

GUIDANCE SERIES No. 13 (continued)

Donated by Sh. D. P. Nayar

ON

BUSINESS INDUSTRIES EDUCATION DAY

PART II

(Continued)

Issued by

**THE DEPARTMENT OF PUBLIC INSTRUCTION
STATE BUREAU OF EDUCATIONAL AND VOCATIONAL GUIDANCE
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FOREWORD

Educational and Vocational Guidance has long been recognised as an essential aspect of Secondary Education in many advanced countries of the world. In our country, however, we are just making a beginning. With a view to organise well-planned guidance programme in schools, the State Government has set up the Bureau of Educational and Vocational Guidance since 1959.

An important aspect of any effective guidance programme is the provision of an efficient Information Service. Therefore, as a part of this programme, the Bureau has been collecting educational and occupational information and publishing them in the form of Guidance and Careers Information Series. These booklet will be very useful in dissemination of information about the various educational and occupational opportunities available to young pupils.

Dissemination of information is something more than mere passing on some booklets. Especially to High School pupils, right type of information, given at the right time will be more useful to plan their educational careers, thereby making education more purposeful. - To provide this kind of technical assistance, the Bureau is organising Career Masters' Training Programmes for High School teachers. So far the Bureau has organised 21 Career Masters' Training Programmes.

The participants of the 21st Career Masters' Training Programme have done a good job for collecting useful information about various industries and business organisations in and around Bangalore, while learning the techniques of collecting information.

Such booklets should come in great numbers with wider coverage.

S. V. JEVOOR,
Director of Public Instruction.

INTRODUCTION

“On Business Industries Education Day” was a new theme that we placed in the hands of our readers through our publication ‘Guidance Series—No. 12’, dated November, 1967. We are happy to note that it has been received with great enthusiasm and we thank all those who have expressed appreciation and encouragement.

The participants of the 21st Career Masters Training Programme held at Bangalore have continued the same work and we have one more publication on B.I.E. Day containing information about 9 different industries. The participants spent one full day on 23rd November 1967 in the respective plants. Considering the short time at their disposal for discussion, visit to the working spot, preparing the report, etc., it is evident that their report or the study of various jobs cannot be exhaustive. A glance over their reports (included in this booklet) will indicate that they give only a brief overview of the respective plants. They are prepared and are scrutinised and approved by 37 High School teachers when each group presented its report to the whole group on 24th November, 1968. Therefore it is hoped that the material is suitable for presentation to High School students.

To avoid duplication only information aspect of the B.I.E. Day has been included in this Booklet. We request the readers to treat this publication as a continuation of the previous publication ‘On Business Industries Education Day’. Constructive suggestions for improvement in this direction are quite welcome.

We thank all the Industries and Business Organisations who have joined hands with us in enriching our educational programmes.

BANGALORE, }
January 17, 1969. }

DR. K. P. NAYAK,
Senior Assistant, D.P.I. (Guidance).

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MYSORE PORCELAINS LTD., BANGALORE-12

History of the Occupation :

Ceramics is the oldest industry known to man. Pottery making in this country dates back to nearly 4,000 years ago. As industries developed, ceramics also developed in its various branches. One of the important branch of ceramics is Insulator manufacture.

The Government of Mysore started an Industrial Concern called " Government Porcelain Factory " at Bangalore, thirty five years ago. Starting with manufacture of low tension insulators, it developed and gradually took up to manufacture of high tension insulators. In collaboration with NGK of Japan, the factory took rapid strides of progress from 1954 to date, and has been the biggest insulator producing factory in India. Since April 1967 the concern has become a Joint Stock Company under the name of " Mysore Porcelains Limited ".

Nature of work :

The work is organised on large scale under a Factory using modern plant and machinery. The Factory produces a great variety of insulators and in different ranges, upto 220 kv.

Division of work :

The flow chart, that is the sequence of operation is as follows :—

(1) Clay washing section, (2) Grinding Section, (3) Manufacturing Section, (4) Firing Section, (5) Assembly Section, (6) Testing Section, (7) Packing Section, (8) Transport Section.

(ii) *Specific tasks performed :*

(1) There is a clay washing plant in the factory. Clay available in nature contains sand *i.e.*, quartz, sand is separated and pure clay is collected.

(2) In the Grinding Section, various ingredients such as clay, quartz powder, etc., are mixed in proportion in the ball mills to make homogeneous body and it is called "*Clay Slip*".

(3) The clay slip is filtered to remove excess of water by passing through filter press under pressure. The filtered cake is removed from filter press and stacked on wooden pata. This is called as cake.

(4) The cakes are fed to extrusion machines and clay blanks of required sizes are got. This also makes body uniform and removes all the air bubbles.

(5) The extruded blanks are shaped to different sizes in the jiggers, lathes, etc., shapes are as per the drawing.

(6) After shaping, they are dried in humidity controlled dryer to remove mechanically combined water. The dried articles containing less than 1 per cent moisture is glazed and fired in Tunnel kiln.

(7) The fired insulators are sorted, and the good ones as per standards prescribed, are taken after testing them, physically, mechanically and electrically.

(8) The insulators are then assembled with metal parts. Cement and quartz are used to assemble the metal parts.

(9) The assembled insulators are again tested for 150 per cent of the working loads to ensure safety for use 100 per cent testing is done.

(10) The insulators are then packed in wooden crates of proper sizes and despatched in lorries to destinations either by rail or road.

(iii) *Tools, Machines, etc., required :*

The manufacture of insulators require a number of modern machinery and tools. A good portion of the plant and machinery in Mysore Porcelains Ltd., is imported from Japan.

1. Ball Mills for preparing body mass.
2. Filter presses for obtaining clay cakes.
3. Extruding machines for blank extrusions.
4. Various kinds of wheels, Jiggers and lathes for the manufacture of insulators.
5. Machines to glaze the insulators.
6. Tunnel kiln for firing insulators.
7. Testing laboratory to test the insulators for impact, Torsion, Thermal and Electrical.

The workers use a number of tools in the several processes of manufacture.

III. No. of workers engaged ; .. Workers : 1,224 + Office staff : 299
1,523 (including 300 Casual labourers).

Qualifications ;

- IV.
- (i) Age .. Age range for entrance .. From 18 years age to 25 years of age.
- (iii) Age range for retirement .. 55 years
- (iii) Sex .. Both the sexes are employed.
- (iv) Special physical, mental social and personal qualifications. For workers no special qualifications are called for generally. An individual of average health, strength and mental capacity can join and pick up work. For supervisory work, a person should have passed atleast a diploma in ceramics or other branch of engineering required for the purpose.
- (w) Special skills essential for performance of the job. The manufacture of insulators from blanks is a highly specialised job. It requires dexterity and skill in operation of the special machines installed for the purpose. This skill and high standard of performance is obtained by long practice and absorption of technical instructions given from time to time by experts.

1. *General Education.*—The minimum desirable level of general qualification is S.S.L.C.

2. *Specil Training.*—Job training for respective jobs. Diploma for Supervision in various branches.

3. *Additional Training.*—Practical training is available under the apprenticeship scheme.

4. *Training Centres.*—The various factories in the country. Each factory is compelled by law to take a certain number of apprentices for imparting training, every year, under the Apprenticeship Training Scheme, Act. Trainees under the scheme are taken.

5. *Experience.*—Experience is gained according to service and application to work.

VI. *Method of Entering :*

1. *Recruitment.*—Direct application from the Employees relations.

2. *Employment Exchange.*—Candidates who have registered themselves with Employment Exchange are called for interview, tests, etc., for recruitment to clerical and supervisory cadre.

Whenever workers are required, notification is made to that effect on the Notice Board of the Factory to that effect. Candidates are interviewed and suitable persons are recruited.

3. Competitive examinations.

4. Service commissions.

5. Apprenticeship.

6. *Other methods.*—For posts of Senior Officers for Direct recruitment, advertisement is issued in important news papers calling for applications. The applications received are studied and candidates who seem suitable, are called for interview before a committee consisting of the top executive, technical and administrative persons of the company.

VII. *Apprenticeship facilities, duration, stipends, etc. :*

Apprentices are taken as per the rules contained in the apprenticeship act. The number of apprentices to be recruited is fixed by the labour Department from time to time. It is generally as under :—

Three Moulders, 2 Wiremen, 1 Electrical, 1 Turner, 11 Blacksmith, 3 Fitters. There are two kinds of courses of apprenticeship. A short term course lasting for six months. Each apprentice gets a stipend of Rs. 40 p.m. under this course. The other is called the full term course, extending to three years. Each apprentice under this course gets the following rates of stipends :—

For First six months	..	Rs. 40 p.m.
Next six months	..	Rs. 50 p.m.
During second year	..	Rs. 60 p.m.
During third year	..	Rs. 70 p.m.

VIII. *Advancement :*

Rate of Progress.—Each job in the factory is classified under job classification, A, B, C, D and E grades. A grade consists of fully skilled workers who get the highest wages rates. E grade consists of workers who are recruited and are unskilled. As and when a worker picks up work and gets experience, he qualifies himself for the next higher grade and whenever vacancies arise in the higher grades, he is promoted to it.

Mode of progress.—Each job has a time scale with a minimum and maximum amount. A worker earns one increment in his grade for each year of completed service, and in this way, progresses in his scale.

IX. *Earnings :*

1. *Beginning Salary*—

A Special	Rs. 130-8-170-10-200
A Grade	Rs. 100-6-130-7½-175
B Special	Rs. 100-6-130-7½-160
B Grade	Rs. 90-5-100-7½-145
C Special	Rs. 85-5-120
C Grade	Rs. 80-4-100-5-110
D Grade	Rs. 50-5-75
E Grade	Rs. 30-2-50

2. *Allowances.*—D.A. and H.R.A. are being paid at the existing rates fixed by Government to its employees.

3. *Bonus.*—The factory has developed a scheme of incentive bonus to enthuse workers to achieve higher production and secure maximum recovery. Profit bonus is paid according to a prescribed scale for profits earned 5 per cent and above.

X. 1. *Pension :*

2. *Insurance and Provident Fund Scheme.*—The company has a Provident Fund Scheme as prescribed in the Provident Fund Scheme Act. The recovery is 8 per cent of the gross earnings of each employee, every month.

3. *Co-operative Societies.*—The Factory has a Consumers' Co-operative Society.

4. *Amenities.*—The factory has all the amenities schemes prescribed under the factory act, like First Aid, Canteen, Creche, etc.

5. *Housing*.—It is in correspondence with Housing Board in this respect. For the present there are limited quarters.

6. *Accident benefits*.—As per the Workmen Compensation Act, subsequently as per E.S.I. Scheme.

7. *Transport*.—The company gives cycle advances to workers in batches of 200 every year; For those who are getting a basic salary of over Rs. 250 p.m. motor cycle purchase advances are allowable. It is located in the city Area, which has got an approach from all corners through city buses.

8. *Medical aid*.—The employees earning Rs. 400 and less p.m. come under the Employees State Insurance Scheme. They get free medical consultation, medicine, hospitalisation and cash benefits under this scheme. The factory also maintains a dispensary in its premises to attend to emergent cases.

9. *Rewards*.—Employees who give practical suggestions to increase or improve production, economise expenses; etc., are considered and if their suggestions are adopted, they are given rewards. Sri V. A. Krishna Murthy, who gave a good suggestion to substitute an indigenous material for the electric drying, got a cash award of Rs. 100. A group of workers in the strains manufacture section got a cash award of Rs. 100 for having attained a very efficiency of work of 95 per cent.

10. *Punishments*.—These are governed under the Standing orders.

11. Condition of work :

(i) Hours 8 A.M. to 12 NOON and 12-30 P.M. to 4-30 P.M.

(ii) *Shifts*.—The general shift is between 8 A.M. to 4-30 P.M. with $\frac{1}{2}$ an hour interval between 12 NOON and 12-30 P.M. The slip house and the kiln section work in

three shifts 6 A.M. to 2 P.M., 2 P.M. to 10 P.M. and 10 P.M. to 6 A.M. Certain sections work two shifts and a few sections work three shifts.

(iii) *Regulations.*—The concern comes under the factories Act, and Regulations.

(iv) *Union and labour laws.*—There is a full-fledged union in the factory. Some of the staff have a separate union.

(v) *Regulation of service.*—The service is regulated under the work service regulation of Government of Mysore.

XII. *Supplementary information :*

Class I Officers.—The Works Managers, The Secretary The Financial Manager, The Accounts Manager—Cost Accountant.

Class II Officers.—The Assistant Works Managers.. The labour Welfare Officer.

The works Managers may be a graduate in Mechanical Engineering with a diploma in ceramics or a ceramics graduate. The Secretary must be a graduate with a pass in the Secretary's Examination. The Financial Manager may be a Chartered Accountant. The Accounts Manager must be a cost Accountant.

Scale of Pay :

Class I Officers—

Rs. 450-35-800-40-1,000

Class II Officers—

(1) Rs. 250-25-550-30-700

(2) Rs. 250-20-350-25-500

Ministerial Class :

Rs. 80-5-100-8-180 EB 10-280

Menial :

Rs. 70-3-100.

**KIRLOSKAR ELECTRIC COMPANY, LTD.,
BANGALORE**

The Kirloskar Electric Company is an engineering industry engaged in the manufacture of transformers, Electric motors, Alternators, Welding generators, Control equipment, etc. It was established in Bangalore in 1947 and is in the Kirloskar group of companies.

1. The following are the types of skilled and semi-skilled persons employed by the company in their shops :—

(a) *Rotating Machines.*—Fitter—Tool room, Die and Punch, Assembly, Maintenance, etc., Turner—Centre lathe, Turret, capstan, Horizontal and vertical boring, Jig borer, etc., Miller—Grinder—Cylindrical, Surface, Tool and cutter, etc., Shaper, Assembler—Core, Final assembly, etc., Setter—Press department, Turret, etc., Machine Operator Balancing, Notching, Shearing, Punch Press, Radial drill, Coil winding, Gear shaping, Gear hobbing, etc., Miscellaneous—Electrician, Maintenance Mechanic, Planner, Dipper, Painter, Packing case maker, etc., Inspectors and Inspection Assistants, Supervisors, Group leaders, Assistant group leaders, etc.

(b) *Transformers.*—Markers, Machine operators—Shearing, radial drill, etc., Setters, Welders, Assemblers—Core, tap-switch, etc., Insulation shop assistants, Coil winders—LV and HV, Transformer erectors and tankers, Inspectors and Inspection Assistants, Supervisors, Group leaders, Assistant group leaders, etc.

(c) *Foundry.*—Pattern makers—Wood and Metal, Moulders, Core makers, Cupolaman, Chippers, Carpenters, Blaksmiths, etc.

2. In addition to the above the following categories of persons are employed for the design, sales, administrative

and other departments. Graduate engineers, Diploma holders, Draughtsmen, B.Sc. Graduates, Stenographers, Typists, Clerks, Store keepers, Attenders, Messengers, Watchmen, Drivers, etc.

3. *Training Centre.*—There is a training centre which imparts training at various levels to the employees old and new. It also offers a number of courses to matriculates and Science graduates who wish to join an industry and learn some trade.

There are at present about 2,000 employees. There is a good canteen, providing food at low cost. At present the factory works in two shifts ; from 7-30 A.M. to 4-15 P.M. and 4-15 P.M. to 12-45 A.M.

GOVERNMENT SOAP FACTORY, BANGALORE.

The factory has its own history which progressed with many difficulties and checks. The factory started in the year 1918 with the production of 100 tons per year, aiming to make 'TOILET SOAP' and put on the market with the name of 'MYSORE SANDAL SOAP'. This object was successfully achieved and the public took to the new Sandal Soap kindly and began to take it. Production gradually increased as a result of the swadeshi movement and also improved in quality as it related 500 tons in 1950, 1,500 tons in 1962, and 2,293 tons in 1966-67.

The Government expanded the factory in two stages, I stage in 1950 and completed in 1952. II stage began in 1954 to meet the great demand in the market for Mysore Sandal Soap.

The Government of India has sanctioned the Machinery licence to produce annually 6,000 tons of Soap, 2,240 tons of Glycerine that is the byproduct of Soap Industry.

The old factory building was insufficient to meet the need, so in the year 1957 a new modern building raised its mew head, with new plant and machinery installed, the production increased from 500 tons in 1950 to 2,293 tons in 1966, and sales from Rs. 11 lakhs to 1.70 crores and profit from 5 lakhs to Rs. 15 lakhs. Glycerine is also manufactured the quantity being about 60 tons valued Rs. 2.70 lakhs in 1966.

The factory's progress was limited by the availability of installed capacity and to overcome this, a new automatic Toilet soap plant has been installed and commissioned to service.

The following are the other products of the factory :—

- (1) Mysore sandal soap
- (2) Mysore lavender soap
- (3) Mysore Jasmine soap.
- (4) Mysore Carbolic soap
- (5) Rosin soap
- (6) Textile soap
- (7) Incentifidal soap
- (8) Fairy pomade
- (9) Brilliantine
- (10) Quick Fix
- (11) Mysore Washing Bar and flakes
- (12) Mysore liquid soap.

All the raw materials used in the manufacture of soap are subjected to careful tests in the well-equipped electrical laboratory of the factory by highly qualified scientists.

The products of the factory are sold through agents. Most of the products are exported to *U.S.A., Canada, E. Africa, E. Indies, Arab countries, U.K.* and other *European countries*. And efforts are also being made to manufacture Mysore Sandal Soap in U.K. for sale in U.K. and other European countries with the collaboration of U.K. firms.

The labour strength is	..	239
Staff is	..	60

For the labourers no special qualification is needed. At present for new entrants S.S.L.C. is the required qualification.

Employment is open to both sexes. Women labourers are mainly for packing the soap cakes.

Age limit for entry is 18 years and retirement age is 55 years, and it may be extended on production medical certificate further for 3 years.

No special physical, mental, social and personal qualification is needed, if he is fit to turn out the machines or to transport the goods. Special skill is required for boiling purpose only. They are trained by the experienced labourers in the factory.

The superior employees are selected by Public Service Commission and through employment exchange also.

There is no apprenticeship facilities. But they are giving training for out of State trainees charging Rs. 35 and free training for local people.

The salary of the workers are given according to Government scale on the basis of nature (category) of work. Dearness Allowances and 4 months bonus per year are given besides incentive bonus given once in 3 months.

The schemes on pension, insurance and provident fund facilities are quite satisfactory. Eight per cent of the salary is contributed by the (Government) factory towards provident fund.

The factory has a banking co-operative society and does not provide housing facilities. Medical facilities are not provided to those whose salaries are more than Rs. 400 p.m. The others have the facilities on one covered by the employes State Insurance Scheme. Rewards are given to encourage the labourers. Accident benefits are given to the employees.

Every worker works a total of forty-eight hours in a week. Shift system is followed. There are three shifts of 8 hours each. Workers during night shift are supplied with free coffee from the canteen. Factory has its own canteen which is maintained and subsidised by the workers and by the Department.

There is free supply of soap to the workers consisting of 8 oz of washing soap per week, and one cake of sandal soap per month. Annually Rs. 300 is being granted for sports and recreation by the factory.

Factory has its own creche for the benefit of women employees. All employees are provided with two sets of working clothes per annum.

The factory has the following staff :

TECHNICAL AND SUPERVISORY

1.	General Manager	..	1
2.	Superintendent of Production and Development	..	1
3.	Chief chemist and works Manager	..	1
4.	Technical Assistants	..	2
5.	Works engineers	..	2
6.	Senior chemists	..	2
7.	Chemists	..	8
8.	Assistant Foreman (Production)	..	1
9.	Assistant Foreman (Mechanical)	..	1
10.	Works Assistant	..	1
11.	Shipping supervisor	..	1

ADMINISTRATIVE AND MINISTERIAL

1.	Administrative Officer	..	1
2.	Accounts officer	..	1
3.	Staff members		36

The raw materials used in making soap are : Coconut oil, Ground nut Oil, Mohwa Oil, Rosin and Caustic Soda. The factory imports Tallow and palm oil from Australia, Malaya and E-Africa respectively.

The indigeneous perfumary raw materials are :—

Sandal wood oil, Vetivert oil, Ionone, oil, Musk Xylol patchonti oil, Geraniol, Musk Ambette, etc., Most of these oils are prepared in India and some of them are imported from other countries.

The factory is running (working) on profit condition under able guidance and has a bright future and good employment poten

INDIAN OXYGEN LIMITED, BANGALORE-22.

Indian Oxygen Limited was established in Bangalore during the year 1939. The Head Office is situated at Calcutta, West Bengal and a number of branches and sub-branches are spread all over India. It was formerly known as the Indian Oxygen and Acetylene Company (Private) Limited, but with it becoming a Private Limited Company in the year 1958, its style was changed to its present one. The British Oxygen Company Limited, London, has the major share in the Company.

The main object of the Company is the manufacture of Industrial Gases like Oxygen, Dissolved Acetylene, Nitrous Oxide and Nitrogen Gases. In Bangalore, Oxygen and Dissolved Acetylene are the main products. This is an expanding industry in view of the industrial development of our country.

The process of manufacture is as follows:—

Oxygen can be had from water as well as from air. Since it is expensive to separate oxygen from water they use air. Air is sucked by a pipe and it is purified. It is condensed into liquid in condensers kept for the purpose. By a process of expanding the air from a high pressure to a low pressure, the temperature is brought down. Since individual gases have got their own boiling point, Nitrogen and other gasses are separated. Oxygen becomes liquid at a temperature of -183°C . Moisture contained in liquid oxygen is absorbed in an absorber and pure liquid oxygen is collected in the condenser. Thereafter, it is stored in cylinders as gas. Oxygen is useful for scientific, industrial, commercial and medical purposes.

The permanent employees of this branch are 103 in number, out of which 66 are on productive and other side, the rest are on the Administration. Other workers are engaged on temporary basis as and when required.

There are different departments like Administration, Gas Sales, Equipment Sales, Accounts, Cylinders, Stores and Commercial.

The minimum pay is (Basic) Rs. 38 and ranges upto Rs. 500 depending upon the nature of work and the classifications.

A peon gets a salary of Rs. 195 (Grade Rs. 38-2-56/EB-3-65) *plus* dearness allowance—minimum Rs. 157) per mensem.

Supervisor 'A' Grade Rs. 260-20-400/EB-20-500.

Supervisor 'B' Grade Rs. 180-15-270/EB-20-390.

Stenographer S. No. 1 Rs. 160-12-50-210/EB-15-375.

Stenographer S. No. 2 Rs. 110-7-50-125-10-175/EB-10-215-12.50-240.

Jr. Assistant Rs. 160-12-50-210/EB 15-375.

Clerks Rs. 85-7.50-115-10-165/EB 10-265.

Dearness allowance is paid to the employees (graded staff only) according to the Cost of Living Index Figure published by the Labour Department.

Engineering and Science Graduates as well as Diploma Holders are entertained. Preference is given to Honours Students. In the Clerical side S.S.L.C. is the minimum qualification required.

At present no lady candidates are employed.

The candidates are entertained through Employment Exchange. In case, suitable candidates are not available the posts are advertised and deserving ones are employed. One important criteria for appointment to be brought out here is that on no account a de-meritted candidate is appointed. Only one who has scored more than 75 per cent of marks, is given the opportunity. The test is conducted by the Administrative Officers.

The rate of progress and pay is good depending upon the service and experience. During the year 1964-65, 17.5 per cent of the total emoluments was given as Bonus. Insurance is not compulsory. Provident Fund at the rate of 8 3/1 per cent of their total emoluments.

There is a Credit Co-operative Society and a Canteen for the benefit of the employees. The workers are provided with medical aid. Merit Rewards are given to 200 cent of the employees every year, for their efficiency, conduct and attendance. There is a Sports Club. The friendship has flowered out of an integral industrial life in which there is time not only to work together but also time to take meals in the modern factory canteen, to play games during lunch interval and holidays and there is time to participate in cultural functions or to read and debate. Apart from English, employees know Kannada, Tamil, Telugu and Malayalam.

This factory provides Medical Oxygen to the increasing demands of the hospitals, saves lives and lessens the pain. It fulfils the need of liquid oxygen and dissolved acetylene to the other industries. Thus, it is a boon to many people in India and abroad.

We are very much indebted to the members of the staff for their kind co-operation in preparation of this report which is beneficial for the secondary school boys and girls.

THE MYSORE ELECTRICAL INDUSTRIES LIMITED, BANGALORE-22.

The Mysore Electrical Industries is a limited Company in the Private Sector, manufacturing HT and LT Switch-gears, Switch Boards and other types of sophisticated control gears. The Company may well be termed as pioneers in the field of switch gear in the country.

The products comprise of various types of oil circuit breakers, air break circuit breakers and switch boards, manufactured under technical collaboration with Messrs. J. G. Statter of England, Messrs. Gardy of Switzerland and France and Messrs. Starkstrom of Germany. MEI Switch-gears have established a name, having been installed in all the major projects and industries of India.

Due to the paucity of space in Factory (1), an imposing factory building, (2) with the latest production facilities was built in 1962, on a prominently situated plot on the Bangalore-Tumkur Road, Yeshwanthpur, in the outskirts of Bangalore, apart from the parent factory at Okaleypuram. Both the units are run in two shifts—First shift, General shift and Second shift.

The management of the Industry is run by an efficient team of executives and officers under able guidance of the Managing Director. The Board of Directors consists of eight Directors including the Managing Director and an Executive Director. The Managing Director is in charge of the overall function of the Industry.

A band of young and enthusiastic executives and officers assist the Managing Director in carrying out the administration based on principles of modern management. With the Managing Director as the Chief Executive, the administrative set up includes the prime officers like the Works Manager, Executive Officer, Production Manager,

Industrial Engineer, Planning Engineer and Chief Accountant, Personal Officer who are responsible to the Managing Director.

The classification of departments are :

- (1) Production—Manufacturing and assembly.
- (2) Engineering—Design, Research and Development, Inspection quality control.
- (3) Aux. Service—Industrial Engineering, Organisation and Methods, Tool Room, Heat Treatment.
- (4) Planning, Production Planning, Material Engineering.
- (5) Sales, Purchase and Personnel.

The labour force is classified into different categories of trades, based on Job Evaluation. The main jobs are Fitting, Grinding, Welding, Drilling, Lathe Operating, Electroplating, Milling, Tool and Die Making, Jig Boring, Plastic Moulding, Assembling, Painting, packing, etc.

The Company employs about 1,300 men. The criteria for recruitment are education, skill, social background and healthy physique. For jobs like turners, machinists, etc., persons with I.T.I or A.T/S. certificates are preferred. In plant training on the job will be imparted to the persons employed for specific trades. Emphasis is laid on training of men in the respective fields so that their services can be effectively utilised. A systematic induction programme is also in vogue.

MEI has an Apprentice Training Scheme wherein a three year training Course is provided under the Government of India Apprenticeship Act. The stipends are Rs. 50, Rs. 60 and Rs. 70 per month for the 1st, 2nd and 3rd year respectively. The Company's basic training centre is located at MEI Polytechnic. Apprentice facilities are also offered to Engineering and Service Graduates, Diploma Holders, for training them to take up responsible posts. A

fully qualified Engineer is placed in charge of the entire training programme of the Company. There are vast avenues for personnel advancement in the profession by dint and hard work and acquisition of additional qualifications. The employees are merit rated half yearly so that an objective assessment of the employees' performance is made. There is a well conceived employee suggestion scheme, for affording a communication channel to every employee to suggest improvement in his area of activity. The Sports Club and Fine Arts Club, provide opportunities for bringing to light the histrionic and aesthetic abilities inherent in them. There is also a Technical Training Association.

There are quite a lucrative pay scales for officers, staff and workmen with the fringe benefits like Provident Fund, Production Bonus, Gratuity and Annual Bonus. A canteen that supplied wholesome food and beverages to the employees is run on "No Profit—No Loss" basis. For this purpose the Management is giving a subsidy in addition to providing free space, furniture, water, light and other amenities.

The vacancy for jobs will be advertised in the local newspapers and displayed on the Company Notice Boards for the benefit of internal aspirants. The minimum wage of the Company employees is around Rs. 115 p.m.

The working surroundings, conditions, sanitation are quite healthy and congenial.

The Research and Development wing has been consistently looking into the prospects of improving the existing products to suit the market and the consumers' requirements. New products are designed and developed to stand out in the market in the face of perpetual competition. They are ever vigilant about the changing trends and improvement in the field of Switchgears and import substitution. The Company has made a headway in exporting its products to Middle East and Far East countries.

The Company is well poised to meet the exacting demands, both as to quality and technical competence.

CENTRAL MACHINE TOOL INSTITUTE, TUMKUR ROAD, BANGALORE-22.

The Central Machine Tool Institute (CMTI), Bangalore was registered as a Society under the Mysore Societies Registration Act, 1960 in March 1962. A governing Council, with Prof. M. S. Thacker as President, was constituted to manage the affairs of the Institute. The Institute started functioning in temporary accommodation in June 1962 and moved to its own buildings in July 1965.

The Institute is located on a site, 32 acres in area, acquired through the Government of Mysore, near the tenth kilometer stone on the Bangalore Tumkur Road.

According to the agreement, the Government of Czechoslovak Socialist Republic would supply (i) technical experts to work at the institute during the various stages of its setting up and working, and also machinery and equipment required for the workshops and laboratories within the gift value of Rs. 60 lakhs and (ii) technical documents, research reports and standards on machine tools and their elements free of charge. The Government agreed also to train 23 Indian Technical Officers in Czechoslovakia for periods ranging from 12-24 months.

Machine tools, rightly known as Mother Machines, are basic to the manufacture of machines of all types and constitute the backbone of industrialisation. The stage of technical development achieved by the machine tool industry has a direct bearing not only on the quality of manufactured goods. In view of the basic and seminal importance of the machine tool industry to national industrial progress, the Planning Commission has accorded high priority to its development.

Production of machine tools is a highly specialised engineering industry and some of the manufacturers in India

have entered into technical collaboration with well-known firms in advanced countries, as original designs and appropriate manufacturing methods were not available in the country. Such dependence on foreign know how and techniques is, indeed, necessary in the present circumstances; but it has been clearly accepted by all concerned that for sustaining the growth of the industry and ensuring its development, attention should be directed, concurrently to the building up, within the country, of designing knowledge, technical skills, and production expertise.

The functions of the Institute are as follows :—

1. *Development of Machine Tools*—

Design of machine tools ; standardisation of machine tools and machine tools elements ; fabrication of prototypes ; testing and performance assessment of prototypes.

2. *Machine tool Research*—

Methods of calculation used in the design of machine tools and their elements ; Hydraulic, electrical and electronic control systems.

3. *Research in Metal Cutting*—

Studies on machinability ; tool research ; research in production technology.

4. *Training*—

Training of product and tool designers, production technologists and inspectors ; co-ordinating training facilities within industry.

5. *Documentation and Information*—

Documentation of literature on machine tools, cutting tools, patents and standards ; compilation of bibliographies ; state of art reports and evaluation reports ; patents search ; industrial consultancy ; dissemination of technical information.

Training and research work is carried on in the following laboratories of the institute ;

- (1) Static and dynamic laboratory for machine tool testing ;
- (2) Laboratory for physical testing of metals ;
- (3) Metrology laboratory for precision measurements ;
- (4) Laboratory for metal cutting research ;
- (5) Hydraulic laboratory ;
- (6) Electrical laboratory ;
- (7) Chemical laboratory ;
- (8) Metallographic laboratory ;
- (9) Photo laboratory.

Totally there are approximately 200 workers working at present.

Employees can be divided into three broad categories as follows :

- (1) Administration staff.
- (2) Technical staff.
- (3) Operators wing.

Administrative staff :

Administrative staff is headed by an Assistant Director. It is a small unit. He is assisted by an Accounts Officer, and a Purchase Officer. They look after the routine administrative matters of the respective sections.

Technical staff :

The Director is in overall charge of Technical Staff as well as the Institute. There are 30 Design Engineers some with Post-graduate or first class Engineering Graduate qualification also. Design Engineers design the machine tools to suit the indigenous resources. Three to four senior technical assistants who are also engineering graduates and technical assistants who are diploma holders in engineering are also working under this wing. About 40 draftsmen are serving with I.T.I. qualification, Diploma in Mechanical Engineering in the various sections like Design, Standards, Laboratories, etc.

Workshop craftsmen are about 30 in number. Their minimum qualification is S.S.L.C. with operators training in specific trades hold I.T.I. certificates. They are initially trained in H.M.T., Bangalore. Inservice training is also given to them. They operate machines under the workshop Superintendent.

The pay scales of the employees of the C.M.T.I. are as follows :—

1. Craftsmen : Rs. 115 to 185+Allowances.
2. Graduate Engineers : Rs. 400 to 1,250.

The employees are expected to work on all days of the month except Sundays and Second Saturdays and other public holidays. The other facilities given to the employees are (i) housing for certain members of the staff, (ii) Medical aid, (iii) Transportation facilities, (iv) and Provident Fund, (v) Co-operative societies (Last two are under consideration of the management) a well equipped canteen is housed in the premises which is giving nice food to the employees.

The working hours are from 7-45 A.M. to 4-15 P.M. No shift system is present. No Union and labour laws are applicable, to the Institute, it being a research unit. The standardised regulations are observed in the services of the Institute.

Mode of Recruitment :

The candidates can enter into the service by (i) Employment Exchange, (ii) Competitive Examination. Duration of training is 6-12 months, with a stipend of Rs. 75 for Diploma holders and Rs. 150 to 200 for graduates, who are initially recruited to man further regular vacancies.

Future Prospects :

1. *Production Engineering Technology*.—To improve the production both in quality and quantity—will be taken into consideration. The aim is to improve both machinery and technique.

**INDUSTRIAL TRAINING INSTITUTE, HOSUR
ROAD, BANNERGHATTA CIRCLE, BANGALORE**

Every year thousands of young men and women come out of High Schools. High School Education is considered to be their last stage of Education by many boys and girls. There are many boys and girls who discontinue in this stage for one reason or the other.

It is very difficult to provide work for these young people seeking employment as they have not got any type of vocational training. Our Government is emphasising the importance of Technical education in order to solve unemployment problem and to encourage Industrial progress of the country. It is imposible to remove dificits and increase production in the country unless sufficient training to carry on different trades is not given in Industrial Concerns to our youngmen and women.

These causes were responsible for the establishment of Industrial Training Institutes and centres throughout the country by central Government of India.

The Industrial Training Institute, Bangalore was established 15 years ago and it is the biggest at present out of the 11 such institutes in Mysore State. There are in addition to these Institutes 3 Industrial Training Centres in Mysore State.

Central Government has transferred the administrative control and management of these Institutes to the State Government but has retained for itself policy decisions and conduct of Examinations on all India basis. Central Government shares 60 per cent of the expenditure of these Institutes and centres and the rest is borne by the State Government.

The Industrial Training Institute, Bangalore, is giving training under the following 3 schemes sponsored by Government of India.

1. Craftmen training scheme.
2. Apprentice training scheme.
3. Part-time classes for Industrial workers.

The special feature the Institute is that it is non-vocational and gives training throughout the twelve months in the year. The training is free of cost to the trainees.

1. *Craftmen training scheme.*—Under this scheme, the Industrial Training Institute is giving training in 13 engineering trades and 2 non-engineering trades.

The Engineering trades in which training is given in this Institute are as follows:—

1. Draftsman Mechanical	2 years
2. Draftsman Civil	2 years
3. Electrician	2 years
4. Wireman	2 years
5. Electroplator	2 years
6. Machinist (General)	2 years
7. Machinist (Grinder)	2 years
8. Turner	2 years
9. Fitter	2 years
10. Welder	1 year
11. Sheet metal worker	1 year
12. Moulder	1 year
13. Carpenter	1 year

The Non-Engineering Trades in which training is given in this Institute are—

1. Stenography (Typewriting and Shorthand)	1 year
2. Cutting and Tailoring	1 year

Training is given for 7 hours daily—2 hours theory and 5 hours practical. The training year is from August to August.

Including 20 per cent supernumerary trainees, 992 pupils can be given training in all the trades put together in this institute as sanctioned by Government.

Training is imparted in all the trades except the trades Machinist, Turner and Welder, to units consisting of 16 trainees each.

In the trades machinist, Turner and welder, the units consists of 12 trainees each. The number of units entertained in each trade at present is given below :—

		<i>Junior</i>	<i>Senior</i>
1. Draftsman Mechanical	..	2 units	1 unit
2. Draftsman Civil	..	1 unit	1 unit
3. Electrician	..	4 units	4 units
4. Wireman	..	2 units	2 units
5. Electroplater	..	1 unit	1 unit
6. Machinist (General)	..	2 units	2 units
7. Machinist (Grinder)	..	—	2 units
8. Turners	..	5 units	5 units
9. Welders	..	10 units	—
10. Fitters	..	3 units	5 units
11. Sheet metal workers	..	2 units	—
12. Moulders	..	2 units	—
13. Carpenters	..	2 units	—
14. Stenography	..	2 units	—
15. Cutting and Tailoring	..	1 unit	—

There is one instructor for every unit and 1 supervisor for 4 units and 1 foreman for 192 trainees.

Age Range for entrance of trainees is from 15 years to 25 years in case of all except Depressed or Scheduled caste trainees. For them upper age limit is 28 years. Girls can take stenography and tailoring in this Institute for training.

Trainees who have passed S.S.L.C. preferably with P.C.M. combination, are given training in the trades—Draftsman Mechanical, Draftsman Civil and Electrician. In case of other trades, VIII standards pass is the required qualification to the trainees but S.S.L.C. candidates are given preference.

Applications for admission to the Institute will usually be called for in the month of June every year. The applicants have to produce medical fitness certificate at the time of admission. There is a selection committee consisting of both officials and non-officials to select trainees to be trained in different trades provided in this institute. The selection will be based on the result of an aptitude test to the trainees and an interview by the committee.

At the end of the training period, examinations will be conducted in each trade and certificates will be issued to successful candidates. Failed pupils are allowed to appear for the next examination on payment of Rs. 5 only.

Training in this Institute is free of cost. Sports facilities for the trainees are provided free. There is free Reading Room. Tour for a period of six days is arranged for the trainees. Rs. 12 per head is paid from the Institute towards tour expenses, the rest being met by the trainees. Free lodging facility is provided for 1/3 of the strength of trainees in the Institute. Stipends of the value of Rs. 25 p. m. are awarded to 1/3 of the total strength of the trainees out of which 18 per cent is reserved for Scheduled Caste trainees. There is free supply of stationery articles such as pencils, erasers, Note Books, Drawing sheets, once in 3 months. Trainees in Engineering trades are supplied free work shop clothing 1 set every six months. Free medical aid is provided. For this purpose a Dispensary named with one Medical Officer, one nurse and one dresser is maintained in the Institute.

Provision is also made for giving the trainees N.C.C. Training on an optional basis.

The Institute Building built at a cost of Rs. 30 lakhs on a plot of 22 acres, though requires further extension, is providing a good atmosphere to the trainees. It works in two shifts—1st Shift from 7-30 to 3-30 P.M.

2nd Shift from 10-30 A.M. to 6-30 P.M.

2. *Apprentice training Scheme.*—Under this scheme sponsored by Central Government of India as per company act, Related instruction is given to the apprentices by this Institute. In addition to this, Basic training for 1 year is given by this Institute to apprentices of concerns employing less than 500 persons. Related Instruction is given to apprentices once a week only for 7 hours for a period of 3 years. At present 26 apprentices are receiving Basic training and 160 apprentices are receiving Related Instruction in this Institute. Every trainee is paid stipend as follows during the period of the training.

First six months	..	Rs. 40 p.m.
Second six months	..	Rs. 50 p.m.
Second year	..	Rs. 60 p.m.
Third year	..	Rs. 70 p.m.

The expenditure on this behalf is met both by the factory and the Institute on 50 ; 50 basis.

Some factories having necessary facilities are giving related Instruction training to their apprentices themselves and such factories are paid Rs. 10 per apprentice trained by them from this Training Institute. Instruction in groups I, II, III, IV, V, IX & X are imparted in this Institute at present to the apprentices.

3. Part-time classes for Industrial workers :—

Under this scheme, this Institute is giving theoretical Instruction in various trades to industrial workers actually employed in factories and are having three years of experience in the trade.

These classes are held three days in a week from 6-30 P.M. to 8-30 P.M.

Subjects instructed are Trade theory, general Drawing and workshop calculation. The total duration of the classes is 2 years. At the end of the duration examination is conducted and certificates issued at state level.

Here there is no age limit but each trainee has to pay a nominal fee of Rs. 2 p.m. The training year is from November to November. At present 200 workers are given instruction under this scheme, in the following trades—Draftsman Mechanical, Draftsman civil, Electrician, Machinist (composite), Turner, Fitter.

Lecturers on part time basis are employed in this Institute if available in factories and Educational Institutions for this purpose.

The Institute is incurring an expenditure of nearly 50,000 p.m. for training skilled workers required in Industries.

‘THE INDIA TIN INDUSTRIES (PRIVATE) LTD.’

Old Madras Road, Bangalore-16.

The India Tin Industries (Private) Ltd., was established in the year 1946 and started production in the year 1951. The products manufactured are: Plain and printed containers and closures.

The staff pattern of the Industry is as follows :

(See page 33)

All types of workers are employed and given training on the job for one or two years. Depending upon the skill and ability, one will be promoted as Machine Operator in semi-skilled grade. If one puts in 4-5 years of service as Machine Operator and shows skill and interest in the work, he has a chance of being promoted in skilled category as a Fitter (Grade III), Fitter Grade II and also Fitter Grade I.

The total number of persons engaged in the factory is 300 inclusive of staff, permanent daily wages workmen and casual labourers. Women are not entertained for the work on the manufacturing side.

Age limit.—18-22 years (for entry as helpers).

Minimum qualifications.—preferably S.S.L.C. or equivalent.

All the executive officers, Managers, production engineers are directly recruited by the Management and they should have the respective degrees and practical qualifications and experience.

Supervisors are directly recruited—preferably graduated in science and/or persons having background and

(Administrative side)

Managing Director

Deputy Managing Director

Deputy Managing Director

Sales Manager
Sales Executive
Stenographers
Typists Clerks etc.

Purchase Officer
Typists

Administrative Officer
Personnel Officer
Chief Time Keeper
Clerks

Chief Accounts Officer
Accountants
Clerks

(Manufacturing side)

Managing Director

Deputy Managing Director

Factory Manager

Production Manager

Process Department
(Manager)

Printing Department
(Manager)

Manufacturing Dept.
(Manager)

Tool Room (Production
Engineer)

Packing Department
Box makers.

Process
Technician

Printer

Supervisor
Foreman

Deputy Draughtsman
Foreman

Helpers

Chief cameramen

Staller

Dy. Foreman

Fitters
Turners
Millers
Welders etc.

Artists

Feeder

Line fitter

Plate makers

Helpers

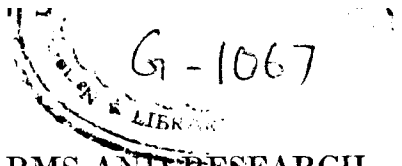
Machine operator
Helpers

experience in the industrial field and they have the chances of being promoted to higher ranks depending on their capabilities.

SALARIES OFFERED

<i>Categories</i>	<i>Min. salary Max. salary</i>	
	<i>Rs.</i>	<i>Rs.</i>
1. Workmen ..	98	176
2. Highly skilled workmen ..	225	328
3. Supervisors (up-to Deputy Foreman).	150	525
4. Managers and above ..	800	1,500

All appointments are made directly by the Management. Apprenticeship training is given. Trained and experienced persons from Technical institutions are given preference. The workers get 4 per cent as bonus. The factory works on shift basis. Dexterity and the skill is necessary.



COMPOSITE LIVE-STOCK FARMS AND RESEARCH STATION, HESARAGHATTA.

The place is located at a distance of about 18 miles from Bangalore and commands a picturesque view of the Hesaraghatta lake. The farm is electrified and irrigation is possible from the lake. The farm is accessible all the year round and good many people visit the farm and the Central fruit research station which is nearby, on week ends for picnic, boatripe etc.

The farm has on extent of 2,940 acres. The soils vary from black cotton to sandy soil.

The regional poultry farm is sponsored by the Ministry of food and Agriculture. It serves the purpose of the four southern states. The farm is maintained by an officer in-charge of the establishment. The post is a gazetted one, under Class I Junior, pay scale being 400—950. He is assisted by two farm supervisors, specially trained in poultry. The appointment is carried on through employment exchanges. There are Poultry Supervisors in the grade 110—200. 26 Attenders are working and they get altogether Rs. 130 p.m.

The farm has several incubators to keep the eggs and getting chickens. The capacity of each incubator is 2,520 eggs and the bigger one has the capacity of storing 6,700 eggs. There are sixteen containers to keep 16 females. The rate of the hatching eggs is Rs. 4 per dozen. The day old chicks are sold at Rs. 1.05. The farm is working profitably.

Central poultry farm—Hesaraghatta.

The farm is maintained by the State Government. They are maintaining incubators. They grade the eggs and sell them in the market. The training is given if they are sponsored by the several development blocks.

Poultry Development Officer Rs. 275.

Poultry Instructor Rs. 225—425.

Poultry Assistant (4) Rs. 80—150.

Poultry Supervisor Rs. 180—320.

GOVERNMENT OF INDIA

Ministry of Food, Agriculture, Community Development and Co-operation,

(DEPARTMENT OF AGRICULTURE)

STATISTICAL INFORMATION OF THE REGIONAL POULTRY FARM, HESARAGHATTA, (BANGALORE)

The Farm was started during May, 1960 in a temporary location at the National Dairy Research Institute, Bangalore with small foundation stock of 800 chicks. It was shifted to its permanent site at Hesaraghatta on 1st February, 1961.

Sl. No.	The Progress of work done is as follows													
	1960-61		1961-62		1962-63		1963-64		1964-65		1965-66		1966-67	
1	2	3	4	5	6	7	8	9						
		Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
1. No. of Layers maintained ..		638-00	1,200-00	2,100-00	3,725-00	5,000-00	5,000-00	4,600-00						
2. No. of Eggs produced ..		32,551-00	2,09,570-00	3,65,155-00	6,00,337-00	6,72,748-00	6,89,099-00	6,90,947-00						
3. No. of Chicks produced ..		9,875-00	35,957-00	54,686-00	1,02,736-00	1,11,833-00	1,57,178-00	2,02,006-00						
4. No. of Breeding stock sold ..		8,637-00	32,209-00	45,785-00	93,459-00	97,477-00	1,46,661-00	1,85,823-00						
5. No. of Hatching eggs sold ..		438-00	810-00	1,090-00	882-00	2,554-00	3,018-00	10,021-00						
6. No. of Table eggs sold ..		13,820-00	1,42,243-00	2,73,832-00	4,59,280-00	4,87,177-00	4,55,290-00	4,50,319-00						
7. No. of Table birds sold ..		75-00	849-00	1,684-00	4,882-00	4,245-00	12,270-00	9,146-00						
8. Revenue ..		11,048-52	65,411-69	1,32,295-26	2,44,956-70	2,19,962-02	3,36,937-57	3,59,878-46						
9. Expenditure (Recurring) ..		65,994-56	1,02,420-59	1,75,263-87	2,13,859-76	2,56,338-46	3,26,524-61	3,29,313-73						

**NOTE OF THE ACTIVITIES OF THE COMPOSITES
LIVE-STOCK FARM AND RESEARCH STATION,
HESARAGHATTA.**

Location.—This Farm is situated at a distance of about 18 miles to the north west of Bangalore. The total area of the Farm is 2941-33 acres (excluding Tank bed area) including lands under cultivation, grazing, area occupied by the buildings, Marshy and waste lands. This Farm includes the Sections *Viz.*, 1. Dairy Section 2. Hallikar (3) Dry Cattle Farm (4) Sheep Section (5) Cultivation Section (6) Key Village Scheme.

Activities.

Dairy Section.—In view of acute shortage of milk that is generally felt in the country in the State and of the necessity to increase the production of milk to meet the demand and also to rise high milking strains of the Dairy cows and good stud bulls for distribution among the Farmers for grading up of ideal stock for and for cross breeding. The Dairy Section consists of

1. Holutein Fresian Cattle	..	47	
2. Red Sindhi	..	229	Total 450 animals.
3. Murrah Buffaloes	..	174	

The daily production of milk is about 600 Kgs. The Milk produced is being supplied to the Bangalore Dairy Project.

Hallikar Cattle Breeding Station.—This Section was in existence for the purpose of breeding of Hallikar cattle and production of good pedigreed Hallikar bulls required for the Farmers to improve the draught type of cattle. Now this breed of cattle is retained for the experiment of cross breeding between Red dame and Hallikar and Jersey Hallikar. The present strength of Hallikar Cattle is 51.

Dry Cattle Farm.—The Dry Cows and Buffaloes of urban areas are being boarded at this Farm on payment of Rs. 10 per Cow and Rs. 15 per buffalow, per month. The animals will have grazing facilities, service of pedigreed bulls are provided. The animals are under the care of qualified personnel.

Sheep Section.—At present Bannur type (Mutton Breed), South down and Dorest horn breed of sheep are maintained at this Farm. The object of the maintenance of Bannur Sheep is for the production of the good quality rams and supply them to the Rural areas and C.D. Blocks for the purpose of upgrading the local breed of sheep. The latter two breeds of sheep imported from Australia are of dual purpose breeds yielding good quality of wool and mutton. At present this breed is utilised both for pure breeding and as well as cross breeding so as to increase pure breed of Australian sheep and also to upgrade the local sheep. The present strength of sheep is :

1. Mutton type	..	219	
2. Dorset Horn	..	19	Total : 247 Sheep.
3. South down	..	9	

Cultivation Section.—The section is to produce the required fodder for the livestock reared on the farm and also to conduct experiments on the cultivation of fodder crops and also to demonstrate the making hays Siliage to the Farmers. The demonstration grass plots are maintained to show the various varieties of grasses and leguminous crops such as lucern. Small area of about 37 acres is irrigated by means of lift irrigation. The Rhodes grass, Gaint Napier, Lucern, Thin napier, pusa highbrid napier are grown as bulk green fodders for feeding of livestock of this Farm. Root slips and grass slips are also being supplied to the various institutions and C.D. Blocks. Under rainfed condition, in the rest of 153-24 of cultivable land, highbird Maize, Jola are growing for making siliage required for feeding the Dairy Cattle.

Key Village Scheme.—The Scheme was started in 1951-1952. A block of 66 villages are attached to the key village centre of this Farm. There are six sub-centres of this scheme. This scheme acts as extension units of this Farm for the surrounding farmers. The scheme undertakes artificial insemination work in this block of 66 villages. Natural services are also provided besides castration of non-disceipts bulls, treatment and follow up of cases of sterility etc.

The students of the B.V. Sc., course and Stockman classes, regularly attend the Farm for their practical training by turns in all the sections. They are provided with full opportunity during the training to attain a high standard in practical work connected with the breeding, housing, feeding and management of all classes of live-stock. With the starting of the Bangalore Agricultural University at Hebbal, Bangalore, this Research Station will gain importance as a training centre of future animal Husbandry workers.

**COMPOSITE LIVESTOCK FARMS AND RESEARCH STATION
HESARAGHATTA STAFF POSITION AS ON 1st AUGUST 1967.**

I. Cultivation Section

1. Superintendent	..	..	1	Class II	Rs. 275—600
2. Agriculture Officer	..	..	1	Class III	Rs. 150—400
3. Head Clerk	..	..	1	Class III	Rs. 110—220
4. Cashier	..	..	1	Class III	Rs. 110—220 <i>Plns</i> Rs. 5 C.A.
5. II Division Clerks	..	..	5	Class III	Rs. 80—250
6. Supervisor P.W.D.	..	..	1	Class III	Rs. 180—10—320
7. Cleaner	..	..	1	Class IV	Rs. 55—1—65—2—75
8. Blacksmith	..	..	1	Class IV	Rs. 55—1—65—2—75
9. Driver	..	..	2	Class III	Rs. 70—110
10. Maistry	..	..	6	Class IV	Rs. 55—1—65—2—75
11. Assistant Maistry	..	..	2	Class IV	Rs. 50—1—60
12. Cart drivers	..	..	8	Class IV	Rs. 50—1—60
13. Gurka Watchman	..	..	2	Class IV	Rs. 50—1—60
14. Watchman	..	..	12	Class IV	Rs. 50—1—60
15. Scavenger	..	..	2	Class IV	Rs. 50—1—60
16. Office peon	..	..	2	Class IV	Rs. 50—1—60
17. Office night guard	1	Class IV	Rs. 50—1—60

Abstract

1. Class II	..	1
2. Class III	..	11
3. Class IV	..	37

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II. Workshop Section

1. Mechanic	1	Class III	Rs. 140—200
2. II Division Clerk	1	Class III	Rs. 80—150
3. Lorry Driver	..	..	1	Class III	Rs. 70—110
4. Smith	..	..	1	Class III	Rs. 70—110
5. Carpenter	..	..	1	Class III	Rs. 70—110
6. Workshop boy	..	..	2	Class IV	Rs. 50—1—60

Class III	5
Class IV	2

7

III. Dry Cattle Farm Section

1. Veterinary Assistant Surgeon	..	..	1	Class III	Rs. 175—400
2. II Division Clerk	..	..	1	Class III	Rs. 80—150
3. Stockman	..	..	1	Class III	Rs. 80—150
4. Cattleman	..	..	5	Class IV	Rs. 50—1—60
5. Bull care taker	..	..	2	Class IV	Rs. 50—1—60

Class III	3
Class IV	7

10

IV. Hallikar Cattle Breeding Station

1. Veterinary Assistant Surgeon ..	1	Class III	Rs. 175--400
2. Stockman	1	Class III	Rs. 80--150
3. Salastry	1	Class III	Rs. 70--110
4. II Division Clerk	1	Class III	Rs. 80--150
5. Cattleman	6	Class IV	Rs. 50--1--60
6. Bull Caretaker	2	Class IV	Rs. 50--1--60
7. Calfooy	2	Class IV	Rs. 50--1--60
8. Shed cleaner	2		
9. Milkman	4		
	Class III	4	
	Class IV	16	
		<hr/>	
		20	
		<hr/>	

V. Dairy Section

1. Manager Dairy	1	Class III	Rs. 150--320
2. Dairy Assistant	1	Class III	Rs. 80--160
3. Stockman	1	Class III	Rs. 80--150
4. II Division Clerk	1	Class III	Rs. 80--150
5. Typist	1	Class III	Rs. 80--150 Plus Rs. 10 T.A.
6. Agriculture Overseer	1	Class III	Rs. 80--120
7. Driver	1	Class III	Rs. 70--110
8. Mechanic	1	Class III	Rs. 80--140
9. Carpenter	1	Class III	Rs. 70--110
10. Blacksmith	1	Class IV	Rs. 55--65
11. Maistry	1	Class IV	Rs. 55--65
12. Milkman	10	Class IV	Rs. 50--1--60
13. Watchman	3	Class IV	Rs. 50--1--60
14. Calf boy	4	Class IV	Rs. 50--1--60
15. Cultivation Cooly	8	Class IV	Rs. 50--1--60
16. Cleaner	8	Class IV	Rs. 50--1--60
17. Irrigation cooly	1	Class IV	Rs. 50--1--60
18. Washerman	1	Class IV	Rs. 50--1--60
19. Peon	1	Class IV	Rs. 50--1--60
20. Dairy boy	1	Class IV	Rs. 50--1--60
21. Delivery boy	1	Class IV	Rs. 50--1--60
22. Bullockman-cum-calving mate	1	Class IV	Rs. 50--1--60
23. Bullockman-cum-cartman ..	12	Class IV	Rs. 50--1--60
	Class III	9	
	Class IV	53	
		<hr/>	
		62	
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VI. Veterinary Hospital Section

1. Salstry	1	Class III	Rs. 70—110
2. Veterinary Compounder	1	Class III	Rs. 55—75
3. Laboratory Attd.	..	..	1	Class IV	Rs. 55—75
4. Dresser	1	Class IV	Rs. 50—1—60
5. Peon	1	Class IV	Rs. 50—1—60
	Class III	..	2		
	Class IV	..	3		
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			5		
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VII. Sheep Section

1. Sheep Grazers	6	Class IV	Rs. 50—1—60
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VIII. Transport Section

1. Head cooly	2	Class IV	Rs. 50—1—60
2. Assistant Head cooly	2	Class IV	Rs. 50—1—60
3. Garden cooly	..	..	45	Class IV	Rs. 50—1—60
4. Cart drivers	..	..	16	Class IV	Rs. 50—1—60
	Class IV	..	<hr/>		
			65		
			<hr/>		

IX. Murrah Buffalo Scheme

1. Dairy Assistant	..	..	1	Class III	Rs. 140—320
2. Fieldman	..	..	2	Class III	Rs. 80—120
3. Boiler Attd.	..	..	1	Class III	Rs. 70—110

X. Village Scheme, Hesaraghatta

1. Veterinary Assistant Surgeon	..	..	1	Class III	Rs. 175—400
2. Stockman	..	..	6	Class III	80—150
3. Driver	..	..	1	Class III	Rs. 70—110
4. Compounder	..	..	1	Class III	Rs. 55—65
5. Bull Attendants	..	..	5	Class IV	Rs. 50—1—60
	Class III	..	<hr/>		
			9		
	Class IV	..	5		
			<hr/>		
			14		
			<hr/>		

THE "GET TOGETHER"

At the Auditorium of Canara Bank, Ltd., Bangalore.

The main purpose of the "Get together function was to bring the Industries, Business Organisations and Educational Institutions more closer; to enhance the understanding and co-operation between them and thus to enrich the educational programmes in our schools.

The Business Industries Education Day function was clubbed with the valedictory function of the XXI Career Masters' Training Course held at Canara Bank Auditorium on 30th November 1967. Two publications—(1) Guidance News and (2) Business Industries Education Day—published by the Bureau, were also released on the same occasion.

The publications were released by Sri M. V. Rama Rao, Home Minister, who said that close collaboration and co-operation of industrial establishments in shaping the educational system was necessary to enable students to secure gainful employment. He also said that vocational guidance and modern techniques had imparted a new dimension to educational activities. He felt that to avert the possible danger to society from the educated unemployed, there is great need to make our educational system more vocational oriented. He said that educationists should secure the assistance of industrial establishments and business corners to help teachers improve the teaching techniques in giving vocational guidance to pupils.

Sri S. V. Jevoor, Director of Public Instruction, in his valedictory address, stressed the need of meeting the challenge of times and suggested to make Agriculture a compulsory subject.

Sri T. R. Jayaraman, Secretary to Mysore Government, Education Department, in his presidential address, felt that it is the concern of the educational system to guide the

students consistent with their ability, interests and aptitudes.

Sri S. S. Varadan, Manager, Training Centre, H.M.T. and Sri Shankara Sastry, P.R.O., Mysore Electric Company spoke on behalf of the representatives from the various industrial establishments and business concerns, who graced the occasion with their presence. Sri Varadan extended the co-operation of supplying information leaflets and films for use in guidance activities.

Earlier, Dr. K. P. Nayak, head of the Guidance Bureau, welcoming the distinguished guests, said that acquainting teachers with industrial activities, is a new feature of the guidance scheme organised to provide individual experience in collecting information through job survey by visiting industries and business concerns.

APPENDIX I

List of Participants—Visit on 23rd November 1967

<i>Name of Teachers</i>	<i>Industry visited</i>	<i>Name of the staff member</i>
Dr. K. P. Nayak ..	General Direction	
Sri A. Ramakrishna Rao ..	In-charge of the Programme	
BATCH I		
1. Sri C. S. Venkatakrishnaiah	} Government Porcelain Factory, Mallesh- waram, Bangalore-12.	Sri S. Sundaramoorthy
2. Sri M. A. Rama Reddy		
3. K. L. Lingappa Urs		
4. Smt. M. Sharadamma		
5. Smt. A. S. Kuntala		
BATCH II		
1. Sri A. R. Laxman	} Kirloskar Electric Co., Ltd., Rajajinagar, Bangalore-10.	Sri S. Sundaramoorthy
2. Sri M. Rudrappa		
3. Sri C. S. Narasimha		
4. Sri H. N. Ramaiah		
BATCH III		
1. Sri M. Onkarappa	} Government Soap Factory, Rajajinagar, Bangalore-10.	Sri S. Sundaramoorthy
2. Sri N. S. Krishnaswamy		
3. Sri Dhruvakumar		
4. Sri K. Manjappa		
BATCH IV		
1. Sri Veena Ramashastry	} Indian Oxygen Ltd., Tumkur Road, Bangalore-22.	Sri K. V. Kundangar
2. Sri D. K. Basappa		
3. Sri C. S. Balasundara		
4. Sri M. K. Jayadeva Murthy		
BATCH V		
1. Sri D. Eshwarappa	} Mysore Electrical Industries Ltd., Yeshwanthpur, Bangalore-22.	Sri K. V. Kundangar
2. Sri K. N. Anjappa		
3. Sri S. Krishnappa		
4. Sri K. Setharama Rao		

<i>Name of Teachers</i>	<i>Industry visited</i>	<i>Name of the staff member</i>
BATCH VI		
1. Sri T. R. Venkatesh 2. Sri N. S. Ravindranath 3. Sri H. G. Shanmukhappa 4. Sri S. Mahadevappa	} Central Machine Tools Institute, Tumkur Road, Bangalore-22.	Sri A. Ramakrishna Rao
BATCH VII		
1. Sri G. Siddaramaiah 2. Sri N. G. Narasimha Murthy 3. Sri B. V. Rajanna 4. Sri G. Seetharamaiah	} The Industrial Training Institute, Hosur Road, Bangalore-11.	Sri R. Hanumanthaiah
BATCH VIII		
1. Sri Virupakshappa 2. Sri H. K. Prabhakar 3. Sri Biliguri Vasana 4. Sri Kavitegowda	} Indian Tin Industries (PVT) Ltd., Old Madras Road, Bangalore-16.	Sri K. Rajasekariiah
BATCH IX		
1. Sri K. G. Krishna Murthy 2. Sri B. K. Nanjunde Gowda 3. Sri N. Nagappa 4. Sri I. S. Chandrashekarappa	} Central Poultry Farm, Hesaraghatta, Bangalore.	Sri N. Venkataswamy

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APPENDIX II

We thank the following, for Co-operating with us in collecting relevant information about their Industry or Business organisations ;—

1. Government Porcelain Factory, Malleshwaram, Bangalore-12.	} (1) Sri Natarajan (2) Sri Lokeswara Gowda
2. Kirloskar Electric Co. Ltd., Head office and Works, Rajajinagar, Bangalore-10.	} Sri M. B. K. Rao, Labour Welfare officer.
3. Government Soap Factory, Rajajinagar, Bangalore-10.	} Sri Nataraj
4. Indian Oxygen Ltd., Tumkur Road, Bangalore-22.	} 1. Sri William St. Marley, General Manager. 2. Sri K. Venkateshan 3. Sri B. K. Venkatacher 4. Sri R. Bhanu
5. The Mysore Electrical Industries Ltd., Yashwanthpur, Bangalore-22.	} Sri C. D. Shankara Shastry, Officer incharge of Training and Public relation.
6. The Central Machine Tools Institute, Tumkur Road, Bangalore-22.	} 1. Sri S. Madhava Rao, Assistant Director. 2. Sri G. R. Krishnamurthy
7. The Industrial Training Institute, Hosur Road, Bangalore-11.	} 1. Sri Abdur Rasheed, Principal. 2. Sri K. Jagannath, Foremen.
8. India Tin Industries (PVT) Ltd., Old Madras Road, Bangalore-16.	} Sri T. B. Mody, The Managing Director.
9. Central Poultry Farm, Hesaraghatta, Bangalore-10.	Central Poultry Section : Dr. Muthanna
	Regional Poultry Section : (1) Sri M. Bettaiiah (2) Sri S. V. Gowda
	Agriculture Section : (1) Sri N. Ramaiah (2) Dr. Brahma Dev
	Diary Section : (1) Sri Abdul Gaffarkhan, Diary Manager. (2) Sri K. Nanjundappa

We also thank the administrative authorities for permitting to visit their Industry or Business Organisations and for providing all assistance in our work.