should be an Honours course, but he is of opinion that the work should be done in the colleges. This year for the first time an M. A. class has been opened in the Forman College. The result has been exceedingly encouraging. The higher work of teaching will be rendered most efficient by strengthening the colleges. More men are needed. The staffs of colleges are too small for the work to be done and the men now engaged in general work have no leisure for advanced work. If one or two men were added to each college, then advanced work might be done.

A division of labour between the colleges is possible in the M. A. course and also to some extent in the lower classes. For instance, in the Faculty of Science the number of students is very small. This year they numbered only 30 in the Entrance Examination of the Science Faculty. Of this number about 15 will pass and not more than 8 or 10 will enter college. There are now two institutions carrying on work for the F. Sc. This is a waste of labour and a very heavy expense. The University should not take up this work, but the colleges should combine and do it amongst themselves. The Professors would still remain connected with their own colleges. There would of course have to be an adjustment of fees. The University might arrange these combinations, as soon as it comes into some sort of relation with the colleges. Again, affiliation must be the first step.

An arrangement such as is proposed above is certainly possible between two colleges. Witness is not sure whether it will be possible to form groups of more than two. In the M.A. class, it would probably be possible for one college to take up History, another Philosophy, another Physics and Chemistry and thus the work might be divided.

Witness believes in the principle of election and thinks it should be reintroduced. It exists in theory, but is a dead-letter. In his note witness suggested

Election of Fellows.

that the representation should be by Faculties. He would change that and say that it should be by colleges. The staff of each college should be allowed to elect a member to the Senate. The same privilege should be extended to the graduates, or rather to the graduates' association, of each college. Witness is not in favour of extending it to the general body of graduates. There are a great many objections, one is that many graduates are not brought into touch with college life. They entered as private students and do not know each other. Then again there is the danger of canvassing. All this would be avoided if Fellows were elected by the graduates' association of each college. These graduates' associations have been formed in connection with nearly all the colleges in Lahore and they meet during the year at certain times. The Principal of the College is Patron of the Association and the graduates are in close touch with the college and college life. They would therefore be sure to make a good choice, and the men who represented them would be a credit to the college and useful to the University. There would not be any danger whatsoever in introducing this scheme. The same number of representatives should not be given to each college; representation should be proportionate to the membership of the association or the number of graduates. That is a detail which could be worked out afterwards. The privilege should be given to every college affiliated to the University. If a college teaches only up to the F.A. and has no graduates it could not return a member to the Senate.

Witness agrees with all that has been said about cramming. The evil exists and is on the increase. When one comes to consider the causes of cramming one is still

Examinations and cramming.

very much in the dark. Many different causes have been mentioned and one of these is insufficient knowledge of English. The knowledge of English which students have when they join the college is inadequate, but this alone is not the cause of cramming. It may be a cause of cramming in the colleges to a very large extent, but scarcely to any considerable extent in the schools. Then again the blame is thrown upon the schools and of course upon the teachers in the schools and the training they have received. Witness has had some experience of school work, having been in charge of a school for two years, and he does not agree with this opinion. If there was anything to be proud of in the Punjab it is the existence of a corps of good and well-trained teachers, and their number is increasing every year. Witness has been brought into personal contact with them and knows something of their methods of work, and he does not think the fault lies with the teachers or with their training. His own view is that there is something which interferes with the teachers' work and he believes it is to be found in the examination system. It is owing to this system that teachers, in spite of themselves are unable to educate men. A boy has to be prepared for the public and competitive examinations of the Government and the University and in this way a great deal of the time and energy of the boy himself and of his teacher are wasted. The teacher is helpless in the matter. Unless his results in the examinations are good he is found fault with, becomes unpopular with the boys, with their parents and perhaps with the management and those under whom he holds his appointment. In this is to be found the true cause of cramming and unsatisfactory education.

The remedy is to do away with all University examinations in schools. The middle school examination might certainly be done away with. There was a

School management.

time when it served a purpose, but it no longer does so. The Entrance Examination as it now is should also be abolished. If this were done the teacher would have a chance to educate his boys. Witness would place the schools entirely in the hands of the Department and of the Inspectors. There should be efficient and thorough supervision and inspection and all examinations in schools and promotions should be left to the teachers under the supervision of the Inspectors. Thus the responsibility would be thrown upon the teacher and his position would be raised and he would have ample opportunity to do real teaching work.

In place of the Matriculation examination there should be a final examination for schools with a certificate signed by the Head Master and countersigned by the Inspector to show that the boy has been educated up to a certain standard and has finished his course in school. Such certificates should be regarded as equivalent to those of the present Entrance Examination. A great deal of the examination should be done by the school itself, but the Department should also have a share in it. For those seeking admission to college there should be a separate Entrance Examination to be held by the University. The schools should be completely severed from the University.

In the 4th paragraph of witness' memorandum it is stated that only about one-sixth of those who pass the Entrance Examination take up a University course. The correct proportion is about one-third to one-fourth.

The University Entrance Examination should be made a much more thorough test in English. A great many candidates now get through in English who ought not to pass. Special importance should be attached to a working knowledge of English, sufficient for comprehension and expression.

Mr. Justice Banerjee said that such a knowledge of English should be required of all boys at the end of their school course and this being so he wished to know what was the use in having two examinations when one would suffice.

Witness replied that it will have this advantage that it will give a student more time to think before he is called upon to exercise his option. All the boys will have to go through the school final examination and then the $\frac{1}{3}$ or $\frac{1}{4}$ who wish to go on to the University will have to go through a public examination—the matriculation—at a later stage, and in that examination they might confine themselves to the particular subjects requisite for University life.

President.—The practical question is rather this. Do you think a Government or a merchant's office can accept a Head Master's certificate, unless given after a test in English which is practically equivalent to the test in the Entrance Examination?

Witness.—That depends entirely upon what the Government would choose to do in the matter.

President.—Would a Government office or a merchant's office be likely to accept this school final examination as worth anything at all?

Witness.—That would depend on the school from which the boy comes. If it has a reputation for giving a good education its certificate would be valued by the Government and private firms. Besides the school examination will be conducted under the Inspector of the Division.

It would certainly require an increase in the staff of Inspectors to conduct these examinations. There would have to be one for every one or two districts. At present there are about four or five districts under one Inspector. It is impossible for him to do all the work. The President said that in England the University Board sends examiners to examine the schools. They examine and mark the papers and forward them to a central place where they are moderated to see that all the examiners are adopting the same standard. The University then accepts the certificate as equivalent to its preliminary examinations. Witness thought that such a scheme might possibly be workable.

The Punjab University has been held up as a model in this respect that it does not appoint teachers as examiners, but gets its examiners from distant parts of India such as Allahabad and Bombay. This is one of the weakest points in the whole examination system. It has many disadvantages. First of all those who are appointed to examine very often do not know the standard; this has occurred again and again. As regards the setting of papers an attempt has been made to get over the difficulty by model papers, but witness does not think they have served any very good purpose. Again, examiners not knowing the standards make great mistakes in the valuation of the papers. About two years ago an examiner was appointed from Calcutta for a certain examination and when his results came in it was found that about 300 to 350 candidates had failed

Teachers as Examiners.

and that only 19 had passed. The mistake occurred in this way. The examiner did not carefully read his instructions and he thought the pass percentage was 25 or 33, whereas it was 40. He thought he was passing many whom he was not passing. The question an examiner really sets himself is whether a man is fit to pass or not without regard to any percentage of marks.

It would be possible to get rid of a good deal of the unsatisfactory cram work in colleges if teachers were allowed to examine their students. A scheme has been proposed with regard to this which would meet the views of the witness.

WITNESS NO. 17.—The REVEREND J. H. ORBISON, M. A., M. D., Professor of Biology, Forman Christian College, Lahore.

(Paper No. 17 in Part II)

It is properly the province of the Vice-Chancellor and the heads of colleges to deal with this subject. Witness is

Affiliation of colleges.

very much in favour of some scheme by which the University may come into closer contact with all colleges sending up men for its examinations. General supervision by the University of the Colleges should be secured. The annual reports from the various institutions should be overhauled or perhaps there should be committees of visitation appointed by the Senate. There would be popular feeling against the Syndicate doing this, and there might be in the Syndicate too large a representation of one particular interest. The Chairman of the Committee might be one of the Inspectors.

With regard to Teaching Universities a line of demarcation should be drawn between undergraduate and post graduate

Teaching University.

work and the University should take in hand the post graduate work and provide for a more comprehensive and broader scope of teaching, both intensively and extensively. Undergraduate work should be left largely in the hands of colleges.

It should be recognised that each college has its own individuality, its own traditions, its own type or ideal to which it wishes to attain, and in accordance with which it wishes to train its men. There is a certain *esprit de corps* which each college wishes to maintain and that ought not to be interfered with.

The question of an Honours Course, as is the case in most of these matters, has its *pros* and *cons* and again there is

Honours Course.

a choice of alternatives, and it is necessary to consider to which alternative there is the least objection, and which is the most workable of the various schemes. There are certain schemes which have been proposed which are very beautiful on paper, but it is doubtful whether they are feasible in practice. There is a tendency to plant an exotic taken from the antipodes in the soil of India without much regard to the principles of heredity and environment. It is rather incongruous for instance to take a full fledged University scheme ready made in Germany and plant it in India without regard to the condition of the people or the stage of civilisation at which they have arrived. However much one may like professorial work, one must recognise that in India they have not got much beyond the tutorial stage for undergraduates. For the present the best graduate course should be considered as virtually the Honours Course. Very few of the students are competent to take up an Honours Course and there are objections to separating the brightest men from the others. Candidates who distinguish themselves in the ordinary B. A. examination might be considered to have passed with Honours. Or Honours students might be given a special paper a little severer or wider than the rest. The Calcutta system would seem to be sound. For classical languages students might go to a Central oriental institution and for higher degrees in science they might go to a Central School of science but witness would not like to extend that principle very far. Too much stress is laid upon specialisation. The Punjabi has not come to the stage yet where he can usefully specialise in any subject. A few men who are able to do so might perhaps have their chance after passing the B. A., but witness is not in favour of a man specialising before that stage. Students in India have not the general training which is given in the West, but they were gradually working up to it. From decade to decade there is an improvement in the men passing through the schools and colleges.

Examinations are the core of some of the difficulties of the University.

Examinations.

Something substantial should be done to lessen the strain on students and professors which results from the striving to pass the examinations. It deadens their enthusiasm and deprives them of elasticity and freshness.

President.—Is there not also a danger of the students idling and making up for past neglect by cramming just before the examination?

Witness.—That is not the case. The majority of the best men tell me about the strain upon them.

The number of public examinations should be diminished. The Middle School examination should be a private examination and at the end of the school course there should be a departmental examination. There should be a public Matriculation Examination for all those who wish to go up to the University. It should be held by the University.

For the B. A. the examinations should be held locally by Professors. Marks should not be published and candidates should be placed alphabetically in classes instead of in order of merit.

The courses of reading should be a little shorter. They are very wide and they prevent students from doing any general reading. They have to devote themselves to getting up their subjects by means of epitomes, keys and cram books.

Syed Hossain Bilgrami.—Would not that be avoided by giving a long but an easy course.

Witness.—That is another possible way of doing it. It would be a pity to narrow the course and yet something must be done to make things a little easier and give students more opportunity for the cultivation of their minds.

Mr. Justice Banerjee.—In other words you would like to give them more time to think even if it be at the expense of curtailing the amount of their reading.

Witness.—Yes.

Dr. Mackichan.—Would they think?

Mr. Justice Banerjee.—They would if they had the time to think.

Witness, continuing said that a certain amount of general culture and experience should be regarded as part of the B. A. training.

It is very desirable that there should be inter-collegiate co-operation in connection with University lectures, debating clubs, the library and sports.

Inter-collegiate co operation.

Examinations should be held by men on the spot and if possible by those teaching the subject. If it were not too daring witness would suggest that each

Examiners.

college should decide whether a man is fit to pass the B. A. or not. Colleges would then find their own level.

WITNESS NO. 18, MR. H. T. KNOWLTON, Principal, Central Training College, Lahore.

(Written statement No. 18 in part II.)

The percentage of passes in the different examinations does not seem to be quite satisfactory, but witness would like to point out that similar conditions have existed in the London University for the last six years. It seems to be a general phenomenon that there should be a falling off in the percentage of passes as examinations increase in difficulty.

It is important that there should be a Faculty of Pedagogics. Nothing at present is done to encourage teachers to qualify themselves properly for their work. English Universities have taken up this question and several of them have chairs of education and have established examinations in connection with University colleges which give special training in the work of teaching. Witness is not aware that any University has a Faculty of Pedagogics. They have Boards of Studies and they hold examinations for teachers, but he does not think that they have a special Faculty. The reason for suggesting a Faculty of Pedagogy is that if it is left to the Board of Studies very little general interest would be taken in the question. The Faculty should contain a number of teachers who would be deeply interested in the subject.

It appears to be essential that there should be some college of Pedagogy which should be worked in accordance with laws laid down by the University and that this college should have attached to it a school in which teachers may be trained in the art of teaching. The training college has been regarded as a college by the University from its foundation and for the last 20 years the Principal had been *ex-officio* a Fellow of the University. The course of study should be drawn up by the University and examinations instead of being conducted as now by the Department, should be conducted by the University and students on passing should receive degrees or diplomas. The men admitted to this course of training and subsequently sent up for the examination ought to be graduates—men who have already received a good general education and are therefore competent to take up special work. There would be little difficulty in attracting a number of graduates. At the present time the senior men in the vernacular class of the training college consist chiefly of graduates. Out of 20 at the present time, 13 are graduates. The numbers have been steadily increasing during the last ten years; ten years ago there was only one graduate.

An important result of the change would be that better men would be attracted to the Education Department. It is desirable that the very best class of men should become teachers. The degree of attractiveness must of course also depend upon the pay and it is to be remarked that that the pay given in the Education Department compares unfavourably with that given in other Departments. There seems, however, to be some prospect that the pay will be better in the Education Department than has hitherto been the case. The highest pay of teachers in schools rises to about Rs. 400. There is one case in which a personal allowance of Rs. 100 is given, making Rs. 500, the highest pay given to a Headmaster of a school.

The course of training should extend over two years. Hitherto it has been a one year's course and that is not sufficient. Men who pass from the college are able more or less to understand English but they have not a sufficient command of English to enable them to express their ideas in that language. There should be much more practical work than at present. No one should be admitted to the examination conducted by the University until he had received a certificate to the effect that he had delivered 100 consecutive lessons, so that there might be some guarantee that he had had plenty of practice in handling a large class.

There have been a few M. A's in the training college.

When a man in the training college gives a practical lesson to a class it is always in the presence of the witness or some other member of the staff.
Work in the Training College.

Every day there is a criticism lesson. Every week five students from the senior class and five from every other class are picked out to work in the model school. Each of them has to prepare a lesson for the day and gives it in the presence of the class master, and the class master criticises it and reports on the teachers' work to witness.

Witness would not regard the Oriental College as a training college in the same sense as his college. It does not give any instruction in the theory and practice of teaching nor any practical training.
The Oriental College.

Mr. Bell.—Can you co-operate with the Oriental College?

Witness.—Their students might come over to lectures on the theory of teaching, but the difficulty would be with regard to practical work. It would be very difficult to arrange for their work in the model school.

WITNESS NO. 19.—MAULAVI HAKIM ALI, B.A., Principal, Islamia College,
Lahore.

(Written statement No. 19 in Part II.)

It is too soon for the Punjab University to be turned into a teaching University. It is only 20 years old, and as an examining body it has experienced for a long time and is still experiencing difficulties owing to the standards of examination depending upon the will of the examiners. Its work as an examining body should run smoothly for at least 20 years before it is turned into a teaching University.

Teaching University.

In the Punjab the number of Fellows is not too large. It may be increased to a maximum of 150. Fellowships should be terminable only by death or retirement and not by the attendance test. In future, Fellowships should be given to persons qualified to advise on or taking an interest in high education and not by way of compliment.

Fellows of the University.

The number of members on the Syndicate should be increased to 30 in order that the colleges may be more adequately represented.

Syndicate.

In the Punjab University it would be difficult, if not impossible, to allow the election of graduates as Fellows, without giving rise to much undesirable canvassing.

Election of Graduates.

If there is a very strong desire that the principle should be recognised, the experiment may be tried of allowing the election of one graduate (M.A. of five years' or B.A. of ten years' standing) to be elected for every 500 graduates of the University. Candidates should be proposed by the graduates themselves in writing and be elected by a majority of written votes sent in sealed covers to the Registrar.

It is said that the students' knowledge of English is insufficient to enable them to profit by the lectures they attend.

English.

There may be some students who begin their University course without a sufficient knowledge of English, but the statement in the "note of points" is "that many students begin their University course without a sufficient knowledge of English, etc." That statement is not well founded. It is the way in which certain professors speak English that prevents students coming fresh from schools from being able to make out what is said, but as soon as they get accustomed to the manner of speaking they understand what is taught to them. This is not the fault of the European professors, but the Indian students are not habituated to their style, and for one or two months they must be trained in that style.

Religions are so divided and feelings are so strong that it would not be desirable to found a school of Theology in the Punjab.

Theology.

In the affiliation rules the question of tuition fees and the salaries of professors should not be considered and the merits of a college should be judged from the work done and the qualifications of its teaching staff.

Fees and salaries.

A good deal of practical Chemistry and Physics is taught in the Lahore colleges and the practical test for the intermediate examination is thorough.

Science teaching.

WITNESS NO. 20.—SHAIKH ABDUL QADIR, B.A., Professor of English Literature, Islamia College, Lahore, representing the Graduates' Association, Forman Christian College, Lahore.

The remarks made by witness had reference, firstly, to the memorandum submitted by the Graduates' Association of the Forman Christian College (paper No. 20 in part II) and, secondly, to his personal views.

Preliminary.

Witness desired, in the first place, to speak in favour of the good work done by the Christian College where he received his education, especially in the direction of religious and moral teaching. The various denominational institutions of the Punjab are doing considerable good in producing deep religious sentiment, engendering, in most cases, a thorough sense of moral responsibility in the minds of the more earnest of the students. But whereas Hindu and Muhammadan and Sikh institutions are proving useful almost exclusively to the communities which they respectively represent, all the different Indian communities owe a great debt of gratitude to missionary educational enterprise, which has succeeded to a very large extent, in producing men of good and sterling worth, with a deep religious feeling. While theoretically the teaching of a foreign religion must be supposed to have an unsettling effect on the minds of students, and expression was given to a belief of this sort by a learned witness yesterday, those who have actually had anything to do with Christian Colleges know that the effect generally is to render the attachment of a student to his own faith deeper by the influence of the earnest example set by the enthusiasm of missionaries for their own cause.

Mission College.

Towards religious instruction in Government institutions the authorities should continue their present attitude unless they are prepared to introduce religious teaching for representatives of all communities. It could be introduced without much additional expenditure, so far as Hindus and Muhammadans are concerned, by giving some allowance to the present Arabic and Sanskrit Professors for this extra work.

Religious instruction.

The Oriental College, as the seat of the ancient classical learning of the East making provision for the teaching of Arabic, Sanskrit and Persian, along with the teaching of modern subjects through the medium of the vernaculars, has naturally attracted considerable attention in the statements that have been laid before the Commission. While on the one hand some learned gentlemen have condemned it wholesale, others have insisted on its being maintained, both as a useful institution, supplying a felt want and worked on lines congenial to the tastes of the people of the Province, and as a trust which the University is bound to fulfil. Witness holds the latter view and would be sorry that the College should suffer by any sweeping denunciations of it on the score of its having failed to produce men who have proved successful in life or who have distinguished themselves. To the fairly long list of names mentioned by Professor Arnold yesterday witness added the names of several men distinguished in different walks of life, who have taken almost as much active part in the progress of the country as their fellow-graduates of the University on the Arts side. Witness said that in addition to those specially named many former students are distinguishing themselves as pleaders, civil officers, or members of the judicial or the Revenue service. So that the claims of the Oriental College may be based not so much on the ground of serving the purpose of a training college for Oriental teachers for High Schools but on results independent of this consideration.

The Oriental College.

Mr. Justice Banerjee.—You have mentioned some Muhammadan gentlemen who have distinguished themselves. Do you know of any Hindu students of the College who have proved equally successful?

Witness.—No, I do not, though there must be many.

Another circumstance connected with the Oriental College is worthy of attention. It has been complained that it has drained a large portion of the resources of

the University which might well have been devoted to the development of vernacular literature. The College has already contributed its share to this work because some of the members of its staff have been engaged, on their own account, in enriching the vernacular literature and among them may be mentioned Shams-ul Ulama Maulvi Muhammad Hussain *Azad*. He has rendered great service to Urdu literature and has infused a new spirit into it. His works form a main part of the Urdu text-books and have been greatly admired, even outside the Province.

Mr. Justice Banerjee.—May I ask what is the peculiarity of the style of *Azad*, whether it is based on Arabic or English?

Witness.—His style is simple and he has drawn his inspiration both from oriental and occidental literature. His genius needed only hints to grasp the peculiar beauties of a foreign literature and, though he did not know English, he has produced books highly liked by those who have received an English education.

Mr. Justice Banerjee.—Are his works purely literary or has he made any contribution to historical or scientific literature?

Witness.—He has written some books of great historical value, such as the "Darbar-i-Akbar," which has been patronised by the Hyderabad Education Department.

Syed Hossein Bilgrami.—The "Darbar-i-Akbar" is a very good and useful book. I consider it as one of the best books in Urdu literature.

It would be an advantage to include the study of modern Arabic and Persian books in the courses in these languages. Arabic literature is making rapid progress in Egypt and India should profit by that progress.

Syed Hossein Bilgrami.—You would not include the mongrel Arabic spoken at Cairo in the curriculum of the University?

Witness.—Certainly not, but I would strongly urge the inclusion of the translations of some of the best books on western arts and sciences that have been prepared at Cairo, to supplement and put a new life into the study of the ancient languages of the East in the Punjab University.

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

Election of fellows.

the University with due regard to considerations of ability, experience and standing. Under existing circumstances it is right that the Government should retain largely in its own hands the power of nominating Fellows, but 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 should 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. The way in which this suggestion may best be carried out would be to allow the graduates of every first grade College, that has sent students for the B. A. Degree for not less than five years, the privilege of having one elected representative in the Senate. They should exercise this right by rotation.

In order to promote a more liberal and sound education than is imparted at present, and to arrest the tendency towards cram, it seems desirable that a double

Honours' course.

course of studies be introduced, *viz.*, an Honours course and an ordinary Pass course. The former may lead to an examination more searching than the degree examinations have hitherto been 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. There are practical difficulties in the way of introducing this scheme, the chief among them being that of expense. This difficulty might be overcome, however, by placing on record the advisability of the scheme and

leaving it to the option of individual Colleges to introduce it, if their funds permit the adoption of the proposal.

As to the question of making the University a teaching body, exercising a direct control over the appointment and recognition of Professors and Teachers, this step, though fraught with possible advantages in respect to the interests of true education, is not feasible under present circumstances in the Punjab, and the time has not yet come for the University to assume teaching functions in connection with pre-graduate studies. The plan could not be well tried without running the risk of retarding the progress of the newly established indigenous Colleges, some of which have a special value as denominational institutions, satisfying the religious and moral requirements of particular communities. Especially in the Punjab where education is, comparatively speaking, still in its infancy, any step that is likely to be resented as undue interference with individual freedom cannot be recommended. 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. There would be no objection if a scheme of University lectures on special subjects for the benefit of all affiliated institutions were adopted in addition to the ordinary class work of the Colleges.

The provision of scholarships for original research, in different branches of learning, is an urgent necessity if true scholarship is to be encouraged, and if the development of the faculties of the best University men is to be secured. 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 specified period. The stipends are of the value of Rs. 40, Rs. 50, Rs. 60 and Rs. 70, approximately speaking, and the Readers are expected to do teaching work in the Oriental College and are occasionally asked to translate the proceedings of the Senate into Urdu. These are not conditions favourable to original research. The scale of remuneration ought to be increased and less teaching work exacted in order to leave greater leisure for original work.

Dr. Bourne.—You must be aware that in English Universities Fellowships for original work are not divested from teaching work, as teaching supplements research.

Witness.—I recognise the value of teaching work for a scholar, but then the teaching should not be of the type expected of these Readers in the Oriental College. If they were to be allowed to compile for the use of the Oriental classes books on western sciences based on different works on each subject, instead of supplying verbatim translations of text-books prescribed for the corresponding examinations on the arts side, much better results would be produced.

The Association urges that to avoid abnormal pressure on students, which is believed to be largely responsible for their physical weakness, for the premature decay of their mental faculties, and for the dulling of their intellects, greater option should be allowed to students in the selection of subjects of study, and students failing in one subject only should not be forced to again pass an examination in subjects in which they have already 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 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 wasted by subjecting them to repeated examinations in subjects in which they have already

passed, simply because they failed in some other subject. The Association is 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.

Mr. Justice Banerjee.—Would you object to put it in this way that if a man shows distinct merit in two subjects and fails in one only he should not be obliged to take up again the subjects in which he was successful.

Witness.—I accept the modification. It is a very reasonable one. It is really in the case of such students that the grievance comes in. Sometimes a student shows high merit in two or three subjects and fails in one subject by a few marks. At present he will have to work at it for one year again and take the risk of failing in another subject next year. There is always a risk in examinations. Instances have been known of gentlemen who have been very confident of their knowledge of one subject being plucked in that subject itself. To mention a concrete instance, one gentleman, Mr. Abdul Aziz, M.A., passed his B.A. standing first in the whole of the Punjab. The previous year to that he failed. He relied chiefly on Mathematics which he believed to be his strong point and somehow or other he spoilt his first paper on Mathematics and did not go in for the other papers. There was another gentleman, Mr. Tilak Ram, M.A., who was also first in the order of merit in his own year in the B.A. The year previous to that he failed in one subject, but even then if all his marks were added up he stood first. Witness would limit the suggestion to one subject.

Dr. Bourne.—Do you wish that the candidate should join the B.A. class or would you send him back to the second year class?

Witness.—I would let him join the B.A. class and go up for the one subject in which he had failed in next year.

Dr. Mackichan.—Why not allow him to pass altogether?

Witness.—Because if you adopt the other alternative the student will have an opportunity of making up his deficiency in the one subject and of becoming a good man all round.

Dr. Mackichan.—Would you apply the same rule in a case of failure in English or would you make any exception with regard to English at the examinations?

Witness.—It would be very difficult to make any such distinction, although a knowledge of English is specially important.

As regards the Oriental Classical languages (Sanskrit, Arabic and Persian),
 Classical languages. the Association is 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 course in point of difficulty. The Association also strongly 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. In this connection witness said that he wished to lay stress on the necessity of English-knowing teachers of Oriental languages, especially in view of the fact that the examination in these languages is conducted through the medium of English.

As regards the question of the vernacular languages of India, the Association believes that by the impulse given
 Vernacular languages. 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 recognised as fit subjects of study for the Intermediate Examination in Arts, if not for the B. A. In the Punjab, Urdu, Hindi and Gurmukhi 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 the

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. In many schools there is absolutely no provision for teaching vernaculars and students are left to their own resources. This is a state of things which deserves to be remedied.

The Association is strongly of opinion that an age limit is both unnecessary and undesirable. It is not convinced that any tangible evil has been proved to result from the absence of such a limit, while there is a clear possibility of its 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.

WITNESS NO. 21.—MR. F. J. PORTMAN, B.A., Professor of History, Government College, Lahore.

Witness said that the scheme for an Honours course described in his statement (paper No. 21 in Part II) should only be regarded as provisional. The ideal is an Honours course entirely separate from the Pass course, but so many men of large experience say that an Honours course is impossible at present, that witness has ventured to put forward his scheme as a preliminary step. The impossibility of an Honours course seems to be largely due to the impracticability of providing the necessary teaching. There is not a sufficient staff and not enough time to teach a separate Pass and a separate Honours course.

It is almost impossible for students to show any originality under the present system of examinations. They regard everything outside the text-books as a mere waste of time. Witness had always heard before he came to India that the native student is very much addicted to cramming, and believed that this was due to some fault in the native student. But he now finds that it is the result of the system more than the fault of the student. Closely connected with this is the extraordinary fewness of first class men in recent years which is also to be attributed to the character of the examinations. To take the M. A. course in History with which witness has most acquaintance, the amount to be read is about the same as that required in the case of an Honours man at Oxford in the Oxford History School, but in India the books have to be read as text-books and no questions can be asked by the examiner outside them. There should be no need to prescribe books for the M. A.; it should be sufficient to prescribe the subject. Very much depends upon the examiner. He must understand that he is examining for Honours and not for a Pass course. An Honours course does not mean the study of a greater number of text-books, but it consists in knowing the subject thoroughly, in studying authorities, and in connecting the various works. At present there is no idea of connection between the prescribed books of the M. A. course. They are not taken as parts of a whole and the student is at a loss whenever one book contradicts another. And if one teaches a subject as one would like to teach it, the students are apt to say: "What is the good of this; we have to get marks in the examinations; for this we have to know our books and it is not necessary to go outside them." It is the nature of the examinations mainly that is at fault. If any scheme for an Honours course is introduced, it will be much better for the teachers to examine.

Dr. Bourne.—Do you think that examination papers need improvement everywhere in India?

Witness.—I have not sufficient knowledge of other Universities to speak with regard to them.

Dr. Bourne.—My point is this that people everywhere tell us the same thing, that the secret is to get better papers. Why is it that in all these years during which the best men have been engaged in the setting of papers that they cannot produce better results?

Witness.—I suppose it is a matter of tradition. The examiner says "Here are a certain number of books on which I have to set questions."

The President.—What you deprecate for Honours you recommend for Pass men.

Witness.—Yes. The ordinary student who just passes forgets everything or very nearly everything of his education within a few years.

Mr. Justice Banerjee.—Might that not be improved by improving the system of examinations in his case also?

Witness.—It might be so, but I am not sure whether the ordinary student in the Punjab is capable of such improvement. There are, however, students who do want something in the way of an Honours course. Some extra incentive might be given to students to induce them to go in for the proposed quasi-Honours course. It would be possible to cause it to be publicly understood that certain appointments and so forth would depend upon the Honours degree.

WITNESS NO. 22.—MUHAMMAD SHAH DIN, B.A., Barrister-at-Law, Advocate,
Chief Court, Lahore, representing the Anjuman-i-Islamia, Lahore.

(Written statement No. 22 in Part II.)

The staff of the Law College is quite sufficient to meet the educational needs of the Province. Formerly the condition of the college was not quite satisfactory, but the staff has recently been strengthened by the appointment of a whole-time Principal, Dr. Serrell, who has already given evidence before the Commission.

Law College.

The number of students in the college is decreasing year by year. The present number is 159; consisting of 141 English and 18 vernacular students. A serious consequence is that the expenditure now exceeds the income. The maximum income, reached in the year 1899, was Rs. 36,000. In that year the number of students on the rolls was the largest ever known. In the year 1900 the income fell to Rs. 35,000. Then there was a sudden drop in the year 1901 to Rs. 22,000. In the present year it has been calculated that the expenditure amounted to about Rs. 20,000 and the income to about Rs. 15,000, so that in 1902 there will be a loss of about Rs. 5,000. The falling off in the number of students is due to the fact that there is not the same demand as there used to be for lawyers in the Province. The practice in the law courts has recently shewn a very marked tendency to decrease and therefore students who have taken their degrees in the Arts colleges are not so desirous as formerly for law degrees. The passing of the Land Alienation Act will result every year in the diminution of law cases and again the passing of the Law of Appeal, an amendment of the Punjab Courts Act, has had the effect of raising the value of the appeals which lie to the Chief Court with the consequence that many cases which used to go to the Chief Court on the appellate side, now go partly to the revisional side on which the Chief Court does not interfere on the facts but only on important points of law. There is also looming in the near distance the Punjab Pre-emption law in which it is proposed to take away jurisdiction with respect to certain cases from the civil courts and to hand it over to the Revenue courts. If this is done then so much practice will be taken away from the lawyers, because the Revenue courts do not appreciate the supposed assistance of lawyers. It is therefore to be expected that the decrease in the number of students who join the Law College will continue. The very important question therefore arises as to how to maintain the Law College on its present footing. Only recently a whole-time Principal has been appointed and unless there is a fairly large rise in the number of students on the rolls of the Law College, it will be difficult to completely occupy his time and it may be necessary to reduce the staff by dispensing with the services of some of the readers. Recently a rule was passed by the Senate to the effect that these readerships should be given only for a certain number of years and an additional reader in the Law College has been appointed for a period of one year. If the income of the college does not increase that readership will have to be abolished. At any rate the University has been doing all it can to run the Law College in a satisfactory manner.

It is very desirable that the three years' course should be reduced to one of two years and that the course on the degree side should be entirely a post-graduate course. There are two sides to the college, the diploma side under the control of the Chief Court and the degree side under the control of the University. On the diploma side the regulations only require students to have passed the Entrance Examination and on the degree side the regulations require that a student should, before joining the Law College, have passed the Intermediate Examination and that he should pass the B. A. Examination before appearing at the preliminary examination in law. If the course is reduced then no one should be allowed to join as a student on the degree side unless he has passed the B. A. This rule was recommended by the Law Faculty unanimously, and has been accepted by the Syndicate and sent to the Judges of the Chief Court for their opinion.

Law Course.

The establishment of a boarding-house in connection with the Law College is much needed. The proposal has been under the consideration of the Law College Committee for a considerable time and recently a report was called for from the Principal asking whether the establishment of such a boarding-house is a possibility. The report has already been received, but it has not yet been laid before the Committee. It is to the effect that 75 students are prepared to join the boarding-house, that the cost would be about Rs. 500 or Rs. 600 a month and that the University would have to pay Rs. 50 a month apart from the appointment of a Superintendent. Therefore if a Superintendent is appointed by the University and if he is allowed, say, between Rs. 40 and Rs. 50 a month, then perhaps the Law College Committee might have to make provision for a sum of about Rs. 100 a month in order that the boarding-house should be a success. The fee proposed to be levied by the Principal per head is Rs. 1-8-0. That does not seem to be a very large amount.

The opening of law classes in connection with Arts colleges would be a very undesirable thing because in the event of the number of law students decreasing, it would be suicidal to allow Arts colleges to start law classes independently of the Law College which is maintained by the University. The Law College could not be maintained on its present footing if this were done. On the application of Mr. Alnutt, then Principal of the St. Stephen's College, Delhi, asking for permission to start a law class in connection with his college, the whole question was very fully considered and it was decided that such permission ought not to be granted.

The Oriental College ought to be maintained not only because it is required to be maintained by Statute, but also because it supplies a very great want in the Province. The Oriental College of the Punjab University is almost the only institution which provides teachers in oriental languages in the Punjab and it also supplies other parts of India. The Hyderabad Education Department has been furnished with a number of oriental teachers from the Oriental College. Although the Oriental College should be maintained, yet it may be admitted that it needs to be thoroughly overhauled and that a searching enquiry should be made as to the sufficiency and soundness of the course prescribed and the methods of teaching. It would become much more popular if the standard of general education were raised and especially if a knowledge of English were required from the students who have titles conferred upon them. [Witness then referred to the rules on the subject on pages 109, 110 and 111 of the University Calendar.] Candidates who go up for the *Shastri* or *Munshi-Fazil* Examination should be required to pass either in the Intermediate or any higher examination of the Oriental or Arts Faculty of the Punjab University or an examination in English equivalent to the standard of the Entrance Examination, because a knowledge of English corresponding to that standard would add to the capacity of the students to acquire an intelligent knowledge of the eastern classical languages. Similarly candidates for *Maulvi Alam*, *Prajna* or *Munshi* should be required in substitution for clause (b)* on page 111 of the Calendar to pass an examination in English corresponding to the Entrance standard. A good knowledge of English is essential for advanced oriental students and the Entrance is the lowest standard that witness would accept.

So far as the diffusion of European sciences through the medium of the vernaculars goes, the readers and translators appointed by the Punjab University, in connection with the few endowments that exist, have not discharged their duties in this direction. [Witness then referred to the rules relating to endowed readers and translations on pages 340 to 342 of the Calendar.] The salaries which are attached to these readerships are almost ludicrously small, for instance Rs. 75, Rs. 91, Rs. 72, Rs. 41 and Rs. 60. The duties which the holders have to perform are set forth in paragraph 11 on pages 341 and 342. The readers are required to translate works of science or Sanskrit texts or any other subjects into the vernacular. The object is a very laudable one, but the Commission will see from the list which has been supplied by the Principal of the

* The clause requires candidates for the lower titles to pass an examination in English of the standard of the Middle School Examination.

Oriental College that only two books have so far been written by the readers who have from time to time held these posts. The other books referred to by the Chancellor were written by the teachers of the Oriental College. Sound vernacular literature can only be promoted in the Punjab by requiring the readers to perform their duties in the manner in which they are required to perform them by the rules, and it is to be hoped that the University will in future see that the rules are properly acted upon. But the salaries which are given to the readers are too small to encourage them to work. If the University could supplement the salaries attached to these readerships by allowances from their funds, perhaps the work would be performed more efficiently than hitherto. If the readers translate any works, they become the property of the University. Mr. Madan Gopal translated "Fowler's Deductive Logic," but that book does not appear on the list.

Witness next referred to the work which has been done by the Standing Sub-Committee of the Syndicate. Witness is still acting as Secretary of this Committee. Formerly the Committee was allowed an annual grant of Rs. 2,000 to cover expenses incidental to the work of supervising the preparation of books in the vernacular. That grant has now been withdrawn owing to the financial difficulties of the University. The work which the Standing Sub-Committee was doing, is a work which ought to be continued. Clause (c) of Statute No. 7 (page 37 of the Calendar) lays it down that University funds may be applied to the bestowal of rewards for approved vernacular translations, compilations, and original treatises on works of literary merit. The work is thus one on which the University can legitimately and profitably spend money and it ought not to grudge the Rs. 2,000 which it used formerly to hand over for this purpose. So far the Standing Committee has succeeded in having three books translated—"Fowler's Deductive Logic," "Swindon's History of the World," and "Ladd's Primer of Psychology," and it is only for want of funds that they have not been able to patronise original works in the vernacular. Such patronage on the part of the University is absolutely necessary for the advancement of learning and it was with extreme regret witness had to mention one instance in which they were unable to extend such patronage. The case he wanted to allude to was that of a work prepared by Maulvi Syed Ahmed of Delhi under the auspices of His Highness the Nizam's Government. The Standing Sub-Committee wanted very much to patronise that work by rewarding the author, but owing to want of funds, they were unable to carry out their wishes. Such works ought to be rewarded and the University ought to be asked to make a provision, if possible, in its annual budget for this purpose.

There ought to be two courses after the Matriculation—the ordinary Pass course and the Honours course. For the Teaching on the Arts side. Pass course there should be four subjects, three compulsory and one optional, and for the Honours only one subject on which the whole of the intellectual energies of the student ought to be concentrated.

The Senate of the Punjab University as constituted at present is a fairly Constitution of the Senate. representative body consisting, as it does, of 136 Fellows representing all classes of the community. In the interests of sound education it would not be advisable all at once to reduce this number, but means can probably be devised to reduce it gradually to a reasonable number—100 or 125. The number ought not to exceed 125. A University Fellowship is considered as a social distinction and in many cases Fellowships have been given by way of compliment. In future this ought not to be the case. Fellowships should be given as a mark of recognition of the literary ability possessed by the recipient or the deep and lively interest he takes in the cause of education. If that rule were adopted and Fellowships given on that principle, then the Senate would become a better body. Witness would decidedly be opposed to Fellowships being made terminable. The best course the Government or the University authorities can adopt is to appoint the best men in the first instance and then to leave them to do their work in the Senate for their lives.

Under the present condition of the Province, witness would hardly be prepared to recommend the election of Fellows by an electorate of the graduates of the Punjab University. The experience gained in connection with these elections in other Universities points to some very objectionable means being adopted to carry out the end in view—notably canvassing.

An important subject is the promotion of genuine University life. There is of course the Punjab University Sports Tournament, but something is wanted in addition to that, namely, a University Library, literary clubs and societies and also recreation clubs. If these societies and clubs are established, apart altogether from the clubs and societies which exist in connection with individual colleges in Lahore, University students would profit a great deal by them and a real *esprit de corps* would be brought into existence among the students of the University.

Witness is entirely opposed to the fixing of any age limit. In the first instance it has not been shown how the absence of such a limit has acted detrimentally on the cause of sound education in the Punjab. In the second place, it has not been shown that the percentage of failures in the cases of boys who appear at the Entrance under the age of 16 is greater than in the case of older boys and unless some such reasons are established it seems inadvisable to disturb existing conditions. As to the physique of boys of tender age suffering from going up for the examination at an early age, the remedy lies in reducing the courses of study in the High Schools. Some branches of study are too heavy for the students who have to go through them. Witness has also been told that the Calcutta University imposed an age limit some time ago and that after an experience of several years the restriction was given up. If it was shown that the age limit proposal did not work satisfactorily in an advanced province, it seems too early to impose such a limitation in the Punjab.

Mr. Pedler.—There is a recommendation at present before the Senate of the Calcutta University to adopt the age limit again, but it remains to be seen what the effect of that recommendation may be.

Witness.—If it is adopted in that Presidency, then the question might come up for consideration before the Senate of the Punjab University. The question did come up for consideration in the Syndicate, but there was very strong opposition to it and the Vice-Chancellor proposed that the question should not be considered further.

WITNESS NO. 23.—SHEIKH MUHAMMAD SHAH, Pleader, Chief Court, representing the Anjuman-i-Islamia, Amritsar.

(Written statement No. 23 in Part II.)

In Amritsar only the Khalsa College has hostels. The Municipal College has a hostel for its school, and boys of the College class can live in it. The Anjuman-i-Islamia School has a hostel with a Superintendent and 20 boarders.

Hostels.

Witness explained that his evidence would relate mainly to primary and secondary education. Several witnesses have said that English is not properly taught.

School teaching.

As long as primary and secondary education are not put on a sound footing, there can be no good superstructure. One suggestion has been the separation of the School Final and the Matriculation, and that the Matriculation should be made stiffer. Such separation without providing for more efficient tuition would create grave difficulties. By raising the standard of Matriculation the value of the School Final would also be diminished.

Conversation for 12 hours a week in class is not sufficient to develop the conversational powers of the student.

English.

There should be conversation classes from the 5th class in the High School in addition to reading composition and translation. In the Punjab English has not taken such deep root that parents can assist their boys to acquire English.

Syed Hossain Bilgrami.—What is the good with ill-paid native masters ?

Witness.—The headmaster of our institution is always an Englishman : the number in the class never exceeds 40.

There should be free social intercourse between teachers and students. Muhammadans have no objection to social intercourse with Europeans ; they can eat at the same table.

Some subjects should be removed to make room for English. For instance, boys know enough Geography in the Middle School ; it is not necessary to retain it up to the Entrance.

Up to the third class Persian is optional. Students never take a keen interest in optional subjects. Suddenly in the 5th class it becomes compulsory for the Matriculation. In the B.A., if a man takes up Persian, he must also take up Arabic, although he may never have studied it before. The result is, he crams the prescribed 20 nights of the "Arabian Nights Entertainment," and forgets it as soon as the examination is over.

Persian.

One objection to the separation of the School Final and the Matriculation is that headmasters must be very reliable for their certificates to be accepted.

School Final and Matriculation.

Dr. Mackichan.—The examination would be under the superintendence of the Educational Department.

Witness.—The drift of the evidence is that the School Final should be easier ; will that be the case if the Department manages it ?

Mr. Justice Banerjee.—The difference between the two examinations seems to be very slight.

Syed Hossain Bilgrami.—More English is wanted for the Matriculation.

Dr. Mackichan.—It should test the fitness to enter College.

Witness.—A better knowledge of English is required ; provision will therefore have to be made for devoting more time to it.

Mr. Bell.—Other subjects are taught in English.

Witness.—That does not give language training. The questions in the examination are confined to facts.

There is no need to separate the School Final and the Matriculation. Mere Matriculation is not a passport to Government appointments. Candidates do not appear for the Matriculation simply to get employment, and Government does not accept the Entrance certificate except for ministerial work.

Dr. Mackichan.—We have been told that only one quarter go to college. What becomes of the other three quarters?

Witness.—Appointments are not the sole aim; many are prevented from going on from poverty. All go up in the hope of proceeding to the University. There is no harm in that.

Mr. Bell.—At Amritsar you pay special attention to commercial and technical education; these are pre-eminently subjects for the School Final and not for Matriculation.

Witness.—Can they get employment?

Mr. Bell.—They are snapped up.

Witness.—In so far as I know that is not the case at Amritsar, but a School Final may be kept for commercial and clerical education.

Mr. Justice Banerjee.—Apart from that, up to the Entrance stage, the subjects are not very different; is it therefore desirable to multiply the examinations?

Witness.—No.

Dr. Mackichan.—There is no multiplication if they take only one or other of the examinations.

Mr. Justice Banerjee.—Many will try both.

Dr. Mackichan.—When it comes to 7,000 candidates the examination itself suffers.

High Schools should be represented on the Senate by managers or qualified headmasters. In the Punjab there are important sectarian institutions, which require to be represented. (It was here remarked that the position of the Punjab University with regard to school education is different to that of other Universities.)

It is important that sympathetic Assistant Inspectors of Schools should be appointed and that they should be above suspicion. An Inspector of Muhammadan schools should, if possible, be a Muhammadan. And if he is a Hindu, he should be sympathetic. Persons with *anti* proclivities should never be appointed.

There are 600 boys in the school. They are taught up to the Entrance standard. A Theological Department is attached to the school. There is an oriental side in which Arabic and oriental Science are studied. In the main school Persian and Arabic are both taught, one of them being optional. If a student takes Arabic as an optional, he must take Persian as a compulsory subject and *vice versa*. Persian is preferred as the easier subject. Annual prizes are given. In the Theological Department the teaching is in the old style. In the main school Arabic is taught in the modern style.

WITNESS NO. 24.—Mr. M. G. V. COLE, M.A., Principal, Khalsa College, Amritsar.

(Statement No. 24 in Part II.)

An institution only preparing for half the University career can hardly be called a college. Its students experience great difficulty when they go to another college after passing the F.A. and come under different men and a different system. In the F.A. Colleges, especially when they are connected with schools, the students are treated like school-boys. No more colleges should be recognized up to the F.A. This will prevent the establishment of some colleges, but what they give is not University education. Witness would not withdraw affiliation from F.A. colleges that have already been recognized. His institution contains classes from the primary school right up to the B.A. and he finds it difficult to make suitable rules. The college has seven students in the 3rd and 4th years', five in the 3rd year and two who went up for the recent examination. They both failed. The college was recognized up to the B.A. in 1899. There are eight students in the second and twenty in the first year.

It is very difficult to arrange for courses in all subjects in a college with a small staff. Perhaps one year students want Mathematics and another year Science. Last year two students wanted Mathematics and one Science; it was not possible to teach both and the Science man had therefore to be sent away. The institution has both Mathematical and Science teachers, but the double college course could not be fitted in with the general arrangements. Syed Hossain Bilgrami suggested that the college should follow only one course. Witness replied that that would not be possible at present; the college is feeling its way.

The fees are low and neither the school or college pays its way. The college is supported by endowments. Sikhs pay at half the rate of other students; the Sikhs' rate is Rs. 2-8-0 for the second year and Rs. 4 or 5 for the B.A. classes. The college receives no Government aid. The school fees vary from one anna to one rupee a month. There are so few candidates that there is little competition for the scholarships. The recommendation of the Principal is accepted.

The Sikh students do not stay long in college; they mostly want to take up Engineering. Some go to Roorkee or take up surveying after passing the B.A.

Religious education is compulsory and no boarders but Sikhs are admitted to the hostel. The institution was founded largely for the sake of the Sikh religion. The boys are supposed to read *Gurmukhi*, though in fact they take little or no interest in it. Their interest is concentrated on examination subjects.

Difficult explanations have to be given in English, because the students find it very difficult to understand spoken English. The remedy is to have an Englishman to teach in the school department. Witness cannot spare the time. The senior boys who play games understand much better than those who have not had this opportunity for conversation. There should be conversation on general subjects several times a week. It might be well in the case of boys who are determined to go in for a college career to make them pass an examination for the special purpose of showing that they will be able to understand what they are taught. Witness has not, however, devoted attention to this question.

The only remedy for the defects of isolated colleges is concentration in University towns.

Concentration in University towns.

WITNESS NO. 25.—Mr. J. G. GILBERTSON, M.A., Superintendent, Mission High School, Lahore.

(Written statement No. 25 in Part II.)

The connection between the schools and the University should be severed, leaving the former absolutely under the control of the Education Department. At present they are under double control. As far as their working is concerned, they are really in the hands of the University and not in those of the Department because the teachers' credit and the grant-in-aid depend on the results of the University examinations. The teaching given is not education. There is a great deal of cramming but not to the extent to which it has been said to exist. The use of the vernaculars is too free especially in the High School where all instruction should be in English. The temptation is very great for the teachers to explain matters in the vernacular, because they can convey their meaning in that language much more readily. The teachers try to go through their courses as frequently as possible. In some subjects witness has known them go through the course as many as five times in a year. This is not education. The best teachers are given to the Secondary Department and the Primary Department has to rest satisfied with less qualified men.

The greatest evil lies in the number of private schools that exist throughout the Province. They are the outcome of the University Examinations. They are detrimental in every way. They interfere with school discipline, and underbid the recognized schools by charging low fees and taking away the boys which the latter have refused to send up for examination. They are poorly staffed and push their pupils through in the best way they can. They are not recognized by the Department and yet they are recognized by the University. If the University were to make a rule that no school shall be recognized unless it comes up to a certain standard, they would cease to exist. Witness' contention is that if the Entrance Examination as conducted by the University were done away with they would then also cease to exist. The teachers in the recognized schools would then have a much better chance of imparting real education. They would not be induced to go several times over the course, nor to give explanations in the vernacular, and they would present a better class of students to the colleges. The Code rules are much better than the University regulations.

The inferior method of teaching adopted to prepare boys for the University examinations is greatly due to the teachers' desire to get credit, for passing a large number of boys. The teachers and not the head masters regulate the work. In the Lahore Mission School five teachers are engaged in teaching the Entrance class; they teach the five different subjects of the examination. Because of this evil proper attention is not paid to the primary department. Head masters have told witness that they would consider it a degradation to teach in the primary school. That is the general idea. The Entrance Examination is the test by which the schools are judged, and it ruins education.

Mr. Justice Banerjee.—Is not that the fault of the teachers.

Witness.—We are gradually getting better men and we are trying to get rid of the evil practice of teaching so hurriedly as to run through a particular course four or five times in a year. The evil began before the present era of trained teachers, and it is difficult to get rid of its weight.

There need be no difference between the school final and the present Entrance, but schools should not be responsible for training boys for the latter. On leaving school they will not however be ill equipped for it. Schools or colleges might have preparatory classes for them. Coaches may arise to take charge of them. If an educated boy is put in the hands of a crammer it will do him good, although it would ruin an uneducated boy for life. No change in the present nature of the Entrance examination would cure the evil. The

mischief is that the Government attaches a value to the examination and the University conducts it. Another aspect of the evil is the rivalry it creates between schools. That in itself is not wholesome and it injures discipline in the schools. Witness does not object to payment by results but to payment by the results of the examinations conducted by the University. For entrance to college there should be an examination by the University or no examination at all. It would not be desirable to allow each college to hold its own examination, because there would be no standard of education; some colleges would admit anyone. In the course of time when the schools have had a reasonable chance of doing their work, no special preparatory classes will be needed; for the boys will be sufficiently educated to study by themselves and for themselves. They will know how to study. At present they do not. They merely commit facts to memory. The examination itself is not in special need of improvement. It does not lead to cramming so much as the school system. Besides cramming does not exist to an alarming extent. It is the private schools that are ruining the boys. It is they who are to blame for the alleged unfitness of the students. Badly manned and badly staffed as they are, they compete with institutions of a better class and seriously interfere with their discipline. There are four such schools in Lahore. Witness does not know what brought them into existence, but it is the Entrance examination that keeps them alive.

The Middle School Examination.

The Middle School Examination is open to much the same objection as the Entrance.

It has been said that the bad English of the boys who go from the schools to the colleges is largely due to their being taught by badly paid teachers. That is certainly not the experience of witness. Last year witness visited the five high schools of his Mission. The teachers are well paid and efficient. The head masters get Rs. 100 to Rs. 150, and there is hardly a single teacher who is paid less than Rs. 15 a month.

English teaching.

The Training College has done excellent work in producing good and efficient teachers. There should be a rule that all candidates coming up for the Normal College Examination should be required to have had at least three months' practice in the model school in order that they may be able to more efficiently help the Head Master. The pay of Rs. 15 is for men with the junior vernacular certificate. If they are well qualified they soon rise to higher pay.

Training College.

There is much underselling. The objection is not so great in the case of endowed schools but witness would prefer that even such schools should be compelled to receive fees on the same basis as other schools.

Underselling in private schools.

Dr. Bourne.—There are instances in which schools have charged fees for the purpose of the accounts and then returned them to the students.

Witness.—Such schools should not be recognized, and instances of that sort do not affect the principle.

WITNESS No. 26.—Mr. Harkishen Lal, B. A., Barrister-at-Law, Advocate, Chief Court, Lahore, representing the Government College Graduates' Union Lahore.

(Written statement No. 26 in Part H.)

Witness exhibited a diagram showing by curves the percentage of passes

Diminution of the percentage of passes.

for a number of years in the B.A., Intermediate and Entrance Examinations. He pointed out that since 1894 the percentage had in all cases declined; before that there were great fluctuations. He is not aware what is the reason of the decline, but it accords with the general estimate of the candidates. Witness has been told that the class of undergraduates has deteriorated. The President suggested that this may be due to the larger number of candidates. Formerly when a man sent up one of his five boys because he was clever, a man of the same class would now send up all five, because it has become the custom. Witness said that he did not think that this is the explanation. No new class has been tapped and the capacity of individual boys is not tested before they go up to the Entrance examination. If the reason is that formerly more attention could be given to the individual forming the smaller classes, than that is an evil to which a remedy can be applied. In reply to Dr. Bourne witness said that he considered that the present percentage of passes (about 50) is too low. There is no reason why 70 to 75 per cent. should not pass. Witness thinks that the quality of education may have deteriorated, there are more examinations and more rush and hurry.

In schools more attention should be paid to the study of languages; this was formerly the case. Now there is too great a multiplicity of subjects in the lower classes.

School teaching.

There are too many examinations—class as well as public examinations. Boys are always being worked up for examinations.

Multiplicity of examinations.

Private as well as public examinations are a strain. It is only a question of degree. Herein lies the main evil. All examinations are not to be condemned but their too great frequency is open to grave objection. The Middle School and Intermediate Examinations might be abolished.

There should be more teachers and smaller classes. Boys should in the first place be well grounded to their vernacular and then they should study English.

School teaching (continued).

In witness' time they had too much mathematics and history and had to spend too much time in class—6 hours a day. There were five subjects in the

Excess of class work.

Intermediate and four (with sometimes an optional) in the B. A. course. The attendance in class should be much shorter. Witness would adopt the Cambridge rule of three hours a week in each subject, *i.e.*, one hour on every alternate day.

Witness would not encourage continuous application to study from the early morning. Schools and colleges are opened at 6 o'clock in the morning in the summer,

Hours of study.

and boys may be seen coming from their homes or boarding houses, before they have had a bath, with a book of history in their hands and reading their lessons possibly from the point where they had left off on the previous night. The result is that starting with a bad morning the whole day goes badly with them and they cannot possibly be in a proper frame of mind for study. In the hot weather if schools were opened at eight or nine in the morning it would be much better. In witness' younger days the practice was to go to school in the morning, come home at 10, and go back to school at three and work there till five or six. That system still prevails in zillah schools.

There is no system in the schools for regulating home tasks. It may happen that the professor in Mathematics gives ten examples to be solved, the pro-

Home tasks.

fessor of English wants some translation to be done, and the professor of history also gives a lesson to be studied; the result is that the boys have not enough time to do all the work. If the classes in each subject were held on alternate days this evil would perhaps be removed. There should be two lectures a day for an hour each so that the students may have sufficient time for thorough study.

In the vacation also such heavy tasks are given that the students have very little time for extra reading. Each professor thinks of his own subject only.

The study of the vernacular should be left to the schools but in the larger examinations the translation from classical languages should be into the vernacular.

Vernacular languages.

Syed Hossain Bilgrami suggested that in the M. A., one course might be a classical with the corresponding vernacular language. Witness said he would prefer a thesis. At present gentlemen in the Punjab can hardly write a letter in the vernacular. Most of their private correspondence is done in English. They hardly know their vernacular sufficiently to express their ordinary thoughts.

Witness is in favour of Romanised Urdu, Hindi and Sanskrit characters. It will not be difficult for students to pick up this system.

Syed Hossain Bilgrami.—I think you speak from your Cambridge experience.

Witness.—Yes. I am not considering the merits of the various systems of writing. What I say is that you must have one workable character.

Religious and Moral Instruction.

Education in Sanskrit and Arabic should be improved and students given instruction in the religious books.

Political Economy.

This subject does not receive proper attention at present. It ought to be more generally and thoroughly taught.

Referring to the B course in mathematics and science (page 159 of the Calendar) witness described an anomaly of the examination rules whereby two candidates might

Examinations.

answer the identical questions in identical words, and yet one might pass and the other fail; the reason being that that one might have taken a certain subject as "optional," in which case 33 per cent. of the maximum marks is required for a pass, and the other have taken the same subject as "compulsory" in which case 40 per cent. of marks is required.

A small percentage of grace marks should be allowed and students who have failed in one subject should be re-examined

Grace marks and re-examination.

in that subject only. This supplementary examination should be six months after that in which the student failed. In the meantime his promotion should not be stopped. Re-examination might be dispensed with if the candidate was distinguished in two subjects and only just failed in the third.

Several witnesses have supported the tutorial system. Witness agrees with them and would go a little further and say that

Tutorial system.

there should be a similar system in schools.

There should be teachers to look after the moral welfare of the students.

On the question of fees witness' idea is that there should be no competition.

Fees.

The fees in the Government College are too high. Witness knows of boys who would have gone to that college but for the high fees. The parents in certain cases have no knowledge of the value of education and cannot decide on the merits of the instruction given in different colleges; their first consideration is the fees. The result is that boys are deprived, on account of no fault of their own, of the opportunity of receiving a good education by being sent to colleges where the fees are small and instruction poor.

Scholarships.

Scholarships are very few as compared with the number of boys.

The B. A. course should be reduced to three years; the M.A. course extended to two years, and the Intermediate examination abolished. This will give

University course.

more time for specialization and will encourage the foundation of a Teaching University. The smaller colleges will confine themselves to the B.A. and will not have to provide for the highest form of education. Combined lectures for the M. A. course could be introduced in Lahore.

The Vice Chancellor has said that the sectarian spirit promotes the foundation of private colleges. This should not be pushed too far. Inter-collegiate lectures will to some extent counteract the sectarian tendency.

Sectarian College.

Very few students at present go in for a specialized M. A. Course. The system prepared by witness will encourage them to do so, while it may slightly lower the standard of the Pass B. A. degree. It will not be much lowered. Time and anxiety will be saved by abolishing the Intermediate Examination.

M. A. Course.

The Government of India scholarships should be utilized solely for the recruitment of the Indian Educational Service.

Government of India scholarships.

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