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Education in India To-day

(*being the report of* ***an Educational*** *Tour,*
October ***1940 — March 1941*** *).*

BY

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Publishers Note.

This useful Survey of Education in India to-day is most timely in view of the educational reconstruction which is being planned. We are very thankful to Dr. D. S. Purohit, our munificent donor, for making this publication possible, by contributing towards the expenses of both Prof. Limaye's Educational tour throughout India and the publication of this report. We are equally thankful to the Paper-Controller for special permission to bring out this report, and to the Manager, Arya Bhushan Press for accommodating it in his quota.

D. D. KARVE,
15-11-45. *Secretary,* D. *E. Society.*

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INTRODUCTION

On the recommendation of the Poona Board of Life-members (Resolution No. 10 of 31-3-1940) and the Governing Body (Resolution No 8 of 7-4-1940) the Council of the Deccan Education Society passed the following resolution on 11th August 1940 :—

> **" THAT the offer of a donation of Rs. 1.000/- for an educational tour of India by Prof. P. M. Limaye. M. A., made by Dr. Dattatraya Sitaram Purohit, Retired Veterinary Assistant Surgeon, Pandharpur, in his letter dated 23-3-1940, be accepted with the best thanks of the Society, .'**

The plan of an educational tour of India was in my mind for a number of years. I communicated it to my Life-member colleagues in a letter of 7th March 1940. Therein I set forth my reasons for it 'in the following words :—

" I have been feeling for a long time that, we in Bombay Presidency, have a good deal to learn from the educational practice and experiments in other Provinces. Post-graduate studies and research; organisation and working of unitary Universities; Technical Industrial and Commercial education; training for higher public services including the I. C. S., and the Indian Military Service; Public School education ; Primary education modelled on the Wardha Scheme are among the topics that must engage one's attention. The backwardness of Bombay in some of these lines is beyond doubt and dispute. I have an earnest desire to investigate this matter with the object of securing as much helpful guidance as

possible. I believe that our own institutions as well as others in Poona and outside would benefit from the kind of inquiry and report that I have in view. We ourselves have embarked upon a project of technical education,, and are further thinking of exploring the possibilities of undertaking commercial education; Poona University is bound to claim our attention in the near future ; improvement in the quality of our present day secondary and collegiate education is being insisted upon by the public. At this juncture in the history of our education, the Deccan Education Society ought to bestir itself and play the role of guide, philosopher and mentor. For that purpose, a first hand study of education in different paits of India is essential ."

A favourable consideration of the project was facilitated by the offer from Dr. D. S. Purohit of Pandharpur, a great benefactor of the Deccan Education Society, of a donation of Rs. 1,000 /- for the purpose of defraying the expenses of the tour. The good-will of my colleagues and the generosity of Dr. Purohit thus enabled me to undertake and complete the tour under very favourable conditions. My representative character made it possible easily to gain access everywhere and establish valuable contacts with persons of educational authority and eminence. It is a pleasure for me to acknowledge the hospitality and helpfulness of Fergussonians, wherever I met them in different parts of India.

The tour commenced on 28th September 1940 and concluded on 8th March 1941. It thus extended over a period of five months; I covered a distance of 15,000 miles in the course of it, and visited 16 [out of 18 University centres in India, as also 14 other places of educational importance. The itinerary of the tour and institutions

visited are given in Appendix I. The total expense in* connection with the tour was Rs. 1000.

This Report of my educational tour should have been completed long ago, but on account of one difficulty or another it could not be. I crave the pardon of my colleagues and the authorities of the Deccan, Education Society for this delay.

The first four chapters were written during 1942. My appointment as Secretary of the Maharashtra University Committee towards the end of 1942 interrupted the writing for almost a year, and later on my duties as Economic Adviser to the Sangli State came in the way.. The delay has, however, resulted in some distinct gains. My association with the M. U. Committee's work enabled me to write about the University of Poona (Chapter IV—B) with better knowledge and understand* ing. The other gain was the opportunity of perusing the Report on Post-War Educational Development in India by the Central Board of Education, known as the Sargent Report or the Sargent Scheme. It is agreed on all hands that the Report is a landmark in the educational history of India. Courage and vision are its outstanding characteristics. None else would have dared to propose an annual expenditure of over 300 crores on education. A much smaller figure may as a matter of fact be actually found practicable; but the goal is there. All thinking and planning for Indian Education has been revolutionised by that report. We now speak of lacs of expenditure, where thousands would have been considered audacious. I have based my case for liberal aid to private effort in education (Chapter VI) mainly on the Sargent proposals for expenditure on Secondary and University education.

One of my poignant regrets for delay is that Mr. B. S. Kamat could not go through the whole of the report. He took a kindly interest in it, and was good enough to go through the early chapters even in his indifferent state of health.

It is necessary to state that responsibility for views expressed in the Report is entirely mine. They do not represent the collective outlook or the planned policy of of the D. E. Society. My duty was to see things for my. self and submit the result for the cosideration of the Society.

My personal-thanks are due to Dr. D. S. Purohit of Pandharpur. He not only defrayed the expenses of the tour, but later on offered to meet the printer's bill as well. I must not omit to thank Principal Mahajani for encouragement and moral support.

I consider it a matter of singular good fortune that this Report should see the light of day in the midst of the official celebration of the Diamond Jubilee of the D. E. Society and Fergusson College. I had similar luck with my History of the Deccan Education Society, the publication of which coincided with the Golden Jubilee Celebrations.

Before concluding I take leave to state that Mrs. Limaye accompanied me for the major part of the tour, at my private expense. She contributed in a consi. derable measure to the successful completion of the **tour,** and I feel it incumbent upon me to record the **fact.**

Poona 15th August 1945.

P. M .LIMAYE

CHAPTER I

Bombay's Place in the World of **Indian Education**

Bombay Presidency held a leading position in the sphere of education, for a long time after the introduction of the western system. The lead that Bombay had in matters political and economic had its counterpart in the educational field as well. Being the " Gateway of India" the City itself was peculiarly susceptible to foreign influences, and very quick in adopting western ways of life and thought; from the city to the mofussil was not a far cry. Institutions for the imparting of western knowledge and culture, with which the teaching of English was more or less synonymous, were opened in large numbers under the aegis of the semi-official Bombay Education Society, by missionary as well as indigenous effort. The organisation of the Department of Education (1856) and the establishment of the University of Bombay (1857) helped to systematise and stimulate the speed of education. Great, towering figures in different departments of life, such as Dadabhai Nowroji, Mandlik, Ranade, Bhandarkar, Pherozeshah Metha, Telang, secured prestige and renown for the educational organisation of which they were the products. The Bombay graduate enjoyed a reputation for intelligence, and sound knowledge, and the Bombay Degree was held in high **esteem. Government,** too, made its contribution **to the variety and practical** usefulness of education by establishing Colleges of Law, Medicine and Engineering, and by **making provision for Technical** Education through the Victoria **Jubilee Technical Institute (1888). In the meanwhile, the foundations of private educational enterprise had been securely laid, by the pioneering efforts of the Deccan**

Education Society; for a time in 1899 the gaze of the whole of India was focussed, by Paranjpye's signaal enlevement, on Fergusson College, the most notable example of that enterprise. It may be said that on the eve of the passing of the Indian Universities Act of 1904, Bombay definitely was a first-rank Province in the world of Indian Education. One or two later developments also tended to confirm Bombay's educational prestige : The College of Agriculture (1907) and the College of Com. merce (1914) were the first institutions of University grade in India, to provide courses in these branches. Among the major educational projects latterly initiated in Bombay Presidency we may mention the Indian Women's University founded by Professor Karve in 1916.

In 1936-37, Bombay Province spent 3-76 crores of rupees on education, from all sources, including fees and private contributions. This works out at Rs. 24 per head of population, and Rs. 29 per scholar under instruction. The corresponding rates for Madras were Rs. 1-2 and Rs. 17, and for Bengal Rs. 0.9 and Rs. 14. Thus Bombay spent much more than the other two Presidencies both per head of population and per scholar under instruction. The percentage of literacy for Bombay, according to the Census figures of 1941, is 20, as against 13 for Madras and 16 for Bengal. This is satisfactory as far as it goes, but not satisfactory enough when compared with the percentage of 31 for Travancore State, and 35 for Cochin. Bombay thus has certain strong points to its credit. But on a review of the present position in regard to the various categories of education one is forced to the conclusion that it -has lost its leading place among the Provinces. Its backwardness is specially noticeable in a field where other Provinces have made remarkable progress viz., the organisation of

post-graduate teaching, and provision for research. Not only the contemporary Universities of Calcutta and Madras, and the all-India Universities of Benares and Aligarh, but even newer Universities like the Punjab and Allahabad have forged ahead in this respect. The Sadler Commission's Report (1919) and the great achievements of Sir AsutoshMukerji in Calcutta have profoundly affected the development of University activities throughout the rest of India; that stimulus cannot be said to have yet travelled to Bombay. Calcutta University has a current budget of 15 lacs for the post-graduate departments, more than 1500 students, under post-graduate instruction and 150 whole-time teachers engaged in post-graduate teaching and research. By comparison, Bombay with its teaching-staff of 5 in the School of Economics and Sociology and an all-inclusive post-graduate budget of about 1 lac appears insignificant. I have purposely left out of reckoning the highly specialised University Department of Chemical Technology ; the Calcutta Budget, too, does not include any department of comparable character. If we add to the figure of 1 lac given above, an appropriate amount out of the expenditure of the Royal Institute of Science, and further add the sums spent in all affiliated Colleges, the total expenditure on post-graduate work on a very liberal estimate would be less than 2½ lacs. The figure of government grant to the two Universities is also interesting. In 1940-41 Calcutta University received 4-85 lacs from Bengal government, while Bombay University received 1.17 lacs from the government of Bombay. This grant of 1.17 lacs has remained unaltered for quite a quarter of a century, and the whole of it was never intended for post-graduate instruction. This is not the occasion to go into the causes of neglect and backwardness; but the fact of backwardness itself cannot be denied, and it must be vividly realised and

remedied without the least delay. I had occasion to meet many alumni of our University in different Provinces, and they all shared this opinion; they expressed great concern about the present plight of University education in Bombay. One gentleman, very highly placed in a Research Department, said that it is unusual to get candidates with the requisite qualifications, from Bombay, for many technical appointments, because the facilities for acquiring such qualifications do not exist in Bombay. The complaint is also now-a-days heard that Bombay Province does not secure its proper share in all-India services. Part of the explanation at least is that the guidance and help required for success is not available in Bombay. The Bombay graduate has to do the best he can on his own account, and leave the rest to good luck. The absence of comgrehensive and organised effort at the post-graduate level has also an adverse effect on the quality of under-graduate instruction.

A leading industrial Province like Bombay might have been expected to develop a comprehensive system of technical and industrial education; but as a matter of fact it has failed to provide for it, on a scale at all commensurate with its industrial importance. The Victoria Jubilee Technical Institute, for instance, is the only institution for the highest training in textile industry ; but there is certainly room for more institutions, imparting instruction of a lower grade, perhaps. The need for a Central Polytechnic, catering to the varied technical requirements of the crafts and industries of the Province, is quite patent. But even the idea of such a project does not appear to be in the air. The organisation of a chain of technical institutions, parallel to the present day Secondary Schools of the literary type, is a great desideratum. These and other lacunae in our Provincial

education need to be seriously considered, and filled up during the period of educational reconstruction that must necessarily take place in the post-war period. An attempt is made in the following pages to pass in review the different departments of education, and to form an estimate of the position of Bombay in regard to each- Primary, Secondary, University, and 'Vocational Education will be considered in the order named. As a matter of local interest the project of a Poona University will be examined under University Education. The future of private effort in education, and the institution of Life-membership will be next discussed. Some educational projects will be indicated for the consideration of the Deccan Education Society in conclusion. The result of my personal observation in the course of the tour will be brought to bear on the consideration of the various topics, and reference made in appropriate places to the institutions visited and to such distinctive features of their organisation and working as I was able to notice.

CHAPTER II

Primary Education and Literacy

In 1931, Bombay Presidency (including Sind) had a literacy percentage of 9.1; it has improved to 20 % during the last ten years. Part of this improvement is only apparent, being due to the exclusion of Sind, which had a much lower percentage than the rest of the Presidency. But even so, the progress in literacy is considerable, and Bombay (exclusive of Sind) holds the first place for literacy to-day among major British Indian Provinces, Bengal and Madras coming next, with percentages of 16 and 13 respectively. The average percentage covers very wide divergencies among different communities. In 1931, the Parsis had a literacy of 70 %, while tribal communities one of 7 % only. It may be laid down as a general proposition for India as a whole, that the communities and localities that have come long and intimately under western influences show a higher literacy. If Travancore and Cochin have the highest literacy in India, the explanation is that these states also contain a higher proportion of Christians, than any State or Province. When passing through Cochin and Travancore one sees churches and schools in juxtaposition nestling in palm-groves along the high way. Enlightened efforts by certain Indian Rulers have also produced like results, as in Baroda State. The appreciation of beneficial results to be derived from widespread literacy was never lacking in India; the history of attempts to move the Government of the country to accomplish it by compulsion dates back to Gokhale's Education Bill of 1911. So far as Bombay Province is concerned, Vithalbhai J. Patel won recognition for the principle of compulsion in

1918, and Dr. Paranjpye placed the Primary Education Act on the Statute Book in 1923. The passing of the Act of 1923 did not lead to as rapid a spread of primary education as was hoped for. Municipalities as well as Local Boards were unwilling to shoulder the financial and administrative responsibility of compulsion, and after the Depression had commenced, the Provincial government itself set about minimising its financial commitments in the matter. During the period of fifteen years between 1921-22 and 1935-36 the total number of primary schools and-scholars (in Bombay including Sind) attending them had only increased from 12,600 to 14,950, and from 7,99,000 to 12,48,000 respectively. At the end of 1936-37 compulsion operated in 9 urban areas and 143 villages. We can profitably compare this number with 63 urban areas, and 10,450 villages in the Punjab.

One of the reasons for the slow progress of primary education in Bombay has been the comparative costliness of it, as pointed out in the last chapter. Our teachers are distinctly better-paid than in other provinces; but the management of primary education predominantly by departmental agency is the root-cause of that costliness. Bombay has failed — at least, until very recently — to utilise private agencies in the interest of primary education. The Education Department, and the Local Bodies have directly organised and managed Primary Education, instead of mainly guiding and regulating it. As long as 1882, Ranade dwelt upon this feature and he put in a strong plea in behalf of a policy of utilising private enterprise in the sphere of primary education through a system of grants-in-aid. Sucha policy did not commend itself to government, who] pinned their faith to the departmental and later on the local-government agency. This plan may be admitted to have secured somewhat

better efficiency ; but as Gokhale put it with reference to University Education, when the choice is between education of some sort and no education at all, it is not wise to stand out only for the best and most efficient. Madras and Bengal utilise the private educator to a much greater extent. In 1936-37 Bombay (excluding Sind) had 2,090 private primary schools, aided and unaided, with an attendance of 1,32,000 pupils. The corresponding figures for Madras were, more than 25,000 schools, and over 15 lacs of pupils. The total number of scholars in Bombay, attending primary schools managed by government, municipalities and boards combined was 10.1 lacs, while in Madras it was 1374 ; that is to say, Madras had more pupils in private schools than in public schools : on the other hand, private schools in Bombay had only 1/8 of the number that there was in public schools.

A wide scope thus exists for the encouragement of private schools, and it is a matter for satisfaction that the Congress Ministry decided to encourage private effort in the course of primary education. As an integral part of the campaign for the removal of illiteracy they decided upon a policy of giving grants to such persons as were prepared to start private schools in villages where Board Schools did not exist. Such schools are aided directly by the Department of Education without the intervention of the" District Local Board. Men belonging to the villages concerned, who have passed the Vernacular Final Examination, usually came forward to open Schools and government usually gives them an annual grant upto Rs. 200/-, on certain conditions. Such persons can also supplement their earnings by conducting the adult education classes at night. The success of the scheme may be gauged from the fact that in the course of only

two years (1938 and 1939) 5,300 new aided schools have been opened, and more than 2,00,000 new pupils attracted. The Report on Public Instruction for 1939-40 says that there were only 33 villages of a population of 1000 and above without schools, and 136 villages of 700 to 1000 population in a similar situation. If in addition to the above villages, about 500 more are supplied with schools, we shall have equipped all villages with 500 persons and above with the means of imparting primary education to the juyjgjaile population. This was a programme that Ranade had proposed to government *in* 1882 ; it would not be a bad performance to carry it out, even 60 years after he conceived it.

The most important 'question agitating the world of Primary Education to-day is that of the improvement of its content and method. Mahatma Gandhi, writing in the Harijan of 31-7-1937, stated the underlying conception of what has now become famous as the "Basic Education" in the following words:—

By education I mean an all-round drawing out of the best in child and man—body, mind and spirit. Literacy is not the end of education, nor even the beginning. It is only one of the means whereby man and woman can be educated. Literacy in itself is no education. I would therefore begin the child's education byteaching it a useful handicraft and enabling it to produce from the moment it begins training. Thus every school can be made self-supporting, the condition being that the State takes over the manufacture of these Schools '*.

In another article he spoke thus of the place of the '' Vocation " in his educational system :—

" Taken as a whole a vocation or vocations are the best medium for the all-round^evelopment of a boy or a

girl, and therefore, the syllabus should be woven round vocational training ".

tie claimed special originality for his idea by saying: "The whole of the general education should come through the crafts and simultaneously with their progress.....The aim in the Middle Ages or any age was never to develop the whole man through crafts. The idea is original. That it may prove to be wrong does not affect the originality ".

The course of primary education was to extend over seven years and it was expected to give pupils all that they learn in the present-day High Schools, *"less* English, but *plus* drill, music, drawing and, of course, a vocation."

Another exponent of the Scheme, Mr. Mashruwala, sets forth the content of the basic curriculum as follows:—

The basic course should include a good knowledge of the mother tongue, a fair acquaintance with its literature, a working knowledge of the national language of India, a general knowledge of such subjects as mathematics, history, geography, physical and social sciences, drawing, music, drill, sports, gymnastics etc. as well as a vocation.

The distinctive method is to correlate teaching to the basic craft as well as to the child's physical and social environment which offer rich possibilities for this purpose.

Such, then, are the theory, the conception, the method and the objective of basic education. In a sense. it may be regarded as a logical development of learning and teaching through activity; but a development of.

such an extreme degree as to make it different in kind. In the basic scheme activity, instead- of being and remaining a means to the end of education, appears to have usurped the place of the end itself. "Learning by doing" .learning in terms of experience and interests", "learning through concrete -life-situations against the back-ground of physical and social environment", are all well-known and well-recognised principles of education. To the extent to which basic education involves an application and extension of these, it represents an improvement in method; nothing more nor less. But when it is proposed to adopt one particular kind of activity i. e., a craft, which may be characterised as a well-organised, productive activity, as the basis and centre of the process of education throughout the duration of primary school-life and to pursue that activity for the major portion of the school-Jay, we can very well say that the activity-principle has run amok. This sustained pursuit—supposing the child to be capable of the effort-may or may not bring about the moral and spiritual results hoped for, such as the inculcation [of the dignity of labour, the establishment of sympathetic affinity with the mass of toiling humanity, the suppression- of parasitism through the discipline of manly labour; but it cannot certainly serve as the natural vehicle for all the knowledge with which it is hoped to endow the child. There is no craft with such endless educational possibilities within it; not even agriculture, which is rather a complete way of life than a mere craft. Can it be supposed that spinning and weaving, gardening, woodwork, calrd-board work, toy-making, leather-work, paper-making etc., which are some of the basic crafts stated as suitable for adoption, **will supply the** broad foundation on which **the structure of a**

seven years' educational work may be built ? Within a year or two .the genuine educational possibilities of the craft will have been exhausted, and craft-work will afterwards continue as a parallel physical activity, which has no vital contact with the educational process. Far-fetched correlation may be established which in its artificiality and ludicrousness would rival the pseudo direct method of teaching .English, at its worst. In the course of its intellectual development a child does want to know things and about things for *xhe* sake of knowing, out of sheer curiosity. That curiosity need not at every turn be propped up by craft activity. It may even be said that it is a wrong principle to teach the child to look out on the world through the one window of a craft, and shut up all other openings. The world and life are too wide to be compressed within the orbit of any craft. A poet once said that if he could tknow everything about the little flower in the cranny, he would know all about the world. Only in such a poetic sense we can claim that all the knowledge that a growing child needs will emanate from a craft. As a case in point I shall cite the syllabus in General Science for the two highest Grades or Standards viz., VI and V I I of the Primary School. Among items to be done are the following :—

The law of gravitation illustrated by the motion of the moon round the earth; the transit of Venus; the falling stars; nebulae. Stars of the first magnitude and their distances. The Milky Way. What is Spectrum Analysis ? What is in the interior of the Stars ?

Apart from the question of the suitability of subject matter for boys and girls of 14 years, we may well ask whether this body of knowledge has any relation to the

crafts or environment, and whether it can be justified on any principle of basic education. Curiosity and love of knowledge are the only grounds on which this part of the Syllabus can stand. The Zakir Hussain Committee has in this instance -overcome the limitations of the principles of basic education, and recognised the fact that knowledge as such has a place in the scheme of education, whether it has any connection with a craft or not.

As a very telling illustration of the absurdities of basic education carried on for form's sake, I may narrate a story from the C. P. That day's lesson in history was about Buddha and his teachings. It also happened that Dr. Rajendra Prasad was to visit the school on that day. The teacher came to the class-room with a piece of wild silk cloth in hand, and asked tie boys where such silk was produced. " In Bihar " came the intelligent reply. The next question was," To what Province did Rajen Babu belong" ? "To Bihar, of course". The teacher then proceeded to say that Gautam Buddha also was bora in Bihar and, therefore, the boys would be told about him and the religion he founded. The silken cloth came in because of the craft, and Rajen Babu because of the need of correlation to a life-situation. Cannot Gautam Buddha and Buddhism be considered in isolation from silk and Bihar ? The obsession extends to the highest quarters as may be seen from the following remarks of Gandhiji: " Take Geometry next. What can be better demonstration of a circle than the disc of the takli ? I can teach all about the circle in this way without even mentioning the name of Euclid ". One can only say that a boy who understands all about the circle can very well do without the intellectual support of the takli disc.

Gandhiji has rendered a great service *to* the cause o£ primary education by calling attention to **the** utter

iookishness of a good deal of it, to the stuffing of the passive mind that goes in the name of education, to the over-emphasis on formal class-room teaching, to the neglect of creative activity, and to the supreme importance of keeping the village in mind when considering the problem of mass education. All this needed to be said and none could have said it with such compelling force. If advocated by anyone else, " activity " would have meant, in effect, an hour or two of woodwork or •something like it. Gandhiji has given a momentum to the cause of the reform of Primary Education that it could not have received at the hands of any one else. But when this acknowledgment has been unreservedly made, it becomes the duty of educationists to sift what is sound in his ideas about basic education, from a good deal that is intensely personal and deeply coloured by a philosophy of asceticism quite inapplicable to the problem of a child'seducation. It; is true that the child loves activity, but not less true that it desires change in the direction and nature of that activity. It cannot concentrate itself steadily on one activity for much length of time. To invite it to spin and weave or at the most to ring changes -on spinning and weaving for more than three hours a day, and that, too, for seven years on end is to set to it a task, more worthy of the powers of an adult. An adult will engage himself in such grind from necessity ; a child with **a** feeble will and a delicate constitution cannot be expected to do it for pleasure. The prospect of feeding continuously on a menu of spinning and weaving for seven years is a gloomy one indeed for any child. And again, why must a child — whether boy or girl — be made to learn and practise one craft for years, when his life's vocation is definitely going to be something else ? What can a barber's or chamar's son have profitably to do with **wood-work, card-board work, paper-making or even**

agriculture, for more than three hours a day, and on all days for seven years ? Not one highly specialised skill. but skills of wide and general application are worthwhile cultivating during this period of life. When everything is said and done in depreciation of them, the three R's do constitute the foundation of intellectual culture for the child, and if it does not acquire them during early years, it practically has lost the chance of acquiring them ever afterwards. These cannot be so easily picked up as one goes along on the path of a life of labour, as can be the skill in craft work. Labour is such a ubiquitous fact of life for the masses that some abatement of it in the interest of intellectual culture during childhood need not be regarded as incitement to parasitism. On the other hand, one must beware of imposing too strenuous a discipline of labour prematurely on the high strung nature of the child.

The net contribution of the basic education idea to school-work is likely to be a pronounced emphasis on activity, including spells of the highly purposeful activity of craftwork, better orientation of school-subjects in relation to physical and social environment, diminution of formal class-room teaching, greater resort to the open book of nature and life for purposes of instruction, aridmore attention to the training of artistic talent. If realised to the full these features would mark a solid improvement indeed.

The possibility of making primary education self-supporting is nil. This has not been accomplished in any one of the basic schools I saw, nor in a normal class for teachers I visited. The estimate of the Superintendent of the latter institution was that about 1/3 of the expense on the basic craft department may be recovered

from the sale of yarn. Yarn turned out was ununiform in quality and strength. The jail authorities were prepared to weave it on condition that the finished product was taken over by the school. In the meanwhile a stock of yarn had accumulated and he did not know what to do about it. Even if we grant that somewhat better results may be obtained elsewhere, the experience so far gained does not in the least warrant the hope that basic education can ever become self-supporting. Under the most favourable conditions of production and marketing, the current expenses (excluding teacher's salary) of the spinning section may be met from the proceeds of the sale of yarn, but the normal position is likely to be one of cLeficit, large or small; and a situation where stocks of yarn remain undisposed of on hand and entail an expense for safe-keeping, is not to be ruled out of consideration.

I visited the basic education schools at Jammu and Okhla (near Delhi). The Jammu School impressed me as representing the most systematic endeavour to give effect to the principle of education through craft-work : the craft adopted for the purpose being spinning and weaving. An atmosphere of kefen interest, activity and cheerfulness pervaded the place. Songs about cotton and weaving were being sung ; arithmetic was being taught in terms of units of cotton used up, yarn spun, cloth woven, slivers made etc. In upper classes higher processes of the craft such as making reels of yarn, arranging warp and weft, weaving ribbons, dusters, carpet pieces etc. were being practised. Very good cardboard work was seen, such as waste-paper baskets, flower-**baskets,** letter-pads, boxes etc., and all these were very artistically coloured. Some gardening activity was **also in** evidence. **But with** all **the advantages** of **able direc tion and teaching, excellent equipment and generous**

State support, I cannot say that the basic education idea was realised to the full. I believe, for the good reason that it cannot be. Its self-supporting possibilities were doubted by everyone; the allocation of three hours to craft work was considered to be a difficult proposition. As for correlation of teaching to craft, it got a little on my nerves to hear sums in arithmetic being always propounded in terms of cotton, yarn and cloth. Why should a sum in the sale or purchase of vegetables or grocery be less related to a child's interest than one of yarn? Why should every other interest be blotted out by the shadow of the craft?

The very best primary school I saw was that run by the Jamia Milia Islamia near Okhla village. It is a wholly residential school, with about 175 pupils. Buildings are simple and elegant, located in specious grounds, and are kept in a very clean and orderly condition. A large work-shed provided facilities for hand-work in clay and wood, and the drawing hall was the scene of animated art activity. Boys were preparing exhibits for a *mela* (Fair), such as miniature brick-buildings, toys of clay and ply-board, and card-board articles. A store and bank are run by boys under proper supervision as educational projects. Hostel life, too, has been organised in an admirable manner. It is altogether a model school embodying many features after the heart of an ardent educationist; but one can hardly describe it as a school of basic craft education. It utilises fret-work and card-board work as means of education, that is all.

The Okhla School nearby was recommended to me as a typical village school of basic education. It had about 30 children, boys and girls, Hindu as well as Muslim. The school house consisted of a large cottage with walls

of bamboo-work plastered over with mud. Scenes of village-life were painted on the walls. The children had done their craft-work for the day and were engaged in practising the alphabet on wooden boards sprinkled over with sand. The yarn spun by each was wound on wooden planks and hung on the walls. At my request they were asked to sing a song, which was about cotton. The programme of 3 hours* craft-work was not in vogue there. Spinning was done for some time every morning. Younger children attend only in the mornings; older children also come in the afternoon.

The Training College for Basic-School teachers is situated on the outskirts of the same village. Dr. Saeed Ansari is the Principal, and the institution had (in October 1940) 18 students on the rolls. Buildings, including an extensive workshop, were under construction. Students had been dispersed for the day. The Principal was full of enthusiasm for his work, and he showed me the Library of educational literature and other equipment that he was engaged in collecting.

The Government normal class for teachers (at Wardha) and the practising school attached to it appeared to me to be a sincere and discriminating endeavour to try out the basic craft scheme. The spinning activity was very well organised, and I could see a variety of appliances in connection with the different processes involved. A hand-worked mechanism for the simultaneous ginning and carding of cotton seemed to be a successful and helpful contrivance. Two periods of 3/4 hours each were devoted to this activity and I was told that a longer period than that did not appear to be practicable, considering the child-pupil's limited capacity for continuous work, and the teacher-pupil's pre-occupation with other studies. Some practical difficulties in connection

with spinning were pointed out. As a breeze of any strength scatters the slivers about and snaps yarn in the process of spinning, children have to do spinning in a closed room ; it can be well imagined how uncomfortable and unhealthy such a situation must be, at most times. Mice also play havoc with cotton and yarn ; a tin-sheet box had thereforeto be provided to every one. I also saw a large stock of yarn on hand, and the Superintendent seemed worried over its disposal. A bamboo-frame School-house of the inexpensive sort, put up within the compound in connection with the Vidyamandir Scheme, appeared pretty well dilapidated and infested with white-ants. Parents did not mind keeping their children in the basic school for the first three standards ; but as they were anxious for transfer to the regular school during the 4th year i. e., the year just preceding the first Anglo-vernacular standard, the school-authorities have been compelled to give special coaching to these children at the sacrifice of spinning in order to bring them up to the level of other children, in the subjects of examination. The experience is that the basic education course does not secure the same grounding in literary subjects and the three R's as does the ordinary primary course.

Two primary schools of distinctive merit, teaching the present-day courses and subjects, but bearing the impress of idealism and originality of the managers, which I was able to visit, are the Primary School for girls conducted by Mr. Madhavrao in Mangalore under the auspices of the local Theosophical Society, and the Primary School of the Seva Sactan Society in Madras. The former is housed in cottage-like buildings, in a quiet corner of the town. A small hostel is maintained. The little inmates are made to feel perfectly at home.

Orderliness and quiet efficiency are noticeable in every aspect of work. Very remarkable specimens of children's hand-work were shown—such as cane-work, card-boards work, needle-work, paper flowers etc. The same remark applies to the other institution as well. The hand-work done here by High School girls and inmates of the orphanage merits the highest praise. Needle-painting, applique-work, embroidery, shadow-work, sewing etc., of artistic design and delicate finish were seen. In the better sort of Madras primary schools quite good specimens of handwork are met with ; the training received by teachers in charge of this subject at the Government Handicraft Training Class in Madras is responsible for this excellence.

Our own Navin Marathi Shala will compare favourably with any of the schools mentioned above. Furthe: improvement must be along the line of developing activity and hand-work, and correlating education to physical and social environment. We need not go in fo the basic education project; but its fundamental idea o emphasizing fruitful and purposeful activity as th motivating principle of education ought to be full appreciated and adapted to our own ends. It would b worth-while deputing a teacher or two to the Goverr ment Handi-craft Training Class in Madras. The in provements suggested may be financed by increasing th fee-rate to Re. 1 in the earlier classes as well. Th desirability of appointing one or two teachers with T. T or S. T. C, qualifications may be considered. But whs I think most worthwhile attempting is the training (village teachers for the kind of private school that th Bombay Education Department has decided upon e: couraging. The training may only last for a month c two and may be arranged during the summer.vacatio:

Whatever experience we have acquired about the methods and content of primary education in the course of managing the Model Primary School of the Presidency should be made available to intending teachers. It is part of our duty to broadcast our experience and the results of our experiments. Again, as promoters of primary education we ought to take a constructive part in the efforts that are proceeding for the reshaping of primary education. We are in an admirable position to do it and the opportunity should not be missed.

CHAPTER III

Secondary Education

Secondary Education has come to be identified in India with instruction in the English language first and foremost. For almost 75 years after the systematic organisation of public education, teaching and learning. English remained the dominant interest of Secondary Education. Other subjects of cultural and practical value were of course to be taught, but in due subordination to the essential requirement of mastering English, to the point of its availability as a medium of instruction. The Secondary Course was divided into two stages viz., the Middle Stage of three years, followed by the High, stage of four years, leading to the matriculation examination. English was the differential mark of the Secondary Course, and the pupil entered upon it generally at the end of Vernacular Standard IV. Vernacular Standards above the fourth were comprised in Elementary education, because they were not organised for the teaching of English. The career-value of Secondary Education, or we may say, English education was so high in the early days that everyone, who could, bade goodbye to the higher vernacular course and embarked upon English education through the Secondary course. So long as secondary education supplied the recepient with a pass-port to tolerably good prospects in life, the intrinsic merits of that education did not come in for examination and assessment. Secondary education appeared to justify Itself by results. The mood of complacency began, however, to be disturbed after some years, and the searchlight of public criticism began to play upon it. Some people disapproved its de-nationalising tendencies, as

exhibited in government and missionary schools, others disliked its narrowly bookish and unpractical character. Its aim seemed to be to prepare students for the Matriculation Examination rather than for life; and if the young man did not find a ready-made and secure niche in life, he was helpless and resourceless. Chiplonkar in his address to pupils of the School in 1880, uttered the warning that, 'The golden days—golden in more senses than one—are now no more; days when scholarships sometimes out-numbered the students themselves; days when a graduate fresh from the University was a nine days' wonder. The present is an age of stern necessities, when the struggle for life has become ten times more arduous than it ever was." In response to the widespread complaint about its exclusively literary character the University of Bombay instituted in 1889 an examination more practical and utilitarian in character called the University School Final Examination, for the benefit of such students as could not proceed to higher University Degrees after passing the matriculation. The classical language, Algebra and Geometry were dropped from the list of compulsory subjects, while among optional subjects that could be offered were included Biology, Political Economy, Agriculture and Drawing. Only the poorer students who had no hopes of proceeding to higher education, and who were keen on securing service straightway, especially under government, took this examination. The student passing it was regarded as inferior in calibre and attainments to the matriculate with the inevitable result that it never really established itself in popular favour. It was later on abolished, and a Joint School Examination Board—consisting of representatives of the Education Department and the University —'began conducting a single examination. The government withdrew from the Board after a while, and the

control of the examination passed entirely into the hands of the University, which now conducts it as the Matriculation examination. The moral to be drawn from the fate of various attempts to establish an examination distinct from the Matriculation i. e. from one entitling the student to proceed to the University, would appear to be that a matriculate or the holder of an equivalent certificate stands higher in public esteem because he has given evidence of potentiality of a higher order ; while one who has qualified only for service is regarded as having sacrificed general education and culture for utilitarian., ends. When a re-organisation of the Secondary course is, therefore, thought of, this point will have to be kept in mind. A certificate or an examination that offers no avenue to University education would command lesser general esteem, and it would have to justify itself entirely by its immediate vocational utility.

The question of re-organising Secondary Education and co-ordinating it with Primary Education has been twice investigated and reported upon in Bombay, once by the Hesketh Committee (1929) and again by the Joshi Committee (1938). The Hesketh Committee recommended in favour of a continuous course of 11 years divided into a lower elementary course of 5 years, an upper elementary course of 3 years, and the High School course of 3 years. English was to be taught as an optional subject in the upper elementary stage ; the pupils who learnt that language being eligible for the High School course while others were free to proceed to the Vernacular Final Examination. Schools in which English was not taught were to introduce vocational bias work, A vocational subject was to be compulsory in High Schools and was necessarily to form a subject of the secondary School Leaving Examination. A minute of dissent by

Mr. S. N. Moos, the present Director of Public Instruction, entered a protest against the inclusion of a definitely vocational subject in the High Schools, and suggested the establishment of a different type of High School with a distinct curriculum, of which training in technology, crafts and commerce would be the chief objective. The fear was expressed that the teaching of cultural subjects might suffer on account of the inclusion of vocational work; while really useful work would be difficult to accomplish during the short time available for it in the time-table.

The reorganisation of Secondary Education suggested by the Joshi Committee is closely related to the Scheme of Basic Education. This Committee recommends a secondary course of 4 years, to commence after 7 years* course of primary education on the basic plan. The child would have completed its thirteenth year by the time it was ready to enter upon the course of Secondary Education. The most important recommendation of the Committee with regard to Secondary education is its bifurcation into the General Group, and the Science Group, and the further sub-division of each of the two Groups into three courses according to the following scheme :

General Group.	Science Group.		
Literary, Artistic, Commercial.	Agricultural,	Industrial & Technological,	Scientific & Professional.

Each course is to be of four years' duration, and it is to combine instruction of a practical vocational character with general education, except in the purely literary course corresponding to the present-day High School curriculum. The teaching of English is normally to begin with the beginning of the secondary stage, though in the event of a strong demand for it, it might begin from the fifth primary standard. The expectation of the Committee is that the Secondary Course, whether literary or otherwise, would be equivalent to the Intermediate stand ard of the University. For the teaching of each course a separate institution of the Secondary grade was to be established, which might be called the High School, simply, in the case of the literary course, and by such names as the High School of Art, Commercial High School, Technical High School, Agricultural High School etc., according to the nature of the course taught therein.

The Joshi Committee has done well in emphasizing the need for the differentiation in courses of Secondary Education, and recommending the establishment of institutions of the Secondary grade parallel to the exclu* sively literary High School in vogue at the present day. The layman, thoroughly dissatisfied with the literary and narrowly academic character of secondary education, usually makes the demand that vocational instruction be added on to the literary subjects and the deficiency corrected. He does not realise, however, that the combination of the full literary course with thorough-going vocational instruction will put an unbearable strain on the growing child; and that, besides, it would be impossible to find a place for all subjects within the time-table of any day-school. There is also the financial difficulty of equipping all High Schools for the teaching of voca-

tional subjects. The most fundamental objection, however, is that it is undesirable and unsound to force every young man through a course of vocational training, irrespective of his inclination and future career. A certain amount of manual work for the training of hand and eye is one thing, systematic and rigorous vocational work,, quite another. The correct procedure, therefore, is *to* establish separate institutions for the purpose of organising vocational training.

While setting up differentiated courses of training in the field of secondary education, we must, however, beware of forcing irrevocable decisions prematurely upon the pupil and cutting him off entirely from general education. After all, a boy going into industry at the end of secondary education is not destined to be a mere operative or mill-hand. He would aim at joining or rising to the supervisory grade of work at least, and general education is a necessary part of preparation for such a career. The practital result of this line of thought would be to couple general education with the practical and vocational, and not to allow vocational education to get reduced to the acquisition of very specialised skill in a particular occupation. The cultivation of specialised skill in one occupation is the appropriate business of a trade-school, not of a technical or industrial school of the secondary grade. While, therefore, a broad divisioa may be made between pupils who feel at home with lessons and books, and others who are "doers" by inclination, and suitable courses of instruction laid down for each type, it must be understood that practical subjects themselves are to be conceived as means of education. The study of them ought to impart skills and insights of general applicability to a wide group of

industrial occupations. Hence this kind of training is properly described as pre-apprenticeship training.

Considered in this light, the Joshi Committee's scheme seems to demand too early a branching off into too many different courses, though in laying down a four years' vocational course at the secondary stage and dating it from the thirteenth or fourteenth year the Committee has the authority of the Abbott-Wood report behind it. Except for the Technical and Agricultural courses so early a differentiation does not appear to be called for. Instead of starting separate High Schools for Artistic, Scientific, Professional and Commercial studies it would be more practical and economical to offer scope for the pursuit of these studies in the ordinary High Schools, and to include them among the optional subjects of examination at the matriculation. It would be hardly possible to find a sufficient number of pupils for these specialised institutions except, perhaps, in the largest cities, even if we assume that the boys or their parents would be able to exercise such a decisive choice at so early a stage of education. It is otherwise with agricultural and technical studies. A start may have been made with agriculture in the Senior Basic Schools ; and the entrant to the Technical High School is likely to be the " doer " as against the "book-learner"—abroad distinction which becomes apparent at the age of thirteen or fourteen.

One of the important questions to consider is the position of pupils of vocational High Schools in relation to University Education. Representatives of the Education Department and the University have examined it with reference to the vocational High Schools that the: Government of Bombay have set up on the model of the Junior Vocational School recommended by the Abbott-

Wood Committee. These institutions have come into existence as the result of the conversion of some of the High Schools " with a view to providing alternative vocational education for boys who have no aptitude for higher literary studies but have a' bent for vocational education.*' It is expected that students trained in these schools will get employment in commerce and industry more easily than matriculates. Government have thrown open to such students admission to the Diploma Courses in Engineering, Agriculture etc., and to the Victoria Jubilee Technical Institute. I, for one, think that the products of these schools should stand on the same footing as alumni of the literary high schools for purposes of admission [to Professional and Arts Colleges. Their vocational training should be considered as a medium of cultural education that they had chosen as being specially congenial. It is now an accepted maxim of education that culture does not inhere in certain subjects only, but in all; the cultural yield depending more upon the spirit and method of study than upon the subject. This plan is also necessary in order to establish the secondary vocational school in public confidence. Such persons as have not a mind to proceed to the Uni. versity degree, may work for a professional diploma, or straightway enter upon apprenticeship training in the same institution or in a factory or workshop. Thus would be developed a well-co-ordinated system of vocational education, possessing regular connections with institutions of general education belonging to the Secondary grade, with the Arts and Professional Colleges, with post secondary technical institutions other than colleges, and with the factory and the workshop as well.

Even after secondary vocational high schools, in sufficient number and variety, have been established, the

literary High School, par excellence, is bound to retain its importance and attraction; and that is as it should be. Its role will be to prepare students for entrance to the University, and recruitment to administrative positions, clerical and ministerial posts, and generally to " white-collar ," " black-coated " or " soft-handed " occupations. Even if we do not describe the work done by such persons as " brain-work ", it is at least work involving the use of the tongue and the pen rather than the hand. The praises of hoiny-handed labour are sung aloud, but in most hearts there is longing for the sheltered, "respectable" work at the desk, or the counter. And though it is perfectly clear that the world's business has use for incomparably more hand-labourers than -quill-drivers, the striving to join the black-coated fraternity will be always there. With a social outlook of this sort, the literary High School is bound to remain a popular and strongly entrenched institution; particularly so, in India, where social sentiment, lack of openings for the "technically educated" on account of industrial backwardness and the absence of facilities for technical education itself, combine to make the literary High School and the Arts College the inevitable points of gravitation for the middle-class. The curriculum of the literary High School is thus a matter of major educational importance.

The Report of the Spens Committee on Secondary .Education (1938) appointed by the Board of Education an England, after an illuminating discussion of the principles that should govern the curriculum of the Grammar School i. e. the predominantly literary .High School, suggested the following time-table for the two uppermost standards. Periods of three

quarters of an hour each, numbering 35 per week are assumed :—

Group I:	English, Religious Knowledge, History and Geography	10
Group II:	Languages, other than English	4
Group III:	Mathematics, Science	7
Group IV:	Music, Art, Handicraft, Domestic Science (for girls)	7
Group V:	Physical Education	4
	Pool (Unassigned periods)	3
	Total	35

This distribution of time is intended for the normal course. But pupils are allowed to do more work in certain subjects of their special liking and less in others. Thus the number of periods devoted to Group I can vary from 8 to 10, Group II from 4 to 12, Group III from 4 to 10, and Group IV from 4 to 8. Those desirpus pf taking up commercial subjects in their last year can give upto 8 periods to the study of them. The "pool" periods are free periods, not assigned to formal teaching and class-room work, which may be used by pupils for the pursuit of their special interests and hobbies or by the teacher for a discussion with his pupils of matters of general interests. Subjects included in Group I are described as "English Subjects" in the sense that the study of the English language for accurate and effective oral expression and composition ; the study of English History and to some extent the history of other countries for the **understanding** of English **civilisation, and England's**

contribution to the world's culture; and the study of English literature itself hold the leading place in it Geography is important as supplying the interpretation and understanding of the interaction between manand his environment. Religious knowledge through the Scripture is regarded as a part of Religious Education, liberally conceived as inculcating "duty and reverence'[1]. The Spens Committee looks upon Group I as the very core and unifying principle of the Grammar School curriculum, which in a pre-eminent degree ought to develop and harmonise the powers of intellect, will,, emotion and conscience and.constitute the central part of the pupiPs training as the future citizen of a free country. Under Group II the study of at least one language besides English, either classical or modern, and two or even three, if a scholar shows special liking and aptitude, is recommended. Mathematics and Science need no. justification. Art and Music are important for their value in awakening and developing aesthetic sensibility and handicrafts for the scope they afford to the creative faculty.

In Indian conditions a curriculum of the scope and character indicated above would put the study of the. mother-tongue in the forefront, and along with literature and Indian History would make it the foundation of Cultural Education for the young citizen. As for the second language, English must be given a necessary place in the curriculum, and it must be cultivated with the care that its importance as the language of public affairs and of international intercourse deserves. A much-higher proficiency must be afmed at in English, than an English boy does in French or German; for, not only-must the Indian boy be able to read and understand English, but must be further able to write and speak

it with some degree of ease and confidence. English was at one time the medium of instruction in High Schools. Its abando»Haetit for that purpose has been a first rate educatiohal improvement; but its repercussion on the proficiency in English must be closely watched, and loss of wider opportunities to the student of familiarising himself with it must be made up by intensive and systematic cultivation according to the most improved methods o learning a foreign language. The study of a classical language and Hindi or Urdu may be permitted as optional subjects to those that have a special linguistic bent; but burdening all and sundry with a third or fourth language is undesirable. The Bombay and Calcutta Universities stand alone in India in requiring the compulsory study of a third language, which in most cases turns out to be the classical. The excessive linguistic loading of the curriculum must be at once corrected. Elementary lessons in the allied classical language may be given as part of the advanced study of the Vernacular ; but except on a voluntary;basis , the study of it ought to be conceived as an aid to the understanding and enrichment of the Vernacular. With regard to History, Geography Mathematics and Science, the plan should be to include an elementary paper in the compulsory group, and place advanced papers in them among optional subjects. It cannot be said' that Secondary Schools in India are equipped, or can be, in the near future, to provide for Art Subjects, Music and Handicrafts on a compulsory basis, particularly for the School Leaving Examination purposes. But these can very well figure in the optional list. Commercial subjects are near-allied to the work of the literary High School, and some of them like book-keeping, shorthand, commercial practice, type-writing etc, may be offered as optional subjects. The Scheme of the School Leaving Examination, or by whatever name

we choose to call its equivalent, would therefore comprise a comprehensive list of optional subjects, which might either represent advanced work in subjects belonging to the compulsory group, or work of a practical and artistic character. The hide-bound uniformity of the present day curriculum should be broken down and enough latitude given for the cultivation of distinctive interests and special aptitudes.

We now come to Religious Knowledge and Physical Education, of the Spens Committee's Report. By whatever name we call it, the " inculcation of reverence and duty " ought to form an integral part of any education. It is a subject peculiarly beset with practical difficulties. But the difficulties must not induce an attitude of despair and acceptance of a policy of drift in regard to a vital aspect of education. By moral precepts, by enforcing the lessons of great lives, by dwelling upon the moral significance of great movements in History, by the interpretation and illumination of current events, in fact by any means that he may find suitable, the teacher must develop the powers of will, emotion, and conscience. By comparison with the pains bestowed upon the cultivation of intellect other powers suffer by neglect. Just because the task is difficult to attempt it is not attempted at all, and the pupil is left to grope in the dark and pick up bits and scraps of such -moral guidance as he can. It is worthy of note that the Japanese Educational Scheme throughout the school course, Primary as well as Secondary, provided one or two periods per week for the teaching of " morals ". What Indian equivalent to find for it, with a view to arousing a consciousness of duty towards society, country and humanity and the will to perform it, is one of the pressing problems of our education.

In an admirable paragraph about Physical Education, the Spens Committee speaks as follows: "Physical Education means much more than the physical training appropriate to the individual pupil, and gymnastics or games. Its aim is to foster the habits of healthy living which is founded on an active belief in the value of health, and the knowledge of what to do to ensure it. Respect for the body, pride in posture, cleanliness, grace, poise and hardness of muscle, these are some of the evidences of the habit of healthy living. "

It is hardly necessary to add to this exportation about the importance of physical education. The" foundation of life-long health and fitness can be laid down during adolescence. The School authorities ought to look upon it as their special trust and responsibility to help their pupils to do so.

What will have to be done about overhauling secondary education has so far been indicated. It is, however, a thing for the future ; let us hope, for the near future. The present conditions in regard to secondary education may now be passed in review with a view to finding out the place held by our part of the country in it.

Literacy in English was higher in Bengal and Madras than Bombay according to the Census figures of 1931. In travelling through Madras and Bengal one does get the impression that English is more widely spoken and understood in restaurants, shops and railway stations. The reason may be that some beginning with English is made even in the primary school. Bombay alone has a secondary course of seven years; other Provinces have one of six years only. It is every where divided into a middle stage and high stage of different lengths. The

United Provinces alone have evolved Intermediate Colleges made up of two upper classes of the High School and two lower classes of the college, acting upon the recommendation of the Calcutta University Commission. The concluding examination of the Secondary Course is variously known as the High School Examination, the School Leaving Certificate Examination or the Matriculation Examination. So far, an examination at the end of School course that does not lead to admission into a University has not succeeded in rivalry to one that does.

In the field of Secondary Education, private agency everywhere overshadows government agency. Government High Schools are becoming more and more rare, with the advance of private educational enterprise. A remarkable feature from Madras is the very large number of High Schools maintained by Municipalities and District Local Boards: as many as 177 in 1936-37. A wide-spread system of grants-in-aid prevails, though different provinces show some striking variations as regards the proportion of aided schools to un-aided, and the principles governing the measure of the grant given. In 1936-37 Bombay had 20 government High Schools, 237 aided and 24 unaided. The corresponding figures for Madras were 26, 251, 2 and for Bengal 49, 624, 608. Middle schools are not included in the figures given above. In Bombay the grant is a certain percentage of approved grantable expenditure; it has latterly come down from a permissible maximum of 33% to 25%, and as a matter of fact many schools get much less than the maximum. Madras government gives a grant equal to half of the school deficit, leaving the other half to be made up from sources other than the fee income. The deficit is calculated on the basis of standard fee-rates and

certain prescribed salaries for teachers. The average government grant to an aided High school for boys was in 1936-37 about Rs. 1800 in Bengal and a little over Rs. 4000 in Bombay and Madras. Under the Madras plan of assessing grants, bigger institutions get comparatively and some-times absolutely less, because on account of their larger fee income the deficit is lower. For instance, the Ganapathy High School of Mangalore with a strength of 500 pupils gets a grant of Rs. 5000, while the Hindu Theological High School in Madras with 1700 pupils on the rolls gets Rs. 3000 only, and even this amount of Rs. 3000 is mostly fmade up of compensation for special fee concessions extended to backward class boys. The larger as well as smaller schools are just enabled to keep their heads above water. The practice of charging fees for 10 working months of the year only, prevails in certain provinces, and it is usual to have one uniform rate for the middle section and another higher one for the High School section. The Hindu Theological High School mentioned above charges Rs. 6 p. m., in the Sixth Form (which is equivalent to Standard VII on our side) for 10 months of the year. Between Rs. 4 and Rs. 5 per month is the fee usually charged in all provinces in the highest standard of the generality of High Schools. The situation as regards teachers' salaries varies considerably from school to school and province to province. In Bengal, secondary teachers* salaries have been notoriously poor. The Quinquennial Report for 1932 to 1937 estimated the average salary of the teacher in unaided schools at Rs. 40 p. m., and in aided schools at Rs. 50 p. m., and it is stated that the practice of taking back **some** portion of the salary as subscription is quite **common in** private schools. In the course of the recent **controversy** over **the** Secondary Education Bill **Rs. 25 p. m., was stated to be the prevalent average in private**

institutions. Madras shows the highest proportion of Trained and Certified teachers viz., 85 per cent. The existence of a large number of Municipal and Board High Schools in that province, which conform to scales laid down by the Department, has tended to keep up the salaries in private schools generally. The scale for B. A., B. T.'s (as recently reduced) recommended by the Department is 60—5/2-100.

As regards the curriculum of the University Examinations, Bombay University has laid down the largest number of compulsory subjects, and left the smallest possible scope, or none at all, for options. Madras has six compulsory papers and one optional, to be chosen from a list of 20 subjects. Calcutta has only 4 compulsory subjects (English, Classical and Vernacular languages, and Mathematics) and three additional subjects out of 8, two of-which may be the classical language and mathematics, over again. The U. P. Board of High School and Intermediate Education prescribes 4 compulsory (English, Vernacular, Mathematics and History, Geography) subjects and one optional from a list of 16, in which (optional) the candidate is examined by two papers of three hours' duration each. The list of options includes cultural subjects, science, agriculture, music, commerce, and vocational subjects like metal work, bookbinding, spinning and weaving. A candidate, having once passed the High School examination with certain subjects, can offer one or more subjects at a subsequent examination, and obtain a certificate of having passed irk these additional subjects. The growth of education in commercial subjects is a remarkable feature of Madras. Book.keeping, Short-hand, Type-writing and Commercial Practice can be offered as voluntary subjects at the School Leaving Certificate Examination of Madras. In

1936-37 Madras had more than 7,300 students in commercial classes ; this number was greater than in all other Indian Provinces put together.

Compared with other provinces our standard in Sanskrit, Mathematics and Science is quite good. The modern European languages are more widely studied here. There are a good many indications to show, however, that English, particularly in Maharashtra, is at a low level indeed. We are by nature a taciturn people, lacking in the gusto for talk and discussion shown by a Madrasee, for instance ; and we have not taken any particular pains to overcome this deficiency by training and effort. English is studied in a half-hearted manner; in a spirit of defeatism, so to say, and not with the determination to acquire mastery. It may be admitted that it is a disagreeable necessity to have to study a foreign language to the point of facility in speech and writing. But if service in government departments, commercial firms, railways etc., be an objective—as it most assuredly is—with those taking to secondary education, then the present-day neglect of English studies is suicidal. One has only to note the displacement of Maharashtriaos from the clerical and ministerial positions in the commercial life of Bombay to realise the force of my contention. The study and teaching of English must, therefore, be directed to the end set forth above. It is not for me to suggest the means ; but one proposition can safely be laid down : viz., that steady and systematic efforts alone will supply the foundation of good English in schools. The "pool-periods" can be utilised for the purposes of conversation. Training in speech and conversation must be indeed regarded as a major responsibility of secondary education. Be it remembered that precise, effective and well-bred speech is no extraneous matter. It is the out-

ward expression of a well-informed, cultured, disciplined, and clear-thinking mind. It is further to be hoped that cultivation of good speech will be combined with the cultivation of good manners; for, we of Maharashtra are as a people lacking in this grace of social life, and not infrequently we produce a first unfavourable impression by the awkwardness of deportment and bluntness of speech.

The sporting side of our schools suffers considerably by comparison with other provinces. The Punjab will easily lead in this respect, and elsewhere, too, sporting activity is much more wide-spread and vigorous. Indian Gymnastics and certain Indian games capable of being developed as the means of mass training are our speciality ; this development is yet to take place, however. On the other hand, foot-ball and hocky, the least expensive and most vigorous of English games, have not esta. blished themselves so well as in other parts of India; and instead, Cricket, the most costly and exclusive of them, has secured great vogue. It frequently happens that cricket monopolises the funds and the care of school-authorities. When any serious effort begins to be made to bring the whole school population under physical training,cricket will have to be sacrificed in most schools. In other provinces, the pre-occupation with cricket being slight, much more generous provision is made for a variety of games and sports. In the Punjab one comes across spacious covered gymnasia handsomely equipped with apparatus for exercise, such as Horizontal Bars, Swings, Ladders, Wall-frames for hand-climbing, etc., and crowded with boys in eager pursuit of exercise. Medical examination of pupils and medical care are also thoroughly organised in the better class of schools. A whole-time medical practitioner is employed by the

Dayanand Anglo-Vaidic High School of Lahore to carry out medical examination, offer medical advice, and render free medical-aid. An efficiently equipped examination-room for eye-sight and a Dentist's chair are maintained. A detailed medical record of each pupil is kept through, out his school career. All these are necessarily costly items ; I have only drawn attention to them in order to point out the progress already made in other places.

A Secondary institution with distinctive features is the English Public School, which has been imitated in certain places for the education of Princes, Noble-men, and children of the well-to-do classes. The Rajkumar Colleges, as they were called, came into existence quite long ago. As they lacked academic freedom, however* and were dominated by the desire to inculcate the English pattern of life and manners, these institutions failed to reproduce the best traditions of their English proto-type. More recent attempts by Indian leaders to establish the genuine public school in India have met with conspicuous success. The late Mr. S. R. Das took the lead in founding the Doon School. It seeks to engraft the best in public school tradition on the stock of Indian life and culture. It admits boys at 11 years of age and keeps them for seven or eight years. Pupils are trained for the Cambridge Local examinations or upto the Intermediate standard of Allahabad University. A connection with the Indian educational system is thus maintained. An English gentleman with a good experience of public school education is at the head of the School, and there are four or five more English masters. Other members of the staff are Indians with high educational qualifications. All pupils are in residence on the premises, and live in contact with their teachers and with each other all the while. A well ordered

routine of academic work and sporting activity is followed. Orderliness, cleanliness, regularity, self-reliance, and a highly developed corporate life are the outstanding features of school life. Games and physical training are compulsory. A work-shop and art department afford ample opportunities for pursuing hobbies and developing artistic talent. On the "labour-day" boys don a workman's clothes and engage in a workman's honest labour. They have "adopted" a nearby village, and they plan and carry out all sort of village uplift work by way of practical training in. social service. If any education can build character and leadership, this should. The annual expenses are between Rs. 1500 and 1600, but so great is the rush for accommodation that many go away disappointed. It is interesting to note that within 5 years of its commencement the school not only meets the current expenses out of the fee-income, but is in a position to repay a part of the capital outlay. Schools of this type can with advantage be opened in different provinces, and the annual expenses for each pupil easily brought down to Rs. 1000/- or less. The discipline, education, and corporate life they afford would be valuable assets to any young man. When reviving the N. E. School hostel, at present temporarily suspended, we might seriously keep in view the possibility of building up a Public School section, in connection with the Ramanbag High School.

CHAPTER IV

(A) University Education

Newman, writing almost a hundred years ago, expressed the opinion that teaching students to become intelligent, capable and active members of the Society was the proper office of a University, and this object was to be secured by the culture of the intellect. To advance the dominion of Science, and frontiers of knowledge was, in his view, a duty of the Academy and not of the University. The University was to be the home of teachers, engaged in dispensing existing knowledge, and of students desirous of acquiring it. The search after new truth was to be carried .on in the seclusion and quiet of the Academy. This idea of a University has undergone a complete transformation in the course of the last hundred years; so much so, that a University which disowned the ideal and duty of seeking after new truth would be considered to have sold its very soul, and forfeited its title to be called a University at all. This is not to say that conserving the legacy of knowledge, and handing it on to the younger generation is not and must not remain a major concern of the University. Knowledge is the most precious gift of the past to the present; if that were lost, the whole structure of civilisation would come down to the ground and Society would revert to a condition of savagery. Perhaps, as never before in world's history, human affairs require the daily guidance at every step and turn of men of knowledge—of expert knowledge, at that. Knowledge must certainly be preserved and transmitted to those whose business it would be to direct and carry on the affairs of Society. But movement is the universal law of life, **and** the domain of knowledge

is not immune from it. History, it has been remarked, will need to be written anew for each generation, even if its facts remained the same ; because, the outlook of each generation on identical facts will vary. Even conservation, therefore, involves the process of interpretation and reorientation. No teacher can be a passive recipient of knowledge ; he must react to knowledge in an active way, by transmuting it into a distinctive and unique possession of his own. When we further remember that every new day confronts man with new problems of ever increasing complexity and difficulty, which can only be solved by the light and power of new knowledge, the need for an agency for search of new knowledge becomes obvious. And if this agency is not to be found in the University, with its fraternity of great teachers, it is difficult to conceive where else to look for it. An academy or an Institute of Research may be established in isolation from the University, but from where will it muster its master-minds, if not from the ranks of great University teachers—the acknowledged masters of existing knowledge—or of brilliant university students ? There is no fundamental antagonism between the 'teaching function and research function of the University. The student must benefit immensely by his contact with minds]of creative originality ; and not every University teacher need be or can be a front-rank researcher. It is enough that the most gifted and best qualified for the conquest of new knowledge are enabled to carry on their work under the most favourable conditions, while others engage in the wide-spread activity of leading the aspiring student over the highways and byways of learning. Flexner in his book on Universities lays down the following as four major concerns of a great University ; the conservation of knowledge and ideas; the interpretation and critical evaluation of knowledge

and ideas; the search for truth; and the training of students at a high level in different departments of knowledge for great professions, or for the purpose of carrying on the unending quest for truth. Bertrand Russell, too, proposes for Universities the double aim of training men and women for the intellectual professions,, and of pursuing learning and research in a disinterested spirit, that is, without regard to immediate utility.

For more than half a century after their foundation Indian Universities continued to be almost exclusively examining bodies, while all the teaching was done in. affiliated Colleges. The University could only indirectly influence the level and quality of teaching through the syllabuses of studies and examinations for degrees. The Calcutta University Commission spoke thus of the older Indian Universities : — " They were not corporations of Scholars but corporations of administrators; they had nothing to do directly with training of men, but only with the examining of candidates; they were not concerned with learning, except in so far as learning can be tested by examinations. " The Indian Universities Act of 1904, originated and inspired by Lord Curzon, though it set out to elevate the standard of University teaching and to promote the advancement of learning,, only resulted proximately in some improvement of administrative machinery and nothing beyond. Uni versities were empowered by that Act to provide teaching in their own name and under their own management. But possession of power was only the first step towards the object in view. The will and the vision to break away from the old tradition were necessary; and also the constructive ability to evolve an organisation through which the University could directly carry on post-graduate teaching and research. To

reconcile the older colleges to the surrender of their post-graduate activities, such as they were, and to find out a way of associating the most capable of their teacher with the new organisation was another problem. Finance was the third and last. Post-graduate teaching and research were bound to demand funds on a far higher scale than were necessary for undergraduate teaching. Government as well as private munificence must come forward -to supply resources for endowing chairs, enriching library facilities, equipping laboratories, and founding research studentships. It is not a matter for wonder, therefore, that no practical action resulted from the enabling clauses of the Act of 1904, until a great scholar, leader and organiser came upon the scene in Calcutta in the person of Sir Asutosh Mukerji and began exploiting the potentialities of the Act for purposes of teaching and research facilities. The lead given by the Calcutta University has been followed in other Provinces. The Calcutta University Commission's Report { 1919) is also an important land-mark in the history of Indian education. Though dealing primarily with the question of University education in Bengal, the Commission made recommendations that had an application to educational conditions and problems all over India, and they have exercised considerable influence on educational developments everywhere. Its main recommendations regarding University education were two : **the** creation of Intermediate Collegesand the establishment **of** Unitary Teaching Universities. The Commission felt **that** students came to the colleges too young, and with **too** weak **a** preparatory grounding in general education. **The** Colleges and the University were in consequence **compelled** to undertake school-grade-training **during the** first **two** years, and their **energies and resources were to that extent diverted from proper University**

training, with results unfavourable to the quality of University education. The remedy suggested was the creation of Intermediate Colleges, which would retain the pupil for two years after the High School Examination and send him to the University on passing the Intermediate Examination, to enter upon a three years degree course. The recommendation about Intermediate Colleges has not been adopted outside the U. P., and the experience of their working has been none too encouraging in that Province. The feeling is that these Colleges leave much to desire in respect of staffing, equipment, and atmosphere. They are rather like a school write large, and lack the intellectual stimulus of a University. The Intermediate College need not, therefore, loom large in our plans of University reorganisation. The existing Colleges themselves can very well organise their teaching and supervision during the first two years, differently from what they are in the degree class. We shall later on consider how that may be done. The other recommendation of the Commission regarding Unitary Universities has met with wide-spread response. Several such Universities have been started, and they have put in the forefront of their organisation and working, the idea of controlling and conducting all teaching ; with what results, we shall consider in connection with post-graduate work.

Undergraduate teaching naturally constitutes the main activity of Colleges under the affiliating Universities, ail over India. In Bombay, most of the affiliated colleges singly or in co-operation do try to provide some measure of post-graduate instruction, which can be better described as guidance rather than well-organised teaching. Calcutta University has concentrated all post-graduate teaching in its own hands: the connection of

Colleges in Calcutta City itself with that work being limited to participation, on the basis of payment, of some of the Professors in these Colleges. Madras has no post-graduate teaching as such, because the B. A. Honours Degree automatically leads to M. A. status, by lapse of time. It only maintains research departments in certain subjects. The Punjab University presents a picture of co-operation and compromise between the Colleges and the University. B. A. Pass teaching is entirely done there by Colleges individually, and Honours teaching is shared between the University and the Colleges in varying degrees in different subjects. Post-graduate teaching in all subjects is controlled and organised by the University. Thus we find that even the affiliating Universities have begun to concern themselves directly, but in varying, measures -according to circumstances, with honours and post-graduate teaching. The post-graduate aspect of the work of affiliating Universities will be considered later on. To begin with, we shall deal with under-graduate teaching in the affiliated colleges of different Provinces.

A very great variety of conditions in respect of working and organisation is naturally to be expected, and is as a matter of fact met with. Some of the Colleges, have won all-India fame, either on account of the association of great teachers with them and the cousequent efficiency of teaching, or on account of some special features of their organisation and working. Sir J. C. Bose and Sir P. C. Ray were connected with the Presidency College of Calcutta, and they laid therein the foundations of modern Indian Science. Dr. Miller made the Madras Christian College a great centre of renaissance in South India; Dayanand Anglo-Vaidic College of Lahore is an embodiment of the spirit of reformist Hinduism. Fergusson College possesses a **unique hold** on **the regard and**

admiration of educated Indians, as a shining example of constructive idealism, and enlightened patriotism. Paranjpye brought to it an accession of academic and moral prestige, unattained by any other educational institution. With all their greatness, however, none of these Colleges can claim to possess a regular organisation for post-graduate instruction and research. Their resources in men, money and equipment have always been appropriated to under-graduate teaching. Some higher work goes on, under their encouragement and inspiration, but it does not form part of their daily business. The best energies of the conductors of these Colleges have been concentrated upon providing facilities for under-graduate instruction to the ever-growing number of eager young men knocking at their doors for admission. We may therefore say in a general way that none of these Colleges was out to elevate itself to the status of a University College. They engage themselves in diffusing knowledge and culture over as wide an area as possible, and with as high a degree of efficiency as possible, at the under-graduate level. What was and is true of the most distinguished of affiliated Colleges, applies with much greater force to the generality of them. We shall, therefore, see how they are organised in different Provinces for carrying on their main function viz., under-graduate teaching.

—As regards the total number of students attending Colleges affiliated to it—Arts and Professional together—Calcutta University stood far ahead of others with 33,000 students distributed among 62 Colleges in 1936-37. Bombay University had 36 Colleges and 17,600 students and Madras 61 Colleges and 17,400 students in the same year. The average number per College was 530 for Calcutta, 490 for Bombay and 290 for Madras. Though, therefore, one expects to come across large Colleges *in*

Bengal, the size of some of them is indeed enormous. In 1940, Vidyasagar College had 3700 students, the Ripon and City Colleges more than 2,500 each. The largest College under Bombay University had about 2000 students (St. Xavier's College), and the largest College under Madras (Loyola College) had 1100. The largest College in the Punjab had 1500 students. Large Colleges also mean large classes for purposes of teaching in Bengal and Bombay. Our University has laid down 150 as the maximum number to be allowed in one Division or Section; even larger classes than this prevail in Bengal, particularly in the Calcutta Colleges. In the U. P., Punjab and Madras, classes are much smaller. A class of not more than 75 students is aimed at, and as far as possible maintained at that number in practice, at least in the first two years at College i. e., in the Intermediate class. The compulsory English class in B. A., is sometimes larger, but not of more than 100 students. We may, therefore, say that outside Bombay and Bengal comparatively smaller classes are the rule. This circumstance must lead to better class-management, and somewhat greater attentiveness on the part of students. There is also the possibility in these conditions of questioning the students and testing their grasp of the subject-matter of formal lecturing. There is also an effort to organise a sort of tutorial system in the Intermediate class (which in all Universities except Bombay extends over a unit of two years) under which a batch of some 20 students is placed under the care of a member of the teaching staff. Students meet the teacher at stated intervals — of a fortnight, or even of a week — with some assigned written work. The teacher keeps an eye on the general progress of the student, and also helps him with his studies. These tutorial periods are counted as forming part of the teacher's quota of

weekly work. On account of the distribution of B. A. students among a number of voluntary subjects, the problem of large classes, except for compulsory English, does not arise. The opportunities of meeting students frequently, getting to know them personally, and forming a judgment about the calibre and work of each are much greater in the B. A. class, even when the lecture-method is mainly followed. In some Universities, however, lectures are regularly supplemented by tutorial meetings. The University of Allahabad arranges that batches of 10 to 15 B. A. students should meet the teachers of voluntary subjects once a week ; these meetings are utilised for discussions, for solving students' difficulties and for examining work assigned to students. St. Stephen's College of Delhi has introduced tutorial system after the pattern at Oxford and Cambridge. The small number of students (about 300) in that College, and the strong financial backing of an English Mission make this arrangement possible. The same thing may be said about small classes and tutorial arrangements in some of the U. P. Colleges. The system of grants-in-aid to Colleges in that Province is liberal beyond comparison. It may be mentioned in illustration of this observation that the two leading Colleges of Agra— St. John's College and Agra College — receive a grant of almost a lac of rupees each, though neither has more than 1000 students on the rolls. It is interesting to compare this grant with Rs. 8000/- received by the Loyola College of Madras, having a strength of 1100/-.

Though small classes of 75 students, and tutorial arrangements like those at St. Stephen's College (Delhi) may not be practicable in our Colleges, with the funds at our disposal, it is quite obvious that a distinct improvement in the present-day methods of instruction and

supervision is urgently called for, particularly in the first two years i. e., upto the Intermediate standard. The need is all the greater on the Arts side. Science students have to carry out a course of practical work under proper supervision and it is possible to form some kind of judgment, about the student's progress in studies. Laboratory work in Science is certainly as well-organised, if not better so, on our side, than in certain other Universities. But there is no provision with us for a corresponding measure of practical work and supervision on the Arts side. The Arts students are left more or less entirely free to do or not to do what they please, with results that cannot but be permanently injurious to their intellectual growth and achievement in the case of a very large proportion of young men, who leave behind the discipline of the school and plunge into the unchartered freedom of our Colleges. An arts student may waste both the years of his College-life without being seriously challenged by college-authorities. He need only turn up at the roll-call period put in the minimum attendances, and pass a very nominal First Year Examination. There is no means of knowing what the student has been doing, with himself. He may absent himself from other than the roll-call periods, he may not take the Terminal Examination, he may do no written work in English or other subjects, and yet he proceeds to the Inter Arts Examination to try his luck. University life in the old English Universities was described by a cynic as an organisation for enabling rich men's sons to idle away their time. Our Colleges are not abodes of rich men's sons; but there is no dearth of inducement to "vegetate." There is no effective way at present available of imposing the morality of hard work on the average College student. Some hard working and ambitions young men there wifl be; but it appears that their number is- not a

growing quantity, but rather the reverse. Our academic organisation is not calculated to pull up the back-sliders and correct the do-nothings. We must make it our definite object to raise the level of average work and performance, and pick out and train special aptitude. So far as the first two years at College are concerned, we can make English composition the centre and core of our efforts. It will be readily admitted that no effort will be too great in this cause. English will bear any amount of improvement for its own sake, and the regularity and excellence of a student's work in English can serve as a good index of his general progress; it will also supply a solid basis to our tutorial system, which to my mind, does not succeed because it is not directed towards achieving any specific result.

I shall point out the organisation of English composition work in Madras Colleges, and consider the possibility of adopting it as the basis of a tutorial system during the first two years. The practice of requiring students to write an English composition every week is a Tegular feature of College-work in Madras. Nothing so strikingly brings out the contrast in working conditions prevailing on our side. Bombay University recently did -away with the requirement of compulsory English Compositions in all classes, because of practical difficulties in the way of enforcing it. In Madras, Colleges find no difficulty in arranging for weekly compositions ! During my visit to a comparatively small college—Victoria College of Palghat—and also to the largest, I satisfied myself that the weekly composition is not merely an aspiration, but an accomplished fact. No student is exempted from it. The compositions are generally written in the Class-room itself during a two-period session within the time-table. A special tutorial staff is

engaged for correction-work, and that work is checked by the permarfent English staff. The tutors are English Honours graduates or M. A. s in temporary employment. Written work in other essential subjects, too, is arranged on the same plan, though its quantity and frequency are less.

Here is, therefore, a practicable model for us to follow. We may begin with a fortnightly composition, and confine it to the Arts side upto the Intermediate Examination. It may be later on extended to the Science Section as well. One tutor for 150 students should suffice. The tutor should not only correct the compositions, but meet the students at stated hours, and explain the corrections to them. As the tutors would be meeting the Students in their charge once a fortnight at least, in small batches of 10 or less, it should be possible for them (tutors), after two or three meetings, to form an opinion about the quality of each individual student's work, and to give him definite directions towards improvement. The tutors' work should be supervised by a senior member of the staff and helped forward by admonishing the defaulting students, writing to the guardians of the recalcitrant, and interesting himself in the general progress of specially able students. The imposition of fines, after due warning, may be found necessary in order to maintain the effectiveness of tutorial arrangements ; it should be the supervisor's special endeavour to see that tutorial work becomes a real instrument of discipline and advancement. Good work in English will be doubly rewarded by its favourable reaction upon other subjects, in which facility of expression is of primary importance.

It is not to be expected that tutorial supervision of the kind suggested above would bring about miracles ; at

its best it may be expected to produce in the minds of young students a feeling that some one is looking after them and watching their work. It will fortify their will to work hard and make good. I should be satisfied with the working of this plan, if on an average it secures for our College results 10 % higher than the University percentage. I do not attach an exaggerated importance to University results ; but I have sufficient faith in the University examinations to think that a student really well-posted in his subjects always succeeds ; he succeeds with sufficient consistency to make thorough study an object worthy of the best endeavour.

In offering my suggestions and criticism, I do not want to imply that the excellence and efficiency of teaching in our own Colleges has gone down by comparison with previous years. I am far from holding that view. But we have to take note of a real change of external conditions, and of the attitude of students to their work at College. College education has lost its old career-value, and a powerful incentive to industry and intellectual achievement has been thus withdrawn. Appointments under government are now predominantly determined by other than strictly educational standards; places in commerce and industry are subject to provincial considerations. An average student, particularly one belonging to an advanced community in Maharashtra now appears to go to the College not in a spirit of buoyant hope and faith, but in one of disillusionment and indifference. He, therefore, does not gladly submit to the discipline of strenuous work. His idea seems to be to secure the degree without undue strain on himself. In a situation like this, it has become necessary to get into closer touch with the student, and to rouse in him the will to work in the midst of discouraging circum-

stances, in the faith that sterling intellectual merit is a good in itself; and if it does not succeed in life, lack of it will not.

We cannot also forget the distractions with which a student is surrounded in the city of to-day, and the distractions of college-life itself. Elections, gatherings, sports, tournaments, matches, excursions run riot; and in the midst: of them all one is not sure that first things always come first, in the average student's scheme of life. He may possibly be making pious resolutions, only to be washed out by the swirl of crowding events. If his well-meant resolutions are fortified by the temperate but firm discipline of tutorial supervision he would be able to turn the opportunities of College-life to permanent good.

If tutorial supervision is the characteristic feature of educational organisation during the first two years, provision of ample facilities to the student to follow the special bent of his interests and curiosity, should be the distinguishing mark of tuition in the degree course. The aptitude of our B. A. students, particularly the pass-course men, is one of passive receptivity at the best. If one thing more than any other is needed with regard to studies for the B. A. degree, it is to induce the student to become an active collaborator in the work that is proceeding in the class-room. At the present time he comes with an open or vacant mind, with little idea or none of the subject-matter to be covered in the class-room. The lectures will be attended with more or less of regularity and attentiveness. It may be noted in passing that the practice of marking attendance at every lecture-period, instead of only at the compulsory English period, prevails in some Universities. When a topic has

keen completely dealt with in the class-room, it does not follow that the student has gone over it at home or that by further private reading and thought he has worked it up to the point of mastery. Nor is there a means of knowing under the prevailing arrangements whether the student is keeping pace with the class-room work, or in fact whether he is doing any work at all. It is all a matter dependent upon the student's innate devotion to and spontaneous interest in his work. This deficiency is very hard indeed to make up without a considerable strengthening of the teaching staff in each subject. But short of the tutorial system, which some unitary Universities have adopted, something may be done to keep the average student up to the mark. A spell of lecturing may be followed by some discussion periods, and some serious written work in each subject may be insisted upon in the course of a term, say, four short papers on topics covered in the class-room, or very near allied to them. This would correspond to practical work on the Science side, and may Be treated as an integral part of the course of studies. Considering that arts graduates must engage in later life in occupations demanding facilities in speech and writing, it is regrettable how little attention is paid to written work. From year's end to year's end our would-be graduates need not set pen to paper, and may make their first attempt at serious writing in the examination hall. It is very rare indeed to find an average student possessing a progressive record of his work in the shape of essays, notes, summaries etc. He mostly depends upon unaided memory, and the existing arrangements for teaching and supervision have done nothing to cure him of this fatal weakness. It is well-known how light-heartedly the Terminal examination is treated by students. None except the scholarship-holders and free-students pay any heed to it. The very

restricted and poor response to the Terminal and Annual (Jr. B. A.) examinations is an index of our failure to reach -and rouse the average student. The class-room lecturing rolls over his head, ineffective and innocuous. We can, of course, allow this state of affairs to continue, as it has continued for years ; but in that case we must be understood to have thrown up the sponge in despair.

The intellectually interested and ambitious student must become more emphatically an object of our care. Let him be stimulated by contact, and aided by the best of library-facilities. The best that we do in this respect compares poorly with the reading facilities offered at some of the teaching Universities. The students have there the free run of the departmental and sectional libraries at all hours of the day. There is an attendant on the spot all the while, and any book the student wants, particularly the honours and post-graduate student, he can lay his hand on. Not only books but journals of learned Societies and periodicals are also available there. It would be highly desirable to create such a section in the Library for the use and benefit of B. A. students. That is the greatest boon we can confer on them.

When we compare our B. A. courses with those of other Universities, we find that the Pass B. A. Course of Bombay University is a very slight and thin affair indeed. Besides Bombay, the Punjab University alone has a pass course of seven papers. All others add a third subject, and prescribe ten or more papers. The pass course student is considered here an inferior student, who wants to get away with light work and a cheap degree. In other places he has to put in as much labour as an honours man, only spread over a wider field. Our University has also weakened the incentive to strenuous work by aboli-

shing classes and distinctions at the pass examination. To rehabilitate the pass-degree is indeed one of the problems of our University education.

The Honours B. A. course of our University is covered in the same period as the pass course, and except in mathematics, comprises some additional papers over and above those for the pass degree. The honours graduate does not enjoy any special advantage with regard to the M. A. examination; he can take it two years after graduation, exactly in the same way as a pass graduate. Considering the lack of any immediate incentive to honours work, therefore, we may say that the honours course is fairly popular and successful with us. In 1941, the number of candidates enrolled for the honours examination" was 790 of whom 384 succeeded in securing honours ; the number of successful pass-graduates at the same examination was 825, including honours candidates who though failing to qualify for honours, were admitted to the pass degree. Languages are more popular than any other honours group : 239 students having secured honours in this group as against 145 in History, Economics, Philosophy, Mathematics and Science combined. This trend towards the honours course deserves to be encouraged, and more systematically worked upon. At present the honours course is not very deliberately chosen nor very deliberately pursued. Honours classes are quite full in the first'year and progressively go on dwindling from term *to* term. Many students do not know their own minds even when sending up the examination forms. They enter themselves for the honours examination with no definite idea of taking it. If there was more deliberation exercised, and more systematic work done, more than half the honours candidates registered would not fail to **get** honours, as they now do. It is interesting to compare the

.percentage of successful honours candidates in Madras, where the honours course has succeeded better than in any other University. In 1939, the Madras percentage of successful candidates was 90 (154 out of 172), while Bombay's percentage for 1941 was 49. This state of things could be improved by eliminating the weaker candidates for honours at the end of the Junior year, and concentrating upon the serious-minded and capable ones during the Senior year. The weaker students are at present allowed too long to play with honours ; they are not likely to benefit much by half-hearted and casual work in honours subjects.

There is much room for improving our honours courses themselves. Speaking of honours in History and Economics, I may say, that these courses are not sufficiently advanced for the honours standard. It is strange that the honours student of economics should have only one paper in Economic Theory carrying 100 marks out of 850. It is no wonder that the study of economic theory is at a low level in our University. The honours courses of other Universities provide at least two papers in theory, and one or two more on special subjects like Finance, International Trade, Currency, Banking etc. This course and other honours courses, too, need to be overhauled and recast. Much more and higher work can be attempted within the two-year B. A. course, if our Inter Arts Course is suitably modified so as to offer opportunities of entering upon studies preliminary and •preparatory to B. A. courses. The third compulsory language at the Inter Arts could be dispensed with, and the range of optional subjects extended beyond Mathematics and Logic, to include History, Economics, Geography, Classical and Modern Languages. Such a course would give the student a good preparatory grounding in

such subjects as he may choose specially to cultivate for the B. A. degree. Our present Inter Arts Course is a narrow one, and it has no organic connection with the B. A. studies in many subjects. If this deficiency is removed, the B. A. course would in effect be one of three years, and as such, would permit higher and more comprehensive attainments.

I am not in a position to pronounce a critical opinion on our Science courses. One point that struck me was that many Universities include a paper or two in English in the Scheme of the B. Sc. Examination, and also the study of a third science subject instead of only two, as is the case with us. To what extent our plan of concentration and specialisation is an advantage, and having been undertaken whether specialisation is carried far enough, are questions for men of science to determine. I have noted with satisfaction that arrangements for practical work in the laboratories on our side compare favourably with any to be found in other parts of India, for undergraduate teaching. Besides the Science subjects in vogue with us, some Universities have introduced Industrial Chemistry in the B. Sc. Course.

In regard to post-graduate teaching and research, our University makes a poor show indeed in comparison with what is being done in this sphere at other unitary and teaching Universities. The School of Economics and Sociology is the one post-graduate department directly managed by the Bombay University on the Arts side, and that is the one institution in which the M. A. courses are fully covered. Neither the University nor the affiliated Colleges have any arrangements for dealing systematically and completely with other courses of study, particularly in Arts subjects. This is a most unsatisfactory

state of affairs, and it lies at the root of Bombay's latter-day backwardness in the world of scholarship and research. Calcutta, among affiliating Universities, possesses the most varied and comprehensive provision for post-graduate teaching and research. The subjects for which it caters are a legion. An army of teachers and students are pursuing every conceivable interest—cultural, scientific and practical—under its benign auspices. Sir P. C. Ray—the veteran of more than eighty years of age—enthroned on his simple couch in the College of Science, and surrounded by an assemblage of great teachers and brilliant students, is an embodiment of the spirit of dedication to knowledge and truth. In the Unitary Universities, as regular a provision is made for post-graduate, as for undergraduate teaching. The time of the Senior teachers is given predominantly to post-graduate work. Students receive instruction for an hour or two every day, and seminars in different subjects are a regular feature of the teaching' organisation. Full and rich subject libraries are freely accessible to post-graduate students in or very near their class-rooms and an array of journals lies invitingly on the table. A collection of contributions to these journals from the pens of teachers and research-students may sometimes be found displayed at the very entrance. Here thus are conditions eminently conducive to higher studies: highly qualified teachers with 'leisure enough to pursue their own intellectual interests, and guide students in theirs; library and laboratory facilities of up-to-date and generous character; and students 'genuinely interested in their work. It is no wonder that under the invigorating influence of such an environment, higher studies and research have struck root in many places, and are showing the promise of a handsome harvest.

When we consider the resources in men and money required for post-graduate developments on the above scale, it at once becomes clear that an adequate effort in that field is beyond the competence of any single college. Even co-operative effort among Colleges will not go far in the desired direction. An organisation, much freer from the responsibility of under-graduate teaching, than are our Colleges, is required for the purpose. It may be readily admitted that some post-graduate work of the best quality does go on in the Colleges here and there. But it is of necessity incidental and disjointed, and it cannot constitute an argument against a regular and special organisation for the purpose. That organisation must be a Teaching University, to the consideration of which I shall proceed in the latter part of this chapter.

A few aspects of College work and organisation yet remain to be examined. The sporting side of our educational institutions has been once dealt with in connection with Secondary education, and the same remarks apply *mutatis mutandis* to Colleges as well. In the matter of sports and education we have a good deal to learn from the Punjab. To one particular activity of the Government College in Lahore, attention may be invited here. The College authorities have, many years since, organised a class for the preparatory training of students, who have a military career in view. Some twenty to thirty students are selected for such training, and concurrently with their ordinary College-studies they ate put through a course of preparatory instruction, physical as well as intellectual. The class is popular as well as successful. The Principal told me that students trained in this class used to secure four or five places out of fifteen to be filled by open competition for admission to the Indian Military Academy. When emergency

commissions began to be granted, more than half the number in the class was absorbed.

The Punjab University also has organised instruction and coaching for students competing for the I. C. S., and other public services. At the time I visited Lahore (October 1940) the Principal of the local Training College was in charge of these arrangements. B. A.s and M. A.s of high standing were chosen for coaching. They were advised to attend suitable courses of ordinary post-graduate lectures, and when necessary special lectures were arranged for the benefit of such students. Training in manners, etiquette, conversation was also provided. The candidates appeared at examinations [for various public services central and -provincial. One circumstance tending towards the success of this scheme must be mentioned here. The Punjab Government, and the U. P. Government also, recruit young men to most provincial services through competitive examinations, and not by mere selection. The communal distribution having been once fixed, every thing depends upon the results of the competitive examinations, and as most of these examinations conform to a general pattern, it is possible for a candidate to try one examination after another, beginning with the highest. A powerful incentive is thus offered to the pick of each year's graduates to prepare themselves seriously for such examinations. I think that, part of the explanation of the success of candidates from the U. P., and the Punjab in I. C. S. and other all-India examinations is that they prepare themselves with heart and will for these examinations, in the hope that, even if they do not succeed in them (all-India competitive examinations) their work would not be wasted; it would stand them in good stead at other examinations of the Provincial order, in which their chances of success would

be much improved, on account of the work done in connection with the all-India tests.

An organisation called the " Careers Bureau " also exists in the Government College, which advices students, seeking guidance from it, about the choice of suitable courses of study with an eye on the careers they think of pursuing in later life. The gentleman in charge, Prof. Puri, told me that some 500 students came to him for advice in the course of a year. I am of the opinion that some arrangement on these lines would be very useful to students of our College. After they pass the Intermediate Examination and arrive at, the point of entering upon special studies, they must face the question of their life's vocation fair and square, and choose their optional subjects with reference to it. The choice.is not so difficult on the Science side as it is in Arts. There is a greater variety of courses to choose from, in the Arts Department; and besides, there does not exist a necessary and obvious correlation between particular Arts stu4ies and a particular career. The need for and value of guidance is therefore all the greater. It should also be the endeavour of the person in charge of this department to supply students with information about service openings in different fields under government or elsewhere. Our students hardly know anything about competitive examinations for recruitment to posts of different grades in Central government departments. Such information should be collected and made freely available, and practical hints given about reading and preparation for them. If a student does not keep a definite objective before him, and discipline himself to achieve it even while working for the degree examination, he will have wasted.some of the most precious opportunities of life. This also is just the time to esta-

blish personal contacts with students of high calibre and special aptitude, and to .inspire them with intellectual ambitions. Our College-organisation needs to be strengthened in two directions: it must aim at raising the average level, and at the same time of nursing the special talents of youth, wherein indeed lies the hope of a brighter and better future for society.

In connection with Secondary Education, I have already made reference to the very poor quality of English observable in Maharashtra. This deficiency ought to be taken to heart, and an earnest effort made to remedy it in our Colleges. The first two years at College are the period in which to attempt this undertaking. At the present time, English is taught and learnt in Colleges as literature but not as a language. Students may read a good deal of English prose and poetry, and familiarise themselves with the thought enshrined in them, but such study, supposing it to have been~seriously pursued, is not likely without special and deliberate effort to lead to a correct and idiomatic style of English writing and speech. We have to presume that the foundation of English grammar and idiom has been laid true in the High Schools ; but unfortunately in the majority of cases the presumption does not accord with facts. In any case, English" would bear to be studied seriously as a language in the Inter Class. The Mysore University appears to me to have done the logical thing in this behalf, by prescribing a separate paper in English grammar and idiom at the Inter Arts Examination. Grammar and idiom can be studied with insight and understanding by students at this stage, and they will supply a sure basis to build the higher English studies upon. One has only to go through the sort of English presented by even B. A, students to realise that they

have never cultivated a sense of grammatical correctness-. If they write correct English, it is by habit not by analy. tical understanding. As they are always shaky about the " reason why ", they fall into blunders, not to be excused even in a matriculation candidate. Only the unpardon able neglect of the linguistic side of English can explain a remark once made about the 'bad English of an M. A; candidate, offering English as a subsidiary subject: the examiner said, he wondered how the candidate could ever get through, the matriculation examination. He need not have wondered : the reason is that, after the matriculation, the candidate never spent a thought on the Engltsh language, as apart from English literature. He did study the thought of Shakespeare, Burke or Tennyson, but never the form and garb in which it was presented. An English Class, in which the study of the finer points of English grammar, idiom, composition and conversation would be put in the forefront, is a great desideratum in our arrangements for English in Colleges. The class may be conducted on a basis of voluntary attendance to begin with, and certificates of prpficiency issued to such students as complete the course in a decidedly satisfactory manner.

The last point about College life and education I would touch upon is the corporate life in College Hostels. There is, of course, corporate life of sort, but it is lived at a low level, and it is almost entirely unregulated and undisciplined. College hostels have more or less become places for lodging and boarding, with hardly any greater discipline then exists in private lodgings for students. Even in such conditions some wholesome influences will be at work, emanating from the contact of young minds and budding personalities upon one another, under conditions of equality and freedom. To be able to live a successful

social life among a large number of one's equals, to rub shoulders with fellow-students from different districts and different communities, to form generous friendships, to build up a reputation for leadership in studies and sports, to learn to participate with ease and confidence in the teeming variety of students' organisations: these are formative influences of high value. But it is certain that their range and force could be multiplied under conditions of regulated discipline. Each unit must be helped and disciplined to rise to the full height of his capacities, if he is to make a worthy contribution to common life. I saw a unique kind of corporate life developed in the Halls of Madras Christian College: so unique indeed, that I should not have believed it possible, without seeing it for myself. That famous College was shifted from the central part of Madras to a site measuring 400 acres in rural Tambaram, at a distance of 15 miles from the City. The buildings are modernist in design and appearance, and are picturesquely situated in clearings made out of native scrub-jungle. There are 800 students on the rolls, 450 of whom are in residence, distributed among three Halls. Each Hall is a self-contained residential unit with 150 inmates. It has its own Reading Room, Indoor Games Room, Theatre, Lawn, Canteen, and Dining Hall. Four members of the staff live in each Hall with students and enter freely into their social life and activities. They take their meals with students. Students are engaged in their daily round of work and play for the whole day. The evening meal is taken between 7 P. M. and 8 P. M., and after a common prayer or discourse of a quarter of an hour, thoroughly cosmopolitan in spirit and matter, students go'to their rooms at 8-30 P. M. None is free to leave his room after that hour. He may go to sleep if he chooses, but is not to leave his room in any case. Noth-

ing more strikingly illustrates the tone and level of discipline in the Hall than the scrupulous observance of this simple rule. A student may do what he likes with himself during the day, but the night is meant for quiet and regular work in the privacy of the room. My one wish for College-Hostels on our side is that they may organise themselves on the model of the Hall at Tambaram.

(B) University of Poona

When I started on the educational tour, the idea of studying the organization and working of Universities in different parts of India with the object of evolving a scheme for the establishment of a University at Poona held a prominent place in my programme. I had always felt that the educational resources of Poona entitled it to become the headquarters of a University. Whether judged by the obvious test of the number of its College students and the number and variety of its collegiate institutions, or the more impalpable one of general interest in and enthusiasm for education, Poona seemed to be easily marked out as a University Centre. Its educational fame had travelled far and wide and it was acknowledged to have made history in the field of private educational effort in India. But somehow or other formidable difficulties cropped up whenever an effort was made to give practical shape to the project of a University at Poona. The necessity and desirability of such a University ; its character and constitution if established ; the possibility of finding adequate finance for it; every one of these points was a matter of contention. The prospects of a Poona University were very uncertain indeed

in 1940-41, and the inquiries I intended making into the question of University organisation seemed to possess theoretical interest only.

With the appointment of the Maharashtra University Committee in 1942 under the Chairmanship of the Right Hon. M. R. Jayakar and the publication of its, report in August 1943, the question of a University for the Maharashtra area in the Province of Bombay with its headquarters at Poona—The University of Poona, according to the Jayakar Committee—has come within the range of practical politics. The report of the Jayakar Committee is the most authoritative pronouncement on that subject, and the scheme of a University at Poona outlined therein must be considered to hold the field until some government of the future puts forward and sponsors a different one. The Jayakar report envisages an affiliating University for the Marathi-speaking area in the Province of Bombay excluding the city of Bombay and the Bombay Suburban District-with a strong teaching organisation of the federal type, necessarily comprising all collegiate and research institutions in Poona, which is to be the headquarters of the University. So far as Poona is concerned all teaching beyond the intermediate stage is to pass into the hands of the University and the federating colleges will be left in entire charge of intermediate education. They will also continue to be vital centres of university life and activities for purposes of discipline, residence, corporate life, tutorial guidance and supervision. Neither the Colleges nor the Societies-that conduct them will lose their individuality and identity. The subtle loyalties and associations which bind these institutions to their own body of students and their own circle of patrons and well-wishers need not be weak.

ened or disrupted on account of the higher allegiance to the University. The Jayakar Scheme sets out to build the superstructure of the University on the foundation of the vigorous, self-directed life and activities of the constituent institutions in Poona. The alternative plan of merging Poona Colleges in a unitary University was deliberately set aside, at least for the present, and a federal constitution was evolved for the central university organisation in Poona, The existing colleges within the limits of Poona City and such others as may be started in time to come by the government or by private agencies will be the living organs of the body politic of the University in Poona. The Jayakar Committee's conception of the relationship between the University and the constituent Colleges in Poona is set forth in para 118 of its report in the following words:—

"The Colleges would continue to have exclusive charge of teaching up to the stage of the intermediate examination. In addition to this teaching they would have the sole responsibility for conducting tutorial and supervisional work in connection with the intermediate as well as graduate and post-graduate classes. They would also be concerned with the discipline, residence, health, social and corporate life, as also the games and recreation of their students throughout their College course.....The sphere allotted to the Colleges will be seen to be very wide and to give ample room for the exercise of the administrative and other abilities of members of the College Staffs."

Particularly valuable would be the contribution of the constituent colleges to the intermediate grade of education referred to above. The Intermediate departments) in these Colleges could concentrate their attention on

the task of shaping fresh matriculates for that higher intellectual life which it is the duty and privilege of a University to promote. Intermediate education will be the special responsibility of colleges in Poona and outside, and upon the proper discharge of it will, in a great measure, depend the success and quality of the post-intermediate teaching to be directly carried on in Poona by the University.

Our colleges could also create another special field of educational activity for themselves by providing vocational instruction of the diploma grade, i. e. of a grade lower than the University degree but higher than the certificate standard of the Secondary School Leaving stage. The demand for the services of persons with this type of vocational training is hound to be keen and constant in the era of economic and industrial development on which India is now entering. Indian Universities* have recognised this need and instituted diplomas in a variety of technical, industrial and arts subjects. The University of Bombay has framed courses of studies for eight such diplomas ; these are yet to be sanctioned by government, Tiowever. The Department of " Oils, Paints and Varnishes'* conducted by our Technical Institute could be easily organised for the teaching of the University Diploma course, and more courses could be added as funds permit. Besides technical and industrial courses, post-matriculation courses of pronounced practical character in commercial subjects like Accountancy, Insurance, Salesmanship, Secretarial work, Office organisation, Typing, Stenography etc, could be provided under the auspices of our College of Commerce. There is a distinct need for business training of this character for young persons who after completing - their general education upto the Secondary stage want to begin

earning their livelihood by entering the clerical and allied " black-coated" occupations. General literary education by itself does not now suffice for securing an easy entrance to them. The additional qualification of some specialised business skill would improve their prospects of employment by improving their suitability for any particular occupation in view.

Besides shouldering their responsibility for intermediate teaching *in* common with Colleges outside Poona, the constituent Colleges in Poona would also have to participate in teaching for the degree courses under the co-operative plan proposed by the Jayakar Committee- All teaching for the degree courses would, in fact, be done by recognised teachers from different colleges in Poona for and in the name of the University, the lec tures of recognised teachers being open to students of any of these Colleges. The quota of teachers for graduate teaching to be supplied by each College would be determined from time to time on the basis of the number of students under instruction, the strength of the teaching, staff, the extent of college income etc. Recognised teachers would continue to be members of their respective Colleges in the fullest sense ; only, their services would be made available by the Colleges to the University partially, or wholly according to requirements. For such services the Colleges would be recompensed by the University out of the fees charged for'graduate teaching. In addition to recognised teachers there would also be University Teachers consisting of Professors and Readers engaged in doing graduate and post-graduate work, although the main duties of the latter (i.e. the University Teachers) would lie in the sphere of **post-graduate teaching** and research. The University **teachers would** be whole-time employees of **the** University **and the**

scales of monthly salary proposed tor them by the majority of;tbe Jayakar Committee are: Professor, 500-25-700; Reader, 300-20-500. It would be open to persons, including life-members on the teaching staffs of constituent colleges to apply for university appointments with the permission of college authorities. In the event of his selection for the appointment, the college might release such a person totally or partially from the obligations of service or grant him special leave or arrive at some arrangement to make his services available to the University. Arrangements for university lectures and tutorial guidance in graduate courses are envisaged as follows by the Jayakar Committee (paras 102 & 103):—

*'The University Professors and Readers and the xecognised college teachers, by which term we mean thes quota of teachers in a subject contributed by each college, would constitute together the panel of lecturers in each subject in the University. With their help the University would conduct the teaching of the post-graduate and graduate, Honours and General Degree classes of the University. The panel of lecturers, of which the Chair, man would be the head of the department in the University, would meet sometime before the beginning of the academic year and propose a scheme of lecture courses *to be delivered during the ensuing year.

"The lectures delivered according to the courses arranged for by the University would, it may be expected, be substantially supplemented by tutorial or guidance work undertaken by the College staffs. As regards this work each constituent institution'would be left free, the University exercising merely general control so as to ensure (i) That adequate tutorial help is provided **and** (ii) Thae ddivicfual teachers are not overburdened."

From the description of arrangements for graduate and post-graduate teaching given above it will have become clear that the teaching staffs of constituent colleges are very intimately associated with the teaching activities of the "University. Lecturers for graduate courses are wholly drawn from their ranks, and the most capable among them may look forward to the distinction of the appointment as University Professors or Readers. I am of opinion that this plan will exercise a wholesome bracing influence on the members of college staffs by providing a spur to academic ambition and lead to a grading among them according to merit and standing. Junior members will generally begin their teaching career in the intermediate department and after a period of apprenticeship secure the status of recognised teachers for purposes of graduate lecturing. In that position they would have sufficient leisure for higher academic pursuits and opportunity for specialisation. The main defect and weakness in the present day organisation of graduate teaching independently by each college viz. (i) the frequent necessity of entrusting quite junior teachers with advanced, work and (ii) the lack of opportunities for specialisation on account of the variety and quantity of teaching to be managed by each teacher will have been thus removed so far as graduate teaching in Poona at any rate is concerned.

The University of Poona will call for devoted and sustained efforts for its establishment and working in the early years, if the expectations of the public regarding its contribution to the cultural and material life of Maharashtra are to be adequately fulfilled. Those expectations are set forth in the Jayakar Committee's report (para 43) as follows :—

" While not losing sight of its essential character as a University, i.e., a seat of universal learning which recognises no frontiers or barriers,..,the proposed University is to keep in view the special needs, interests and traditions of Maharashtra, its economic resources, its special problems of agriculture, industry and commerce, and generally • the various aspects of its economic and industrial life; (b) Marathi language and literature, the history, civilisation, art and culture of Maharashtra, and in general every branch of study relating to what may be regarded as the distinctive features of the life and thought of the people of Maharashtra of all classes and communities."

The University, in short, is expected to be a fountain-head of creative thought and centre of farsighted planning in every department of Maharashtrian life. If the function is to be worthily performed, well-staffed and well- equipped post-graduate and research departments for advanced work in cultural, scientific and technological subjects must be organised and this will necessitate the collection of large funds for maintaining chairs, endowing research fellowships, providing library facilities and apparatus, building lecture rooms, laboratories and workshops, etc. Men of wealth and light and Ieacting in Maharashtra will have to be properly approached and actively interested in the project of the University on the basis of its value and usefulness to the people of Maharashtra. The object is a great and worthy one calculated to make a strong appeal to public spirit and philanthrophy. The private colleges in Poona and outside are themselves the creations of generous philanthropy evoked by self-sacrificing efforts in the course of education. If a well-conceived programme of University development is placed before the public and

active efforts made to canvass public support, finance need not at all prove an insurmountable difl&culty. Half a crore of rupees could tie", raised during the first years for building up the apparatus of advanced university work.

My earnest wish and appeal is that the Deccan Education Society should take a leading part in giving concrete form to the project of the University of Poona.

CHAPTER V

Vocational Education

(Vocational education has of late been engaging the earnest attention of educationists as well as of politic ians and men of affairs. There was deep discontent with ar almost exclusively literary system of public education which failed to respond to the requirements of the industrial and economic development of the country or to face the conditions of evergrowing acute unemploymenf among its products, Clerical vocations overcrowded the teaching profession badly sweated; lawyers, a drug in the market; even the doctor and the engineer none toe sure of a respectable livelihood ; a single low-paid posi in government service calling forth applications by the hundred from B. A.'s and M. A.'s—such were the features of an acute social situation.) No wonder, if the education which the sufferers had received came in for scathing criticism. The reaction was natural: whether it was also justifiable is another matter.

Be that as it may, there was a keen desire so aire: the literary complexion of public education. (On a the inauguration of the Montagu Chelmsford reforms the de partments of Education and Industries passed into the hands of responsible ministers and some of the Provincia Governments proceeded without loss of time to appoint committees to draw up comprehensive schemes of tech nical and industrial education.) The Bombay Committee (1921–22) presided over by Sir M. Visvesvaraya, was asked;

(1) (*To* examine existing facilities for imparting higher education in mechanical engineering and technology and to suggest measures, including provision, of research work, needed to prepare leaders, organizers and experts ;

(2) To submit similar proposals for imparting industrial and technical education of the high school and middle school grades needed to train technical assistants, managers, foremen etc., that is persons qualified to hold subordinate positions in large or factory industries or responsible positions in smaller ones ;

(3) To submit proposals for making provision for vocational schools, apprentice schools, continuatioa schools etc. required for training skilled artisans and craftsmen for industries and industrial arts.

In 1921 the number of educational institutions of a vocational character and pupils attending them was as follows

	Number of institution	Number of pupils
College of Engineering	1	189
Sir J. J. School of Art	1	333
Technical and Industrial Schools for boys	22	1097
„ for girls	9	348
V. J, Technical Institute, **Bombay**	**1**	321
	34	2,288
Agricultural Schools		**268**
Commercial Schools		**2,705**

The Committee reported in 1922. There was axlear division of views between the ten European and six Indian members of the Committee, and two separate reports were submitted by the majority and the minority. The proposals put forward by the minority—which included the Chairman, Sir M. Visvesvaraya—were by far the more ambitious and comprehensive, taking, as they did, a very serious view of the grievous lack of available facilities for vocational training. The majority defended their modest proposals on the ground that even the facilities contemplated by them were likely to exceed the demand for technical instruction and in support of this view they pointed to the comparatively small number of applicants in 1921 from the Province of Bombay (131 out of 320) and the number actually admitted (50 from Bombay and 71 from other Provinces) to the Victoria Jubilee Technical Institute. It may be claimed, however, that the n\inority more faithfully represented Indian public opinion in this matter and it would be worthwhile setting forth the salient features of their recommendations in some detail.

For higher technical education the establishment of a new College of Technology affiliated to the Faculty of Technology in the University of Bombay was recommended. Instruction was to be provided in Mechanical and Electrical Engineering, Textile industries and Applied Chemistry. Accommodation in the Civil Engineering branch of the Poona College of Engineering was to be increased from 60 to 100 (to be further increased to 150 as circumstances permitted) and instruction for degrees in Mechanical and Electrical Engineering to be properly organised. The institution of a degree in Architecture was also recommended.

Below the institutions of the University grade, were to stand the Technical Institutes of which the Victoria Jubilee Technical Institute was a good example. The subjects chosen for practical training may be the same as in the University course, but the preliminary qualifications demanded and the standard aimed at in the theory of the subjects was to be distinctly lower. Men trained in them would start life as assistants to experts, managers or superintendents in organised industries and serve as chargemen and foremen and execute the designs of the University men. The V. J. T. Institute was to be more thoroughly organised for this purpose and accommodation within increased from 300 to 600.

Next to Technical Institutes were to come the Middle Industrial Schools the primary aim of which was to be to train skilled craftsmen to practise their trades or to carry on minor and cottage industries. While the students of the Technical Institutes would be trained primarily for service in organised industries those of the Industrial Schools—Middle as well as Lower-would be learning handicrafts and cottage industries. With some additional practical experience they would be able to fill minor technical positions in organised industries too. The age of admission was to be 13 and above, and the minimum general education the equivalent of III anglo-vernacular or VII vernacular standard. Courses taught in the School were to be correlated to the industries and occupations of the neighbourhood. One fourth of school; time was to be given to general subjects and three-fourths to practical industrial studies and work which were to be the soul and centre of instruction. It was proposed to start 12 such schools in important industrial centres,

and each school was to provide accommodation for 250 students.

The Lower Industrial Schools, of which the Committee recommended the establishment to the extent of 100 were to be the training centres for skilled workmen and artisans in various industrial occupations. These schools were intended to meet the case of the large number of boys whose general education did not go beyond IV primary standard. Conditions of admission were not to be rigid and any one capable of benefiting from the instruction given was to have a chance. Instruction was to be given in industries and occupations which were most in demand in the neighbourhood. Each school was to teach one or more specific industries or handicrafts complete, so that the pupils, as soon as they left the school, might find ready employment. These schools were to provide accommodation for 10,000 students.

Besides holding full time day classes, the middle and Lower Industrial Schools were to provide teaching for those already in employment by organising apprentice classes, evening and night classes, etc. These schools were also to conduct prevocatibnal continuation classes for young persons employed in industries during their 12th and 13th years.

An incipient system of vocational training for girls was suggested, comprising cultural and industrial subjects as well as housecraft.

The cost of the entire scheme was estimated, by the minority report as follows:—

Institutions	Non-recurring cost (lacs)	Additional recurring costs (lacs)	Additional pupils
University Grade Institutions	30	7	550
Technical Institutes	15	4	400
Middle Industrial Schools	10	5	3,000
Lower Industrial Schools	10	7	10,000
Supplementary classes and courses	10	6	17,000
Institutions for girls and women	15	6	9,050
Training of Teachers	5	3	
Supervision, direction, propaganda	3	3	
	98	41	40,000

The developments indicated above were to take place in the course of 10 years at the most in suitable stages. In order to meet the non-recurring cost of the scheme a development loan repayable in 30 years was to be raised,

The labours of the Visvesvaraya Committee bore no fruit. The responsible ministers of education failed to take any effective action on it, nor did the popularly elected legislatures compel them to do so. Some progress did take place by the force of circumstances, but the government's contribution to it was negligible.

Popular enthusiasm for vocational training led to the establishment of 60 private classes and schools for boys and girls during the period of 20 years following 1920, bringing the total number of private institutions to 78.

The attendance of boys at these private institutions of the technical and industrial type improved during the same period from 693 to 2,433 out of their total attendance, in 1940-41, of 3,749 at all categories of schools viz. Government, Municipal, Local Board and Private. The institutions for girls and women numbering 35 and attended by 2519 pupils were all managed by private agency and were mostly engaged in imparting instruction in sewing, knitting, embroidery, tailoring, first aid, fancy work etc. Full 20 years after the Visvesvaraya Committee's report, however, the number of engineering, technical and industrial schools directly managed by the government and local bodies remained unchanged at 13, and the attendance at them showed an increase of less than 200. The total amount of grants-in-aid given to all industrial and technical schools in 1940-41 was Rs. 1,49,000 as against Rs. 2,74,000 collected by them in fees and Rs. 2,79,000 from other sources. The most unsatisfactory part of the whole situation was that the total expenditure from government funds, including grants-in-aid, on institutions of all grades of technical and industrial education for boys and girls taken together was Rs. 3,46,000 in 1940-41, compared with Rs. 3,91,000 in 1920-21—an absolute decrease of Rs. 45,000 in the course of 20 years!

This indeed is a perfect example of the pigeonholing of a valuable report. Let it be noted that the above mentioned figure of Rs. 3,46,000 includes government expenditure not only on ordinary schools but also on institutions of the highest standing like the Poona College of Engineering and the Victoria Jubilee Technical Institute. Corresponding to the figure of Rs. 3,46,000 for expenditure from provincial revenues (including grants-in-aid) we have Rs. 3,97,000 from fees, Rs. 84,000

from municipal and board funds, and Rs. 2,85,000 from other sources making a grand total of Rs. 11,12,000. Between 1920-21 and 1940-41 the proportion of government •expenditure to total expenditure on technical education had declined from 62 per cent to 31 per cent.

This account of the condition of vocational education in 1940-41 may be rounded off by stating that in addition to technical and industrial schools there were 34 Commercial Schools and 4 Agricultural Schools in that year attended respectively by 1,824 and 121 pupils. Five out of the Commercial schools and two out of the Agricultural Schools were maintained by government and the rest by private agencies. Government takes a hand in controlling and systematising technical education through the Committee of Direction for Technical and Industrial Training of which the Director of Industries is Chairman, and the Superintendent of the V. J. T. Institute Bombay, Secretary. The Director of Public Instruction or his nominee is a member of the Committee. The Committee prescribes courses of instruction, inspects and affiliates institutions, holds examinations and grants •certificates. The Committee awarded certificates to 860 students in 1940-41 in 30 different courses, and distributed Rs. 41,000 as grants-in-aid to 53 institutions.

In 1937 the Government of Bombay initiated a scheme of apprenticeship "with a view to mitigating the evil of unemployment among the educated middle classes." Under this scheme the apprentices are engaged in full time work in approved industrial establishments and at the same time attend the evening technical classes •during a period of 5 years. The scheme has been working successfully and trained apprentices readily **find employment in industry. The number** of **apprenti-**

ces placed with industrial establishments in a year has varied from 330 to 150.

Some of the other provincia 1 governments showed greater courage and liberality in this respect than Bombay, the most highly industrialised Province in British India. The case of the United Provinces is particularly striking. In 1936 that government directly conducted 25 institutions of various grades at a cost of Rs, 7,07,000 and aided 47 institutions by grants. The Government institutions comprised 1 Technological; Institute, 4 Technical Schools, 8 Textile Schools, 5 Carpentry Schools, 3 Leather Working and Training Schools, 1 Arts and Craft School, 1 Metal Working School, and 2 Dyeing and Cloth-printing Schools. The number of students on the rolls was 1,817, so that the cost per pupil worked out at Rs. 390. Grants given to private institutions were also on a liberal scale. These things point to the existence of a plan for industrial training and a determined effort to carry -out, both of which seem to be absent in Bombay.

In the absence of active leadership on the part of gavernment private agencies tried in their own way to meet and foster the demand for technical education. The objectives of these efforts were to introduce diversity into the established literary type of education, to device a remedy for the besetting evil of unemployment among the educated middle classes, to supply specialised tech. nical training demanded by new industrial developments, or generally to equip young men with the skill and knowledge calculated to help in the fullest utilisation of the natural resources of the country. The Department of Chemical Technology opened by the University of Bombay in 1935 was an effort to impart postgraduate

instruction in Textile Chemistry and Chemical Engineering. Some of the technical classes and schools provided training in such modern subjects as Electrical Engineering ; Radio Physics and Electronics ; Technology of Paints and Varnishes. Courses for the training of mechanics, turners, fitters, wiremen, leather workers, weavers, carpenters and a variety of other skilled trades were also available at these schools. Some secondary schools tried to combine vocational instruction with the literary in the lower stages : for instance, training in Typography was offered at the V. K. High School, Panvel and the Maharashtra High School, Poona; agricultural, subjects were taught at the Private High School,, Rajapur.

The problem of providing suitable vocational alternatives at the secondary stage to the literary type of education was in the meanwhile assuming importance on account of a slow but steady change in the character of the student population seeking secondary education. Education was spreading from the traditional " literate " classes toother strata of Indian Society who had no established tradition of devotion to literary pursuits or book-learning. They were not at home in the world of books, and showed less aptitude for purely academic stu dies. For a very large proportion of them a predominantly literary test like the Matriculation was proving a very difficult if not an impossible hurdle. The consequence was apathy towards education and a lowering of educa tional standards. The need of diversifying the Matriculation syllabus, without lowering its cultural value, so as to suit the temperament and aptitude of " doers" equally well with the " learners " began to be mdre and more felt by educationists. The inclusion of art subjects like music, drawing, art work; commercial subjects like short

hand, typing, book-keeping, accountancy, office organisation ; practical subjects like carpentry, smithy and handicrafts was recommended as a means of broad-basing general education by offering scope to the aesthetic and activistic impulse as much as to the intellectual. This, however, was a very indirect approach to the problem of vocational training. It din not originate from the side of industry, nor was it a planned endeavour to satisfy the actual or potential needs of industry for the services of technically trained men of various grades. The desire to help in solving the problem of unemployment among the educated classes, and to provide alternative courses of training in skilled manual vocations in the sanguine hope that such training would somehow provide an escape from the blind alley of middle-class unemployment was at the bottom of these efforts for providing vocational education.

This was the peculiar complexion taken on by the question of vocational education in India—viz. that it was regarded as a palliative if not a panecea for the social evil of unemployment among the educated classes. The stimulus to effort came from the educationists and the philanthropists, rather than from the industrialists. Industry was not over anxious to seek the services of the technically trained men. It preferred to have its- technical personnel by promotion from the ranks rather than direct recruitment from the technical institutes, and industrial schools. The former was a safer man less likely to cause trouble and more easily sweated than the latter. The technically trained man was rather a suspect in the eyes of the industrialist. In any case technical education could not look up to the industrialist for patronage from an appreciation of its advantages.' The task had to be attempted by the educationist and the philanthropist

and in the last resort by the government of the country.

The subject of vocational education came in for a comprehensive treatment with reference to Indian conditions both from the point of view of education and industrial requirements when the Government of India invited Messrs. A. Abbot and S. H. Wood in 1936 to investigate it on the basis of the following terms of reference :

(1) Whether any vocational or practical training should be imparted in primary, secondary (i. e. middle) and higher secondary schools and, if so, what should be its nature and extent ?

(2) Whether the technical or vocational institutions already in existence can be improved and if new institutions for vocational or technical training be required, to suggest.—

(i) The type of institution or institutions required for the purpose;

(ii) The stage at which diversion of the students from the ordinary secondary schools (lower or higher) to such institutions should be effected ;

(iii) The means to be adopted for effecting such diversion.

In their introduction to the Report the authors acknowledge that one of the reasons for instituting the inquiry was the fact that a large number of graduates were not securing employment. Mere diversion of students from the Universities to other institutions would not affect unemployment; it would merely alter educational qualifications of the unemployed without decreasing their number. 'The immediate purpose of

education in relation to industry is" in their view ^to-secure to industry the services of better qualified men—an -achievement which does not by itself and at once result in more employment. The long-range relation of education to industry is another matter. An improvement in the content and method of education will make for steadily increasing efficiency in industry and well contribute to its expansion ; it should also generate new ideas and result in pioneer activities in the sphere of business. But the development of industry on a scale which will offer profitable employment to any substantial number of those who are now idle also depends upon the natural resources of the country, climate conditions and a number other factors which education cannot influence, as well as upon action in the field of economics and politics which do not come within our terms of reference." They warn us against encouraging the delusion that a quick solution of the problem of unemployment is to be found in a reconstruction of the educational system.

The Abbot-Wood Report, while claiming an important place for manual work and creative activities in the curriculum of the primary and Secondary Schools, does not favour the combination of general and vocational education in the same school, their reason being that "it is unwise to have in the same school pupils who have not made up their minds—or had the decision taken for them—which career they will follow, and, at the same time other pupils for whom the decision to enter upon a particular career in life has already been made. ...The two groups of pupils working with diverse aims do not readily merge into each other and form that single coherent Society which every good school constitutes", (p. 41).

The lowest grade of vocational school was to be the Trade School, which train their pupils specificially for entrance to a single skilled occupation, e. g. carpentry, book-binding, in which manual dexterity is of importance. Boys will go to such a school at the end of the primary education and aim at the position of handicraftsmen in life. This school will be a school of apprenticeship which provides real trade experience. Such a School will also provide instruction in full day time classes in processes carried on in large scale organised industries (e.g. spinning or weaving) to which their pupils will go as skilled operatives. Instruction can be arranged at these institutions in evening classes for workmen actually in employment who wish to improve their skill and understanding.

The institution of the next higher grade was to be the Junior Vocational School which takes up its pupils on the completion of the lower secondary or middle stage of general education at about the age of 15, and keeping them under instruction for three years presents them for an examination corresponding to the matriculation of the ordinary High School course. This kind of school was considered to be peculiarly suitable for persons who aimed at the supervisory grades of service e. g. foreman-in manipulative organised industries like cotton and jute textiles, Engineering and Metal works etc. and hence the '* Technical" was regarded as its leading type rather than the commercial or the agricultural. The Junior Technical School, then, is to be a place of such a realistic pre-apprenticeship education that when he enters a branch of industry in which machinery is used he rapidly becomes' a skilful and reliable workman. The school does not undertake to make him a skilled workman, but it impacts to him the knowledge and skill on which his training as

a workman can be properly based. Mathematics, Science, Technical Drawing, workshop practice were to occupy two-thirds of school-time and language, with a subject or two of general education, the remaining one third. In the last year of the course specialised training in general engineering practice, electrical fitting, textile spinning and weaving, light engineering or some other branch appropriate to the locality was to be introduced.

On taking the " leaving certificate " of the Junior Technical School the pupil may proceed directly to employment or to further training in an Industrial School which prepares students for carrying on specific small-scale industries on their own account.

Higher than the Junior Vocational School, of which the Technical School is the main type, stands the Senior Vocational School, which takes up pupils who have carried their general education to the end of the higher secondary stage i. e. to the point of the Matriculation examination and who aim at joining industry to begin with at higher supervisory levels, but lower than the directional and managerical. The latter will be predominantly filled by men who have had the advantage of University education in technological or commercial subjects but in part also by promotion from lower ranks of supervisory personnel. The large-scale organised industry of the country has need of the services of technically trained personnel of higher qualifications than those implied by the Junior Technical School certificate. The Senior course may be of two or three years duration. *

The Report declares itself in favour of organising commercial education mainly of **the** Senior Vocational

school level, rather than at the Junior level. The necessity of possessing a good command of English is an important argument in favour of this arrangement. Instruction in the " office arts "—e. g. shorthand, typewriting, book-keeping, recording, filing—should be combined with continued general education, since not only skill in the office arts, but also alertness, accuracy, and a sense of responsibility is needed in a clerk. With this end in view the following curriculum is suggested for the Senior Commercial School : English, Geography , History, Shorthand, Typewriting, Book-keeping, Arithmetic, Elements of Commerce, and Physical Training. The length of the course is to be two years. The alumni of the Commercial School will hold clerical and business appointments below the management and the highest business executives.

The senior Technical School was to cater for the vocational education of boys with a more prolonged general education, and intending to enter one of the non—manipulative industries e. g. the manufacture of sugar,, chemicals, oils etc. where on account of the largely automatic character of the plant or the simplicity of the process much workshop training is not necessary. Instruction in Physics, Chemistry, Mathematics, mechanics, machine-drawing and some workshop practice should constitute the curriculum of such a school.

The number of persons in the managing and directing: grade must necessarily be small compared with those employed in the various classes of the supervisory grade. The Report opines that for a considerable time these men will be supplied by foreign Universities or institutes or at any rate will have gained some of their experience abroad.. It commends the work in applied science and technology

being done under able guidance by post-graduate students and others at the Universities in the Punjab, the U. P. and Bombay, as well as by advanced students in institutions like the Harcourt Butler Technological Institute, Cawnpore and the Lucknow Technical Institute. The authors look forward to a time when many of the young men being trained there will play an important part as research workers, managers or directors of industrial undertakings in the development of large scale industries in India.

So much for the personnel in large scale organised industries.

The Report envisages that the training of students for carrying on small-scale industries on their own account will be carried on in Industrial Schools, which will be apprenticeship schools admitting boys at the end of their Junior Technical course. The workshop will be the centre of the teaching at these schools; but besides vocational education proper subjects like Drawing, Mathematics, Book-keeping and elements of Commerce will be taught, say for one third of the school-time, by way of preparation for the career of an independent craftsman. The Industrial School will be differentiated from the Technical School by its concentration on workshop practice and trade experience i. e. on apprenticeship while the technical school will devote a good deal of time to mathematics, mechanics, science, machine-drawing etc. which constitute the foundations of industrial practice in many forms of organised industry,

The Report does not favour special vocational schools for agricultural training separated from the schools of general education. But on the other hand it insists that agricultural education ought to begin earlier than the indus-

trial. The method suggested is that the middle schools in rural areas should have an agricultural bias, and this bias should be continued and emphasised in a certain number of Higher Secondary Schools situated in suitable centres with a pronounced rural environment. In justification of this arrangement, it is argued that the farmer must decide upon his career earlier than the industrial worker and hence his education, too, must begin earlier i e. from the middle school stage rather than from the next higher one (i. e. the High School Stage). Agriculture is a way of life rather than a career ; and hence preparation for it must be implyicit in the whole course of education and should not be brought into it at a particular stage: These combined considerations point to an agricultural bias in the middle and the high school stages, and not a separate agricultural school.

This, then, is the scheme of vocational education outlined in the Abbot-Wood Report:

The Universities and Technological Institutes for the education of the managing and directing grades of personnel in organised large-scale industries; The Senior Commercial School for upper grades on the business side; the Senior Technical School for upper supervisory grades mainly in non-manipulative industries; the Junior Technical School for lower supervisory grades in manipulative industries; The Industrial School for independent workers in small-scale industries; the Trade School for craftsmen and operatives in organised industries; The Rural Middle School and the Higher Secondary School with the agricultural bias for cultivators and farmers. This is a comprehensive and clear cut scheme of vocational education covering every grade of education and every class of industrial workers.

The report suggests that an industrial survey of each province must be carried out in order to determine the types of instruction to be provided, the stage to which the studies in each type shall be carried and number of recruits which can be absorbed. In the absence of such a survey there could not be a proper adjustment between the needs of industry and the supply of trained men. The needs of industry may not be adequately met or may be more than met, in which case the problem of unemployment will again raise its head.

In order to avoid such maladjustment, and also secure that vocational instruction imparted in institutions of various grades shall be such as to serve the needs of industry satisfactorily, the Report suggests the formation of an Advisory Council for vocational education,, attached to the Department of Education. The Council should be representative both of industry and commerce, and of education. One important function of the Advisory Council would be to approve courses of vocational instructions drawn up by appropriate sub-committees in consultation with businessmen and industrialists. Such sub-committees are recommended for (a) Engineering (6) Textile industries (c) Agriculture, *(d)* Small-scale and cottage industries (e) Other industries of major importance and (f) Commerce. The educationists on these sub-committees will draw up curricula and syllabuses to suit the educational qualifications which the representatives of industry and commerce indicate as desirable in their recruits. After being discussed and settled in the full sub-committee the curriculum would go for final approval to the Advisory Council. Such co operation in the planning of vocational **education would** make **that** education **directly helpful *to indusrry and* bring about a proper co-ordination between**

the supply to trained personnel of different grades and the requirements of business and industry with relation to them.

This was the situation in 1937 in regard to planning for vocational education. The publication of the Report stimulated interest in the expansion of re-organisation of vocational education. The Congress Ministry of Bombay appointed the Joshi Committee in 1938 to advise Government on the question of vocational training for boys and girls in Primary and Secondary Schools. That Committee recommended the branching of the Secondary School course into the six parallel departments of (i) Literary (2) Artistic (3) Commercial (4) Agricultural (5) Industrial and Technological (6) Scientific and Professional The Secondary course was to be entered upon on the conclusion of the basic primary course of seven years at about the age of 13 or 14 and was to extend over a period of four years. The Government of Bombay have partially brought this scheme into operation by instituting the School Leaving Certificate Examination and permitting Commercial, Agricultural and Technical High Schools to present candidates -for that examination. English and one regional language are compulsory subjects, while four more subjects are offered out of four other groups one of which (groups) is linguistic, the second cultural, third scientific and fourth practical; including subjects like Machine Drawing, Mechanical Engineering, Electrical Engineering, Workshop Technology, Practical Agricul ture, Book-keeping and Accounts, Short-hand and Typewriting, General education and vocational educa tion are thus combined in the curriculum. These institutions may be regarded as Junior Vocational Schools of the Abbot-Wood. Report. A feature of the School

Leaving Certificate—and one possessing great merit during transition from the predominantly literary to the vocational—is that it enables the holder not only to pass on to appropriate diploma courses (e. g. the .Mechanical and Electrical Engineering Diplomas of the College of Engineering, the diploma courses of the V. J, T. Institute, Bombay) but also to University degree courses in science,, commerce and agriculture. Even the Arts Degree Course is open to him provided he passes matriculation, test in a classical or modern European language.

Action has been taken very nearly in accord with the recommendations of the Abbot-Wood Report by the Government of India who have founded the Delhi Polytechnic as an experimental model. The Polytechnic at present conducts a Technical High School and the Departments of Art, Architecture, Applied Science, Engineering and Commerce. The Technical High School covers a course of seven years (from 5th class to 11th class reckoning from class one of the Primary School) : the lower Department having four Classes (5th to 9th) and the Upper Department—the Technical Department, proper—having three (9th to 11th). Education *in* the Lower Department is purely general, and is run on the lines of the Middle Department of an ordinary High School. A special feature is the workshop to which every boy goes for a few periods each week. The workshop is looked upon as a necessary instrument of general education and also as a preparation for further training for such boys as wish to follow a technical career. The curriculum of the Upper Department includes (1) English, (2) Urdu or Hindi, (3) Technical Mathematics, (4) Physics, (5) Chemistry. (6) Engineering Drawing, (7) Art, (8) Workshop Practice in wood and metal work, (9> Engineering Workshop Practice, (10) Music.

On completing the three years course at [the Technical High School and obtaining the Higher Secondary Technical Certificate, the boy may go directly into industrial employment or continue his technical education in the full time day classes of the Polytechnic, While in employment it is possible for him to attend the part-time day or evening courses for 8 to 10 periods per week and get the all-India Certificate at the end of two years. The all-India Senior Certificate can be obtained at the end of 3 years, and the Advanced Certificate at the end of 5 years. All-India Diploma courses are open to full-time day students. The Diplomas, too, are of the Senior (3 years) and Advanced (5 years) grades. The Polytechnic itself awards its own certificates and diplomas on the basis of shorter part-time and full-time courses.

Diplomas and Certificates corresponding to those for technical courses described above can be obtained in other departments also, e. g. Art, Engineering, Commerce etc. The qualification for admission is the Matriculation or an equivalent examination in appropriate subjects.

The scheme of Post-war Educational Development in British India outlined in what is called the Sargent Scheme makes provision for a gross annual expenditure of 10 crores on Technical, Commercial and Art Education of all grades. It follows in the main the recommendations of the Abbot-Wood report, with certain modifications. 2,00,000 places in Junior Technical, Trade and Industrial Schools at the annual cost of Rs. 150 per place; 75,000 places in institutions of the National Diploma or equivalent grade; 25,000 places in the Universities : this is the sort of effort for vocational education, which the Sargent Scheme contemplates.

What may the Deccan Education Society attempt to do in the field of vocational education ?

Soon, after its Golden Jubilee the Society opened the Technical Institute and established the department of Paints, Pigments and Varnishes. It is proposed to add the technology of Oils and Soaps to the above and also take up training in the subjects of Automobile Engineering, Machinery, Electroplating and Welding. The scope of the work of the Institute may be extended, so says the Diamond Jubilee Appeal of the Society, to include Latex and Rubber Processing, Leather Technology, Glass Technology, Printing Ink Manufacture, Manufacture of Photographic materials. Plastics etc. The ambition of the D. E. Society obviously is to make its contribution to the industrial development of this part of the country by organising vocational education of various grades along lines which appear to meet existing needs or cater for promising developments. Some of the training would be of the Trade School grade (e. g. Machining, Electroplating, Welding), some of the Industrial School grade (e. g. Paints, Pigments, Varnishes, Soap), the rest of the senior Technical School variety (e.g. Glass Technology, Plastics). It is indeed difficult to classify vocational education into fixed ty . The same subject may be treated at different levels. The Institute can comprise various grades of vocational education within itself, although it would be desirable to leave educational activities at the graduate and post-graduate levels to the future University of Poona. The branches of training to be taken in hand must be determined with reference to the needs and possibilities mainly of Poona City in the Trade School Section, and those of Maharashtra in the Technical and Technological Sections. There exists an endless scope for both of these varieties of instruction. The

Abbot-Wood Report says that the Paris Chamber of Commerce provides trade instruction for more than seventy occupations both for boys and girls. The occupations covered range from Baking, Lacemaking, and Retail Selling to Printing, Leather-work and making of surgical instruments.

The Trade, Industrial and Technical Courses organised by the London County Council and the City and Guilds of London Institute are a legion. A directory of the Vocational Schools of Great Britain providing specialised training for careers in commerce and industry lists them (careers) under 110 classified headings covering every type of vocational work for men and women. With such working models to guide us and with the prospect of a big industrial development opening out before the country the success of a well-conceived vocational institution correlated to the needs of the environment may be regarded as quite well assured. Imagination, enthusiasm, responsiveness to business conditions, capacity to evoke the interest and co-operation of **the** commercial and industrial community : these are the pre-requisites of success in this field.

Only a special survey directed towards finding out **the** needs of the locality can reveal what grades and types of industrial workers are required and in what number. **But** it would look as if Poona may offer a promising field for vocational training in the following lines :

(a) the traditional industries connected with Poona **such** as silk **weaving** ; **gold** and silver **thread** work ; **making of gold and silver ornaments, plate and artware ; manufacture** of brass **and** copper utensils ; preparation of **cosmetics and perfumes;**

(b) **Occupations of wide occurrence and general utility such as weaving, tailoring, carpentry, including furniture making;**

(c) New occupations brought into being by the advent of machinery such as mechanical engineering ; driving of engines and steam-engines; machine-repairing ; light-engineering ; mechanical mistri-work; fitter's work ;

(d) **Occupations connected with electricity such as electrical engineering; electrician's work; wiremen's work ; electro-plating ; electric-welding ; telegraph and telephone operation ; radio operation;**

(e) **Occupations connected with the driving, maintenance and repairing of automobiles ;**

(f) Occupations connected with the Building Trade such as mason's work ; plumbing ; glazier's work ; house painting and decoration;

(g) **Printing and allied occupations such as typography ; block-making ;**

(h) **Photography and allied trades ;**

(0 Making of laboratory equipment, and scientific instruments;

(j) Manufacture of pharmaceutical products ;

(k) **Technology of leading organised industries of the region of Textiles, Oils, Sugar, Glass.**

These and many other occupations and industries can form the basis of courses of vocational education of various grades, which it would be in the interest of the efficiency of labour and prosperity of national industry to organise.

For the accomplishment of this object a Polytechnic, into which our present Technical Institute may be easily transformed, would be a suitable instrument. It could: comprise vocational education of various types and grades—from the purely scientific to purely practical and related to the vocational needs of the locality and the region. It could be made to fill a distinctive place in the educational world of Poona by forging a useful link between education and the commerce and industry of the region. There are certain distinct advantages in favour of a polytechnic as againsta monotechnic : it is a more economical organisation; it can fill a more impressive place in the life of the community and bring together into a stimulating contact workers and pupils from various fields.

Vocational education is an expensive kind of education, demanding costly 'equipment, costly material, and the services of highly trained technical personnel. Fee-income can go but a short way towards meeting its cost-Generous support from businessmen and industrialists » donations from the philanthropists and grants-in-aid from the government will be required if private vocational education is to succeed. But it is an effort worth while making and some striking examples of such effort may be given. The Industrial School of the D. A. V. Society at Lahore conducts the Carpentry course of 4 years (185 students in 1940), Tailoring course of 3 years (80 students), Book-binding course of 2 years (20 students), and Cycle repairing course of 6 months (155 students). A distinctive feature of the school is its Production Department. With the labour of its trained students directed by expert craftsmen it executes large orders at competitive rates. In 1940 it turned out work worth about Rs. 20,000 and made a profit of Rs. 3000 to 4000. Such a plan

is calculated to give self-confidence to the newly trained student and bring him face to face with the actual conditions of the business world. A more ambitious project of the same Society is the Dayanand Technical Institute founded in commemoration of the Golden Jubilee of the Dayanand Anglo Vedic College. The Institute proposes to make the production of machine tools and machinery its special activity. By 1940 more than 1¼ lac of rupees had been 'spent on buildings and equipment. Lathes, Milling machines. Drills, Presses,. Planing machines, Furnaces *etc.* had been installed; the workshop, and moulding and casting sheds already erected. A few lathes and drills produced at the workshop were on view.

Another remarkable private institution is the College of Engineering and Technology founded by the National Council of Education, Bengal, as far back as 1906. The College is situated at Jadalpur near Calcutta. It possesses extensive grounds and good buildings. It has received more than 30 lacs of rupees in donations and the Calcutta. Corporation gives it an annual grant of Rs. 20,000. The institution provides courses of 5 years each in Electrical* Mechanical and Chemical Engineering. Matriculates or higher students are admitted, and on the successful completion of the course the College grants its own Diplomas. The College enjoys a high reputation for its training. Its electrical department is recognised by the Posts and Telegraph Department for purposes of higher service. I had the opportunity of going over its electroplating department. Plating in chromium, gold, silver, zinc, tin etc, is taught and the required metal salts are mostly made in the laboratory of the Institute. Here, indeed, is a worthy model to look up to, in the sphere of technical education. Look forward

to a Polytechnic teaching anything up to 25 courses, at a capital cost of quarter to one half lac per course, with a total attendance, say, of 500 students. An effort on this scale should be quite feasible with government's help if the spirit underlying the Sargent scheme at all animates the action of government in the post-war period.

Our efforts in the direction of Commercial education at a lower than the University level need not take the form of opening a Commercial High School. It would be better from the point of view of economy to offer instruction in commercial subjects, when these are recognised as optional subjects for the Matriculation. Commercial education begun at the Matriculation stage may be carried further into the intermediate stage as suggested in a previous chapter.

The exigencies of war have given a strong impetus to technical education. Under the technical training scheme initiated by the Government of India training centres have been opened all over the country and more than 30 courses of vocational instruction each of 8 or 9 months duration are offered to business. The courses are severely practical in aim and are compressed into as short a period as possible. This scheme demonstrates the possibility of putting young men with low educational qualifications through a technical course in a comparatively short time. The lessons of the war time technical training scheme ought to prove of value even during peace time. Training centres within the Province of Bombay have sent out more than 4,000 trained men. since the war began.

CHAPTER VI

Private Effort in Education

It is a curious drawback of the Sargent Report (Report by the Central Advisory Board of Education, on Post-war Educational Development in India) that it does not give consideration to the role of private educational enterprise in the post-war educational development in India, On a perusal of the report one receives the impression that the stupendous programme of educational expansion is to be carried out by the Central and Provincial governments through the official agency. The very large place held by private educational bodies in the present day system of education does not receive the recognition deservedly merited by them. Not even in the chapter on Administration is the relationship between the'public authority and private educational organisation anywhere indicated. But the whole trend of educational progress in India has been in the direction of a widening.of private educational enterprise—particularly in the spheres of Secondary and Collegiate education—concurrently with or even in supersession of the governmental agency. As noticed in a previous chapter, Government High Schools are a mere handful compared with the overwhelming number of private schools. Government Arts Colleges too are a comparatively small number. Professional Colleges are predominantly government institutions on account of the high cost of maintaining them. The field of primary education alone is mostly the preserve of the governmental or semi-governmental (i . e. municipal and local board) agency, and is abound to remain so.

A vast body of private educational enterprise has thus grown up in course of time which it is the duty of government to foster and encourage as an aid to its own effort in the course of the people's education. The Despatch of 1854 had a liberal and exalted conception of the place of private effort in national education. It is set forth in the following w6rds: " The consideration of the impossibility of government alone doing all that must be done for the education of the natives of India, and of the ready assistance which may be derived from efforts which have hitherto received but little encouragement from the state, has led us to the natural conclusion that the most effectual method of providing for the wants of India in this respect will be to combine with the agency of government the aid which may be derived from the exertions and liberality of the educated and wealthy natives of India and of other benevolent persons.[1]* The benevolence and liberality were to be systematically and actively enlisted in the cause of education through a system of grants-in-aid to private educational institutions• But the underlying spirit of the Despatch received but scant recognition at the hands of the Departments o Education in the Provinces. What little grants were given went to the missionary institutions or to private institutions for Europeans and Anglo-Indian pupils. The Department of Education, Bombay, gave Rs. 72,500 as grants in aid to the above categories of schools and only Rs. 4,500 to private schools managed by Indians for Indian boys. The Education Commission presided over by Sir William Hunter (1882-1883) strongly recommended that" whilst existing state institutions should be maintained in complete efficiency wherever they were neces: sary, the extension and improvement of institutions under private management should be the principal care of the JEducationa! Department. The Government of India

accepted this recommendation in its entirety and its Resolution of 23rd October 1884 expounded the educational policy of government in the following terms :—

" For all kinds of advanced education private effort should, in future, be increasingly and mainly relied on, and every form of private effott should be systematically encouraged in such ways as these :

(a) by liberal rates of aid so long as such aid is needed ;

(b) by leaving private managers free to develop their institutions in any way consistent with efficiency;

(c) by favouring the transfer to bodies of native gentlemen of all advanced institutions maintained from public funds which can be so transferred without injury to education.

It may be said on a review of the history of education in this Province during the last sixty years that private education has not at any time received the consideration and encouragement envisaged by the Education Commission. Some efforts'were made to transfer government institutions to private bodies, the underlying motive of which was to save government funds rather than tO encourage private education. Ahmednagar High School was the one institution actually transferred to private management (1886); the protracted negotiations for the transfer of the Deccan College to the Deccan Education Society (1886-87) did not bear fruit. The breakdown of these negotiations led to the most unexpected consequence, viz. the loss of the annual **grant** of **Rs.** 2,500 to the Fergusson College on **the ground that** "The Deccan Education Society **refused** to **accept the very liberal terms offered by government, and**

that money in Poona is being wasted which is **uRgently** required for primary, secondary and technical schools throughout the country". Wasted, indeed ! A grant of Rs. 2,500 to the only private College in the Presidency—and one which had come in for the highest encomiums from the Governor General downwards—a waste of public money!! This was by no means an encouraging application of the policy of expanding private education. So far as the Bombay Presidency was concerned, neither the transfer of government institutions to private agency nor the liberal patronage of private education was much in evidence. Even public opinion was not enthusiastic about the first, and financial stringency checked the impulse to the other. After an initial period of fixed grants, the present system of grants proportioned to grantable expenditure was adopted. One third of grantable expenditure has been the highest proportion ever reached by the grant to Schools; Colleges have always received much less. The needs of private education have never been generously conceived and • liberally supplied. Private education has been treated as the proverbial poor relation, who is expected to be gushingly grateful for any small favours shown. With lower fee rates than in government schools and a scale of grant nearer ¼ or less than J, private schools have never been free from crippling financial difficulties. They have never found it possible to secure donations from the public from current expenditure. Fees and the government grants have been their only sources of current;income, from which to meet current expenditure. Private schools can manage to balance their budgets only by famishing the teacher. The salary bill has to be kept within the fee-income at all costs, and the government grant used for other expenses. Even **a well-established school like the Poona New English School, not at all managed with an**

eye to saving money, cannot offer to its teachers salaries comparable with those in Government High Schools, where, too, the salaries cannot be described as generous. The N. E. School devotes between ¾ and $^4/_5$ of its total expenditure to payment of salaries and yet can-only maintain a niggardly scale at the most. This is the price paid for keeping the head above waters. If private effort is to play its part worthily in the scheme of national education, government support will have to be given to it in a far more generous manner than hitherto.

With a fee rate of Rs. 2½ to Rs. 5 and a government grant equal to 50 per cent of school expenditure it would be possible for secondary schools to maintain the basic scales (i. e. exclusive of urban area allowance) of salaries for secondary teachers indicated in the Sargent scheme, — which is, average salary of Rs. 62 for the non-graduate teacher and Rs. 119 for the graduate teacher— and provide other requisite aids to efficient education.. Schools, aiming at a higher level–still, may charge higher fees, incur higher expenditure per capita, and claim higher grants.

We now reach the crucial question of policy. It may be asked: Why should government give grants at such a high rate rather than take over private education under its own direct management ? The replacement of private agency by government agency is not likely to impose a higher net cost on government.

The answer to this question is twofold. It cannot be accepted as proved that the cost to government under a system of direct management would not be higher. Government will never be able to make an appeal to philanthropy and liberality in the same way as a private

institution can—if at all. Even in small places we can find examples of the generous endowment of private education by citizens. A considerable portion of the capital cost of education at any rate is likely to come out of private pockets with private educational institutions in the field. Another gain is the possibility of enlisting active public interest in the cause of education through the agency of a private institution. The Sargent scheme contemplates the formation of local advisory boards with this end in view. The strongest argument *in* favour of private education, however, is that it opens up possibilities of experimentation and innovation. All governmental activity is prone to red-tapism and regimentation a tendency to be particularly guarded against in the field of education. A private institution with the vision and idealism of an ardent educationist behind it is a potential seed-bed of new ideas and new methods. These can be conveniently tried in a private institution. We can point out, in this connection, to the introduction of Marathi as a medium of instruction at the New English School so far back as 1908. What was then an experiment has now become established practice in secondary education. Institutions like Tagore's Shantiniketan, Gandhiji's Wardha Schools, and Dr. Zakir Husain's JamiaMilia School in Delhi possess a national significance as educational experiments.

We cannot also be always sure that government schools will be the best of their kind or that they will cater to the needs of all classes in the community. In spite of the phenomenal expansion of secondary education in England through the agency of the county authorities, the Public Schools of England remain secure and unchallenged. Nay, their number is decidedly on the increase. We know by bitter experience that Local Board

Schools of this and other Provinces leave so much to desire that parents are often anxious to forego the advantage of free education in them, and send their children to private schools which charge fees. Considerations such as these should make us pause before deciding upon the supersession of private education. Under the influence of English ideas and practice private education has taken a firm root in India and it is the part of statesmenship to promote its further growth. The proper outlook in this matter is to regard education in private hands as a parallel and complementary agency engaged in the same task, and leave both agencies free to operate in their appropriate spheres for the accomplishment of a common national purpose. Not a poor relation to be pitied and patronised, but a collaborator to be respected and welcomed : such is the proper conception of the role of the private educationist.

Colleges will require government aid in a more abundant measure than schools. The proper staffing of colleges is a much more difficult problem than finding suitable teachers for schools. If Colleges are to be places of living knowledge the teachers in them must have the capacity, the leisure and the means of engaging themselves in its life-long pursuit. This means that the college teacher's life and prospects should be sufficiently attractive to draw itself a fair proportion of the best products of the Universities—men of high calibre capable of holding their own with the best talent in other spheres of national life, and possessed of a passion for living an intense intellectual life. A college teacher's life cannot possibly offer such rich prizes as business and industry or even the administrative career can. When everything is said and done, wealth and learning (Shri and Saraswati, in the well-known words of Kalidas) must dwell apart by

their very nature. A real teacher does not expect to have the best of both worlds. But he is entitled to a respectable competence in the interests of learning itself in modern conditions of life.

Judged by this standard, the teacher's lot in the private Colleges of this Province—particularly in indigenous private Colleges—has been none too enviable. This is explained by the circumstances of the origin of the first such College—Fergusson College in 1885—and the governments policy *in* the matter of grants-in-aid to Colleges. That policy has been, if possible, even more niggardly than in the case of schools. At a conference of representatives of private colleges convened by government in 1885, Tilak, on behalf of Fergusson College, pleaded for a grant of Rs. 100 p. m. in respect of the salary of each full time Professor in a College and a further grant equal to 1/3 of other College expenditure. Government decided upon a fixed maximum grant of Rs. 2,500 per annum for each Class in a College independently of considerations like the salaries of Professors and total expenditure of the institution. The fixed grant system remained in force until-1919, when it was changed to the proportionate grant up to 1/4 of expenditure. Private colleges collectively received less than 10 per cent, of their direct expenditure as grant from government in 1939-40 and this proportion has fallen lower since then,

A grant of Rs. 2,500 for each College class was not calculated to allow of anything higher than a subsistence allowance to College teachers when the fee-rate was only Rs. 24 per term, and the number of students on the roils was very low indeed in comparison with present-day figures. But the founders of the Fergusson College did not rely upon the government grant at all;when they perfected

their College project. Their remedy for financial difficulties was self-sacrifice. The founder life-members had resolved to serve on Rs. 40 per month if no grant was given or having been given was withdrawn by government at any time. For a long time after the gross pay was raised to Rs. 75, the old tradition of the basic pay of Rs. 40 was kept up in the following manner ; Life-members drew Rs. 40 only from month to month and Rs. 420 at the end of the year for making the year's purchases of clothing, grain, fuel etc.

This is the origin of the institution of "Life-membership", that is, of life4ong self-sacrificing service in the cause of education from motives of patriotism. The founders of the Fergusson College were most undoubtedly actuated by this motive of patriotic service in the field of education and they were universally acknowledged to have been so actuated. Sir James Fergusson publicly spoke as follows in March 1885: ''That this institution (Fergusson College) has developed is due to the self-denying patriotism which actuated the teachers of the College. True patriots are they and well worthy of all the praise that can be given them". They were not only patriots, however, but realists as well; and their sense of realism made them base their salaries on the bed-rock of fee-income. They were firmly convinced that if a stable financial foundation was to be given to their educational effort, current expenditure must be met out of current income, viz. fee-income and government grants, if any. Donations from the public were not to be depended upon for current expenditure ; they were to be scrupulously reserved for non-recurring capital expenditure. The one answer to these varied and exacting prerequisites of stability and success was service to the College on the basis of life-membership. A private

College, started avowedly with the object of cheapening education, was possible in 1885 only on these terms and on no others.

Government grants being what they are, it cannot be said that even now private Colleges can afford to pay salaries to their teaching staff at all comparable with those paid in government Colleges, unless they choose to go back upon their avowed object of cheapening and facilitating education and raise their fee rates to the government levels. One cannot be sure, however, that all Colleges will improve their financial position by raising fees. Higher fees may reduce the number in some of the Colleges to the extent of neutralising the benefit of the higher fee rate. And besides there are so many other things to be put right in our Collegiate education, that either they or the teachers' salaries will have to be left alone. To mention only a few of them : Much smaller classes than the present ones of 150 students must become the rule; tutorial guidance and supervision must be introduced ; a better residential life must be organised ; much more care must be bestowed upon physical education. These things cannot be held up, any more than the improvement in the teachers' salaries, if an ail round reform in Collegiate education is really desired.

If, however, as a practical proposition we address ourselves first to the most urgent problem of the teachers' salaries, a suggestion can be put forward on the basis of the figures for 1939-40—a normal year as regards salaries. In that year the total average cost of educating one student in three government Arts and Science Colleges (excluding the Ismail College and the Royal Institute, which being small units involved a disproportionately high expenditure) was Rs. 214 per annum, out

of which the cost to government was Rs. 42. In the same year the total average cost in 10 aided colleges (excluding the Deccan College Research Institute) was Rs. 181 of which government contributed Rs. 18 as grant. If government were to contribute the whole difference in government cost in these two classes of institutions, viz., Rs. 24 per student (Rs. 42—Rs. 18), the problem of the college teachers* salaries would be placed on the way to solution. Under this plan a well developed college with a strength of 500 students would get an additional grant of Rs. 12,000 which might be earmarked by government for additional expenditure on salaries. Expressed in other terms such an additional grant would raise the proportion of government grant to ¼ of expenditure from $^{1}/_{10}$ where it stood in 1939-40. With this scale of grants it should be possible for private colleges to pay an average salary upto Rs. 250 to their professors, and Rs. 150 to teachers.

The Sargent scheme contemplates an expenditure of Rs. 400 per annum per student (including students in professional colleges), This expenditure covers the cost of reforms alluded to above besides providing 50 per cent, free places for poor students of ability, and maintenance grants to half the number of free place-holders. This would mean a great advance over the present state of affairs, in which private colleges may legitimately expect to play their part. The Sargent scheme proposes an annual expenditure of 9-6 crores on University education in British India (2,00,300 students) of which 70 per cent. is to come from government revenue, and 30 per cent. from fees.

The system of life membership, which has served as the foundation of the structure of university education

through private Colleges all over this Province, has of late come in for critical notice in many quarters. It is said that private Colleges have failed to reach the highest academic standards and make contributions to the world's knowledge. Even their ability to maintain undergraduate teaching at the level in government colleges is called in question.

The view has been expressed by well-meaning persons of high authority, that the low salaries prevalent in private colleges have led to a lowering of teaching efficiency by lowering the calibre of college teachers. Well-established private colleges with distinguished traditions, it is contended, may be able to attract some eminent scholars as life-members even on low salaries, but that cannot be said of all private colleges, whose number again is rapidly increasing.

According to this view, private colleges cannot be satisfactorily staffed on the salaries offered by them, even on the basis of life-membership ; and that life membership with the low salaries incidental to it has in fact been used as a plausible reason and justification for low payment. It is suggested that an all round improvement in the salaries of teachers in private colleges including life-members must be effected if an improvement in the academic standards is to be looked for.

Now, the need for improving salaries can be conceded without pronouncing a judgment on life-membership as an institution. Life-membership is not incompatible with the acceptance of a reasonable competence. Tilak suggested a grant of Rs. 100 p. m. towards the salary of a professor, and this, combined with an addition from the fee income would have placed the salary at Rs, 150 p. m.,

in 1885. But government gave a grant of Rs. 2,500 only., and forfeited it three years later. When revived in 1894 the grant amounted to Rs. 3,000 only, although the college was entitled to receive Rs. 5,000 under the grant-in-aid rules, and to much more if the sacrifice basis of life members' salaries was taken into account. It took government eight more years to raise it to Rs. 7,000 and another four years to do the tardy justice of raising it to Rs. 10,000. The college, because of the patriotic impulse that underlay its working, could never count confidently on the government grant.

Low salaries were thus paid to life-members in the past and are paid even now, because consistently with sound financial management higher salaries cannot be afforded by private Colleges—fee-income and government grants being what they are. It is not enough to exhort, college-authorities to pay higher salaries ; the source from which they could be paid must be indicated. The source can either be the fee-income or the government grant. In order to make College education efficient and at the same time financially self-sufficient the fee-rate would have to be something like Rs. 300 per annum. It is a matter for serious thought, how many parents could afford to give to their children higher education on these terms, and whether the nation would not suffer by having education confined to the elite of wealth who alone could afford it. It is a narrow and shortsighted view of national interest to maintain that only such should take higher education as can afford to pay for it. What chance has " the poor student of ability " got under this dispensation ? The founders of the Fergusson College took a more faxaighted view of national interests, and a more exalted view of higher education as a means of promoting these interests. They thought it worthwhile;

sacrificing personal gain in order to bring secondary and higher education within the reach of the lower social strata. They started by charging Rs. 4 p. m. only as college fee and maintained 10 per cent, free places from the outset. They were determined to carry this project to a successful conclusion whatever the government's response to it. But they always counted upon the sympathetic response of the public to aid their efforts with monetary contributions for permanent capital expenditure. By taking low salaries and thus meeting the current expenses of the institutions out of fee-income they set up a strong moral claim to public benefactions for permanent objects. The sacrifice of men like Tilak, Agarkar, Apte, Gokhale, Karve, Bhate, Rajawade and Paranjpye has invested the institution of life-membership with a great moral significance. The significance lies in deliberately foreswearing material ambitions and choosing a life of self-denying service just on the threshold of one's career. What Gokhale said of Fergusson College in 1902 in the course of his farewell address remains true even to-day of that College and others based on the system of life-membership. Said Gokhale, " I have been nearly all over India, and I have naturally felt special interest in the educational institutions of different places. Nowhere throughout the country is there an institution like this College of ours. There are other institutions better equipped, and also with older traditions; but the self-sacrifice of men like my friends, Mr. Paranjpye and Mr. Rajawade surrounds this College with a halo of glory all its own."

In a greater or lesser degree the sacrifice of other mea has built up private colleges in Maharashtra and Bombay Province generally. The pattern of organisation set up by the Deccan Education Society has been re pro-

duced with suitable modifications in the constitutions of many private educational bodies formed for the management of high schools and colleges. Life-members have been the moving spirits behind the activities of such bodies aided by the sympathy and support of the public in the locality concerned. Life-members have taken the lead in initiating, organising, financing and conducting the educational effort. The part of the representatives of the public has usually been that of donors, guides and mentors. The public has been content to play a passive part in recognition and appreciation of the preparedness of life-members to shoulder the main burden—-financial and administrative—and their determination to discharge their self-imposed duties with devotion. Coupled with this is also the knowledge that the life-members as a body, taken one with another, are offering their own services at less than the market value. Self-sacrifice is, perhaps, too high sounding a word to use in this context; but a certain measure of idealism and self-denial may be claimed and can be conceded. Benefactions from the public have to a great extent been evoked by self-denial on the part of life-members. Institutions served by teachers on the market value basis would never have been so generously helped by the public, nor the teachers themselves so highly esteemed.

Life-membership as the driving force behind private educational effort is a feature peculiar to Bombay Province. It was evolved by the Deccan Education Society and has been copied in other parts of the Province. Nothing like it is met with in other Provinces in anything like the same development and extent. Private institutions elsewhere have had their origin in the benefactions of individuals or communities : for instance, Pacbaiyappa's College in Madras. The managers of this

princely trust conduct the college; staff is appointed as it would be in a government institution. The Principal of the college is invited to attend the meeting of the trustees, but he has no vote. Many more private institutions have been set up by the leading citizens of a locality in order to meet a strong local demand. In such efforts the teachers themselves have had little or no [part. The status of teachers is that of employees. At the most the academic head of the institution may be consulted in the matter of appointments, management, development, that is all. Other institutions still, may be avowedly or virtually proprietary, with the management and fortunes of which the teachers have nothing to do. Such educational institutions exist in Bombay as they exist in other parts of the country ; institutions organised and conducted by life-members are, however, peculiar to Bombay and there is every reason for encouraging and maintaining them. We need not be in any hurry to weaken or eliminate the institution of life-membership, which I for one regard as the most valuable and distinctive contribution made by Maharashtra to modern education in India. I have not yet heard of a more effective alternative to life-membership for the management of private colleges in our peculiar conditions.

To say this is not to rule out the possibility or ignore the desirability of reforming the system. The original conception and practical operation of it does need to be modified in view of the changes that have taken place in the social and political environment during the last half century. The early life-members were not educationists merely. National regeneration was their object and education was one of the means to that end. This outlook explains why Agarkar and Tilak started the Kesari and the Mahratta almost at

the same time as the New English School; why Agarkar made the advocacy of social reform his life-work ; why Narajoshi constituted himself the missionary of industrial progress; why Gokhale, side by side with the most scrupulous performance of his educational work, burnt the midnight oil to serve an exacting apprenticeship for public life under Ranade ; why Karve tended with infinite care the delicate plant of widow's education in his spare hours. If their only interest and preoccupation had been education, ail these activities would have been placed under taboo. After the College was opened in 1885, the question of outside work did, however, become a question of keen controversy. It was one of the questions at issue between Tilak and Agarkar.* The issue was decided against Tilak, that is, against the ideal of academic seclusion. Agarkar, Gokhale and others of their way of thinking held the view that the social conditions of the times did not permit of exclusive specialisation in public affairs: work to be accomplished was so vast, workers so few. They claimed the ordinary citizen's right of actively engaging themselves in public work, including political. In pursuance of this policy Gokhale was allowed to contest the election to the Bombay Legislative Council (1899) and the Imperial Legislative Council (1901). On the initiation of the Montague Chelmsford Reforms Principal Paranjpye (as he was) and Prof. V. G. Kale were elected to the Bombay Legislative Council and the Council of State respectively (1920). Principal Dr. Mahajani's election to the Legislative Council, Bombay; (1937) is the latest case in point. Other life-members have sought election to the municipal bodies. It must be recognised, however, that with every passing day poli-

* P. M. Limaye: History of the Deecan Education Sootaty, pp. 109 to 120.

tics is bound so become more and more strenuous and all-engrossing, and its claims less and less reconcilable with the life-work of an educationist. The scope left to an educationist in the sphere of practical politics will become narrowly circumscribed. He will have to foreswear politics not because it is beyond his capacity but because it is outside his ambit. The most fruitful contri. bution which an educationist could make to the politics of the country would be by the scientific and philosophic study of political, administrative and economic problems; by a dispassionate examination of social and political institutions and of their tendencies and effects ; by suggestions for the lasting cure of the nation's ills. For these fundamental tasks the politician, in the whirl of his hand-to-mouth existence, has neither the time to spare nor the capacity in most cases. He would be profoundly grateful to the teacher for any guidance he could receive. It should be the University-man's cherished privilege to offer it out of the wealth of his thought, observation and vision. When all this is said, I do think that Provincial Legislatures would be all the better for the inclusion within them of the best representatives of the academic life of the Universities. The selection of the representative may be left to the Senate of the University, so as to make that process as little strenuous as possible.

It may be accepted as certain that in future life-members will be judged more exclusively by their academic performance. Academic standards in India are-rising higher every day, and very soon they will be pitted against the highest in the world. If Collegiate. institutions managed by life-members are to hold their own in a situation like this, academic interest must be placed first and all hindrances to good academic work, removed. It is now generally agreed that an improve-

ment in the emoluments of life-members is urgently called for as an aid to academic improvement. In keeping with the spirit of life-membership, I have to suggest that the improvement should take the following form: a somewhat higher basic salary, plus an additional per capita allowance according to the number of children. This is a better method of giving relief,—more directly helpful and possibly more economical. Provision of suitable house accommodation for a rental equal to 10 per cent, of the salary, and of free medical treatment on a co-operative insurance plan are highly desirable facilities. Many of the hardships of a low income will disappear and conditions conducive to serious intellectual life established if the monetary burden of a large family is eased, and convenient accommodation as well as medical care are secured on reasonable terms.

It has been usual all these years to admit new life-members on the strength of their university qualifications and entrust them with teaching in the highest college classes immediately or soon afterwards. Such a course becomes necessary owing to the lack of reserve staff in individual colleges. It is to be hoped that with the establishment of the University of Poona on the federal basis this state of things will change. In future, it will be necessary to put life-members through a longer academic apprenticeship. A new life-member during the first five years of his career should be distinctly in a state of pupilage under the care of the head of the department. He should be required to take a research degree during this period if he does not possess one, and generally speaking the foundations of his future academic career properly laid. At this stage he should not be burdened with administrative work which may encroach upon his spare hours. During the succeeding period of five years

higher teaching will pass gradually into his hands and also more administrative work. At the end of ten years differentiation will set in on a respectable academic foundation. Some persons may show an outstanding aptitude for teaching and research, others while being quite competent teachers may show signs of special administrative capacity. Higher teaching and administration may well become partially differentiated at this stage. Mere administrative skill divorced from academic merit cannot, of course, make much impression in the educational world. We have also to remember that the public desires intellectually eminent men to be the heads of educational institutions. But without ignoring these varied considerations we must give the first place to academic interests and adjust other parts of the educational organisation to it. Through such adjustments alone can life-membership continue to play its part in a world of new academic values.

Whenever possible, college teachers of high promise should be sent abroad for advanced work in their subjects, not necessarily for degrees. Opportunities offered by Indian Universities, too, should be utilised during periods of study leave. In the preoccupation with one's routine work instructive advances and developments within the country itself are apt to be overlooked. It may be taken for granted that College teachers will be helped with funds to enable them to attend Conferences of all India character in their respective subjects. Attendance at such conferences at least helps to bring a realisation of one's own place and the institution's in the Indian academic world.

A sudden break in the continuity of his academic work occurs when a life-member is called upon to take

up school work. In the early years, all life-members used to take a hand in school teaching, and one of them officiated as Superintendent of the New English School by rotation every year. At a later period' superintendentship came to be extended to three years and then to five. The office of Superintendent must neces. sarily cause -a break in college-work and disturb the regular tenor of academic life. School-work has now become so highly technical and specialised that any and every life-member cannot turn his hand to it at short notice and most life-members show a reluctance to do so as their main interest lies in college-work. The remedy obviously is to enroll life-members with special qualifications for school-work, who by deliberate choice would devote themselves to that work and not hanker after college work at all. That is the real way to give its proper importance to school-work. It will not do to treat school-work merely as a temporary phase in a life-member's career.

I have set forth above my ideas for making life membership effective for university work in the changed conditions in which it will have to operate. It goes without saying that it must be ultimately judged by its academic worth. I have no apprehension that eligible young men will not be found to devote themselves to academic work on terms which a more liberal administration of the grant-in-aid code on the lines of the Sargent plan will make possible. Government service may offer better terms, but can that service absorb all the good men going round ? There will be some who prefer to work in and for their alma mater on lesser pay, but with a greater sense of satisfaction. The. opportunity of working in a self-directed organisation is itself a rich compensa.

tion. The magnetic force of tradition which drew a Paranjpye into the service of the Deccan Education Society may be relied upon to exert its influence in the future, too, and enrich the life and activities of the University of Poona to be and its affiliated institutions, with a steady stream of talent and idealism !

CHAPTER VII

Some Educational Projects

It is proposed to indicate in this chapter certain educational projects of high utility that need to be undertaken in the general public interest—as also in the interest of education. The Deccan Education Society and other Educational Bodies in Poona may be able to carry out some of them. The Government of Bombay may undertake certain others as part of its comprehensive scheme of post-war educational development. Another agency still may be the University of Poona, when it comes to be established. There are certain educational tasks to be done; agency for doing them is a matter of secondary importance.

1. Montessori School.

The methods of Education developed by Madame Montessori require no recommendation for their adoption. They have firmly established themselves in the educational world. It would be an effort worthwhile making and quite practicable in association with our Navin Marathi Shala to organise a Montessori Department and, in the first instance, to carry it to the stage corresponding to the fourth standard of the primary course. In the light of the experience gained it may be possible to take it higher to the end of the Anglo-Vernacular middle stage and correlate it to the Public School Department, the institution of which I am going to suggest in a later part of this chapter.

The Montessori Department will be necessarily **more costly to run, but it should be possible to make it self-**

supporting with a fee rate of Rs. 3 per month and a special grant equal to one half of expenditure. It should not be difficult in a large City like Poona to enroll a sufficient number of students, if bus transport is arranged for bringing children to the School. After *a short initial period, the Department may be transformed into a separate full-fledged Montessori School. A capital expenditure of one lac of rupees would be enough for. a school with accommodation for about 200 pupils.

2. Training Class for Village Teachers :

The Appeal issued by the D. E. Society on the occasion of its Golden Jubilee in 1935 included the above class among the educational projects under contemplation. It was felt that a village school which took into account the overwhelming economic need of the-village population was a desideratum. Around the school should be centred the whole reconstruct ion effort for the village and the teacher should play the central part in this effort. The teacher was to be the ambassador of culture and reconstruction in the villages, to which the regular official agencies had not yet penetrated. The Training Class was intended to prepare the volunteer teacher for this all important role.

This was in 1935, i. e. before the Provincial Governments or the Central Government had thought of a comprehensive plan of abolishing illiteracy in a stated period. It then looked as if the small village would remain out of the pale of the official school system for a long time, and that an alternative to the regular school organisation was highly desirable. The volunteer teacher who would set up a private school on his own initiative, and be given aid by the public authority appeared to offer a suit able alternative agency.

The Sargent scheme proposes that a system of universal, compulsory and free education for all boys and girls between the ages of six and fourteen be introduced as speedily as possible, although, in view of the practical difficulty of recruiting the requisite supply of trained teachers, it may not be possible to complete it in less than forty years. This scheme of Basic Education will require 20 lacs of teachers to be trained during a period of 35 years, and the annual average cost of their training will be Rs. 4 crores. If, however, the pace of progress towards universal education is to be accelerated—and to many an ardent educationist, forty years appears to be too long a period—the volunteer teacher with his aided school would prove a valuable ally.

A Training Class for such teachers should, thus, find a place among our projects, even in conditions holding the promise of a new educational era.

3. Public School:

The Deccan Education Society's avowed object has been the cheapening and facilitating of education. It has always striven to make the best possible education available at the lowest possible cost to the pupil. This is as it should be. But there is no reason why better education still should not be offered to such as can afford to pay for it. Educational democracy ought to be a process of levelling up, and just as one part of our educational programme should be to nurse exceptional talent, another may well be to create ideal educational conditions and facilities for exceptional wealth. There are many desirable educational improvements which lack of means puts beyond the pale of practical politics: for instance, classes with smaller numbers; well-trained and well-paid

teachers; personal attention to the progress of each pupil. These are bound to remain mere aspirations on account of financial difficulties. But what may not be possible to attempt for the generality of pupils can be offered to a select few, the basis of selection being the' capacity and willingness to pay for special facilities. The Public Schools of England are organised on this plan. A Public School is quite a practicable proposition in Poona. With a capital expenditure of 5 lacs it would be possible to open a Public School for 250 pupils, offering facilities comparable with those of the Dun School. With an all-inclusive annual fee of Rs. 1,000 the school would be able to pay its way, and repay the capital expenditure in course of time. Its physical and educational environment point to Poona as an exceptionally good location for a Public School.

4. Vocational High Schools :

It would be desirable to open in Poona a Technical High School teaching for the School Leaving Certificate in technical subjects. The Government of Bombay have converted two of their Secondary -Schools (Elphinstone High School, Bombay, Northcote High School, Sholapur) into Technical High Schools, and more of such institutions would be welcomed. The scheme will involve a capital expenditure of about two lacs, and a heavy current expenditure for which a special grant from government will have to be negotiated. If started at an early date, it would be the first private institution of that kind, and as such may be expected to evoke liberal financial support from the public.

In the chapter on vocational education I have expressed the view that Commercial and Agricultural

High Schools are not likely to prove so successful as the Technical High School. The countryside would be the proper setting for an Agricultural High School, but it may prove difficult to get together a sufficient number of students for a High School from the immediate neighbourhood. The Commercial High School appears to me to involve too early a branching off from general education. The matriculation or its equivalent constitutes a necessary grounding for serious commercial education. Commercial education of the diploma standard would be best imparted at the post-secondary level A suggestion in that sense has been made in the chapter on University education, and it would be further developed in a later Section in this chapter. Commercial education at the secondary stage may best take the form of an optional subject at the matriculation examination.

5. Agricultural School:

While an Agricultural High School may prove a difficult proposition, an agricultural school in the countryside for the sons of farmers actually pursuing the occupation of agriculture is likely to make a strong appeal and take root. The idea should be to admit boys of about 16 to 18 and put them through a course of practical agriculture during a period of two years. It should be real apprenticeship to agriculture in all its variety according to the best scientific methods, and concurrently with agricultural practice elementary principles of agricultural science also should be taught. The product of the school ought to prove himself an industrious and capable farmer with an intelligent understanding of his agricultural practice. He and his fellow students would be so many active agents in the propagation of improved agriculture throughout the land.

I have to suggest Sangli as a suitable centre for this educational experiment. Willingdon College possesses a considerable area of agricultural land which could without inconvenience be turned over for use to the agricultural "school. In the era of rural reconstruction opening before us liberal aid towards current expenditure may be expected from the Provincial Government and **the** neighbouring States. An initial non-recurring expenditure of one lac should suffice for a school with accommodation for 50 students.

6. **Polytechnic Institute** :

An institution for imparting varied vocational education of different grades, from Trade School standard to post-secondary Diploma standard would contribute an essential element to the educational equipment in Poona. An outline of this project has been given in the chapter on Vocational Education. An important part of the activity of such an institution would consist in the •co-ordination of such vocational educationas is at present Being given in Poona by various agencies.

The present time is an opportune one for making a beginning with the Polytechnic scheme. On the termination of the War many of the centres for the training of war technicians would be necessarily closed down, and their staff and equipment could be taken over on reasonable terms for the use of the Polytechnic Institute.

7. Classes of Commercial Education :

The desirability of organising Commercial Education at the post-secondary stage has been made out elsewhere.

It is open to such as can to proceed to the university degree in commerce on the completion of their secondary course, but a much larger number of students from the middle classes cannot afford the expense of such higher professional education and their anxiety is to enter the clerical and allied occupations as soon as possible and begin earning their livelihood. For such young persons practical training in the " office-arts " of type-writing, shorthand secretarial work, office organisation etc. extending over a year or so would be extremely useful. Arrangements for training in the allied lines of salesmanship, accountancy, insurance, auditing, banking could be made side by side. Our College of Commerce could well serve as the centre of all such activities in connection with business training, and the scope of its usefulness immensely extended beyond the comparatively narrow circle of those seeking the university degree.

Such training will be judged by its practical results and " Efficiency" must be its-unceasing pursuit.. " Good Enough " will not bring success in the competitive conditions of the business world ; " Best Possible " alone has a chance therein.

APPENDIX I

Itinerary of the Tour

Date	Place	Institutions visited
1940 October 1 & 2	(1) Gwalior	Scindia School; Gwalior Pottery Works.
October 3 5c 4	(2) Agra	Agra College; Balwant Raj put College; Dayalbag Colony, and its Technical College and Dairy.
October 5 & 6	(3) Aligarh	University Headquarters; Technical College; Moinuddin Art Gallery.
October 7	(4) Jammu	Basic Craft School; Pratap Technical Institute.
October 9 to 12	(5) Srinagar	Pratap College; Pratap Museum ; Canon Biscoe's Mission School.
October 15 to 20	(6) Lahore	University Headquarters; Government College; Dayanand Anglo Vedic College; Forman Christian College; D. A. V. High School **and** Industrial School; Dayanand Technical Institute; D. A. V. Ayurvedic College and Pharmaceutical Works; Dayal Singh College; Vishwanand Vedic Research Institute; Servants of the People Society; Woolner Hall; Air Force Training **School.**

October 21 to 26	(7) Delhi	Central Asiatic Museum; Hindu College; St. Stephen's College ; Jamia Milia Islamia's Primary School and Training College; Basic Craft School at Okhla University Headquarters Imperial Records Office Agricultural Research Institute.
Oct. 28 to November 6	(8) Dehra Dun	Col. Brown's School; Geodetic Survey Museum; Royal Indian Military College ; Doon Public School; Indian Military Academy; Forest Research Institute.
November 7 & 8	(9) Lucknow	University Departments of Chemistry, Zoology, Paleo Botany and Economics; Art and Craft Emporium.
November 10&11	(10) Cawnpore	Textile Institute; Leather Working School; Harcourt Butler Technological Institute; Starch and TaHow Factories; Imperial Institute of Sugar Technology ; Industrial Museum; Handmade Paper Factory.
November 13 to 16	(11) Allahabad	Arts and Crafts Exhibition; University Department of Physics; University Hostels.

November 17 to 22	(12) Benares	University Departments of Industrial Chemistry, Physics, Mining and Metallurgy, Ceramics, Glass Technology and Pharmacy ; College of Engineering; Ayurvedic College; Bharat Mata Mandir; Nagari Pracharini Sabha.
November 23 to December 4	Gaya, Calcutta, Jubbulpur, Nasik,, Aurangabad.	
Dec. 5 to 8	(13) Hyderabad (Deccan)	Usmania University Headquarters; Arts College ; Department of Zoology; Translation Bureau; Nizam College; Cottage Industries Emporium; Agri-Horticultural Farm ; Nizamiah Observatory; Technical School; Salar Jung Museum,
Dec. 9 to 15	Poona.	
Dec. 12	(14) Bhadravati Iron Works.	
December 20 to 26	(15) Bangalore.	Indian Institute of Science ; Mysore Lamp Factory ; Mysore Glass Factory : Porcelain Factory; Malleshwara Government High School; Silk Throwing Factory; General Library and Museum; Central College: Technologial In. stitute: Kolar Gold Field

December 27 to 31	(16) Mysore	Art Gallery in Jag Mohan Palace; Silk Factory ; Sandal Wood Oil Factory; Chamarajendra Technical Institute.
1941		
January 4	(17) Palghat	Basle Mission High School; Victoria College.
January 5 to 7	(18) Mangalore.	Ganapati High School; Canara High School; Besant Girls' School; Ishwaranand Mahilashram ; St. Aloysius College ; Basle Mission Press; Tile Factory.
January 9 & 10	(19) Ernakulam.	Tata Soap and Oil Factory; Alwaye College.
January 12 to 16	(20)Trivandrum.	College of Engineering; Arts College; Acquarium ; Public Library ; Museum ; Chitralayam; Industrial Showroom, Woodworking-Shop; University Workshop ; Training College; Women's Intermediate College.
January 21&22	(21) Tanjore.	Saraswati Mahal Library.

January 24 to 30	(22) Madras.	University Library and Research Departments; College of Physical Education; Acquarium; Theological Hindu High School; School of Arts and Crafts ; Adyar Library ; Ramkrishna Mission High School; Government School of Technology; Presidency College; Seva Sadan High School; Loyola College; Pachaiyappa's College ; Madras Christian College ; Victoria Technical Institute ; Museum; Connemara Library.
February 4 to 6	(23) Nagpur	University Library ; Morris College; City College ; Neill High School; University Science College.
February 7 & 8	(24) Jamshedpur	Technical Institute.
February 11 to 19	(25) Calcutta	University Library; Commercial Museum; Corporation Industrial Museum; Science College; Asutosh Mukherji Art Museum; Victoria Memorial Hall; Imperial Library; Calcutta Museum ; School of Art; University Departments of Botany, Zoology, Anthropology, Applied Chemistry and Applied Physics; University Geography Muse-

		urn; Botanical Garden ; Vidyasagar College; Statistical Laboratory; Alipore Test House ; Industrial Museum of Bengal; Institute for the Advancement of Science; Industrial Research Laboratory ; Tannery ; Nari Shiksha Mandal; College of Engineering, and Technology; School for the Deaf and Dumb ; Cottage Products Depot.
February 20&21	(26) Bolpur.	Santiniketan; Art Museum; Chinabhuvan Library; Shriketan.
February 23&24	(27) Dacca	University Campus and Halls.
March 1	(28) Waltair.	Andhra University's Departments of Chemical Technology, Sugar Technology, Pharmaceutical Technology ; Industrial Laboratory.
March 3 &4	(29) Wardha.	Basic Craft Normal Training School; Practising School; Rural Industries Centre ; Museum; Government High School.
March 4	(30) Sevagram.	Discussed educational economic questions with Messrs. Aryanayakam, Jaju and Mashruvala; attended evening **prayer near Gandhiji's Cottage.**
March 8	**Poona**	