PLAN FOR EDUCATION

A descriptive and critical commentary on
POST-WAR EDUCATIONAL DEVELOPMENT IN INDIA
otherwise known as
THE SARGENT PLAN

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PREFACE

No one concerned with Education can afford to be ignorant of *The Sargent Plan*. Among those ignorant of it an idea is prevalent that, since India has now attained Independence, and the country's partition has taken place, the Report of the Central Advisory Board of Education (commonly known as the Sargent Plan) is wholly out of date. Such an idea is quite wrong and very short-sighted. On the contrary, the assumption of full responsible powers by the Governments of India, Pakistan, and their respective provinces, marks the beginning of the new opportunity completely to reorganize education along the lines the country needs. This is just the time when the exhaustive and careful statistical information prepared by the Board and its Sub-Committees will be most useful, and their recommendations most appropriate for consideration.

Education is a provincial subject, though its planning may well be a concern of the Centre, as in many modern states. The Sargent Plan was not devised to be enforced dictatorially: it was the work of an advisory body, and a great part of its value lies in the fact that the body which created it was very widely representative of Indian educational opinion and experience. Anyone who doubts this is advised to read carefully the opening chapter of this book, in which the facts have been impartially stated. The Plan retains its value, consequently, whatever political developments may have taken place in India since it was made. The essential recommendations of the Planners were based on statistics which are just as true now as they were in 1944 when the Report was published, with the exception that the purchasing power of the rupee has undergone some variation, and the disturbances in certain provinces may have slightly altered the statistics regarding population. Naturally, such variations will be taken into account by provincial educationists when making their own plans.

What is unaltered, and will remain so at least until the various governments have taken vigorous steps towards educational reform, is the main theme of this great Report, namely that without a planned and concerted effort to attain a clearly defined educational goal India will 'relegate herself to a position of permanent inferiority in the society of civilized nations'. The Report in its final paragraph quotes the Chinese proverb:

'If you are planning for one year, plant grain;
If you are planning for ten years, plant trees;
If you are planning for a hundred years, plant men.'

It concludes: 'The aim of this report, whatever its imperfections, is to provide a plan for planting men and women, without whom India cannot possibly fulfil the high destiny which the Board believe to be hers.'

Because the Plan, which the Report sets forth in detail, deals with the education of pupils not by the lakh but by the crore, and sets forth estimates of the cost of such education not in terms of a few crores of rupees, but in hundreds of crores per annum, there are those who scoff at it, saying 'of what use to a poor country like India is a plan which proposes to spend annually, only on education, a sum approximating to the nation's entire present expenditure?' Those who make this criticism have misunderstood the aim of the Plan. It is not the blue-print of a structure

which is proposed immediately to be erected, complete. It may be better compared to an atlas containing maps of a country, drawn on such a huge scale that not only can the positions of mountains and rivers, coastlines and roads and railways be exactly ascertained, but on which the comparative size of towns and villages, their economic and industrial importance, and even the possibilities of their future development, are indicated. The Plan is, in short, meant to serve provincial planners of education as *a book of reference, a guide-book, an encyclopaedia of statistical and other valuable information*. As such, it will serve for many years.

I have written this descriptive and critical commentary on the Sargent Plan with no desire to save serious readers the trouble of studying the original documents,[1] for no genuine educationist is likely to have failed to study them closely already. The aim of this booklet is to bring to the knowledge of the general reader, who may not have time to go through the originals, the important facts which the Reports contain,—facts about which no well educated citizen can afford to be unacquainted. Facts such as these, however, and especially the tables of enormous figures on which they are based, are liable to be boring unless attractively presented: the Oxford University Press has given me a most valuable collaborator in my attempt to make the subject interesting, by inviting C. H. G. Moorhouse (well known for his illustrations in Masani's *Our India* and *Picture of a Plan*)[2] to give graphic representation to the ideas put forward herein.

In order to ensure that no statement had been made which was not in accordance with the facts set forth in the Reports, I took the precaution of submitting the manuscript of this book to Sir John Sargent himself, before sending it for publication. Sir John most kindly gave it his general approval, while also offering some valuable suggestions, all of which I have incorporated in the book as it now is. I offer to him and his collaborators my sincere thanks. I must not omit to add that I have been very careful to mention, throughout the book, the points at which the views stated are my personal opinions and not those of the Board.

Gwalior F. G. P.
September 1947

[1] *Post-War Educational Development in India* (No. EC 13 : Bureau of Education, India), *Reports of the Committees appointed by the Central Advisory Board of Education in India, 1938-43* (No. EC 14 : Bureau of Education, India) available from the Manager of Publications, Delhi.

[2] Published by the Oxford University Press.

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CHAPTER ONE

THE PLAN—WHY AND HOW MADE

'The Board have not attempted to devise an ideal system of education or to prescribe a uniform or detailed plan to be followed rigidly throughout the length and breadth of this vast and various country....Their object has been a strictly practical one: it is "to indicate in broad outline the minimum educational requirements of this country and to show how long it would take to satisfy them and roughly what it would cost".'—Dr John Sargent in a broadcast from All-India Radio.

1. The 'sickest thing in India'

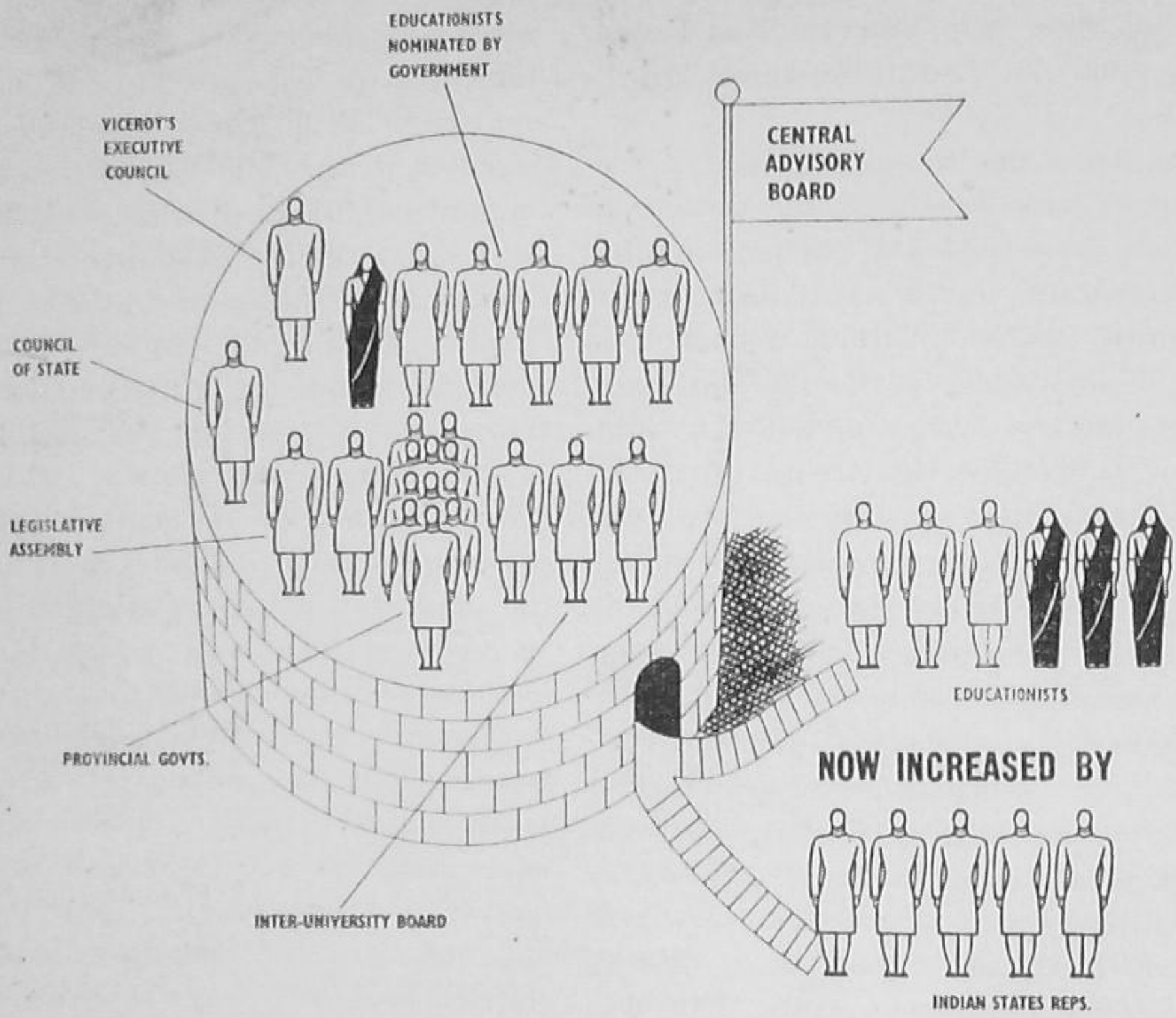
If there is a single thing about which we all agree, it is that education in India, in its present state, is highly unsatisfactory. Opinions vary very widely as to how and why it is unsatisfactory, depending upon the point of view. Statesmen and politicians find fault with it in one way, economists and business-men in another: administrators and teachers have their own special complaints: parents almost without exception are dissatisfied for various reasons: even the children in the schools—and certainly the students in the colleges—are affected by the general feeling of discontent.

Such a widespread dissatisfaction has naturally given rise to many attempts to analyse the causes of the trouble and to devise remedies. The attempts range from the expensive and elaborate operations undertaken by Royal Commissions on various occasions, down to amateur efforts locally to apply 'first aid'. We are all familiar with (if indeed we have not ourselves participated in) lectures and discussions when almost everyone present has had something to say about the diagnosis of the disease, while a few bolder spirits have stood up and waxed eloquent in praise of a particular panacea for all educational ills which has for the time being attracted their attention. Far from despising such efforts at 'first aid', we should assess them at their true value which indeed is, cumulatively, very great. For, although first aid may not do much to relieve the patient, it is at least clear proof of interest in his safety and his cure, and, if nothing at all were done for him till the time when he could be transported to the operation-theatre, he might well be dead before the experts could come to his rescue! This is very true of all the amateur and semi-expert remedial treatment that has been applied in the last few years to the sickest thing in India—our educational system. We have not succeeded in curing the patient: we cannot even agree on the nature of his disease. But we all feel desperately uncomfortable at seeing him so ill, and persistently anxious to have him cured and on his feet again, much healthier than before. It is just this insistent public demand, and nothing else, that has led to efforts on a wider and wider scale to ascertain and face the facts, and to find a remedy which may be permanent in its effect, not merely palliative.

2. The machinery of reform

The existence and increasing strength of such a widespread demand would, in a democratically governed country, by itself have led inevitably to an attempt on the part of the Government to devise and to enact remedial measures. In India, however, the wheels

of authority have been apt to turn slowly. The machinery itself was set up as long ago as 1915 when a Bureau of Education was established under the Educational Commissioner with the Government of India. To this was added in 1920 a more representative body, the first Central Advisory Board of Education. But, under pressure of the demand for retrenchment and as a result of the recommendations of the Inchcape Retrenchment Committee, both the Bureau and the Advisory Board were abolished in 1923. It was not until 1935 that the Central Advisory Board was again constituted, its members being (in addition to the Member of the Viceroy's Executive Council in charge of the portfolio of Education, Health and Lands, and the Educational Commissioner), six educationists (including at least one woman) nominated by the Government, one member elected by the Council of State and two members elected by the Legislative Assembly, three members nominated by the Inter-University Board, and one representative of each of the Provincial Governments. The number of educationists has since been increased to twelve (of whom four must be women), and five representatives of the Indian States have also been included.



This effort to constitute a central body to tackle the problems of education, even though in an advisory capacity only, coincided, however, with the period when provincial autonomy was undergoing real and vigorous growth, and plans for drastic reform began to emerge from most of the provincial secretariats. In October 1937, as a direct result of the assumption of the responsibilities of government by Congress Ministries in seven provinces, an All-India National Education Conference was assembled at Wardha under the presidency of Mahatma Gandhi. It was this Conference that appointed the Zakir Husain Committee, whose report, submitted

in December 1937, has come to be known as 'The Wardha Scheme'. In 1938 and 1939 most of the provinces then under Congress government set up experimental schools and training institutions for teachers on 'Wardha' lines: among these were Bombay, the United Provinces, Bihar, the Central Provinces, Orissa, and Assam.

3. Examination of the Wardha Scheme

The Central Advisory Board lost no time in turning its most serious and careful attention to these important developments and experiments. Hardly had the Wardha Scheme seen the light of day when the Central Advisory Board (in January 1938) appointed a Sub-committee 'to examine the scheme of educational reconstruction incorporated in the Wardha Scheme, and to consider this in the light of the Abbott-Wood Report on General and Vocational Education in India, and other relevant documents...'. Not only was Dr Zakir Husain himself a member of the Sub-committee, but its Chairman was the Premier and Education Minister of Bombay Province, the Hon'ble Mr B. G. Kher; two other Congress provincial Ministers of Education (Dr Syed Mahmud of Bihar, and Pandit R. S. Shukla of the Central Provinces) were members, together with Mrs Hansa Mehta, Rajkumari Amrit Kaur, Lady Grigg, Dr Sir Zia-ud-Din Ahmed, Dr Syamaprasad Mookerjee, Khan Fazl Muhammad Khan (of H. E. H. the Nizam's Government): only two permanent officials belonging to the Education Department (Mr J. E. Parkinson, Educational Commissioner with the Government of India, and Mr W. H. F. Armstrong, D. P. I., Punjab) were included in this Sub-committee. The Sub-committee submitted its report in December 1938. It commended the Wardha Scheme in respect of nearly all its main features, and this verdict was generally endorsed by the Central Advisory Board. During the consideration of the Sub-committee's report, however, certain issues emerged (such as the co-ordination of 'basic' with higher education, the ways and means to finance it, etc.) which in the opinion of the Board required further examination. With this object in view, the Board appointed another Committee, also under the chairmanship of the Hon'ble Mr B. G. Kher, and comprising three other provincial Ministers of Education (in this case those of Madras, Sind, and the N. W. F. Province, who had not been included in the first Wardha Education Sub-committee) together with Dr Zakir Husain, Mrs Hansa Mehta, Rajkumari Amrit Kaur, Pandit Amaranatha Jha, three D. P. I.'s (Bengal, U. P., and Punjab) and the Educational Commissioner with the Government of India, who by that time was Dr John Sargent.

This Committee (known as the Second Wardha Education Committee of the Central Advisory Board) not only gave its views on the important points mentioned in the terms of reference (including the vital question of how the Wardha Scheme could be financed), but it also gave careful consideration to the reports from the various provinces in which schools and training centres on 'Wardha' lines had in the meantime been opened (notably in Bombay, U. P., Bihar, C. P., Assam, and Orissa). The Committee moreover considered the resolutions of the All-India Muslim Educational Conference regarding the Wardha Scheme, and other relevant documents. With regard to the former it reported that it was '*gratified to find that on all major educational issues there was a substantial measure of agreement between the decisions of the* [Muslim] *Conference and their own* [the Committee's] *conclusions*'.

The Central Advisory Board finally considered the reports of both Committees in May 1940. It adopted the conclusions and recommendations of the Second Wardha Education Committee in respect of all important items except one, namely the extent to which the financial burden should be borne by the Central Government. On this point alone were there any considerable differences of opinion.

4. A thorough and impartial investigation

It has been necessary to trace in some detail the steps taken by the Central Advisory Board in arriving at its conclusions regarding the Wardha Scheme, for two reasons. The first is that 'basic' (Primary and Middle) education is by far the most important (and the most costly) part of the Plan of Education for India which we are about to consider. The total net annual expenditure which would be incurred by the State in implementing and maintaining the complete scheme proposed under the Plan is estimated at Rs. 277 crores. Out of this huge sum no less than Rs. 200 crores is the estimated cost of free and compulsory 'basic' education of all children between the ages of 6 and 14. The duration of the course of 'basic' education, and other details affecting its cost, are therefore matters of the greatest importance; and when the expenditure of so huge a sum of public money is involved on so vast an undertaking, we are naturally anxious to assure ourselves that no pains have been spared to scrutinize every detail, as well as to consider fully any practicable alternatives which might be more economical without sacrificing efficiency.

It is satisfactory to know, therefore—as anyone can who takes the trouble to read the published reports[1]—that the body which was responsible for framing the 'Sargent Plan' gave its most careful attention not only to the principal 'popular' scheme of all-India education (the Wardha Scheme), but based its conclusions directly upon the reports of Committees of which the chairman of the original Wardha Education Committee (Dr Zakir Husain) was himself a prominent member; on which also in one or other of the Sub-committees, the Ministers of Education of six of the 'popular' provincial Ministries took part, in addition to many prominent non-official educationists, as well as representatives of the universities. Opinions expressed by important all-India educational associations representing various interests (such as the All-India Muslim Educational Conference) were welcomed and carefully considered before decisions were arrived at. In short, if one considers the matter impartially, one can hardly escape the conclusion that it would have been difficult to devise any method by which a more thorough sifting of all possible material, from every available source, both official and non-official, could have been achieved.

The second reason for dealing at the outset in some detail with this point, is that any scheme put forward by a body nominated by the former Government is likely to be received with suspicion by the public. When, however, a matter of such vital concern as universal, free and compulsory education is at stake, and when, for the first time, a vigorous attempt has been made to tackle the problem on a comprehensive scale, it is most desirable that we should not allow prejudice to prevent our examining with impartial scrutiny the constructive proposals put forward. It is of no little assistance in removing prejudice if we can satisfy ourselves—as we surely can in the present case—that the body which prepared the Plan, even if it was nominated by a Government not responsible to an elected assembly, comprised in its membership a goodly number of non-official educationists, and, above all, based its conclusions on the most vital part of the Plan upon the opinions of Committees consisting in the main of representatives either of popular and constitutionally elected Ministries, or of non-official educational opinion.

If the facts, stated in the foregoing paragraphs, regarding the procedure by which the Plan was made, and by whom it was made, are borne in mind, they must surely carry conviction with them to the mind of most readers.

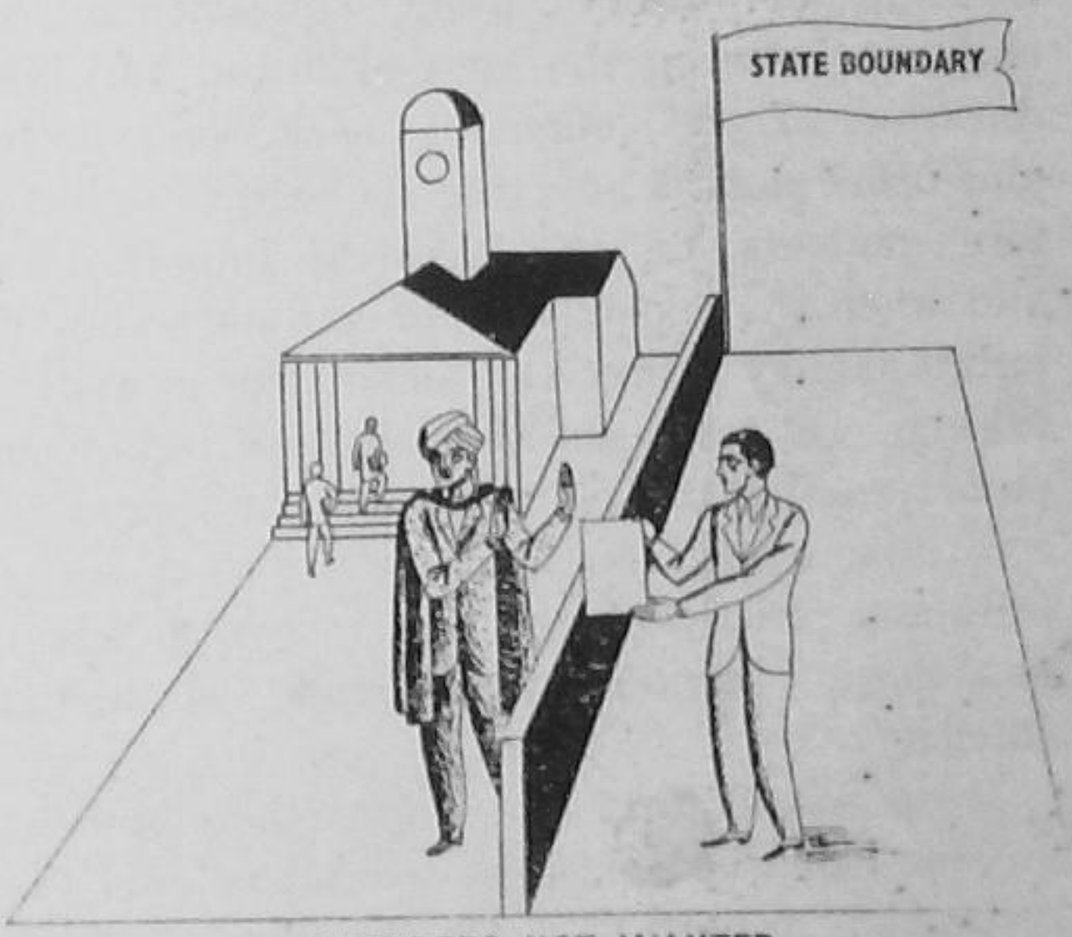
[1] Bureau of Education, publication No. E. C. 14

5. Why an All-India Plan ?

Before we proceed to examine the details of the Plan, is it necessary to inquire *why* such a Plan should have been felt to be necessary ? Such a question is less likely in these days when planning is accepted as the essential preliminary to any big enterprise. It is possible, however, that there may be critics who object to a plan for education being made on an all-India scale. Education, it may be urged, is a provincial subject, and provincial Ministries should be left entirely free to plan and to develop educational facilities in the manner they think best suited to their local needs.

This is all very well in theory, and it sounds the more plausible because, constitutionally, it is strictly correct. But we must observe two very important points in this connexion. The first is that, under the present financial arrangement, no province can ever hope to raise by itself the enormous sums of money which will be necessary to initiate and maintain education on the universal, free and compulsory scale contemplated in the present Plan. Consider, for example, the estimated cost of universal primary and middle education alone, for a province such as Bombay. Bombay province has more than 36 lakhs of children between the ages of 6 and 14. The annual cost of providing schooling for these would be not less than Rs 14,57,69,864, or about 14½ crores of rupees per annum. Bombay's present total annual income is about Rs 30 crores, and its present (1945-6) annual expenditure on education (of *all* kinds, not only primary and middle) is only Rs 2,63,24,000 i.e. barely one-sixth of the required amount for Basic education alone. Where is the additional money to come from ? Either there must be a subvention from the Central Government, or Bombay must be content with inferior provision for her educational needs. Is it likely that she will be content with the latter ? If not, and if she is granted funds from the Centre to enable her to provide education for all, it would surely not be unreasonable to expect her to co-ordinate her educational system with that of other provinces, at least in respect of its main features.

Secondly, quite apart from the argument that 'he who pays the piper calls the tune', it can hardly be questioned that co-ordination of the educational systems of the various provinces and States, to a greater extent than is now prevalent, would be an advantage in several ways. At present there is not even uniformity in respect of the number of years during which a child must study in order to complete the primary, middle, high school and University courses. In some cases, public



OUTSIDERS NOT WANTED

examinations of one province are not recognized in another, or they are recognized only on conditions that are most vexatious to fulfil. In case of removal of a family to another province, therefore, all sorts of difficulties arise regarding the children's education.

There is no reason to fear that the acceptance of an All-India plan, in which the broad outlines are laid down, would lead to serious loss of provincial freedom to implement the main principles in a manner best suited to local needs. There is no more danger of this than in other spheres such as Health, Agriculture, and Communications in which it is

obvious that the existence of a national policy is essential from every point of view. The laying down of broad lines of policy by the Centre need not prevent, and might very greatly assist, provincial and local experiments in working out the determination of the nation that not a single one of its future citizens shall grow up without proper educational facilities to fit him or her for a fruitful and useful life.

CHAPTER TWO

THE BIGGEST EDUCATIONAL STRUCTURE EVER PLANNED

6. The size of the problem

THE continent of India has now a population in the neighbourhood of 400 millions. Of these nearly 100 millions are subjects of the Indian States, and about 300 millions are citizens of the provinces of the dominions of India and Pakistan. The Plan for Education, here considered, applies only to the latter, not because it is desired to leave out the States, but because they are autonomous as regards finance and internal affairs, and it is therefore left to their respective rulers or governments to decide whether to implement the Plan or not, within their own confines. (For convenience, however, the necessary statistics regarding the Indian States have been included in the Tables which form appendixes to the Plan.)

Even after taking into consideration the fact that the Plan does not make provision for nearly one-quarter of the inhabitants of the Indian continent who live in the Indian States, it seems safe to say that no plan has ever before been devised to provide for the educational needs of so large a number of human beings. Of all countries on the face of the globe China alone exceeds India in population, but China, in its present situation, is obviously not in a position to plan for education for the whole country, though wonders have undoubtedly been accomplished in those parts which remained free from Japanese control. The country next in order of population is the U.S.S.R., whose citizens probably number nearly 200 millions at the present time. The U.S.S.R. has done great things for the education of its citizens during the past thirty years, but even now only primary education for four years (from 8 to 12 years of age) is compulsory for all, though in urban and industrial areas compulsion extends to seven years (from 8 to 15).[1] Alongside this, however, great strides have been made in the direction of universal literacy by means of adult education, with the result that, even including the most backward areas of Soviet Asia, about 80 per cent of the adult population of the U.S.S.R. is now literate, as against 20 per cent thirty years ago.

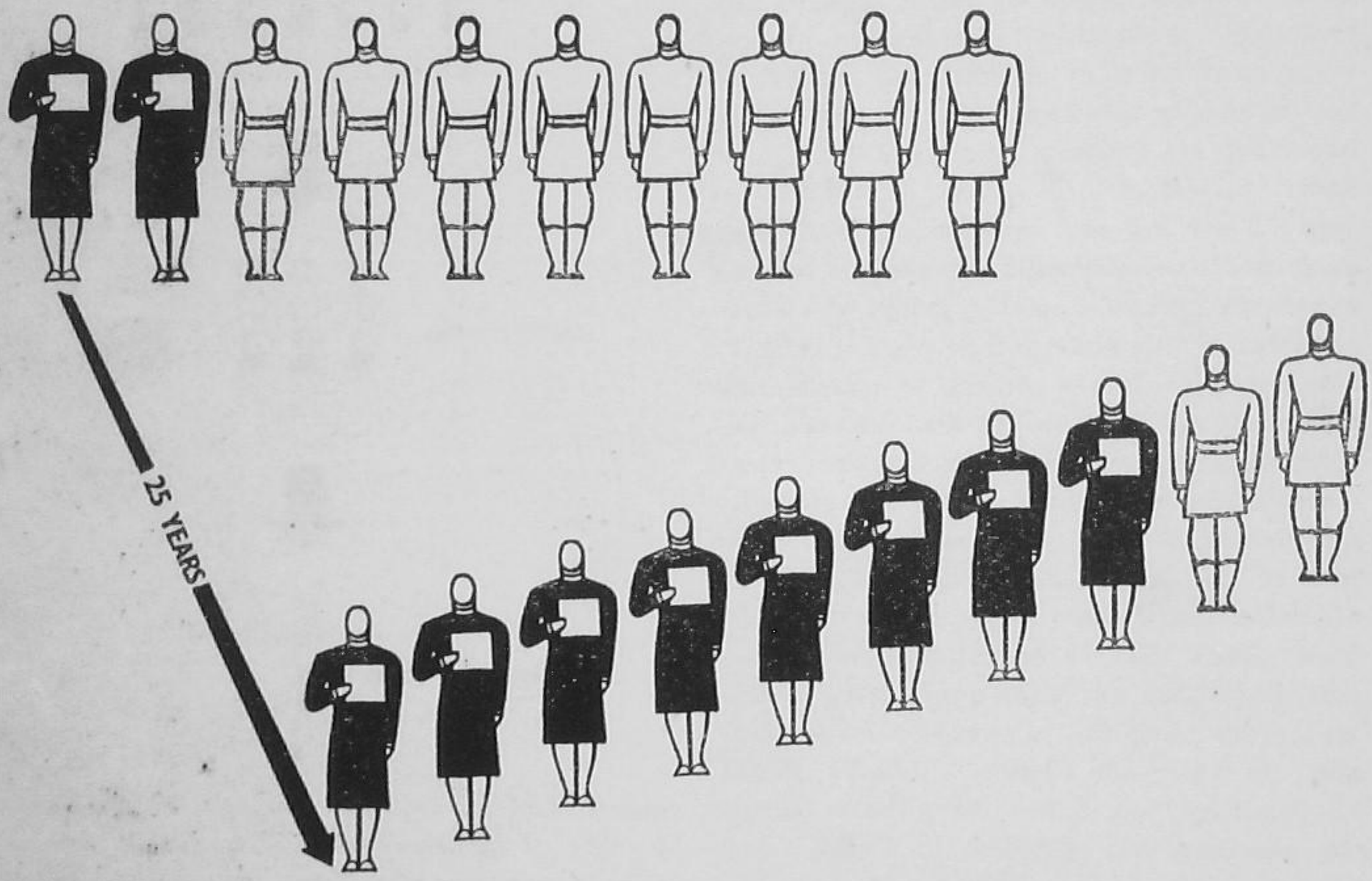
Fourth among the nations in the size of population comes the U.S.A., with about 134 million inhabitants. The American system of compulsory education consists of six years in the Elementary schools, followed by three years in the Junior High School, and three more in the Senior High School, i.e. 12 years of compulsory education in all. In many urban areas this is now being extended to 14 years (i.e. up to the age of about 20) by the addition of a two-year course in a 'Junior College'. This, together with almost universal literacy, is a great accomplishment, and it is

[1] The Third Five-year Plan aimed at compulsory education for all between 8 and 15 years of age by the end of 1943, but the war interfered with this to some extent. In an article in the *Times Educational Supplement* (28 April 1945) John Parker, M. P., a member of the British Parliamentary delegation which visited the Soviet Union recently, writes as follows: 'It is intended that all boys and girls should attend school for the "ten classes" which cover the ages of 7 to 17. This is very far yet from being the general practice except in the large towns where the majority of boys and girls do stay at school until 17. In the village schools many leave at 12 or 13, although abler children would go on to town schools providing greater facilities. If parents wish a child to leave a town school at about the age of 15 and the child is not particularly clever it would be allowed to do so.'

an indisputable fact that the U.S.A. owes to its educational system a great part of its rapid progress and its rise to such a prominent position in the modern world.

60 million children in the 5-14 years age-group, only about 12 million were attending any sort of school in 1936-7. In actuality the position is very much worse than it appears

GROWTH OF LITERACY IN U.S.S.R.

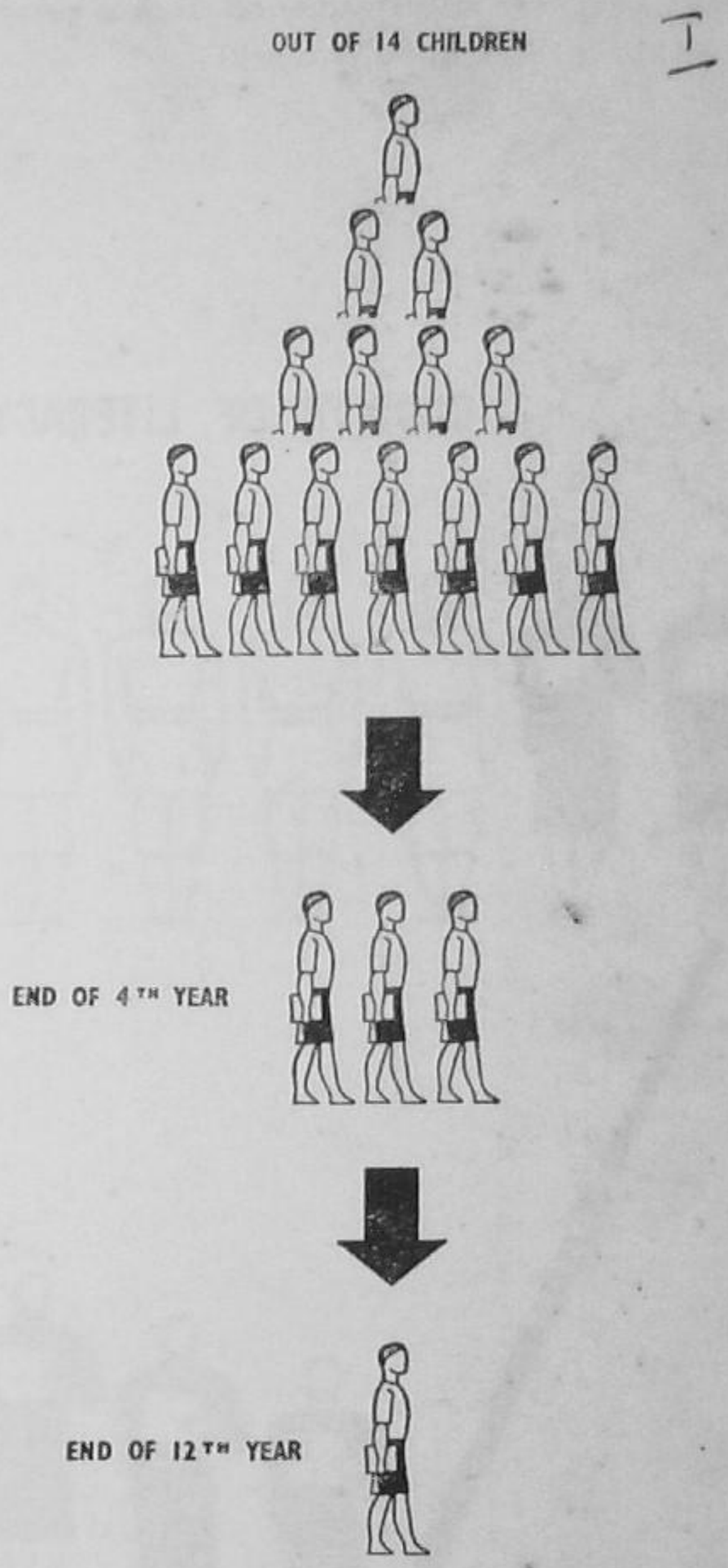


7. The handicaps with which we start

The lee-way that has to be made up in India is enormous. Under the present system of (mainly voluntary) education, out of about

to be from these figures, for, if the 12 million children (about one-fifth of the 5-14 years age-group) were now really on the highroad to becoming well-educated citizens, the task

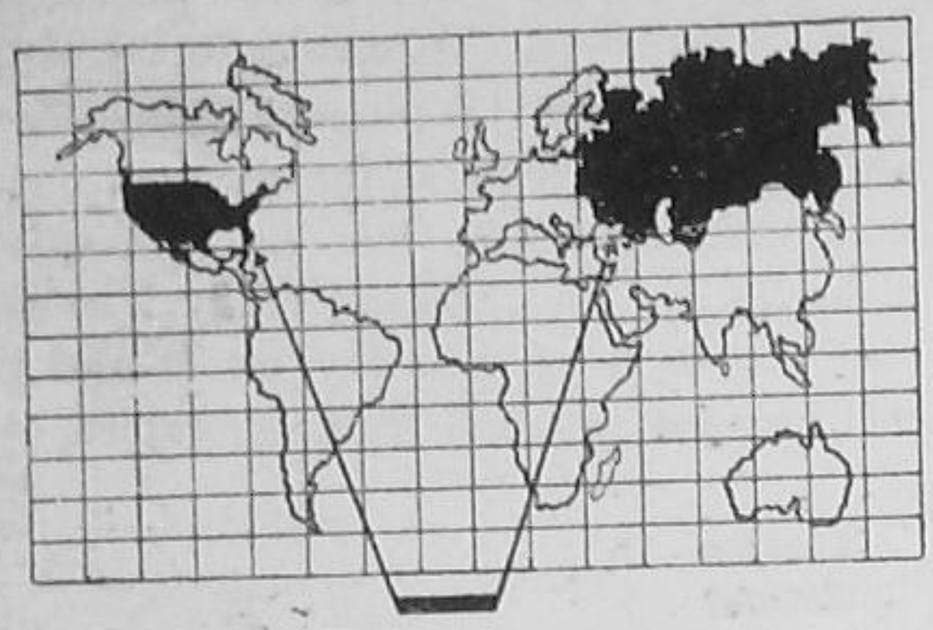
would be merely that of providing about five times the present facilities in order to attain universal literacy within a reasonable period of time. The situation is, in fact, however, much less promising. For, out of the 12 millions in schools of some sort, nearly half are in the Primary Class I, and the statistics of the past decade clearly prove (see Table below[1]) that *less than 25 per cent of those who enter a school remain in it even for four years*, while the number of those who remain for seven or eight years is hardly more than 6 or 7 per cent. Since four years is the shortest period in which there is any reasonable probability of permanent literacy being established in a child, we are led to the disturbing conclusion that of the money expended on Primary education throughout India (about Rs 10 crores in 1942-3) *at least 75 per cent was completely wasted*. And even this is an optimistic calculation, because experience goes to show that a child who leaves school after only three or four years of Primary education is almost certain to *relapse* into illiteracy, as there are so few opportunities or enticements to read or write, in the present conditions of village life in India. It is probably safe to say, therefore, that *not less than 90 per cent of the present expenditure on Primary education in India is practically fruitless*. This means that in educational reconstruction India has to start again very nearly 'at scratch'. And this is precisely the assumption on which the Central Advisory Board has based its Plan. It has proceeded as though the provision for education in India today amounted to *zero*. It is a wise presumption, for if it errs at all, it errs on the side of safety. But it presents the colossal proposition of providing basic education for no less than 55 million children between the ages of 6 and 14 years, or for nearly 36 millions if only five years of primary education be provided in order to ensure mere literacy.

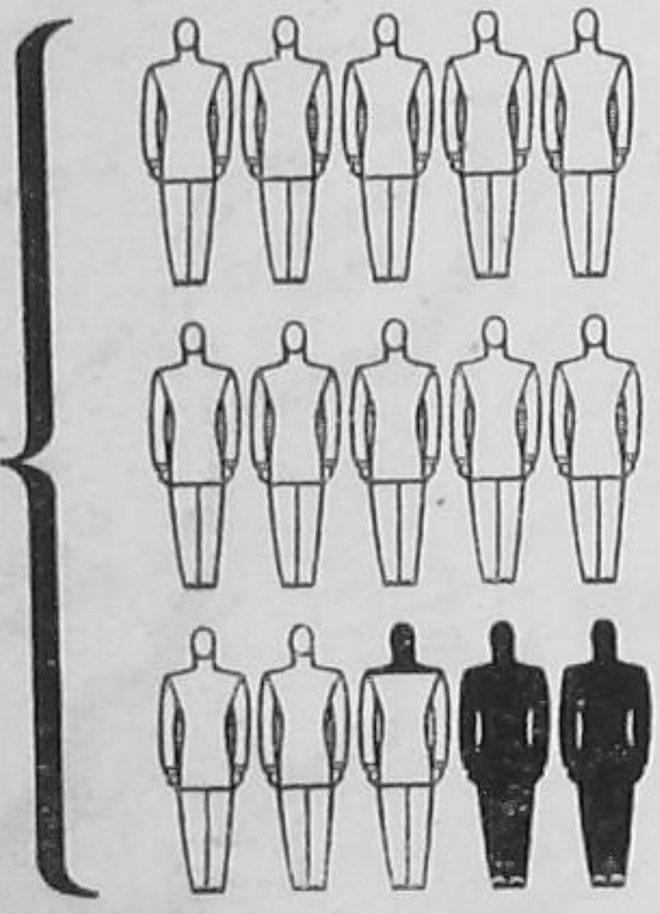


[1] *Enrolment in Indian Schools*

Class	Year	No. of Pupils	Percentage of Number in Class I
I	1932-3	5,258,081	100%
II	1933-4	2,156,248	41%
III	1934-5	1,674,081	32%
IV	1935-6	1,240,863	23%
V	1936-7	789,655	15%
VI	1937-8	487,820	9%
VII	1938-9	391,047	7%
VIII	1939-40	339,826	6%

Again, viewing the problem as a whole from the other end—that is from the point of view of *adult* literacy—India's situation is possibly the worst among all the civilized





peoples of the earth. According to the *Times of India Year Book* of 1943-4, '120 out of every 1000 of the population are now literate'. This does not mean, fortunately, that education has still to be provided for 88 per cent of a population of nearly 300 million, because —for purposes of adult education—it is only those between the ages of 10 and 40 years we need to reckon (those now below 10 years being catered for under the plans for primary education, and those above 40 being, in most cases, uneducable). But, even so, the number of persons within the above-mentioned age-limits (10-40 years) is approximately 149 millions, out of whom it is estimated that only about 22 millions are now literate. This leaves a balance of no less than 127 millions to be made literate,—a figure not far short of the combined total adult population of the U.S.S.R. and the U.S.A.! Add to these the children between 6 and 10, another 24 millions and we see the problem in its full enormity—151 millions to be made literate, and 22 millions more to be kept so,—about 173 millions in all. Truly a terrific proposition.

8. Map of the whole field

We have taken a quick glance first at the figures showing the size of the problem as it relates to basic (Primary and Middle) education and to adult education, because these are, as it were, the two poles of the axis of universal literacy. But between the two polar points of primary and adult education there lie all the other zones of the educational sphere, zones comprising all the cultural fields of High School, technical, professional and University education, without which nothing could be accomplished beyond the establishment of bare literacy. If the Plan of the Central Advisory Board were nothing more than a vast drive for the permanent establishment of literacy among a population of 300 millions, it would certainly be remarkable for the scale of its operations—but for nothing more than its immense scale. Fortunately it is *much* more, for it also covers all the ground between, taking within its scope all the other educational and cultural zones referred to above.

Summarizing, we see the map of the whole as follows :

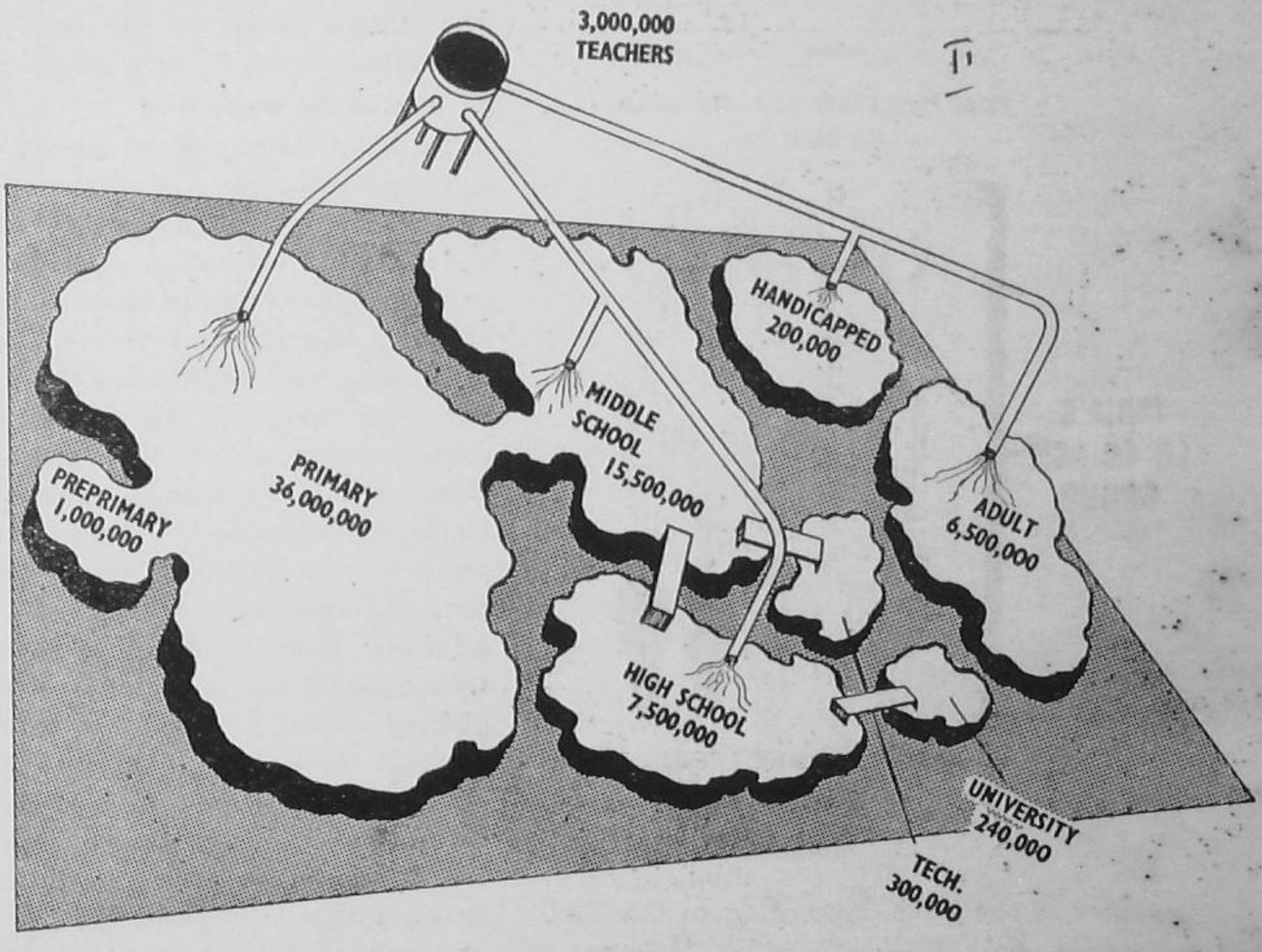
(*i*) A and B...the two polar and temperate zones, of which A is the massive continent of *Basic Education* for 51½ million children, 36 millions from 6 to 11 years and 15½ millions from 11 to 14 years; and B the corresponding opposite zone of

Adult Education. Within A lies C, the relatively small zone of pre-Primary (Nursery School) Education for 1 million children, between the ages of 3 and 6 years.

(*ii*) D, E and F...the secondary zones, comprising (D) *High School Education* for at least 7¼ millions, i. e. for one-fifth of all children between the ages of 11 and 17 in British India. (E) *Technical, Commercial and Art Education*, providing for the training of about 300,000 pupils annually, and (F) *University Education*, for double the present number of students, or about 240,000.

(*iii*) G, a special zone, providing for the training of the 2 million blind and deaf, and H, another special zone for the education of the mentally defective (with I. Q. of less than 55), numbering at least 500,000.

The Plan proposes to deal also with what might be termed (continuing the metaphor) the physical factors governing education. It makes provision for a School Medical Service to safeguard and build up the health of the rising generation. The means to be placed at their disposal for this purpose include not only adequate arrangements for medical examination and treatment, but also prevention of ill-health by the teaching of hygiene and by the provision of mid-day meals and proper facilities for physical training, games, etc.



The social and economic factors are also taken into account by the provision of Recreative and Social activities (Youth Movement, Junior Red Cross, etc.) and Employment Bureaux.

9. The key to the map—Teachers

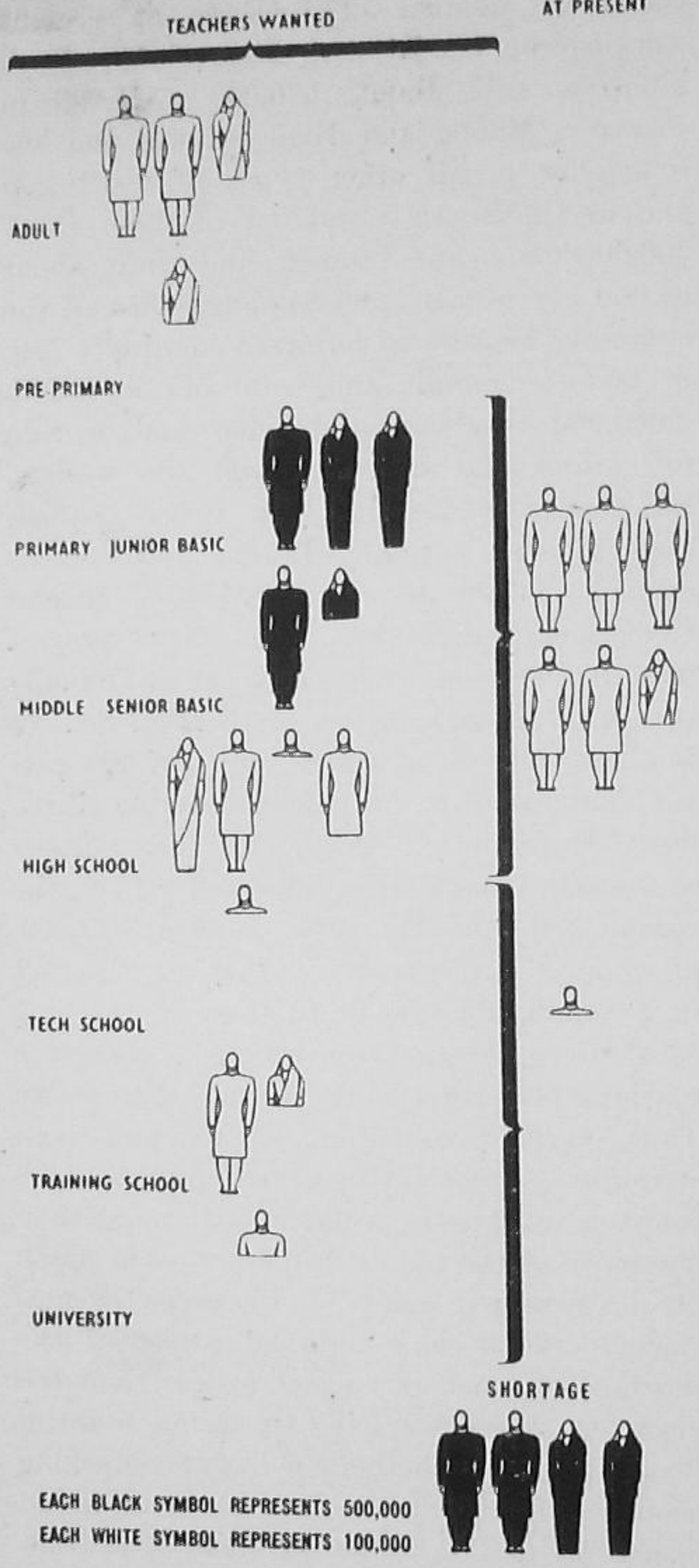
Last among the items of the Plan to be listed here, but *first of all in importance* in

enabling the Plan to be implemented, is the vital factor of the recruitment of *teachers*, the terms of their service, and the arrangements for their training. If, in the metaphor employed above, we have compared the various types of institutions to the land areas of the globe, we may appropriately figure the teaching staff as the rivers, and the wells, the reservoirs and the canals, by means of which those areas are irrigated. For, without these, and the sun of enthusiastic devotion which draws up the knowledge to be poured out again in life-giving streams, there can indeed be no cultural growth at all.

In respect of this item, too, the Plan for India's education is almost inconceivably vast. Here are the estimated figures of the numbers of teachers required for each type of educational institution, when the Plan is in full operation :

Adult Education teachers ...	258,000[1]
Pre-Primary School teachers (women)	40,000
Primary (Junior Basic) teachers .	1,200,000
Middle (Senior Basic) teachers ...	625,000
High School teachers	362,000
Technical School teachers ...	10,000
Training School teachers ...	130,000
University (and Training College) teachers	30,000
Total ...	2,655,000

To the above must be added the staff required for the School Medical Service, for institutions for the physically and mentally handicapped, for running the Youth Movement and Employment Bureaux, and for the administration of the immensely enlarged Education Departments of every province. Against the above we can put the fact that the number of teachers needed for Adult Education will decrease in proportion to the increase of literacy resulting from universal primary education, and the number of teachers required for the training schools and training colleges will also decrease when the initial deficiency of trained teachers has been made up and only wastage through retirement or death has to be provided for. Even so, the total number of trained personnel for operating this immense scheme will amount to not less



[1] This number will progressively diminish after the seventeenth year when the number of illiterate adults will begin to decrease as a result of universal basic education.

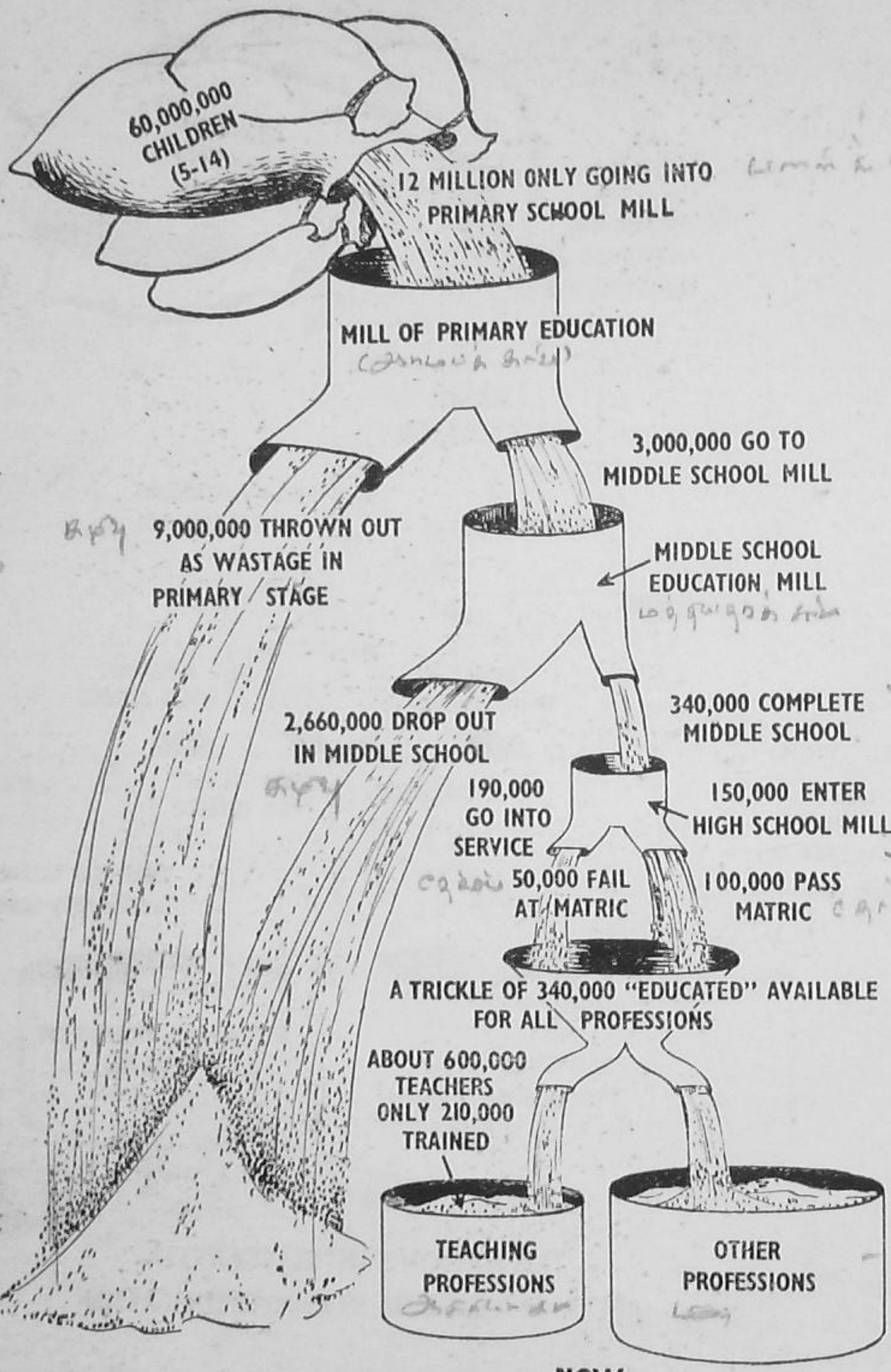
than about 2½ millions, of whom fully half *ought* to be women. When one considers that the total number of teachers at present working in educational institutions of all kinds is only about 530,000 (521,000 in Primary, Middle and High Schools and the remainder in all other types of institution and in Universities) and out of these about 300,000 only are trained, and only about 65,000 are women, one has some idea of the enormous lee-way to be made up. India has, in fact, to recruit and train not less than 2,000,000 well-educated men and women (of whom one million *should* be women, to work the Plan to the fullest advantage of the nation). Taking even Matriculation as the lowest standard of general education for a teacher, India has at present only 100,000 who *could* be recruited annually (the total annual output of all High Schools is about 150,000 of whom only 100,000 pass the Matriculation or School Leaving Certificate Examination every year). The number of those in Class VIII or Standard V (i. e. who complete the Middle course) is about 340,000, of whom it is inconceivable that more than 1 in 3 would either be fit to take up teaching as a career, or would be willing to enter the teaching profession unless compelled to do so. Thus, even if something approaching conscription of partially educated persons were resorted to, it is improbable that more than one-tenth of the required number could possibly be recruited annually. Under *no* circumstances, therefore, could the whole of the shortage of teachers be met in less than ten years. On the other hand, it seems doubtful (to say the least) whether a policy of compelling people willy-nilly to become teachers would benefit the nation in the long run. The commonest complaint against the present educational system is that the teaching profession is recruited largely from among those who have failed to qualify themselves for any other more remunerative employment. Conscription of every person who has attained the standard of Class VIII or Standard V would not be likely to raise the standard of the profession but would probably lower it, at least for some time to come. The choice seems to be between running that risk on the one hand, and, on the other hand, postponing the *full* operation of the Plan for a few years more, until adequately qualified teachers can be recruited and trained. The Central Advisory Board has chosen the latter alternative. It has proposed a preliminary 5-year period for setting up training schools and colleges for teachers, and for getting the work of training, etc., under way. Then, using the newly trained teachers, batch by batch, in new schools to be opened as teachers become available, it proposes that there should be seven 5-year periods of expansion. The Plan would thus be in full operation after 40 years. At this point of our examination of the Plan, we shall content ourselves merely with the above statement of the Board's proposals. They will be critically dealt with in greater detail later on.

10. A diagrammatic representation

Summarizing all the facts in the form of a diagram, for convenience and quick reference, we see them as on pages 14-15.

It must not be overlooked that all the figures given above apply to the former area of *British India only*. If the Indian States were to be included—and it is certainly to be hoped that many of them will adopt equally comprehensive schemes, if they have not already in a few instances taken the lead in some directions—all the figures would have to be increased by at least one-fourth.

In concluding this general survey of the Plan, it may be mentioned that one of the main reasons underlying the Central Advisory Board's endeavour to deal with the problem as a whole, regardless of the almost astronomical proportions of its financial implications, is that the longer an all-out drive for the liquidation of ignorance and illiteracy


60,000,000
CHILDREN
(5-14)
12 MILLION ONLY GOING INTO
PRIMARY SCHOOL MILL
MILL OF PRIMARY EDUCATION
3,000,000 GO TO
MIDDLE SCHOOL MILL
9,000,000 THROWN OUT
AS WASTAGE IN
PRIMARY STAGE
MIDDLE SCHOOL
EDUCATION MILL
2,660,000 DROP OUT
IN MIDDLE SCHOOL
340,000 COMPLETE
MIDDLE SCHOOL
190,000
GO INTO
SERVICE
150,000 ENTER
HIGH SCHOOL MILL
50,000 FAIL
AT MATRIC
100,000 PASS
MATRIC
A TRICKLE OF 340,000 "EDUCATED" AVAILABLE
FOR ALL PROFESSIONS
ABOUT 600,000
TEACHERS
ONLY 210,000
TRAINED
TEACHING
PROFESSIONS
OTHER
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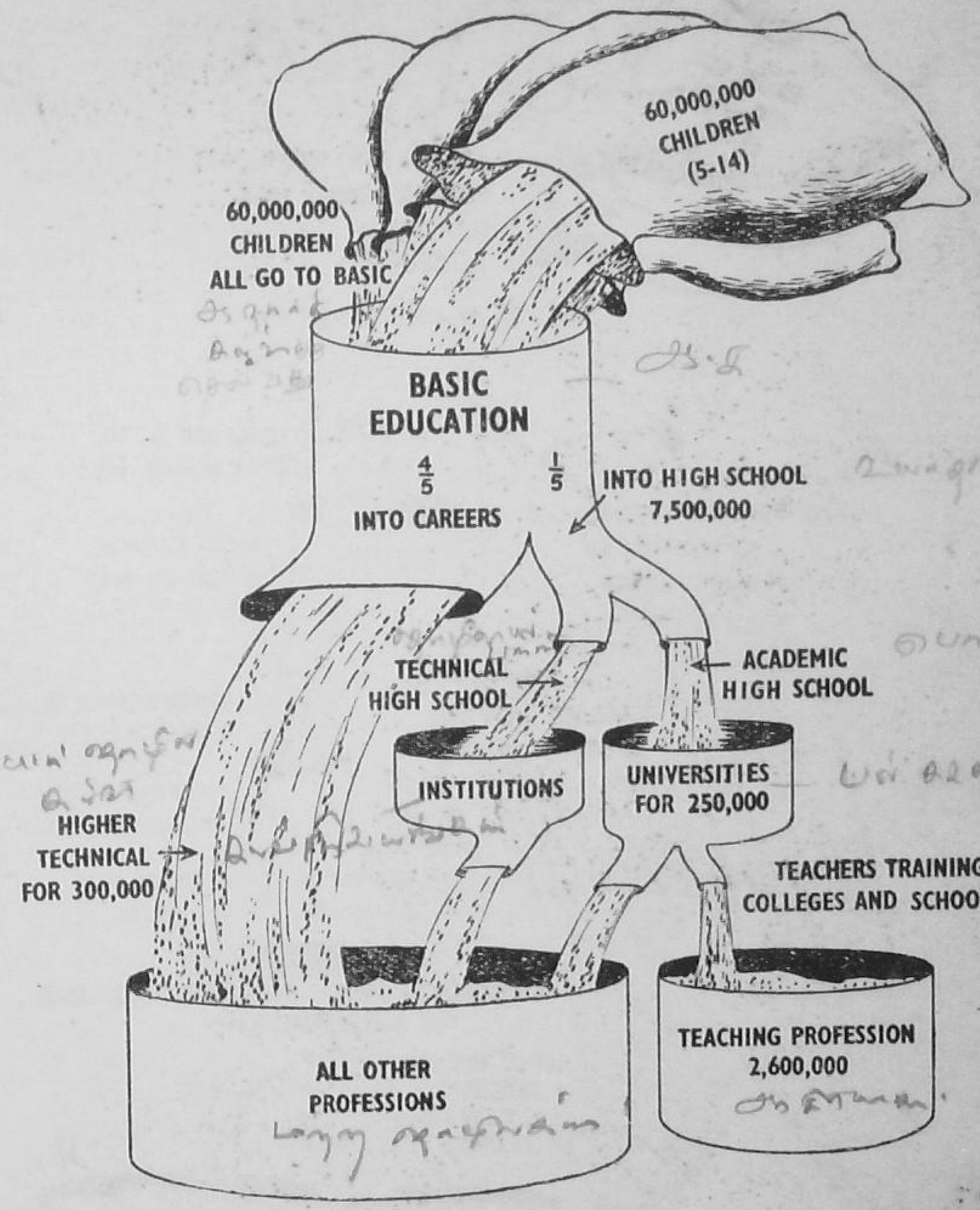
NOW



THE NATION'S INTELLIGENTSIA
AFTER 40 YEARS OF PLANNED EDUCATION

is delayed, the vaster the problem is becoming. This is due in no small measure to the phenomenal rapidity of increase of India's population. In the matter of the liquidation of illiteracy, for example, *the increase in the number of literates is not at present keeping pace even with the increase of population*, with the alarming result that the proportion of literates to illiterates in India is actually *declining*. Our country, in fact, is growing proportionately *more* illiterate every year! There is, of course, no radical solution of such a problem short of the long-term solution of universal and compulsory education. For, even assuming artificial control of the birth-rate to be an acceptable and feasible proportion (a highly controversial point), the popularization of birth-control itself depends upon the spread of education, without which there is not the remotest chance of such methods ever being adopted.

Under the Plan, adult education on a huge scale (for nearly 6,500,000 people per annum at the maximum point) has been proposed in order that the problem of illiteracy may be solved more rapidly by being tackled simultaneously from *both* ends. But, as an ever larger number of children receive basic education, year after year the number of illiterate adults will dwindle proportionately, so that at the end of 25 years, it is estimated, the funds set apart for the drive against adult *illiteracy* will be wholly available for the real work of adult *education*, including such amenities as the provision of a library in every village school, visual and aural instruction by cinema and radio, and other cultural facilities.

CHAPTER THREE

THE FOUNDATIONS AND GROUND-FLOOR OF THE PLAN

11. The age-range for 'basic' education

The universal and compulsory education of all children, from the earliest age at which they can go by themselves to school, up to the latest age at which they can be permitted to begin to learn a livelihood or to take up domestic responsibility, is the natural foundation upon which a comprehensive system of national education must be built. And, as the Report declares: 'In conformity with world-wide opinion the Central Advisory Board agreed that any system of universal compulsory instruction must also be free.'

The age-range of 'basic' education, as it is appropriately termed, must vary naturally according to the conditions of the country in which it exists. In a safe and peaceful country in which young children have no cause to dread going, even alone, a few miles to the nearest school, and where the climate is sunny and dry, compulsory education might well begin from the age of five. In an exceedingly poor country, where the contribution, in work or cash, of every possible additional earning member of a family counts for much, the natural tendency is for the school-leaving age to be pitched as low as possible. Considering the above facts, one might expect Indian conditions to favour an age-range of, say, 5 to 12 or 13. This was in fact the age-range suggested by the Inter-University Board. It is also approximately the range advocated by several critics of the Board's proposals. But the Board has viewed the matter from a different angle. The Report says: '...the Board regard 13 as too early an age for 80 per cent of the future citizens to finish their full-time education, while to increase the compulsory period by one year would add approximately Rs 20 crores to the ultimate cost. While adhering to 6 as the minimum age for compulsion they agree that children should be encouraged to attend school at 5 or even earlier.' The age-range for compulsion adopted by the Board in the present Plan is therefore 6 to 14.

Although the main object of this booklet is to make known more widely the essential features of the Plan, we should not be doing our duty to the reader if we were to pass by in silence such honest and constructive criticisms of the Plan as have come to our notice. In fact, such criticisms should be welcomed, and should be given the same publicity as the Plan itself, because, as Dr John Sargent himself said in a broadcast from All-India Radio, Delhi[1]: 'the Board have not attempted to devise an ideal system of education or to prescribe a uniform or detailed plan to be followed rigidly throughout the length and breadth of this vast and various country.... As the Board have themselves stated, their object throughout has been a strictly practical one: it is "to indicate in broad outline the minimum educational requirements of this country and to show how long it would take to satisfy them and roughly what it would cost." It will be for the responsible educational authorities to devise for themselves, within the general lines laid down, the type of education most appropriate to their particular areas and institutions and

[1] 10 March 1945

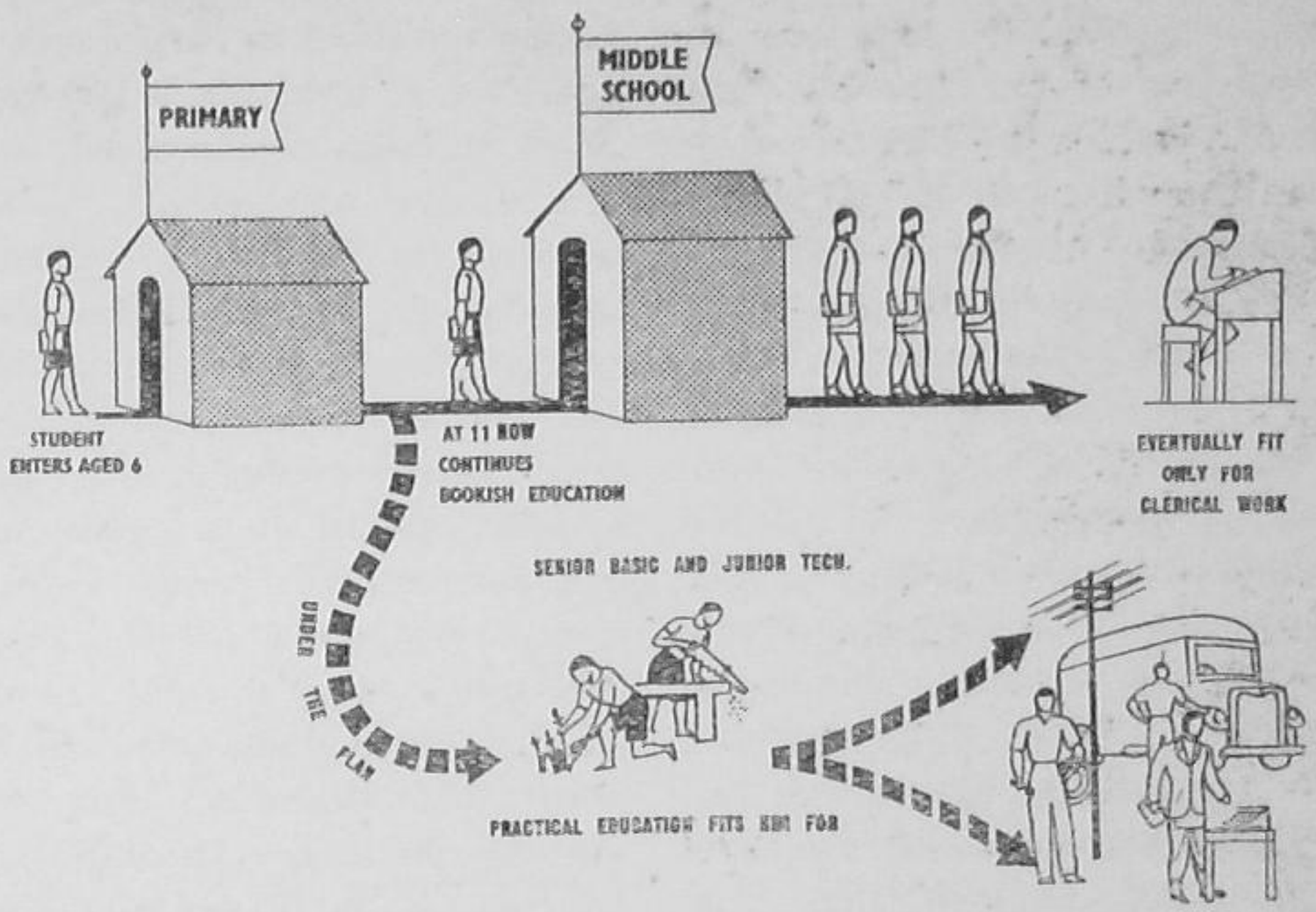
with this end in view to encourage every kind of potentially useful experiment.' It may very well come to pass that, following the policy outlined above, Provincial Governments, or other local authorities concerned with education, may find it expedient to modify some features of the Board's Plan, with the object of adapting it either to certain practical (even though undesirable) necessities, or to other special local needs.

One such practical though extremely undesirable necessity, which has been mentioned by many critics of the Plan, is that of temporarily reducing the period of compulsory basic education until an appreciable rise in the standard of living of the poorest classes both rural and urban has been brought about. There can be no dispute regarding the *desirability* of keeping every Indian child at school until he or she has reached the age of 14; the Board's policy is unquestionably the right one from the *long-term* point of view. But apprehension is expressed by critics lest the poverty-stricken Indian peasant, if deprived of the extra earning-capacity of his older children for even one or two precious years, might curse the hand that seeks to bless him, and, at the outset, develop an additional prejudice against 'these new-fangled ideas of education', thereby rendering the implementation of the Plan more difficult than if the villager could be induced to see that it would benefit him. From this point of view a temporary reduction of the period of compulsion to five or six years instead of eight, say from 5 to 11, might, it is urged, prove to be a necessity. In the critics' opinion this would make the adoption of the Plan more readily acceptable; it would distribute the financial burden over a longer period; and it would give more time for the training of teachers for the ultimate extension of the compulsory period. As has been already mentioned (see page 7) even Soviet Russia has been able to make education universally compulsory only for a period of four years (8 to 12), though in urban and industrial areas compulsion has been extended to a longer term. The rigours of the Russian climate make it impossible for children to be compelled to walk long distances to school in rural areas from an earlier age than 8. India (it is pointed out) is much more favourably situated in this respect, and a lower age-range (5 to 11, or 6 to 11) is therefore not inappropriate, especially as children also mature earlier. The first essential is that the period of compulsion should be long enough to establish literacy without any fear of later reversion to illiteracy. The question is whether five or six years are enough for this purpose. The critics argue that a 5-year compulsory period will be sufficient, provided (but only provided) that alongside of compulsory primary education there is a simultaneous drive to extend into every village all possible facilities for adult education and for the maintenance and development of literacy by means of village libraries, cultural centres, etc. The other side of the argument is briefly stated at a later stage in this chapter.

12. The two stages—Junior and Senior Basic—and why

The Plan proposes a division of 'basic' education into two stages, viz. the junior (or Primary) stage, covering a period of five years from 6 to 11, and the senior (or Middle) stage, of three years from 11 to 14. The reasons given for this division (and also for regarding the whole 'basic' course of eight years as a unity) are educationally sound. 'The main reason', says the Report, '. . . is that at about the age of 11 or 12, with the onset of adolescence, certain mental and physical changes occur in boys and girls which necessitate a corresponding adjustment both in the content of the curriculum and in the methods of instruction.' 'Hence' (as the Second Wardha Education Committee also says in its report to the Board) 'the need arises for treating the instruction given before and after this psychological

break as forming two well defined stages, each with its own scope, aims and technique, though inspired by the same fundamental aim.'



That 11 or 12 is the correct age for a change of school or a change of method of instruction is universally admitted. Eleven years is the upper limit of primary education recommended in the Hadow Report (1926), the lower limit being five years. The Board of Education of England accepted this range and has implemented the recommendation since 1928. Twelve years is the upper limit in many countries, e.g. Scotland, Wales, Sweden, the U.S.A., and Egypt.

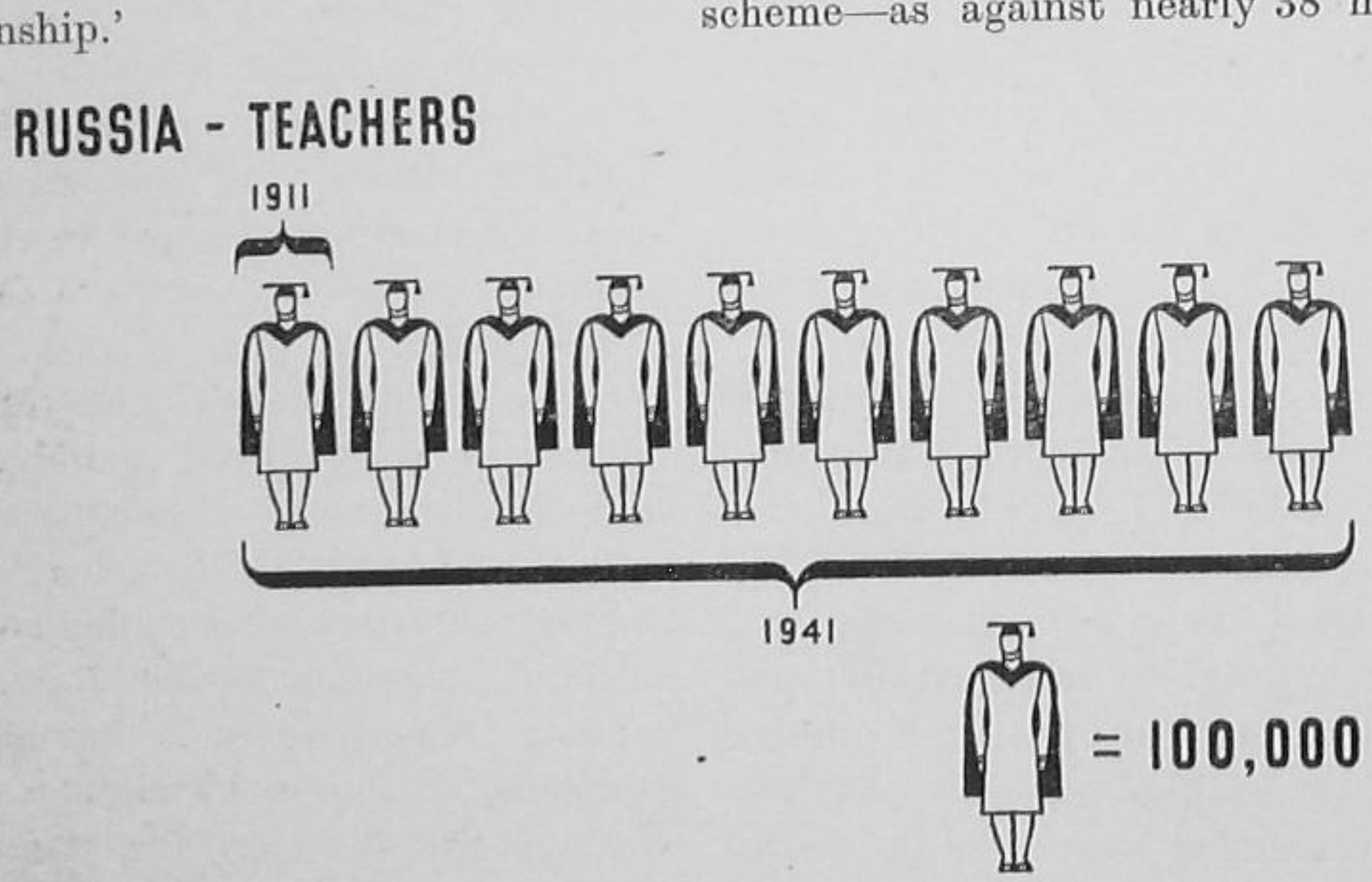
There is also another and equally cogent reason for the division of the course at this point. One of the most outstanding weaknesses of the present system of education in India is that, when a child has completed the Primary course, he has no alternative before him except to join a 'Middle School' or to bring his education to an end. The ordinary Middle School education, under the existing system, offers next to nothing beyond an extension of purely bookish instruction, with perhaps a little drawing or manual training. Experience has unmistakably proved that those who undergo such instruction are almost irresistibly drawn into sedentary occupations and are unfitted for jobs of a more active character, while, as we have already noticed in chapter 2, a very large proportion of those who do not continue their education beyond the primary stage revert into illiteracy.

13. Combating 'wastage'

The Plan is designed to combat these injurious tendencies in several ways. First, owing to the continuation of education for eight years being made compulsory for every child, the danger of reversion to illiteracy (and of consequent waste of the funds poured out upon primary education) is absolutely removed. Secondly, by the adoption of the principle of 'learning by doing' (one of the most important features of the original Wardha Scheme, accepted by the Central Advisory Board as being wholly in line with educational theory and practice in all progressive countries, and recommended also in the Abbott-Wood Report) it is intended that the new 'basic' schools, both junior and senior alike, should be thoroughly modern in their emphasis on creative activity, in contrast to the present schools in which learning by rote or through books is the most prominent

feature. Although the Central Advisory Board and its two Committees (which made a thorough study of the original Wardha Scheme, and of which Dr Zakir Husain himself was a member) did not go so far as to accept the possibility of basic schools being ultimately self-supporting on the proceeds of the handicrafts which form the basis of their curricula (and even the Zakir Husain—Wardha Education—Committee did not claim this dogmatically for their scheme), nevertheless they have wholly endorsed in the Plan the idea that crafts appropriate to the age of the pupils and to the local conditions should be a *central* feature of the curricula of both Junior and Senior Basic schools. Says the Report of the Board: 'At the lower stages the activity will take many forms, leading gradually up to a basic craft or crafts suited to local conditions. So far as possible the whole curriculum will be harmonized with this general conception. The three R's by themselves can no longer be regarded as an adequate equipment for efficient citizenship.'

criticized on both these counts, namely, that it is enormously costly, and that it will take too long to put into operation. But it is difficult to see how the object of the critics could be secured without at the same time sacrificing the two essential features in which the Plan stands out as so immensely superior to the existing system, namely, its foundation upon sound educational principles, and its construction at the hands of properly qualified, well trained, and decently paid workers. Regarding cost, it is worth noting that Soviet Russia spent in 1941 nearly 8,000 million Roubles (about 1,000 crores of Rupees) in educating about 36 million children in the compulsory stage of education (8 to 12 in rural areas, 8 to 15 in towns and workers settlements) with about 1 million in technical schools, and 650,000 in universities and technical colleges. The Plan for India has to provide for about *60 per cent more* pupils than Soviet Russia now provides for (about 60 million—not counting pupils in the adult education scheme—as against nearly 38 million in the



14. Can it be done in less than 40 years?

It is almost entirely owing to the necessity of having adequately qualified and properly trained teachers for the basic schools that the Plan cannot be implemented either cheaply or hurriedly. It has been severely

Soviet Plan). Regarding speed, it may be noted that Soviet Russia has not been able, in more than 25 years, to extend universal compulsory education beyond 5 years.[1] In 1911 Russia had 92,400 teachers. Thirty years later, in 1941, she had one million.

[1] See footnote on page 7

The Third Five-Year Plan aimed at the training of 600,000 more teachers in the period 1938-42. These figures show the *actual maximum* that has yet been achieved in speed of development of education by a great modern nation wholly bent on carrying out a carefully framed Plan. They form a more reliable guide for us in India than merely idealistic wishful thinking. India's Plan for Education aims not at one million teachers, but at 2,655,000 (see page 12). Is it within reason to demand that she should train 2½ times the number of teachers that Soviet Russia has, in a *shorter* period than the latter has required?

15. The 'activity principle'—the basis of better education

It is envisaged under the Plan that the great majority of children, whether resident in rural or in urban areas, will receive their entire education in Basic schools, spending five years in a Junior Basic school situated in their own village or *mohalla*, or within easy walking distance from it, and three years more (when the Plan is completely implemented), either in the same school if it has Senior Basic classes attached to it, or at a centrally situated Senior Basic school. In rural areas with very scattered populations, hostels will have to be attached to Senior Basic schools.

In a very large number of the schools the basic craft, around which the curriculum will be centred (as in the Project Method), will doubtless be agriculture, or one of its allied crafts, horticulture, animal husbandry, etc., since the vast majority of India's population is engaged in these occupations. A fair number of the remaining rural schools will doubtless be centred on spinning or weaving of the locally available materials, while some will have paper-and-cardboard work and woodwork, leading to metal work in the Senior Basic school, or to one or other of the crafts used in building construction (joinery, masonry, etc.). Clay-modelling will naturally have an important place among the activities of the Junior schools, and this will lead on to pottery and other plastic crafts in the Senior schools. Leather-work may be another alternative craft in Senior schools.

The principle underlying the plan for basic education is, as anyone conversant with educational theory will at once observe, the one which has now been almost universally adopted in progressive countries as fundamentally sound, because it derives from the obvious fact that we all (and young children particularly) learn most effectively from making attempts to do what we see other people doing. And, secondly, that the natural process of learning is to proceed from the known to the unknown, from the familiar environment of the child, to the outlying fields of knowledge which it is desired to entice him to explore.

In some quarters the purpose of the Plan, in respect of this, seems to have been misunderstood. It is criticized on the ground that it is a subtle device for perpetuating class distinctions, enabling children of the 'privileged classes' to proceed to higher institutions for training in leadership, while giving the children of the 'working classes' just enough education to make them into more capable producers of the primary material necessities of the country.

The underlying aim of making craft-work the basis of Primary and Middle School education is however, purely *educational* and, as mentioned above, it is consistent with the educational psychology now accepted among all the most enlightened peoples, including those of Soviet Russia. Far from tending to perpetuate or intensify class distinctions, it should ultimately work in just the opposite direction, for, if *every* child has to undergo education in a Junior Basic school in which learning is based upon creative activity and not mainly upon instruction through books, a new attitude towards craftsmanship will soon be developed ; and it is to be hoped that, even from among those whose parents could afford to provide any of the

varieties of higher education available to prepare their children for leadership, there will be a large number whose love of crafts will lead them to choose as their future career, not the black-coated professions, as is mostly the case now, but the professions requiring higher technical ability along the very lines in which their Basic education first aroused their interest.

16. Polytechnization—experience of the U.S.S.R.

The Dean of Canterbury (the Very Rev. Dr Hewlett Johnson) in the chapter entitled 'New Horizons' in his admirable book on Soviet Russia, *The Socialist Sixth of the World*[1] describes the real aim of craft-centred education as follows :

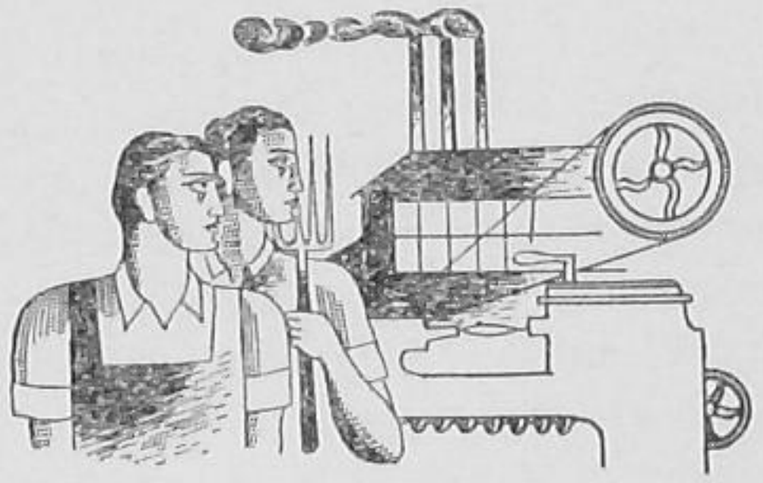
'Polytechnization represents a whole-hearted effort to give the child from first to last, and with growing clearness all along his course, a thorough understanding of the nature of productive industry[2] itself and as a part of a social whole ; what industry is for ; what place industry occupies in the social order ; what effect industry exerts upon the worker, and what effect this or that particular product of industry exerts upon the social body as a whole. It aims not at making a worker, so much as a many-sided social being. It aims at producing a new intelligentsia, men who understand materials and their properties, who understand the significance of the various things produced and the scientific nature of the forces, electrical or otherwise, necessary for their production. But men also who understand the effect of new modes of production upon the whole organization of life—who, in a word, understand the parts of life in relation to the whole of life.

Here is a principle of the very highest importance, and the Soviet Union does well to stress it. It is fundamental if we are to build up a unified and diversified corporate body composed of intelligent and willing units. It is worthy of further illustration.

An engineer, for example, trained as a boy in the Soviet system of polytechnization, when about to build a bridge in a particular place and at a particular time, would see in his mind's eye more than the space to be spanned and the materials and labour requisite to do it. He would see the need for the bridge, the changes beneficial or otherwise from its provision, and the conditions and reactions of those who worked on its construction. He relates his own particular job to the whole, of which he, too, forms a part. He would be sensitive to anti-social work.

A chemist, too, perfecting an explosive mixture or a fertilizer, will have a clear vision of the place his invention will occupy in shaping the human whole.

Polytechnization aims at an all-round education of a highly trained worker: it is the exact opposite of that which produces the narrow specialist. With polytechnization training, many in England would be far more creative than they are when compelled, for the sake of a livelihood, to engage in work which cannot aid, and may seriously harm, the whole community.



Polytechnization aims to give to every man, woman and child that breadth of outlook and social sense which is reserved here for the few. It is a factor in deciding a child's ultimate career. A boy, for instance, will tell you that he wishes to be a locomotive construction engineer, "because the country is in great need of developing its transport." A girl will tell you "I am going to study gardening. Like Michurin I want to cross tomatoes with potatoes and cherries with apples." Another boy is studying electricity because he wishes to invent an apparatus, for transmission of electric power from a distance without a direct wire, which "would have great importance for agriculture". . .

The close resemblance, indeed, between Soviet schools and English playing-fields is often noticed by English observers, and especially in the matter of discipline. Nobody

[1] Victor Gollanz Ltd, London ; Indian edition published by the Socialist Literature Publishing Co., Benares.

[2] 'Productive industry' does not mean manufactures only : it includes agriculture.

dragoons a boy on the cricket-field. There is no need. He loves the game. He seeks to excel in the game. The cricket professional is not his enemy. He is the expert to whom the boy looks for guidance. So the boy provides his own discipline, and the relation between the two is easy and happy. Such relationship exists between the Soviet child and the Soviet teacher. And such is the secret of the discipline of the Soviet child.'

17. Elimination of social distinctions

Those who framed the Plan for Education for India may or may not have been conscious admirers of the Soviet system of education, as is the Dean of Canterbury (who, by the way, was trained as an engineer before he became a churchman and a socialist). But, though the word 'polytechnization'[1] is not employed by our planners, their educational aim is precisely the same as that which the Soviet planners had in mind, if I am not mistaken. It has also been their aim to eliminate and not to perpetuate social distinctions. This has been clearly stated by Dr Sargent himself in his broadcast on 10 March 1945, in which he said: 'Unless and until it is possible to provide higher education for everybody, there must be selection in some form or other. Social justice and the practical interest of the community demand that this selection should be made with the highest possible degree of care and impartiality so that the places available go to those most likely to profit by them and no boy or girl of ability is excluded either by poverty or by social prejudice. In my opinion it is the business of education to eliminate and not to perpetuate social distinctions.'

Furthermore it is *not* intended that the Senior Basic schools should be merely a dumping-ground for those who have insufficient ability to proceed to High Schools. The Plan specifically lays down that 'the Senior Basic (Middle) School, being the finishing school for the great majority of future citizens, is of fundamental importance and should be generously staffed and equipped'. The Senior Basic school, in which the practice of a craft continues to be the project around which the 8-year course of general education is completed, is naturally the taking-off ground for those who wish to proceed to a Junior Technical or Industrial or Trade school, at about the age of 14. The Plan for Technical Education provides for this. Provision has also been made for 'facilities . . . for the transfer of suitable children from the Senior Basic to the High Schools at some later stage, particularly where they show definite signs of late development'. 'It is not intended that those who are not selected at the end of the Junior Basic (Primary) stage should be altogether debarred from admission to High Schools.'

18. The only alternatives

There are only two possible alternatives to the above, even in theory. Education can be compulsory for 10 years, i. e. up to the end of the Secondary or High School stage. Or it can be compulsory for only 5 years, up to the end of the Primary stage. The objection to the former is obviously that the cost will be increased to a figure quite impracticable for India for many years to come ; while an even larger number of graduate teachers would have to be trained, making accomplishment far more difficult even than the already colossal aim of training more than 2½ million teachers. On the other hand, if the compulsory course is definitely limited to 5 years only, as a permanent feature of the Plan—as has been laid down in several alternative schemes of National Education for India—we shall find ourselves faced once again with many of the drawbacks of the present system. Experience has abundantly proved that a Primary course of five years—and certainly one of any shorter duration—does *not*

[1] It is true that polytechnization has now been to some extent superseded in Soviet Russian education, but that is not due to its being wrong in principle or a failure in practice. On the contrary it is due to its success and the need for a further development under the Third Five-year Plan. See *Education in the Soviet Union* by Beatrice King (reprinted by People's Publishing House, Bombay).

guarantee permanent literacy. And, any course which fails to do that, at least, must be regarded as largely waste of money. The cost of a universal compulsory course of even five years' duration will be more than 100 crores of rupees per annum, and it would be nothing short of criminal to adopt any plan which would risk the wastage of a considerable part of so huge a sum, a sum which in any case the country will only be able to provide by means of a tremendous effort.

By some critics it is argued that it would be wise, both on financial and on certain other practical grounds, to aim at implementing the full scheme of 8 years' Basic education, in two stages. The first stage would be universal and compulsory Primary education for 5 years, together with a simultaneous drive for the liquidation of adult illiteracy (at least of those between 10 and 40 years of age) including provision of library and other cultural facilities at centres to be attached to every Primary school, so that *no* child who completes the Primary course need relapse into illiteracy for want of encouragement to continue to read. In the meantime, teachers could be trained for the Senior Basic schools, and as many schools of that type could be opened as there were teachers to man them. During this period admission to Senior Basic schools would remain voluntary, thereby avoiding the danger (referred to on page 18) of making education unpopular, as it might easily become if compulsion were applied up to the age of 14 in areas (and they would be very many) where poverty makes it necessary for the worker to use all his children as additional earners from the earliest possible age.

Soviet Russia has had to face conditions very similar to those of India, in many ways, and it was precisely in such a manner that the educationists of the Soviet Union faced the problem of making education universal and compulsory among a population consisting mainly of a poor and illiterate peasantry. It is argued that the Russian example might be followed to some extent in the matter of conscripting teachers too—at least in respect of the recruitment of helpers for the work of adult education, so that from that end also, the attainment of universal literacy might be achieved as quickly as possible.[1]

19. Argument for the Board's Basic Plan

The arguments put forward in support of their views by the framers of the Plan and its supporters are very potent ones. Regarding the limitations of the compulsory period—whether as a temporary expedient or otherwise—to 5 years instead of 8, they urge that a course of such duration could at best produce mere literacy, even if it could do that with certainty and beyond danger of relapse. But the real aim of the Plan is not merely to make all India's citizens *literate*. It is to raise all India, rich and poor, urban and rural alike, to a level of *educated citizenship* that will enable her to take her place on an equal footing with other modern progressive nations of the world. *To accept a lower aim than this would be to foredoom India to permanent inferiority*. For, a people that is merely literate—as opposed to being educated for citizenship, for intelligent understanding of and participation in the nation's affairs—is in far greater danger of exploitation than even a wholly illiterate one. Ability to read, unaccompanied by the desire to know all sides

[1] The extensive references to Soviet education, in this chapter and elsewhere, should not be taken as implying that the author of this booklet (much less the authors of the Plan itself) necessarily advocates that the Russian example should be closely followed in India. The references to educational experience gained in Soviet Russia are, however, very apposite, because Russian conditions in general approximate more closely to those of India than do, say, conditions in the U.S.A., Great Britain, France, Germany or even Japan. Moreover, there is a demand in India for the *greatest* possible results in the *shortest* possible time, and in this respect also Russian experience is well worth taking seriously into account both from the standpoint of what could *not* be accomplished, as well as from the standpoint of achievements and the minimum time required for them.

of the matters at issue and to think constructively about them, exposes the reader to the dangers of being unconsciously swayed by propaganda to a far greater extent than is the case with an illiterate population mainly engrossed in its own personal and purely local affairs. To aim at mere literacy would, in short, be just playing into the hands of exploiters and of demagogues, of those who have an economic interest in securing literate labour, on the one hand, and of those who want an easily gullible electorate on the other! To avoid this danger, say the Planners, there is no way but that of providing a universal education for citizenship. This is their basic answer to those who demand the shortening and cheapening of the course and its conversion into a mere drive for universal literacy. It is an answer well worth serious consideration.

There is also another argument against a shortened compulsory course, put forward by the Planners on purely practical grounds. It is this. The biggest problem to be faced in implementing any scheme of universal compulsory education, of whatsoever duration, is of the supply of teachers. No one, not even the most ardent supporter of the shorter course, can possibly advocate the acceptance of a teaching qualification lower than that of a 'Middle' pass (i. e. the completion of not less than an 8-year course) for anyone who aspires to teach his fellows. If, therefore, we accept a course shorter than one of 8 years for basic (universal and compulsory) education, we shall be faced *permanently* with the problem of an acute shortage of teachers. The only way in which the present and the future shortage of teachers can effectively be faced is by instituting a basic course of longer duration than the Junior Basic (Primary) course.

To those who advocate the shorter course on the grounds that poor parents will grudge keeping their children at school until the age of 14, the Planners' answer is: this has been the argument against compulsory education in every country, at the start. But it is an argument which very soon loses its force when once the first big step forward has been taken. The beneficial effects of education soon make themselves felt in raising the standard of living, and history records no case of a people who, once having taken a step forward on the road to education, ever wished to turn back. The popular clamour—when once the trail through the jungle-darkness of ignorance has been blazed—will be not to close the road again, but to widen and extend it. As for the argument that the poor parent needs the additional earnings of his children and cannot do without them, really genuine hard cases will have to be met by means of maintenance grants, as in other progressive countries, till the general standard of living has been raised. Under no circumstances can we defend the continuance of an economic system in which children are deprived of education in order to add their earnings to those of the adults of the family. To do this would be to advocate the acceptance for India of a position of almost medieval inferiority.

The Planners have recommended that, if any kind of step-by-step implementation of the Plan is found necessary, due to financial or other considerations, the procedure should be one of developing the complete scheme from area to area, rather than of trying to cover the whole province under a scheme truncated either as to duration of the compulsory period or as to quality. This proposal has also met with a good deal of vigorous criticism. It is urged that it will produce much local jealousy and other similar ill effects. The supporters of the Plan urge, on their side, that this very jealousy, if aroused, will work in the direction most desired. If all cannot be provided with equal educational facilities at the same time, there will be rivalry to be the first to deserve and to obtain the best. Those who live in areas not selected at

the start will vigorously press their claims if they are in earnest about them. Now that the Indian continent has Governments more susceptible to pressure of public opinion than formerly, it should not be long before authority has to concede the desired facilities, if the demand is genuine and is persistently and vigorously expressed. Moreover, the area-to-area development would, it is pointed out, provide a better chance of doing full justice to the communities or areas which are at present educationally backward.

If the Plan be implemented piecemeal in any manner whatsoever, for reasons of convenience or practicability, it must anyhow never be lost sight of that *nothing less than the complete Plan is the aim in view.* It is essential that into whatever stages the implementation of the Plan may have to be divided to meet financial and other difficulties, its unity should not be sacrificed. Indian education in the past has suffered too much from ill-co-ordinated development, and it is a big step forward that we have at last before us a complete scheme, sound in its fundamental principles, and carefully thought out and integrated in regard to its details. Into this all future plans, central and provincial alike, should be made to fit.

CHAPTER FOUR

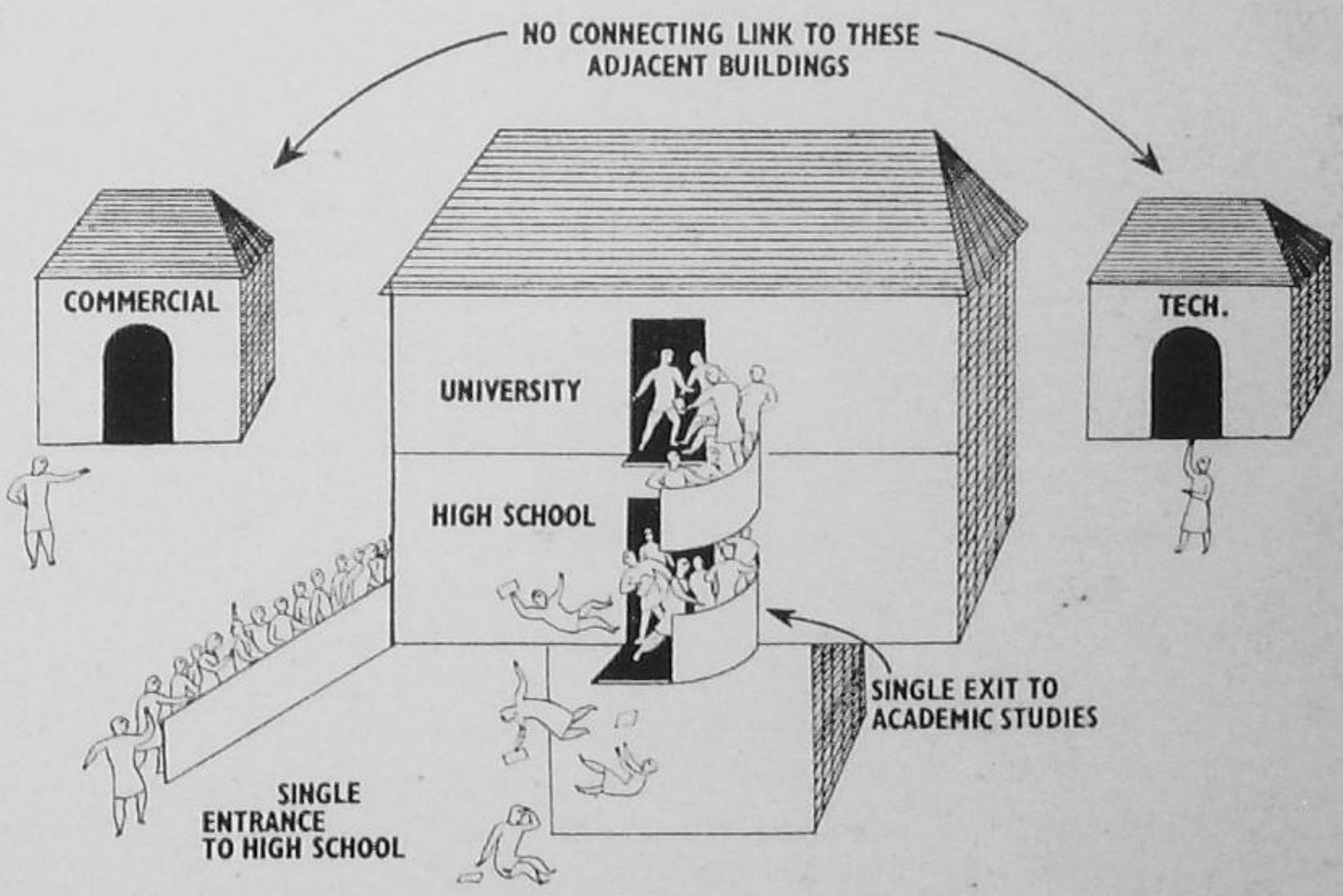
THE FIRST AND SECOND FLOORS

20. Our present unsound upper storey

SECOND in order of cost to the State, and of importance in the educational structure, is High School education.

Without a solid foundation and ground floor, the upper storeys of a building would be either impossible of construction, or, if the risk were taken of erecting them, they would be a death-trap for those who had to live and work in them. Indian education, as it is at present, *is* a structure not very different in character from such a building. Most of our large towns can boast of one or two, if not half-a-dozen or more, big High Schools, sometimes housed in solid and imposing buildings which have been put up at a cost of Rs 50,000 or more for each, and in which not less than several hundred boys (almost always boys; rarely girls) receive 'High School education'.

Alas! this appearance of a fine upper storey (though really quite disproportionate in size for meeting the needs of so vast a population) is one of the greatest dangers in our midst. The danger is due, first, to the fact that the foundations, upon which this big upper storey is built, have for the most part not been properly and firmly laid, with good solid materials, by skilled and thorough workmen. For this the poor workmen are not to blame: they have done and do the best they can, with long hours, miserable pay, and little or no training. But the fact that *they* may be excused from blame does not alter the grim fact of the unsoundness of their workmanship and the dangers it entails.



It is safe to say (one wishes it were possible to doubt) that any observant and earnest

person who has taught or seen the teaching in an average Indian High School will have to admit that nothing but dismay can be felt at the widespread revelation of the poor educational foundations. It is painful to observe the keen curiosity dulled, the sparkling creative talent stifled or unawakened, in many of the children who come up to the lowest classes of our High Schools from the ordinary Primary and Middle Schools. India is not merely keeping innumerable gems dull and uncut in her underground hoards, out of which they never come to light, but she is letting many of those, which had begun to shine, get lost and covered up again in the dust of her neglected and inadequate schools. That there are a few delightful exceptions scattered here and there, one must thankfully admit. But they are so few and far between that they can exert no effective influence on the country as a whole. For the most part the foundations and the ground floor of our educational building are made of weak materials, put together by unskilled hands, under very inadequate supervision.

There is a second danger, too, which arises from the character of the imposing superstructure of the High Schools above. To discover this danger also, we have only to appeal to the common knowledge and observation of any intelligent High School teacher. It is (to pursue the same metaphor) that these crowded High School floors present only one way of exit to those who are occupying them. Instead of being provided with several alternative staircases or passage-ways, leading into various adjoining buildings, or out into the open air again, they have *but a single exit*—and that is the staircase which leads either down to the basement again, or up to the storey next above,—University education. What a desperate struggle there is bound to be (and is) when an alarm occurs, and there is a stampede to find space in which these crowded occupants may breathe and live.

Crude though the above comparison may seem, yet it does not seriously misrepresent the dangers and defects of our present High School system—defects which those who have to serve in it will be the first to acknowledge, and dangers which those who administer it would be the first to wish to remove.

It is those defects and those dangers which the Plan of the Central Advisory Board seeks to rectify or remove. How does it propose to do that?

21. Removal of the present weaknesses

The first, and perhaps the most dangerous defect, namely the weakness of the foundations on which our High School system is built, can only be removed little by little, as the new firmly based structure of Basic Education spreads far and wide throughout the land. It will be only when children begin to enter the High Schools from the new basic schools where they have received a broad-based and thorough education at the hands of properly trained and properly paid teachers, that the quality of the High Schools themselves can be expected to improve markedly. In fact, it will be only when those very children, who have received a better kind of education, themselves become the *teachers* of the next generation, that we can hope to see real *education*, in contrast to the mere instruction or preparation for examinations imparted in the vast majority of our schools today. No doubt, the prospect of having to wait for such results for a full generation will be very unpleasing to impatient reformers; but, however much we may blame those who were responsible for past errors of omission and commission, there is *no other way* of rectifying those errors effectively. Education is a process of growth; and growth—though it may be speeded up to a certain extent—(possibly at the expense of some qualities of the thing grown)—cannot be replaced by any other process of change, because it is living creatures who are involved, and not inert materials to which more drastic methods can be applied. No country in the

world, probably, has ever made more herculean efforts to speed up the educational process than has the U.S.S.R. But even there, after thirty years, although wonders have been accomplished, Soviet educationists would themselves be the first to admit that fundamental changes in human beings can be effected only by dint of persistent efforts spread over a considerable period of time. The fact is, when a faulty system of education has been in operation for a long period, it is likely that only a small minority of its victims will have the necessary initiative and strength of mind to react vigorously against it, and to take an active part in bringing into existence a better system. Until the process of re-education has gone on for some time under the new system, and better teachers are available in larger numbers, many of the defects of the old mechanical system are bound to persist. The drastic process of making a clean sweep of all schools not run on the 'Activity principle' and of all teachers not trained on the new lines is unthinkable in the circumstances of our present shortage both of schools and teachers. There is therefore no alternative to waiting for results until the output of new teachers has begun to make its influence visible. The only thing that *can* be speeded up, and should be speeded up to the very utmost possible extent, is *the recruitment and training of teachers*, without whom neither expansion nor reform is possible.

Next among the essential improvements at the High School stage is the provision of sufficient places, and the creation of a proper system of selection for places in the High Schools, to ensure that they are filled by those who are most deserving and who can make the best use of them. Both these points receive careful attention in the Board's Plan.

22. The number of places to be provided in High Schools

With regard to the provision of places the Board proceeds on the assumption that the proportion of India's children likely to be found capable of benefiting by High School education will be approximately the same as in other civilized countries, that is, between 20 and 25 per cent of the total number in the age-group of 11-12 years. The age-group of 11-12 is the one taken for the purpose of calculation because it is proposed that pupils should generally be selected for admission to High Schools at the end of the *Junior* Basic course, though arrangements will also be made for transfer to High Schools of pupils of Senior Basic schools who have matured late or whose promise was not visible earlier.

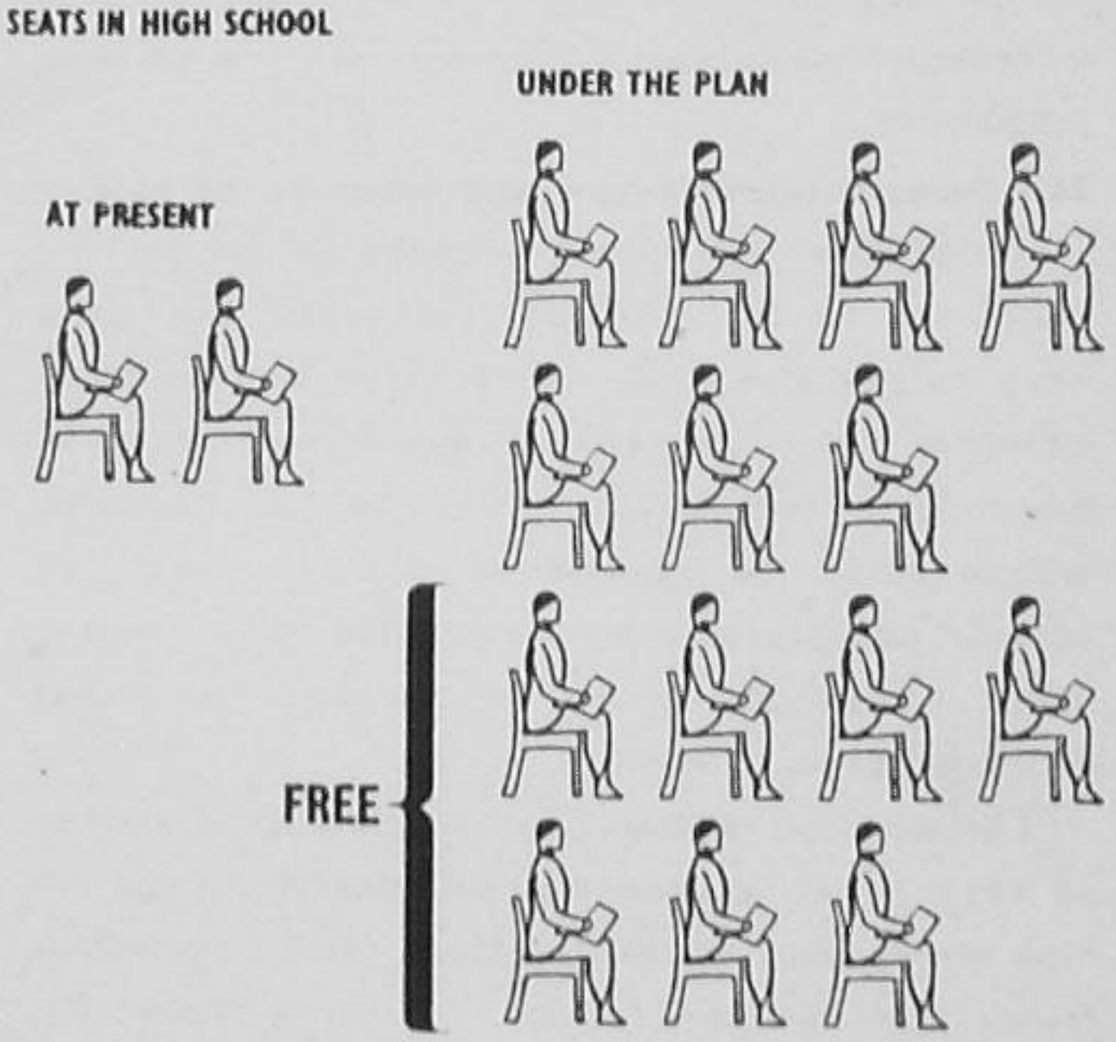
Under the Board's Plan the High School course will be of 6 years' duration (leading to a degree course of not less than 3 years for those who proceed to Universities), so it will cover the work of what are now designated as Classes VI to XI in most provinces (Standards III to VIII in Bombay). If one child out of every five who complete the Junior Basic course is found fit to join a High School, and if the course is of six years' duration, it is calculated that places must be found in High Schools of all kinds for at least 7,250,000 girls and boys. All the High Schools of the former British India provinces now accommodate about 1,000,000 children. It is clear, therefore, that an immense expansion of High School facilities (up to about $7\frac{1}{4}$ times those of the present time) must be catered for, and this expansion alone will require not less than 360,000 properly qualified teachers.

The whole output of all existing High Schools put together is at present only about 150,000 per annum, of whom only 100,000 are successful in passing the Matriculation or Secondary School Leaving Certificate examination. This fact alone provides the strongest of all reasons why the new High School system will take time to create. A vicious circle has to be broken. More High Schools *cannot* be opened until more High School teachers are available. More young people *cannot* be prepared for the teaching profession until

more High Schools are opened. For the Basic schools it may be possible to recruit for training as teachers, as a temporary expedient, those who have themselves only received education up to the present 'Middle-passed' standard. For High School teaching it is obvious that trained graduates are desirable, and certainly no one ought to be recruited for High School teaching who has not at least completed the Secondary course and has undergone training for two years, if not three. It is obvious, therefore, that there will have to be a very vigorous and extensive drive to expand the teaching profession in all its branches. For several years to come an effort will have to be made to attract the largest possible proportion of the output of our existing High Schools (and of the new ones which must be started as soon as possible) into the teaching profession. If this be done, it will effectively and most usefully solve one of the most serious problems of our time, that of the 'Educated Unemployed'. Thus the solution of the problem of education will also be the solution of the problem of lack of employment for the educated.

23. Method of selection for High School education

Next let us turn to the question of how the Board proposes to select children to fill the places available in High Schools. This is an extremely important question, and one in which nearly all of us have a keen personal interest. In regard to this, as also in regard to many other details, the Board's scheme shows that its makers took a thoroughly democratic point of view, though not an out-and-out socialistic one. At present, as is well known, admission to High Schools is restricted to the fortunate few who can afford to pay fees or to the still smaller number who have obtained scholarships or free places. Altogether the number of these amounts to about 900,000 (including all those in Classes VI to X, or (Bombay) Standards III to VII). About 60 per cent of the cost of educating these children is met from fees, the remainder being provided by grants from Government and Local bodies (about 30 per cent) and from endowments (10 per cent). This means that only 1 child out of every 36 children now in the 11-12 age-group can now enter a High School; and as for selection, it is largely a matter of money or of chance. There is no doubt that several of the unfortunate 35, who have no chance of further education, would prove better fitted to benefit by it than the one who now gets the chance. Even free places do not by any means always go to the most deserving : they frequently go to those who have the most influential recommendations.



Such limitations of opportunity must not exist in future, and the Board's scheme safeguards this to a large extent.

As already mentioned, the Board has assumed that India's educability is on the same level as that of other civilized countries, which means that about one in five of the children of 11-12 years of age will be able to benefit from Secondary education. Provision has to be made, therefore, for rather more than seven times the present number of places in High Schools.

When the resources of the country become greater, it may be possible to provide even High School education wholly at public cost, but it is not practicable to do so now. (And it may be mentioned in passing that even in the U.S.S.R., since 1940, fees have been charged for education in Classes VIII and upwards, though only as a temporary measure.) The policy proposed by the Board is therefore to make Secondary education *available* for all those likely to be capable of benefiting by it, and *free* for about *half* those selected. That is, out of the 72½ lakhs of places in our future High Schools, about 36¼ lakhs are to be free. When one recollects that this number is more than 3½ times the total number of *all* children now attending High School (both fee-paying and free), it will be realized what a tremendous advance this will be upon present conditions.

24. Selection-tests—how and when to be held

With these an equal number of fee-paying pupils is to be enrolled. But—and this is a very important 'but'—*even these are not to be admitted unless they have passed the selection-test.* Secondary education is to be a privilege which must be *earned by ability*, and not merely purchasable by those who have money. Lack of means is to be no bar, provided educability is proven.

The method of selection is therefore a matter of very great importance and interest, and on this we cannot do better than quote verbatim from the Board's report. It says (page 20, 1st ed.) :

'The selection of pupils for higher education, therefore, assumes great importance and the methods to be employed should receive the most earnest consideration. Generally speaking they should aim at discovering promise rather than actual attainment and should be based on a careful scrutiny of the candidate's previous school record and of his or her performance at an examination designed and conducted by experts. The following selective process, which has proved successful elsewhere, may be worth trying in this country. Heads of Junior Basic (Primary) Schools should be asked in the first place to submit the names of those pupils in the appropriate age-group who in their opinion and on the strength of their school record would benefit by a High School education. The lists so submitted should be scrutinized by the Inspector or Inspectors of the area concerned with a view to seeing whether each school has recommended a reasonable number of candidates. Consultations should take place between Inspectors and Heads with the object of revising the lists where necessary. The candidates on the lists so revised should then undergo a common examination, which should not be too strenuous and should be designed to test intelligence and promise rather than actual attainment. This common examination should be controlled by a Board of Examiners specially constituted for the purpose. Parents whose children are not included in the original list of recommended candidates should have the right of requiring that their children should be tested at the common examination.'

Moreover, in order to ensure that no child capable of benefiting by High School education misses the opportunity of doing so, the Board has also made the following provision :

'. . . it is not intended that those who are not selected at the end of the Junior Basic (Primary) stage should be altogether debarred from admission to High School. Facilities will have to be provided for the transfer of suitable children from the Senior Basic (Middle) to the High Schools at some later stage, particularly where they show definite signs of late development.'

This is an important provision, for the number of children who develop late is not a small one, and without the overlapping of the Senior Basic classes with the 'Middle' classes of the High Schools the discovery of these 'late-maturing' children would be impossible. In some quarters this overlapping has been a point on which the Board's scheme has met with criticism. It is claimed that a single 'Ten-year ladder' of education is more 'democratic' than the two parallel ladders offered by the Board. But, though the topmost half of the ten-year ladder is to be, in theory, 'open to all pupils who have completed the Primary Stage', there will obviously have to be *some*

kind of selection, until such time as the entire ten-year period of Primary and Secondary Education can be made universal, compulsory and free (which, judging from the experience of other countries—even of the Soviet Union—is likely to take anything between twenty and fifty years, if not more). Even now Secondary education is, in theory, 'open to all who have completed the Primary Stage', and the method of selection is the most undemocratic one of the elimination of all who cannot afford to pay fees (with the exception of the handful of scholarship-holders). The Board's proposal is infinitely more democratic as well as being on sound educational lines. It follows the principle of 'to each according to his needs' up to the end of the free and universal Basic stage, and that of 'from each according to his abilities' in the higher stages. It gives to every child, whatever be the social or economic status of his parents, an equal opportunity to show his ability to benefit by secondary education, and, what is more, it gives him that opportunity *twice*, once at the end of the Junior Basic stage, and, if he fails to show his ability then, again during the Senior Basic stage. This double sifting of the primary harvest should enable the country to obtain the best possible seed-grain for its future cultivation, and should also make quite certain that not a single grain of high quality is allowed to escape notice and go to waste. Surely, if only to achieve this, the system of the 'parallel ladders' is well worth while. It is also, until such time as a full ten or eleven-year course of primary and secondary education can be made universal, the most economical and useful form of post-primary schooling.

25. Provision for fee-paying pupils

The Board's Plan moreover provides for a wise compromise with the present method of selection for secondary education, without placing any additional financial burden on the shoulders of the State. It is frankly recognized that those who can afford to pay for secondary and higher education for their children will want them to have it, whether they can really benefit by it or not. In that case, they must pay the *whole* cost, so that the State may not be put to any loss on their account. The Board's Report says :

'Since in future the cost of High School education will be met largely out of public funds and only partially from fees, every High School pupil will be to some exte .t a scholarship holder and it is in the public interest to ensure that the pupils admitted are those most likely to take the fullest advantage of the education provided and so prove a remunerative investment on the part of the community.

The Board realize, however, that there will be parents who will wish their children to receive a High School education even though they may fail to reach the standard normally required for admission. The Board would not object to places being provided for such children on the condition that these are in addition to those required for children selected on the ground of ability and that the parents concerned are required to pay the whole cost of the education provided. It would appear inequitable to spend public money on providing higher education for those who have not shown that they are likely to take full advantage of it.'

This, surely, is a thoroughly democratic standpoint, and one which even a full-blooded socialist could admit as reasonable so long as we live in a society in which incomes are *not* equal. Presumably it will also leave room for a certain amount of private enterprise in education, which—as will be admitted by almost every educationist—is highly to be desired from the point of view of encouraging new experiments and the working-out of original ideas. The costly private 'preparatory' school, perhaps, will have no place in such a scheme—as all education below the secondary stage must be free. If this leads to the elimination of primary institutions based purely on distinctions of social class and income it will probably be no loss to the community. But above the primary stage there will presumably be room for privately managed secondary schools, charging sufficient fees to meet all

their expenses. Such schools, of course, would have to submit to inspection by the officers of the Education Department, and, if it were found that the work done was of national value (for example, the imparting of character-training of a particularly useful kind, or the carrying out of experiments in new methods, and so on) a grant-in-aid might even be justifiably made from public funds, on condition, perhaps, that a minimum number of places in the schools should be reserved for State scholarship-holders. It is precisely in some such way that the 'Public Schools' are likely to be fitted into the system of national education in the British Isles, in the near future ; and in a similar way there might be room for residential or whole-day schools of the 'Public School' type in the future national system of education of India. It should be stated in passing that the above is only a speculation of the present writer, and not a proposal made in the Plan of the Central Advisory Board.

26. Types of High Schools

Reverting to our comparison of High School education (Lower and Upper Secondary) with the first and second storeys of a building, it should be observed that, if danger is to be ensured against, not only by building on strong foundations and upon a strong ground-floor structure (Junior Basic), and by exercising proper control over the admission of persons to the upper floors, a further essential safeguard is *the provision of as many exits as possible*, to avoid the risk, which we gravely run at present, of excessive crowding on the single central stairway which leads to the University stage on the topmost floor.

Here, too, the Board's Plan has made wise provision. The matter cannot be better expressed than in the words of the Report, which runs as follows:

'The reorganized High Schools should be of two main types—(1) the Academic High Schools and (2) the Technical High Schools. To adopt a broad but by no means rigid differentiation, the Academic High Schools will impart instruction in the arts and pure sciences while the Technical High Schools will provide training in the applied sciences and in industrial and commercial subjects. In both types the course in the junior departments covering the present Middle stage will be very much the same and there will be a common core of the "humanities" throughout. Art and music should form an integral part of the curriculum in both, and all girls should take a course in domestic science.'

'The medium of instruction in all High Schools,' says the Board, 'should be the mother-tongue of the pupils : English should be a compulsory second language. All pupils should also acquire some knowledge of mathematics and elementary science. Physical training should be obligatory.'

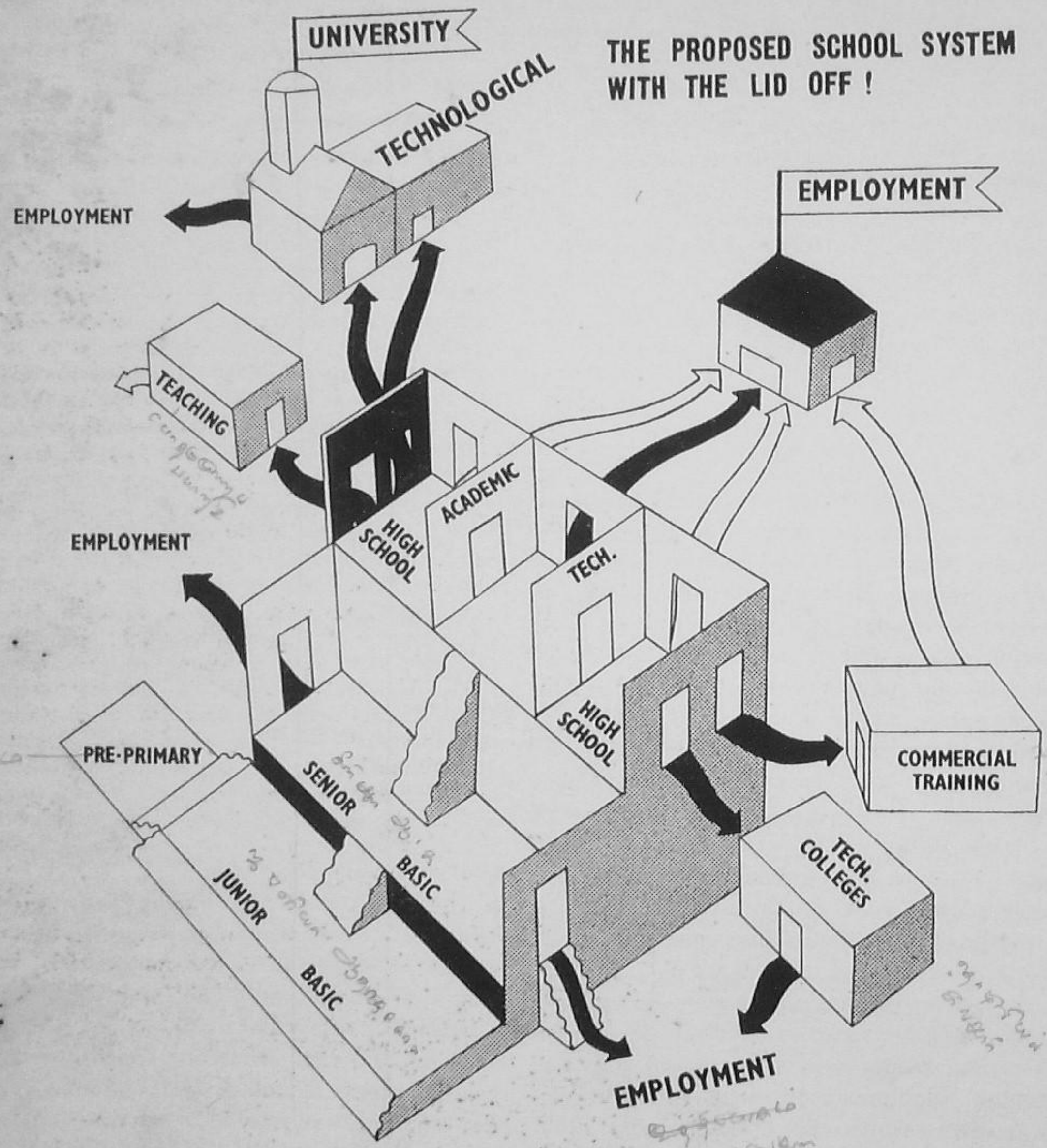
But the Board aims at a wider cultural standard than is provided by our present High Schools. The Report proceeds : 'It may not be desirable to draw any rigid distinction between what may be called compulsory and optional subjects. The range available should be as wide as circumstances permit and, subject to the same proviso, the individual pupil's course should be settled in the light of his own aptitudes and interests and of the requirements of his probable future occupation.'

27. Curricula of Academic and Technical High Schools

The following table shows how far the subjects proposed for Academic and Technical High Schools are common to both types of schools and how far they differ.

SUBJECTS COMMON TO BOTH TYPES OF HIGH SCHOOLS

Physical Training
The mother-tongue
English
Modern languages
Geography (Indian and World)
History (Indian and World)
Mathematics
Elementary Science (including Physiology and Hygiene, and Elementary Biology)
Elementary Economics
Elementary Agriculture


THE PROPOSED SCHOOL SYSTEM
WITH THE LID OFF !
UNIVERSITY
TECHNOLOGICAL
EMPLOYMENT
EMPLOYMENT
TEACHING
EMPLOYMENT
HIGH SCHOOL
ACADEMIC
TECH.
HIGH SCHOOL
PRE-PRIMARY
SENIOR
BASIC
JUNIOR
BASIC
COMMERCIAL TRAINING
TECH. COLLEGES
EMPLOYMENT

Art
Music
Domestic Science (for Girls only)

SPECIALIZED SUBJECTS

Academic High Schools

Classical languages
Further study of Modern languages
,, ,, Geography
,, ,, History
,, ,, Economics
Civics

Technical High Schools

Commerce
Further study of Mathematics
,, ,, Physics
,, ,, Chemistry
,, ,, Biology
,, ,, Agriculture
,, ,, Economics
,, ,, Art
,, ,, Music
Technological subjects (wood and metal work; elementary engineering).

Again reverting to our simile of the educational building with its various floors and staircases, rooms and doorways, we note that there is double access to the High School floor, by the main staircase from the Junior Basic storey which occupies the whole area of the ground floor, and also by two passages leading from the big central Senior Basic block (first floor) into the first floor blocks on either side of it—the Academic High School block on the one side, and the Technical High School block on the other side. These two High School blocks have many rooms in which work of the same kind is going on, rooms where training is imparted in subjects which *everyone* needs as a basis for higher education, rooms such as gymnasia (Physical training), fine libraries of books in the provincial mother-tongue, subsidiary rooms for other modern languages, specially equipped rooms for the study of History, Geography, Art, Music, Mathematics, and laboratories for each of the Elementary Sciences, including Physiology and Hygiene, and (for Girls) Domestic Science. In addition, the Academic High School block has rooms for the study of the classical languages, and for the more advanced study of modern languages, Geography, History, Economics, and Civics. The Technical High School block has corresponding rooms for the further study of the Sciences, and for Commerce, Technological subjects, Music and Art.

28. Distribution of High Schools

As regards the distribution of High Schools of the two types, the Board's Report says:

'The proportion of schools of the two types will be mainly determined by the character of the locality and the nature of the employment it offers. Where the population in a particular area will admit the existence of a number of High Schools, there ought to be a sufficiently large variety of schools to cater for the needs of the locality as well as for the aptitudes of the pupils. Transfer from one type to the other should be made as easy as possible at any rate up to the end of the junior course.

In smaller centres which can be only served economically by single High Schools, the individual school should be required to offer as wide a choice of courses as possible. In rural areas, for reasons already given, where pupils are likely to take to agriculture on their own farms or elsewhere, an agricultural bias should be given to the curriculum. While the needs of the area will be the dominant factor in deciding what types of school and what variety of courses should be provided, it should not be forgotten that many pupils will benefit most from a practical course, even though they may not be destined for an industrial or commercial career.'

The point that 'in smaller centres...the individual school should be required to offer as wide a choice of courses as possible' is a very important one. This requirement, if strictly insisted upon, will go far towards ensuring two vital provisions which are notoriously absent in our present system. First, the larger the number of alternatives offered, the smaller is the number of pupils likely to be in each specialized class, and the greater the amount of individual contact between the teachers and the pupils.

The Board's Plan has made allowance for this much greater degree of individual attention by providing the allocation of teachers to High Schools in the proportion of 1 teacher to every 20 pupils. This by itself would be an immense step towards better and more efficient education. Secondly, the provision of a generous choice of alternatives means that a great deal of hitherto undiscovered talent will come to light. Taken together with the adequate provision made under the Plan for further specialization at the post-secondary stage, this should lead to a real renaissance of the Indian genius not only along the line of the 'humanities' but also along those of the pure and applied sciences, and in the direction of technological research.

29. High Schools—the main source of future teachers

It will be fitting to conclude this chapter by quoting in full what the Report says on what is likely to be, for some years hence, the most important of all the functions of the new High Schools. It says:

'A special reference should be made here to a national need which the High Schools may be called upon to satisfy in the near future. To bring a whole nation under a compulsory system of education many thousands of teachers will be required, and since Matriculation has been rightly prescribed as the minimum educational qualification for any intending teacher, the High Schools will have to satisfy this demand. In addition to the needs of the teaching profession, any comprehensive scheme for developing the social services will involve a vastly increased supply of doctors and nurses. In view of the present dearth of entrants the urgent need of supplying an adequate number of girls of the right type both for the teaching and medical profession will be one of the first problems which the Girls High Schools will have to tackle. Out of 4½ lakhs of pupils now in the upper sections of High Schools, only 40,000 are girls. Education for girls will have to make rapid strides, if a national system of education is to be established within a reasonable period.'

As we have already seen in chapter 2, for the complete implementation of the Plan more than 26 lakhs of teachers of all kinds will be required. About 22 lakhs of these *ought* to be at least matriculates, and more than 13 lakhs—i. e. half the total number required—*ought* to be women. We have now at work in all the schools of India less than 5¼ lakhs of teachers of whom only 63,000 are women. For a complete scheme of national education we therefore have to produce nearly 5 times the present number of teachers. These teachers have to come out of our High Schools, and then they have to be trained. It is obvious, therefore, that for the extension of education in a thorough and effective manner (and ineffective education might prove more dangerous than none at all), the first need of the country is *more High Schools and more Training Schools and Colleges*. If the provincial governments once begin seriously to undertake the implementation of this great education Plan, the unemployment of the educated classes (which has been so serious a problem) will cease forthwith, and, on the contrary, there will be an ever-increasing demand for more and more matriculates. Under the Board's Plan accommodation in High Schools must be provided for 72½ lakhs of children, or 7¼ times the number at present attending such schools between the ages of 11 and 17, in classes VI to X or XI. When all those High Schools have been opened, the output of matriculates (if only at the present low rate of 2 out of every 3 children who reach the High School Final class) will be 7¼ lakhs per annum. Even at this rate it will be a long time before the teaching profession experiences any surfeit of recruits. For many years to come the new schools will continue to welcome with open arms every possible newcomer to swell the number of qualified teachers for their staffs. The passing of the Matriculation Examination will again be comparable,—as it was many years ago,—to the possession of a passport enabling the traveller to set out confidently upon a great journey, one of whose possible goals will be to attain membership of a noble profession, which once again shall be honoured as it was of yore.

CHAPTER FIVE

WORKSHOPS AND LABORATORIES—TECHNICAL EDUCATION

30. What technical education is and what it is not

No problem of India's future education has received more careful and thorough investigation at the hands of the Central Advisory Board and its Committees than that of Technical Education. Among all the pages of the Board's Committees' reports none are so full of valuable constructive ideas as are those of chapter V on 'Technical, Commercial and Art Education'. Considerations of space alone prevent us from quoting a very large part of that chapter verbatim in this booklet, and every reader who is earnestly interested in the development of this aspect of education—which is perhaps *the* one on which depends most critically whether India takes a leading place among the industrial countries of the world or not—should make a close study first of chapter V of the main Report of the Board,[1] and then of the original materials on which the recommendations in that chapter are based, namely: the report of the Technical Education Committee of the Board (1943), the Report on Vocational Education in India, by Mr A. Abbott and Mr S. H. Wood (1937), and the report of the Consultative Committee on Secondary Education, of the Board of Education of the British Government, commonly known as the 'Spens' Report' (1939).

It may first of all be desirable, in dealing with this subject, to endeavour to remove a very common misconception regarding 'Technical Education'. The misconception is perhaps even more widespread among educated people in India than in countries where technical education has a well-established position, owing to the fact that the preponderance of purely academic higher education in India has given rise to the idea that a person who has undergone 'technical' training must somehow necessarily be inferior in general culture and breadth of outlook to those who have obtained their degrees in Arts or in the Pure Sciences!

The Report says:

'The conception of the function of technical education, as regards both its aim and its content, has been considerably revised and enlarged in Western countries during recent years. Consequently it is important to emphasize from the outset that any scheme for the development of technical instruction as an integral part of a national system must have a two-fold character. It must both form a link between education and industry and it must at the same time receive quite separate consideration as a form of mental training which is especially suited to certain types of intelligence, irrespective of their future occupations.'

It will at once be perceived that in the second of the above-mentioned functions technical education is the logical continuation of the expression of the 'Activity' principle which we have observed (Chapter 3, § 13 and 15) to be the chief educational method that is to be adopted in the new 'Basic' schools. The Report again elucidates this idea further on in the same chapter, as follows:

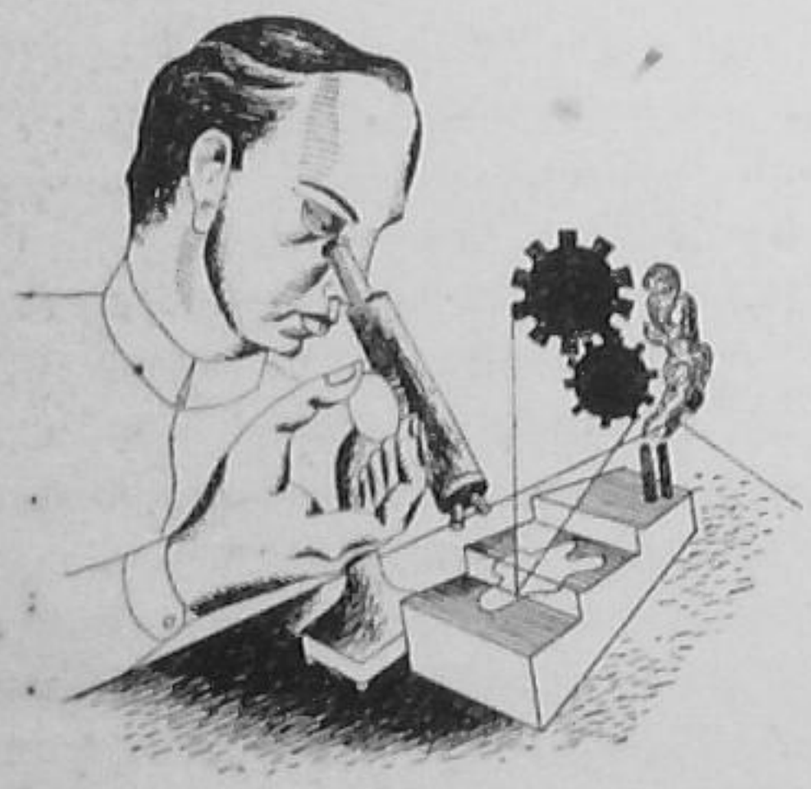
'So-called technical subjects have been found to be capable of providing an all-round education or culture, as distinct from a vocational training, for the many people—

1. 1st ed., pp. 36–47

not necessarily by any means the less intelligent—whose mental faculties are more actively stimulated and more fully satisfied by practical than by academic studies. In this sense the technical school or college has a valuable contribution to make towards the introduction of greater variety into education at its higher stages and towards satisfying the need of industry for a reasonable share of the best brains of the community, which under the influence of the conventional High School seek professional occupations and too often find unemployment. Further, it may provide many people who were not suited for or who were prevented by the economic exigencies of life from taking a university course of the ordinary type, with knowledge of the things necessary to the fuller discharge of their duties as citizens or the more profitable employment of their leisure.'

That this is sound, practical commonsense, as well as sound pedagogy and sound economics, nobody can deny.

It represents a point of view, too, which can be accepted even by those who are opposed to wholesale industrialization and mass-production. Those who framed these reports did not take up a standpoint unappreciative of the importance of the smaller producer and the cottage industry. They observe:



'New problems, both human and material, call for more sympathy, more imagination and a deeper insight into the processes they control from those placed in positions of authority. In his turn the research worker has not merely to concern himself with improvements along established lines: it is also his business nowadays to explore how a dying industry may be revived or a new one created. It has been assumed, perhaps too readily during the last fifty years, even by those who for social reasons deplore their extinction most keenly, that the small business and the cottage industry are bound to be eliminated by the large-scale factory. Modern methods of distribution and marketing, however, now give grounds for hope that even in highly industrialized countries the small producer may survive and prosper alongside of his larger rival.'

Continuing in this strain, the Report proceeds to enunciate principles which are identical with those underlying the quotation concerning the 'polytechnization' method adopted by Soviet Russia (*vide* Chapter 3, § 16).

It says:

'Technical instruction today must be a wider and more liberal form of training than it has been in the past: it must comprehend the scientific principles underlying the processes of manufacture as well as the processes themselves; it must link up the sciences of production and business organization with the arts of design and salesmanship. It must take cognizance also of social science in relation to the effect of industrial development on the life of a previously non-industrial community and it cannot even neglect the provision of purely cultural and recreational facilities as an antidote against mental and moral stagnation for those workers who are destined to remain the semi-skilled servants of the machine.'

This should go far towards satisfying people who have hitherto tended to look upon the extension of technical education as a menace to culture, and should also reassure those who, fearing lest industrialization may imperceptibly bring us the horrors of a 'Brave New World', are inclined to try to make the clock of material progress run slow.

We shall now turn to the consideration of the various types of institutions in which, according to the Plan of the Board, the above principles are to be worked out.

31. Where should craft education begin ?

First of all, it must be observed that, as the whole of 'Basic' education is to be built up on the principle of 'learning by doing', it may be confidently expected that, when the first products of the new system begin to emerge from the Basic schools, they will be much better equipped both for living and for learning to earn a living, than the products of our Primary and Middle schools are now.

It will be remembered that, according to the estimates of the Board (which are based on comparative statistics of civilized countries) about four-fifths of all the children who complete the Junior Basic course (ending with Class V at about 11 years) will continue on the Senior Basic course, while the remaining one-fifth will succeed in passing the selection-test for admission to a High School.

Regarding the Senior Basic school, it cannot be too strongly emphasized that it is not intended that it should be the Cinderella of the new system, as has been prophesied by some critics. The great majority of the nation's children will complete their education in Senior Basic schools, and the Board has insisted that ' the Senior Basic (Middle) School ...is of fundamental importance and should be generously staffed and equipped '. Moreover it has been laid down that one of the main functions of the Senior Basic school should be to inspire in each of its pupils 'the desire to continue his education through such means as a national system of education may place at his disposal'. With this end in view the Senior Basic school should ' afford the widest possible opportunities for those corporate activities, including physical training and organized games, which are essential to supplement the instruction given in the classroom'. It should also be borne in mind that the Senior Basic school will carry one stage further the principle of 'craft-centred' education of which the foundations will have been laid in the Junior Basic schools. As a result of this, in the words of the Report, 'boys and girls who have passed through the basic schools will be much better prepared to enter industrial occupations than most of those who now leave Primary and Middle Schools. They should at least know something of the use of tools and the properties of woods and metals'. 'But', continues the Report, ' it will, however, be very important to afford the facilities both for continuing their general education and for improving their skill so that the best of them may ultimately ascend to the skilled class.'

It should be abundantly clear from the above that, if Basic education is fully implemented according to the Plan of the Board, and not given a stepmotherly treatment by academically-minded educational theorists, there will be no danger whatever of the promising child of the poorest parents, whether in city or village, not getting the fullest possible opportunities to rise. In very many cases it is probable that Technical Education (in which is included post-Basic Agricultural education also) may very well prove to be the fairy-godmother of such children.

For, parallel with its function of providing 'an all-round education or culture' based upon craft-centred activity, the other function of technical education (the one hitherto usually but wrongly regarded as its exclusive function) is ' that of satisfying the needs of industry and commerce for

(*a*) skilled craftsmen,
(*b*) intelligent foremen and executives, and
(*c*) research workers.'

32. The three kinds of workers to be trained: The Junior Technical School

Taking into consideration these three categories of workers, each in turn, those of category (*a*) will generally be recruited from the pupils of Senior Basic schools who on completing their Basic course in Class VIII, have been selected for admission to the lowest grade of purely technical institution to be established under the Plan, namely the JUNIOR TECHNICAL SCHOOL, or the Trade or

Industrial School, in which they will have undergone a full-time course of training for at least two years, which they will complete at the age of about 17 years—(Junior Basic course, 5 years from 8 to 11: Senior Basic, 3 years, to 14: Junior Technical, two or three years, to 16 or 17).

The Board's Plan makes provision for 200,000 places in Junior Technical Schools, Trade or Industrial Schools, which would thus accommodate about 4 per cent of the boys leaving Senior Basic schools every year. The cost per place is estimated at Rs 150 per annum. The course would ordinarily be of two years, for

'in view of the importance which will be attached to craft work in the Senior Basic School, it is reasonable to expect that after two years in a Junior Technical, Trade or Industrial School boys will have attained to a standard of skill sufficient to warrant their admission to skilled trades as apprentices or learners. Pending the full establishment of Senior Basic Schools, this training may require three years.'

A very important provision has also been made under which those who have completed their training in a Junior Technical, Trade or Industrial School, and have entered employment, may obtain further training in the form of part-time technical classes which they will be able to attend while at the same time earning their livelihood. Taking advantage of this, there is no reason why the poorest student should not ultimately work his way right to the top of the professional ladder. We must quote this important passage in full:

'Apart from the recommendations set out above which concern the provision of full-time instruction, it is reasonable to assume that as industrial development takes place, whether in the form of large-scale or village industries, an increasing number of workers will continue their technical education on a part-time basis by attending classes either in the day or in the evening. The drawbacks to evening classes are well-known and owing to climatic and other conditions they are likely to be greater in India than in Western countries. Neverthless, it is fair to record that many people who today occupy positions of responsibility in Industry all over the world owe their success to attendance at evening classes. Those who give up part of their leisure after a day's work in order to improve their qualifications at any rate suggest that they possess the qualities of grit and determination that make for success in life. Part-time day classes, or the sandwich system, which is an extension of the same idea, on the other hand constitute a factor of great importance in any modern scheme for technical education. Their main advantages may be summarized as follows :

(1) They minimize fatigue on the part of the students, (2) They bring the efficiency of the instruction under the criticism of students who have some first-hand knowledge of the requirements of modern industry, and (3) They enlist the direct interest of the employers inasmuch as they are releasing, and it is to be hoped, paying their employees to undergo instruction during their ordinary working hours, and consequently expect to derive some practical benefit from the sacrifice they are making.

. . . The adoption of such a system would be of particular value in India, as it would help to counteract the present over-academic tendency of too many technical courses, whereby a student may spend several years under instruction without obtaining any first-hand experience of actual factory conditions. It is to be hoped that Indian employers will quickly recognize the value of the part-time day system: if not, it may be necessary to stimulate their interest by levying a special tax for the further education of their employees, as was done in France after the last war, on those employers who do not provide the necessary facilities themselves.

In addition to the provision of facilities for training skilled artisans and the superior grades, an up-to-date system of Technical Education must also cater for those in the lower grades who wish to improve their equipment as workers and as citizens. The conception of a modern Polytechnic as a People's University...is capable of very wide development in all thickly populated districts.

At this stage the sphere of Technical Education will overlap that of Adult Education, which will also be engaged in the provision

of vocational classes. Some demarcation will arise from the fact that Technical Institutions, apart from Agricultural Institutions, which should really be regarded as a part of Technical Education, will normally be found only in urban or thickly populated districts, whereas Adult Education should cover the whole country. At the same time, as the Adult Education Committee has pointed out, it is neither possible nor desirable, especially in India, to draw too strict a line between the spheres of Technical and Adult Education. It will be the business of the responsible administrative authority t oprevent unnecessary overlapping.'

33. The Technical High School

The second category of technical workers will contain 'the minor executives, foremen, charge hands, etc., a very important class, if only in view of the difficulty which Western countries have experienced in recruiting the right kind of people'.

It is the TECHNICAL HIGH SCHOOL which will be the main preliminary training-ground for those in this category. The pupils of the Technical High School will have been recruited, it will be remembered, normally from the top class of the Junior Basic schools, or exceptionally from the Senior Basic schools. The Report does not specify what proportion of the High Schools to be provided will be of the 'Academic' type and what proportion will be 'Technical'. Presumably out of the 72½ lakhs of High School pupils, the number selected for the technical side will increase in proportion to the growth of Indian industry with the consequent popularization of technical training and the demand for trained employees. But, as almost all our present High Schools are of the 'Academic' type, it may well be that a considerable proportion of the new ones, particularly in the more thickly populated areas, will be Technical High Schools. It should not be overlooked that these will not necessarily be in industrialized areas only, for agriculture and all its allied crafts (fruit-cultivation, animal husbandry, etc.) are rightly included by the Board as crafts for which *technical* education is essential in no less a measure than crafts requiring skill in the use of tools to work wood, metals, plastics, textiles, etc.

The course undergone by a pupil in a Technical High School will normally be of six years, from about the age of 11 to about the age of 17. The first three years of the course will be devoted mainly to general education of a cultural character (including physical training) differing very little, if at all, from the corresponding course in the Academic High Schools. In the last three years, however, the pupils will begin to specialize, presumably after having had opportunities to choose their special subjects by observing senior pupils working at them in the laboratories and workshops, or even by trying their own hand at the elementary stage in the form of hobbies.

34. The Polytechnic

The Board has stressed the importance of providing in each school as wide a choice of technical subjects as possible. In short, it has plumped for *polytechnics* in preference to *monotechnics*, at the High School stage. The Report says:

'The size of the area to be served and the extent and nature of its industrial development will determine whether instruction should be provided in one institution or in several. If in several, then similar considerations will indicate whether these institutions should each serve one industry or group of industries or whether there should be a central institution at which the more advanced work in all branches should be concentrated, with ancillary schools, conveniently distributed, which will relieve it of the more elementary work and feed it in turn with suitably prepared students. The question of monotechnics versus polytechnics has been a controversial issue over a considerable period, but the polytechnic, wherever practicable, and subject to certain exceptions to be mentioned, has a strong balance of educational, industrial and econonomic argument in its favour.

It is indeed hardly necessary to elaborate the case for concentrating provision for technical

instruction, and particularly the more advanced branches of it, under one roof. There is, in the first place, the factor of cost. Technical instruction is necessarily expensive, owing among other reasons to the large amount of practical work involved, and the cost of the plant and apparatus required. Secondly, there is the importance of economizing teaching power, since competent instructors in many of the more advanced technical subjects are always difficult to obtain. A third argument for centralization arises from the fact that many technological courses overlap to a certain extent, and in a large institution the same workshop or laboratory may be used by students taking different courses. The last but by no means the least important consideration is the benefit students derive from being brought into contact with others engaged in different occupations and studying different subjects.

The monotechnic is to be preferred only where an industry is highly localized, or where its needs are so complicated or peculiar that it is difficult to satisfy them in the same building as those of other industries, or where the material to be dealt with, as for instance in tanning, makes it an uncomfortable neighbour.'

The Polytechnic, in addition to providing the normal Technical School Certificate course for its whole-time pupils, will also offer a three-year part-time Certificate course for students already in employment who wish to improve their qualifications and have not been able to do so earlier owing to the need for earning a livelihood as soon as possible. Reference to this function of the Polytechnic has already been made on page 40. It is a very important function, leading as it does towards the goal of making each Polytechnic the nucleus of a veritable 'People's University'. This should be all the more possible because, as has already been emphasized, the first half of the course of a Technical High School will differ very little, if at all, from the corresponding course of an Academic High School, and facilities for adult classes, and part-time classes of a non-technical and purely cultural character, should not be difficult to arrange as the demand and need for them increases with the spread of education.

A considerable proportion of those who complete the course of the Technical High School at about the age of 17 will no doubt seek employment after obtaining their Certificate. In order that this Certificate (as well as those of the Junior Technical Schools, Trade and Industrial schools, and those of higher Technical institutions) may receive all-India recognition and represent an approximately uniform standard of skill and ability, the Board proposes to recognize the Association of Principals of Technical Institutions (India) which has already done useful work in the framing of syllabuses for National Diploma and Certificate courses in the main branches of technical and commercial education.

35. Senior Technical Institutions

The next stage of technical education above that of the Technical High Schools is to be that which will be provided for in SENIOR TECHNICAL INSTITUTIONS. These will be specialized institutions to which only those students will be admitted who have passed the final examination of a Technical High School or have reached an equivalent standard. They will provide:

(*a*) A 3-year full-time Diploma course in various specialized techniques.

(*b*) A 2-year full-time Advanced Diploma course, for those who have obtained their Diploma under (*a*).

(*c*) A 3-year part-time Certificate course for those already in employment who have obtained the Technical High School Leaving Certificate or its equivalent.

(*d*) A 2-year part-time Advanced Certificate course for those who have obtained the Certificate under (*c*).

(*e*) Courses of all kinds and all standards in individual arts, crafts and other subjects related to industry and commerce, for which there may be a sufficient demand.

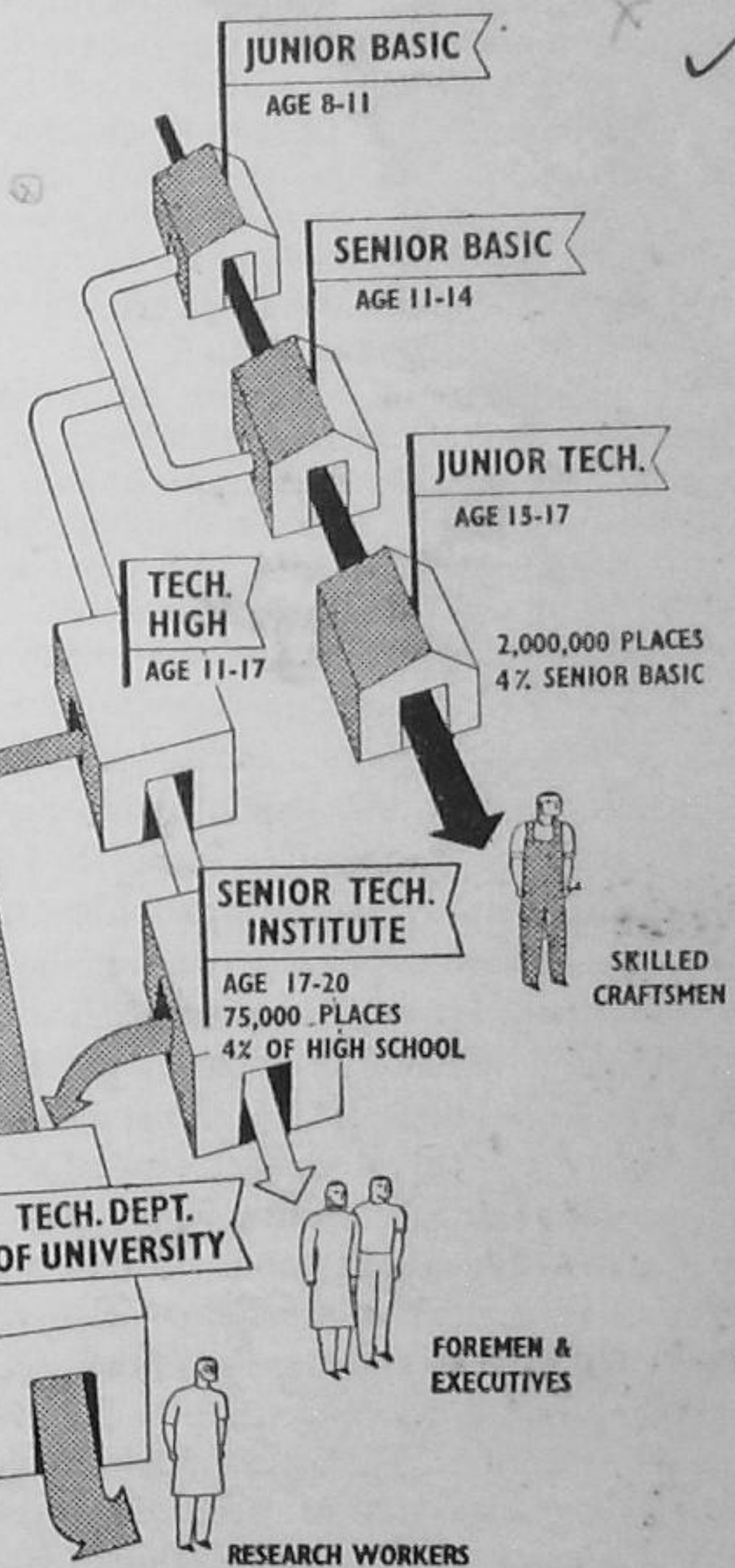
Here again it should be specially noted that full provision has been made for the ambitious and hard-working student who lacks the means to continue his studies without at the same

time earning his livelihood. All over the vast educational building the Board's Plan provides *stairways* by which the poor but deserving student can mount from one floor to the next, if he tries. Thus the present struggle to the topmost University storey, up a single narrow central staircase, on which many a deserving poor student finds himself thrust aside in the crush and the crowd, is to be entirely obviated.

As regards the extent of the provision to be made for part-time classes the Report says:

'It is quite impossible to forecast the extent of the demand for part-time classes or to estimate their cost. The provision of such facilities in other countries has proved so remunerative in the widest sense that it is justifiable to lay down a general rule that where any reasonable demand arises, every effort should be made to satisfy it. Provision has been made for an annual expenditure of Rs 300 lakhs on part-time technical classes in addition to any provision that may be made for such classes under the head of Adult Education, but it must be emphasized that this is no more than a token figure. The uncertainty as to the extent of the development in Technical Education in India after the war adds to the normal difficulty of arriving at any firm estimate in this branch of education. The same applies to the question of fee and other income. On the one hand the bulk of those undergoing full-time instruction will not belong to the richer sections of the community: on the other hand many of the students attending part-time classes will be in employment and may be expected to pay a reasonable fee. Here also as in other branches of Higher Education, liberal provision must be made for the remission of fees in the interest of poor students. Maintenance allowances will also be necessary, if not on the same scale as in the case of Universities.'

It will be mainly in the Senior Technical Institutions that technicians of the second category, those of what might be called 'the supervisory grade', will receive their final training. Mr Abbott in his report has emphasized again and again the importance of concentrating upon the thorough training of this category, in order to build up efficient industries. It is this grade, intermediate between the management and the operatives, 'which ought to have sufficient knowledge and intelligence to understand the instructions of the former and sufficient powers of expression to communicate and interpret them to the latter. At the same time they should have sufficient practical skill to earn the respect and confidence of the operatives whose work they direct, control and supervise'.



36. Technology in the Universities : commercial and art education

In the third and highest category 'there will be the chief executives as well as the research workers of the future. These will

normally have their preliminary training in a Technical High School and will then pass to the TECHNOLOGICAL DEPARTMENT OF A UNIVERSITY, or to a full-time course of the National Diploma type in a Senior Technical Institution. This category will necessarily be a small one but, in view of its importance, admission to it should be the outcome of a very strict process of selection.'

And the Report continues:

'It should be made abundantly clear that the rough classification given above (*i.e. into the three categories of skilled craftsmen, supervisors, and executive and research workers*) does not presuppose a rigidly horizontal organization of post-war industry. If the necessary incentives are to be provided, promotion must remain open from the bottom to the top, and this will be particularly important until the selective system of higher education has been firmly established.

Nor must the needs of small businesses or rural industries be forgotten. For the latter separate departments in suitably located Technical Institutions should be provided, where local crafts can be taught and practised under appropriate conditions.'

As regards Commercial and Art education, the Report makes the following proposals:

'In regard to commercial education it may be possible to reduce those concerned to two main groups, (*a*) those who will transact business on an important scale or perform professional functions such as banking, accountancy, etc., and (*b*) those engaged in recording the transactions of group (*a*).

According to Mr Abbott, group (*a*) require mainly training in imagination, initiative, administration and leadership, while group (*b*) need training in the ordinary office arts, e.g. shorthand, typing, book-keeping, commercial practice, etc. as well as in alertness, accuracy and a sense of responsibility.'

The Board, however, offers a mild criticism of Mr Abbott in regard to the training of group (*a*), observing that 'it is possible that Mr Abbott somewhat underestimates the need for expert knowledge in those controlling the great processes of salesmanship and distribution'. The opinion of the present writer may be here hazarded that the gap at this point in the Plan, if any there be, might well be filled by the 'Public School' or what should more correctly be termed the 'School of Leadership' or the 'Public Service School' (see Chap. 4, § 25)—a special type of High School in which a number of scholarships should be available for open competition—where special stress would be laid on training in responsibility, self-reliance, pluck and enterprise. Boys intent on a business career of the group (*a*) type could proceed from such schools to take a University degree followed by a postgraduate technological course in Advanced Business Training.

With regard to Art as applied to Industrial and Commercial requirements the Board quotes Mr Abbott's well-justified criticism: 'Nothing has disappointed us more than the general neglect of the teaching of Art' and adds 'Indian manufacturers will be very wise to devote far greater attention to the artistic qualities of goods produced. One of the great advantages of a Polytechnic is that it brings those engaged in manufacture into immediate contact with those studying design and distribution'. The writer of this commentary would like to add that care must be taken not to overlook the fundamental importance of higher education in the Pure Arts, without which the industrial and commercial arts can never flourish. A national system of education for India cannot be complete without the adequate inclusion, from top to bottom, of provision for the teaching of Indian music, Indian architecture, Indian art and artistic crafts, Indian dancing, and Indian needlework, cookery, and household decoration.

With regard to another special requirement for Indian conditions the Report says:

'Agricultural Education is logically a part and a most important part, of Technical Education. In this country with its vast agricultural population, as Senior Basic Schools and High Schools with an agricultural bias become more widely spread, the more advanced stages of Agricultural Education should be closely linked up with

the lower, and Agricultural Colleges of every type should be regarded as essential parts of the top educational storey and should come under the general control of the Education Authorities. The Board have decided to set up a Committee to explore this question.'

The number of places provided under the Plan for technical training—apart from that which will be imparted in the Senior Basic Schools and Technical High Schools, and in the Technological Departments of Universities (which is provided for under 'Universities') thus stands as follows:

(*a*) Junior Technical, Trade and Industrial Schools—200,000 places ;

(*b*) Senior Technical Institutions—75,000 places.

The former will provide for about 4 per cent of the pupils leaving Senior Basic Schools every year, and the latter for about 4 per cent leaving High Schools.

The Board makes some very sound observations regarding technical education in the Universities. It says:

'It may be well to emphasize the necessity for ensuring that in the University technological departments ample facilities are provided for research directed towards the solution of practical industrial problems and that the need for testing the results of laboratory experiments on a commercial scale is not overlooked. It is not less important that technological degree courses generally should be made more practical than they are at present, and that the students should spend a considerable part of their time throughout the course, and not merely at the end of it, in works and factories. The same applies to commercial students. A further desideratum is that as many students as possible, and particularly those likely to become technical instructors, should be afforded facilities both for studying abroad and for obtaining first-hand experience of foreign industrial and business methods.'

Regarding the last-mentioned desideratum, it is most gratifying to note that substantial steps have already been taken by Education Department, Government of India, to translate the desire into an accomplished fact. The brochure issued in the month of March 1945, setting forth the scheme for sending about 500 to 600 Indian students for postgraduate studies in the United Kingdom and the United States of America, as holders of stipends on a sufficiently generous scale and for a sufficient period, in addition to making arrangements for a similar number to be sent at their own expense, proves that in Dr Sargent India has an Educational Adviser who does not believe in merely giving advice, but who also very effectively gets the advice accepted. If coming events cast their shadows before, this augurs well for the implementation of the Plan as a whole, and one can only express the sincere hope that Dr Sargent may remain in India long enough to see the great Plan which he has sponsored brought at least to the point of bearing plentiful blossom, if not to full fruitage.

CHAPTER SIX

THE TOP STOREY OF THE PLAN

A. University Education

CHAPTER IV of the Board's Report, on 'University Education', begins with a frank but fair analysis of the present situation. It neither exaggerates the defects, nor does it hide them.

37. How many Universities do we need ?

Owing to the difficulties that Indian University graduates have increasingly experienced during the last fifteen years in finding employment, the opinion is widespread that India has too many universities.

The Board destroys this erroneous belief at the outset with a bombardment of statistics. In addition to those given in the Board's report, some comparative figures are worth notice.

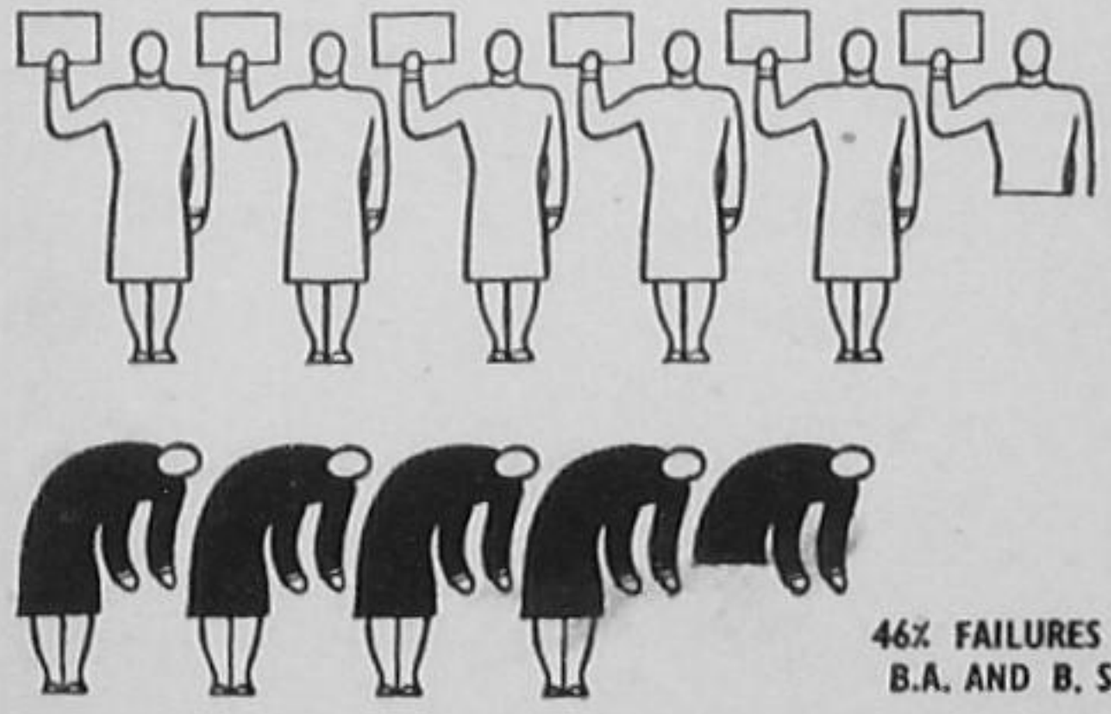
It is perfectly clear from the comparative figures given below that, if we place India's requirements on a par with those of countries such as Germany and England, our country should have three times the present number of students at Universities. If we aspire to reach Canadian, American and

Year	Country	Population	No. in High Schools	No. in Universities	No. of Universities	Proportion of No. in Universities to Population
1942	Denmark ...	3,903,000	480,000	9,000	2	1 : 434
1942	Australia ...	7,196,622	—	11,000	6	1 : 654
1941	Canada ...	11,506,655	—	48,835	18	1 : 235
1930	Czechoslovakia ...	14,729,536	450,000	23,472	4	1 : 627
1931	England & Wales.	39,952,377	569,000	49,000	12	1 : 837
1931	France ...	41,834,923	282,349	74,832	17	1 : 559
1939	Germany ...	69,622,483	786,691	111,935	25	1 : 690
1935	Japan ...	97,697,555	832,226	72,195	45	1 : 1356
1940	U.S.A. ...	131,669,275	7,113,282	628,230	357	1 : 225
1939	U.S.S.R. ...	170,467,000	—	657,000	781	1 : 300
1941	India ...	388,997,955	454,140	163,408	18	1 : 2206

Russian standards, the number must be six times as great as it is. The Board says : 'All this goes to prove that when India has a proper educational system, she will need more University education and not less than she has at present, but *the growth of Universities should be in proportion to the expansion in the lower stages, and conditional on the introduction of a sound selective process in higher education*' (italics ours). As the two conditions referred to will be gradually fulfilled under the Board's Plan, over a period of about 40 years, the Board has proposed that in that period the number of places available in Indian Universities should be *doubled*. This seems to be a fair compromise, and one which will give sufficient scope either for the enlargement of existing Universities or the founding of new ones.

38. Present failure and unemployment

We do not propose here to repeat in detail the criticisms on Indian Universities as they are at present. They are too well known. But there are two or three points among those mentioned by the Board which are worth drawing attention to.



The first is that out of 20,502 candidates who appeared for the B.A. and B.Sc. examinations of all British Indian Universities in 1940-1, only 11,185 passed, while 9,317 i. e. 46 per cent failed. The Board rightly comments on this in the following words :

'Probably nowhere among the Universities of the world is there so large a proportion of failures in examinations as in Indian Universities. This...by itself is a sufficient indication of the numbers of those admitted...who are unfit for University education....Many are there not because they have been found fit for higher education or have a thirst for knowledge, but because they found no opportunities for employment on leaving school, and their parents gambled on the chance that their sons might discover a successful career by obtaining a University degree....Apart from the waste of time and money on the part of all concerned, the social effect of so much disappointment cannot be other than deplorable.'

We all know that this is only too true. It leads to the next point on which the Board observes :

'The Sapru Committee's report, published in 1935, showed the alarming extent of unemployment among University graduates. Even for minor posts in Government services before the war there were often as many as 60 to 70 applicants with University degrees. The economic system of the country may be mainly to blame for this situation, but the Universities cannot disclaim all responsibility. For apart from one or two recent attempts to set up Appointments Boards there is little evidence of any systematic attempt on their part to adjust their output to the capacity of the employment market to absorb it. Hundreds of young men, who have received a purely literary education, go about knocking at every office door without any clear idea as to where their proper vocation lies. In the competition for employment, the jobs for which boys with an ordinary High School education would be adequately suited are taken by University graduates. If a careful statistical survey were made of unemployment among University graduates, perhaps not more than 20 per cent would be found absolutely unemployed, but the numbers of those inadequately or unsuitably employed would probably exceed 50 per cent. This means that only 30 per cent of the University products can be said to have secured employment of a type which is in keeping with their attainments or commensurate with the time and money which have been spent on their education.'

Post-war developments, including the beginning of the implementation of the Board's

Plan itself, will probably relieve this situation to a considerable and an ever-growing extent. During the war, a fair number of those who would have otherwise gone in for the usual literary courses, were attracted by good wages into the various schemes of Technical training, and it is to be hoped that an increasing number will be absorbed into expanding Indian industries. The effect of the Board's Plan of Technical Education will hardly be felt until the technical schools of various types have been working for a number of years. But the products of the Universities will be in tremendous demand for the implementation of a fundamental part of the Board's Plan—*teaching*. Before new Basic Schools can be started, teachers must be trained to staff them, and, if Matriculation is to be accepted as the minimum qualification, the number of High Schools must be rapidly increased. To staff these, as well as the new Teachers' Training Schools and Colleges, a very large number of young graduates will be necessary. If the *entire* output of all our Universities (about 11,000 graduates per annum) took to teaching, the profession would not be overcrowded for the next 15 years, for we shall need no less than 181,320 graduate teachers for the new High Schools alone, not to mention those who will be needed for educational administration, training institutions, and all other professions.

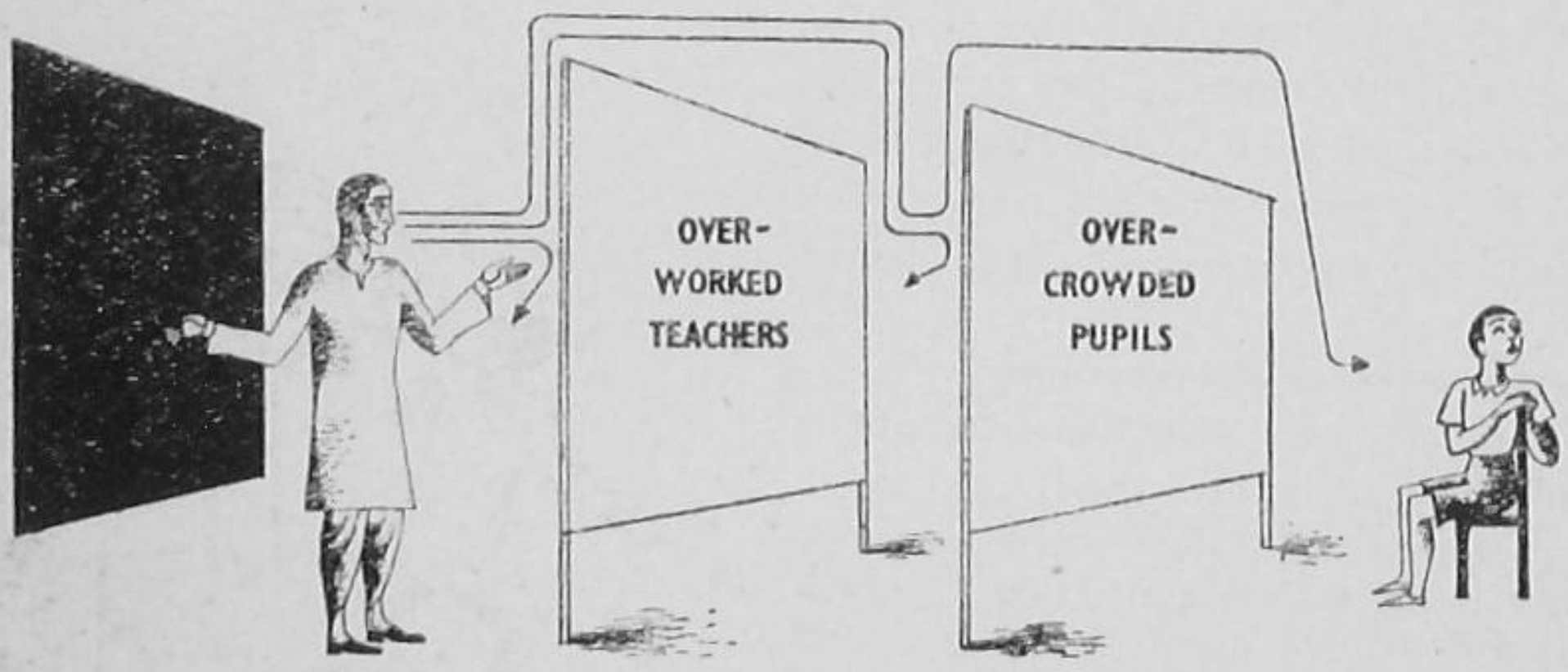
It can be emphatically stated that, regarded *only* as a complete solution of the very *dangerous* problem of the unemployment of the educated, the speedy implementation of the Board's great Plan for Education is therefore of fundamental importance to the country. This should be a cogent consideration with those who still regard the extension of education as a perilous thing! On the contrary, its rapid extension under a comprehensive Plan is probably the greatest possible safeguard against that kind of revolutionary discontent which results from clever people having nothing constructive to do.

39. Lack of personal contact between the teacher and the taught

The extension and not the contraction of University education would also provide a solution of another, and even more fundamental defect in our present University work. The Report says :

'Over-crowded lecture rooms and overworked lecturers are not conducive to that personal contact between students and teachers from which the greatest benefits of a university life may often be derived. The tutorial system is in a very embryonic stage in most Indian universities.'

This brings us to the question of the character, quality and duration of the academic work of Universities. The Board, following the recommendations of the Sadler Commission and the Inter-University Board, definitely 'regard three



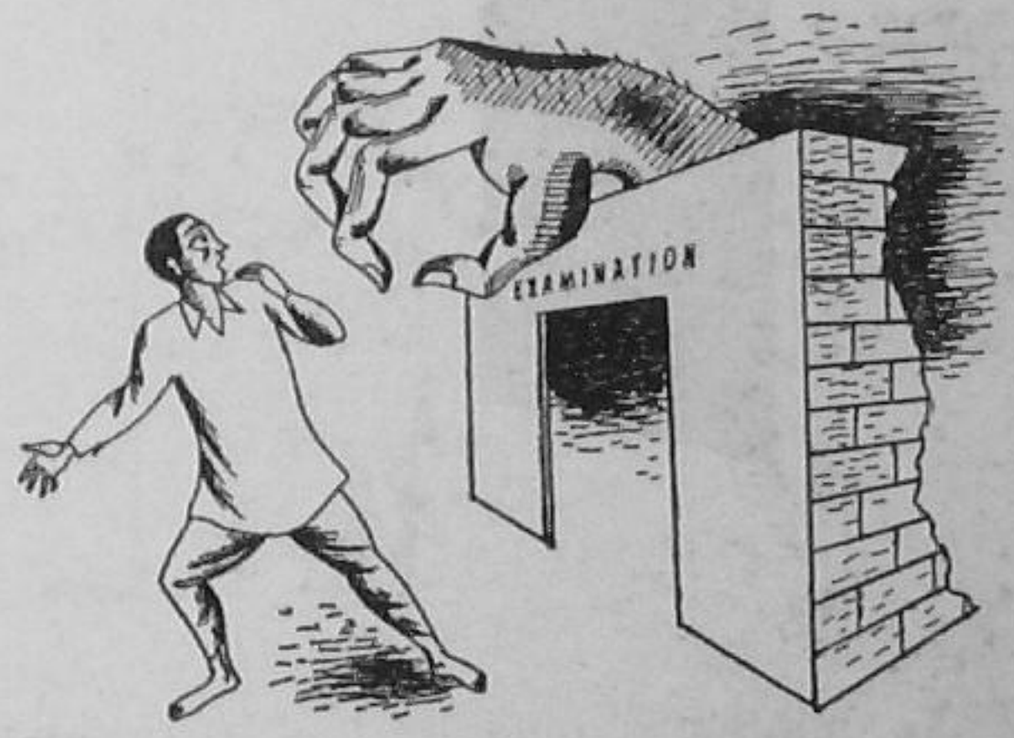
years as the minimum duration of any University course', and they have provided in that part of the Plan relating to High School education for the extension of the High School courses by an additional year, thus eliminating the need for 'Intermediate' courses altogether. Regarding the Intermediate course they observe that it 'does not mark any definite stage in education and has for all practical purposes amounted to no more than an extension of the High School without any of the practical advantages which might be expected to accrue if it actually formed a part of the High School'. It may be added that the situation is even worse in those parts of India where Intermediate classes , under an entirely different authority, are tacked on to the Degree colleges working under the authority of an affiliating University. The Board very rightly says that the abolition of the Intermediate course of two years and 'the addition of one year to the High School course and the other to the University may be regarded as an essential and urgent reform'.

40. University entrance examinations

On the subject of the selection of students for admission to Universities the Report says :

'The joint committee of the Central Advisory Board and the Inter-University Board, which investigated in 1942 the question of the School Leaving and Matriculation Examinations, was of opinion that at the end of the High School stage "there should be one examination designed with a two-fold purpose (*i*) of testing the satisfactory completion of a course suited to the requirements of those who will pass directly from High Schools to occupations of various kinds, and (*ii*) of testing the suitability of those who desire admission to a University". This Committee was also in favour of a uniform range of subjects both for the School Leaving Certificate and Matriculation Examinations but felt that entrants for the latter should be encouraged to do specialized study towards the end of the High School stage. It was hoped that such an examination would lead to greater uniformity, since the standards set by the present School Leaving Certificate and Matriculation Boards vary widely at the moment from place to place.'

The above embodies a practical proposal for a much-needed reform. The present writer would like to add the expression of his own opinion that those who have had experience in Indian schools of preparing pupils for an Indian Matriculation examination and, in parallel classes, for an examination such as the Cambridge School Certificate examination, generally testify to the superiority of the latter. Its wider range of optional subjects, together with the maintenance of a high standard in English (of such a character as to encourage wide reading and extensive practice in writing rather than the mere cramming of textbooks), is not only a better test of real ability, but also provides far greater encouragement to good teaching and genuine study.



It is ardently to be hoped that the proposed new High School Leaving Certificate and Matriculation examinations for India will be modelled on such lines, and that Headmasters will also be encouraged to collaborate with the examining authorities in the valuable ways in which they are encouraged to do so by the Cambridge Syndicate. Such methods help to impart to examinations not the terror of the unknown but the thrill of an adventure or of an athletic contest.

The Board takes a very broad-minded attitude in regard to the question of 'Affiliating' versus 'Unitary' Universities. It says :

'There would appear to be no justification for suggesting that the Affiliating or the Unitary or any other type of University has shown itself to be specially suited to Indian needs. There is little to be said for uniformity at any stage of education, and in a country so vast as India the need for constant experiment at all stages will be apparent. In the proposed re-organization there is scope for all types... Lord Haldane, who was at one time a convinced believer in the unitary type of University, came to the conclusion when he investigated the question of University reform as Chairman of the Royal Commission on University education that affiliating and examining Universities are indispensable even in small countries like England. In a country like India, affiliating Universities are an economic necessity, and higher education cannot be concentrated in selected centres only. What may be practicable in certain cases is that affiliated Colleges should confine themselves to teaching up to the degree stage while University centres concentrate on post-graduate teaching and research. It is at any rate essential that the University itself as distinct from the Colleges should not be a purely administrative or examining body, but should be in a position to establish standards of scholarship and stimulate teaching generally.'

We shall deal with the important proposal of the Board to establish an Indian University Grants Committee in Chapter 8.

B. The Training, Recruitment and Conditions of Service of Teachers

In a very real sense the Teacher-training Department is the most important part of the top storey of any educational structure, even though the large majority of teachers may not be University graduates or trained in institutions attached to Universities.

There is at present no uniformity at all in respect of the teacher-training institutions or the courses and standards of training in the various provinces of India. Postgraduate colleges for training teachers are generally affiliated to Universities, but are 'usually situated as separate units, so that their trainees are almost completely divorced from University life. In some cases they provide facilities for the training of Matriculate and Intermediate candidates as well as Graduates'.

41. The crux of the problem

Chapter VII of the Board's Report, on 'The Training of Teachers', *must* be read alongside the report of the Board's Committee on *The Training, Recruitment and Conditions of Service of Teachers*, an important document in which general principles are discussed as well as details entered into regarding the character and duration of the training-courses necessary for the various categories of teachers. The chapter in the main Report deals almost entirely with the number of teachers required for the working of the Plan, the cost of training them, and the conditions of their service. We shall here deal with the proposals of both the main and the subsidiary reports.

The subject of the total number of teachers of all kinds necessary for the implementation of the complete Plan must first be dealt with. It is important to have a clear idea of this, because it is the lack of precise understanding of its vast implications that leads many people into hasty criticism of the Plan on the ground that it will take too long to bring into operation. 'FORTY YEARS MORE to make India a well-educated nation?' shout the impatient ones. 'It is ridiculous. With conscription of men and women capable of teaching others, for a period of five or ten years, we ought to be able to liquidate illiteracy in less than a decade. If we are in real earnest about educating India, it can be done. Russia did it.'

In the first place, Russia did *not* do it—in a decade, and has not fully accomplished it even now, exactly thirty years after the Bolshevik Revolution, though a great deal *has* been achieved. As has already been mentioned, the Soviet Union has established compulsory and free education for all children from 8 to 12 years, and in urban and industrial areas for

all between 8 and 15 years. This was to have been extended to all areas by 1943 under the third Five-Year Plan, and from 1944 the compulsion age was to have been reduced to 7, so education in the Soviet Union may by this time perhaps be universal from 7 to 15. In 1939 adult literacy had been extended among about 80 per cent of the total population of the Union. It was to have been made complete under the Third Five-Year Plan. It is true that at the beginning there *was* something like conscription of educated people for teaching purposes. But this was found inadequate and was replaced by regular professional teaching as soon as conditions began to settle down. Even now, Miss Beatrice King tells us (in *Education in the Soviet Union*), 'a shortage of teachers in the adult Schools of Literacy is a serious problem. It is being dealt with by the provision of short-term training courses from six months to a year. The authorities are not satisfied with such training and urge their replacement by full-term training'.

42. How many teachers ? How quickly can they be obtained ?

In the second place, it should be grasped that if *every* boy and girl who now completes Middle School education (Class VIII) were to enter the teaching profession, we should obtain only about 340,000 teachers per annum. If we leave out of account (for the moment) Adult Education, for imparting which something like conscription might conceivably serve, India needs about 2,400,000 teachers of all kinds to staff her future schools and colleges. To these must be added a further 100,000 per annum (at the peak) to allow for death or retirement after 25-30 years service. Apart from the fact that a Middle-school pass is not a sufficient foundation of general education for an efficient teacher (more especially if the present inadequate primary and middle courses are to be replaced by the much more thorough 'Basic' course), there is not the least likelihood of more than one-third of the output of the schools taking to the teaching profession even under the greatest possible inducement. It will be quite obvious, therefore, to anyone who seriously faces the facts, that even if new Middle Schools and High Schools are opened as extensively as possible, it cannot possibly take *less than twenty to thirty years* to recruit enough tolerably well-educated young people to provide universal education for India. The Board's Plan is to spend forty years over the job, and to do it *thoroughly*. With that object in view it insists not merely on the attainment of Matriculation or an equivalent stage of education as the lowest qualification for a teacher of any kind, but also on *every teacher being trained*.

Realizing also that young people are not going to take up teaching as their life-work unless they can be assured of a social and economic position not lower than that which their qualifications would enable them to have in any other occupation, the Board has taken a step which is as bold as it is far-sighted: it has proposed *a decent living wage* for teachers of every kind, from the very lowest grade upwards.

It is the combination of these *three* factors—the huge number of teachers required, the necessity of spending sufficient time in getting them adequately qualified and properly trained, and finally, the obligation to pay them salaries on which they can live as self-respecting members of the community and with reasonable freedom from the fear of want—it is all these put together that make the Plan appear expensive. NO LESS THAN SEVENTY PER CENT OF THE TOTAL GROSS COST OF THE ENTIRE PLAN FOR EDUCATION IN ALL ITS BRANCHES IS FOR SALARIES OF TEACHERS. The total gross cost of the Plan is to be *Rs 3,12,60,00,000 per annum*. Seventy per cent of that figure amounts to Rs 2,18,82,00,000.

The Committee's report says: 'It is a truism which appears to be ignored in India that the quality of the teacher is the one factor which must always determine the efficiency of any educational system. Unless a satisfactory supply of suitably qualified teachers is forthcoming, the money spent on education will be almost entirely wasted.' We have seen how, at present, 75 per cent of the money spent on Primary education is lost on account of 'wastage' (see Chapter 2,§7); it would be nothing short of disastrous if, after seeking the remedy of this kind of wastage by means of universal basic education, another kind of wastage occurred through failure to recruit, train and retain the right kind of teachers. India cannot afford to waste money to the tune of 200 crores of rupees per annum on an inferior sort of education—and she will get no other sort unless a supply of *good* teachers is ensured. It is therefore not only a matter of common sense to be thorough in this respect, it is also a matter of economy in the long run. Even forty years is not too long to wait if we cannot obtain the genuine article in a shorter period, as would certainly seem to be the case.

43. Qualifications and method of selection of teacher-candidates

The portion of the chapter dealing with the rate at which trained teachers can be produced is of special interest. The Report says:

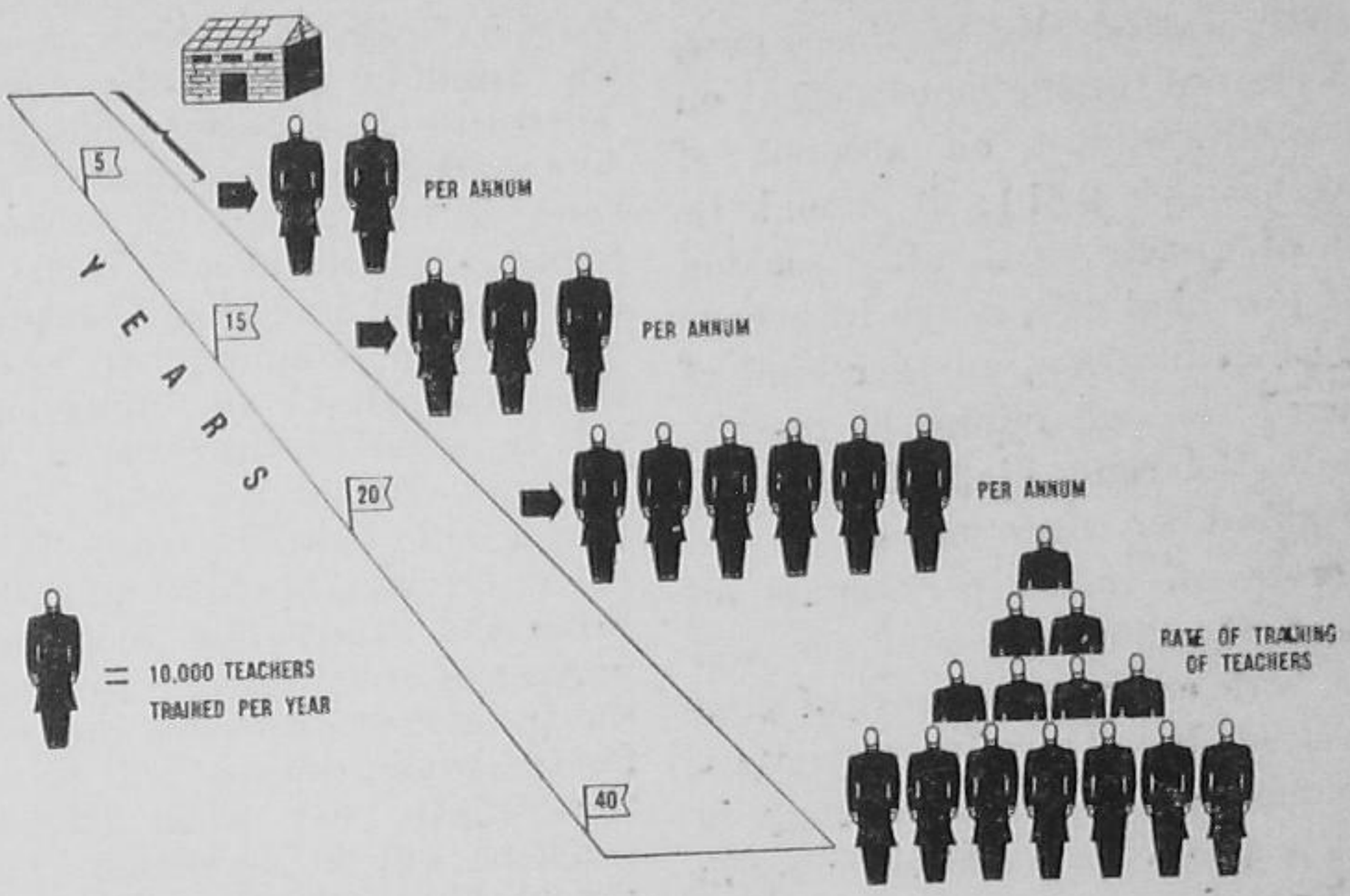
'The rate at which trained teachers can be produced is the factor on which the entire development programme will depend. It may be taken for granted that in any scheme of expansion the first few years will be devoted to establishing new training schools and colleges and staffing them with suitable teachers. It is proposed to allow five years for this task. From the sixth year onwards it is expected that a gradual flow of additional teachers will begin to be available. In the early stages the number of teachers produced will depend largely on the number of pupils leaving existing High Schools and Universities who can be attracted into the teaching profession by improved prospects. Later on the expanded High Schools themselves will begin to turn out a large number of potential teachers. . . . From the time when additional training facilities will become available, i. e. about the sixth year of the scheme, until the fifteenth year it has been estimated that there will be a normal intake of 20,000 per year. By the end of the fifteenth year there will thus be 200,000 teachers over and above those produced by the training institutions now in existence. Thereafter it is reasonable to look forward to accelerating the output of teachers trained, since the expanded High Schools will begin to turn out matriculates from the thirteenth year onwards and intending teachers will be completing their training two years later. From the sixteenth to the nineteenth year there will be a further increase of 10,000, making the total 30,000 per year. In the twentieth year a still further increase of 30,000 is anticipated, bringing the total up to 60,000 per year. From the twenty-first year onwards, by the process of assimilating still larger numbers in the training institutions, the required number for the whole country will be reached by the thirty-ninth year, when 2,200,000 additional teachers will be available. Thus to supply the whole country with the staffs required for the main block of the national system, viz.: Basic Schools and High Schools, will take a period of not less than thirty-five years from the day of opening the new Training Centres . . . .

Once a national system is fully established the annual wastage among teachers due to retirement or death will be very roughly 90,000. Any surplus of Training School or College accommodation may then be diverted to other Higher Education purposes.'

Although the Board is emphatic that no lower qualification than Matriculation or its equivalent should be accepted for an intending teacher, it recognizes that there will have to be a preliminary period during which an opportunity may be given 'to enable suitable candidates from rural areas, and particularly female candidates, to reach the educational standard prescribed for admission to a course of training. A scheme somewhat on the lines of the pupil-teacher system formerly in operation in Great Britain might perhaps be adopted. This would allow suitable boys and girls from

Middle Schools to be transferred to special centres or classes attached to High Schools and given special tuition in order to bring them to the required educational standard.'

The basis of selection for training is another interesting point. The Report says:



'. . . it is suggested that a system similar to that in vogue in some parts of England might adopted. In this system suitable pupils who wish to become teachers are picked out during the last two years of their High School course. They are kept under observation by Heads and Inspectors and are given the opportunity of visiting other schools and of trying their hand at actual teaching. Doubtful cases are sifted by this means. Such pupils often receive special stipends. This system has the advantage, among others, of ensuring that intending teachers before being admitted to Training Schools or Colleges are *prima facie* likely to make good.'

The proposals regarding the courses are thoroughly practical.

'The course during the first year in the Training School should be devoted to the study of general and professional subjects, supplemented by visits to schools, discussions and other means of stimulating the interest of students. A considerable part of this period shou'd be devoted to teaching practice, which should never be relegated entirely to the second year. Wherever a training school or college is established, all schools which are easily accessible should be made available for teaching practice. Unless this is done, it will be difficult to train large numbers within a stipulated period. Moreover, teaching practice can best be done in ordinary schools since the atmosphere of model schools attached to Training Institutions is usually artificial.'

How refreshing it is to find in an official publication ideas so progressive and free from red tape !

If space permitted, it would be a pleasure to quote and comment upon many other 'live' proposals that are contained in this fascinating chapter and the even more fascinating report of the Committee on which it is based. One can only repeat here that no one seriously interested in education can afford to miss reading the latter. It is obtainable in the volume (E. C. 14*) entitled *Reports of the Committees appointed by the Central Advisory Board of Education in India, 1938-43*, published by the Bureau of Education, India, available from the Manager of Publications, Delhi.

Among the special features are proposals regarding refresher courses, training in crafts, training of Nursery School and Infant School

teacher's and teachers for handicapped children. The Board proposes that no fees should be charged in Training institutions of every kind, and liberal assistance should be available for the encouragement and maintenance of those who are keen to become teachers but cannot afford to keep themselves during the period of training. The scales of pay proposed for all grades of teachers are quoted in Appendix C of this booklet.

The over-all cost of training the 2,200,000 teachers required, in the period of 35 years, is estimated at Rs 1,59,94,98,250, or an average of about Rs 457 lakhs per annum.

CHAPTER SEVEN

BRICK-KILNS AND BROKEN BRICKS

A. Adult Education

44. The size of the problem

ADULT Education, in so far as it implies the aim of making and keeping the whole nation literate, is at the start a huge undertaking in a country like India which has very great lee-way to make up. But there is one consoling factor from the financial point of view, namely, that when once the peak of the literacy campaign has been reached, and when, simultaneously, universal and compulsory education of the rising generation is going on, the annual cost begins steadily to decline, as fewer and fewer adults remain to be made literate every year. Thereafter, the principal item of cost is the maintenance of literacy, and the development of cultural facilities.

As in the case of Basic Education, the Board places thoroughness before speed. The Report says:

'Th Board wish that it were possible to eliminate illiteracy in less than twenty-five years but they have come to the conclusion that if the work is to be done properly, the problem, of teachers alone makes it impossible to contemplate a shorter period.'

The number of adults to be made literate has been calculated as follows: The total population of British India within the age-range of 10-40 years in June 1940 (according to the Annual Report of the Public Health Commissioner with the Government of India) was estimated to be 148,645,389 (excluding Baluchistan for which no figures were available). Of these 14.6 per cent, or 21,702,227 persons are recorded as able to read and write. The number remaining, to be made literate, is therefore, in round figures, 127,000,000. It is planned to make this number literate in twenty-five years. In actual practice the number to be made literate will be smaller owing to the fact that during the period of 25 years a fairly large number of older persons will pass out of the age-range of 10-40, and others will die. It is calculated that this will reduce the total by about 36,500,000. This leaves *90,500,000 persons to be made literate*, and to be kept so.

As in the case of the training of teachers for other branches of education, there will have to be a preparatory period during which training schools must be started and teachers trained. Five years are allowed for this. From the beginning of the sixth year 'it may be assumed that there will be in all 180,000 teachers to begin with'. This number is made up of 150,000 out of the present Primary, Middle and High School teachers (there are 518,018 of these altogether, but it has to be assumed that many will be unsuitable or unwilling to take up adult education work). To these may be added 20,000 non-professional (volunteer) teachers, and 10,000 out of the additional teachers just leaving the new training schools. The Board has recommended that every teacher under training in the new training schools should receive some instruction in the technique of teaching adults, but even so, it is felt to be probable that only 50 per cent of the new trainees may be suitable and available for that work. It is expected that about 3000 additional non-professional teachers may be recruited every year, so the total number of teachers available for adult

education will increase by 13,000 every year until it reaches the maximum of 258,000 teachers in the 12th year of the Plan. After this the number will decline as the number of adults to be made literate grows progressively smaller.

In the peak year (the 12th from the start) 6,450,000 adults will be under instruction. By the end of 25 years the whole 90,500,000 will have been made literate. The cost at the peak will have been Rs 3,26,37,000 per annum, and the total cost (spread over 25 years) will be Rs 59,71,09,500.

45. How soon can illiteracy be wiped out ?

We have burdened the reader with these figures because it is, in our opinion, important to show that the problem of illiteracy *cannot* be solved simply by calling upon millions of volunteers to work for a few months, as has been suggested in some quarters. No doubt, a drive of that kind, strengthened by the fervour of patriotism and philanthropy, would help a great deal, and it is certainly not to be despised. It might serve to break through the thick crust of the problem at the start, and to give a good impetus to the work. But in order to effect a *permanent* solution, and one which may prove fruitful in many other directions, there must be a systematic and steady development, with adequately trained teachers to carry on the work, in addition to the volunteers. This is the view taken by the Board, and it is the reason for its careful Plan.

Moreover, *the maintenance of literacy, once achieved is as important as its achievement,* for if all the efforts result only in the relapse into illiteracy of great numbers of those on whom so much time and money will have been expended, what will be the use ? This is a real danger (as we see now from the statistics of wastage in Primary education) when the course is too short, and there is no follow-up in the shape of provision of reading and other cultural facilities. Hence, while the drive for literacy must necessarily be the *first* aim of Adult Education, there must be much more to it than literacy alone. The report of the Committee on Adult Education (in the volume of reports referred to at the end of Chapter VI) rightly mentions many useful devices for arousing interest in public affairs, culture and general improvement, among them being the obvious ones of the establishment of village and *mohalla* libraries, broadcasting, the cinema, the gramophone, etc. It also stresses the importance of work among women. For all this, when the literacy campaign is over, there will remain a large staff of trained workers, and the Board has estimated Rs 3,00,00,000 per annum as the amount necessary for the maintenance of literacy and the extension of adult education along general cultural lines.

B. Recreative and Social Activities

46. The 'process of social adjustment'

Considerations of space prevent us from describing at any length here the interesting and thorough work of investigation embodied in Chapter X of the main Report, entitled 'Recreative and Social Activities'. It is typical of the progressive outlook of the Board that this chapter begins with the following words:

'In recent years the conviction has been growing that education in the real sense should be a training in the process of social adjustment rather than the mere injection of a special dose of mental, moral or physical instruction.'

This might very well have been the opening words of a lecture at a New Education Fellowship Conference ! The Report proceeds :

'Consequently, an important aim of school and college life should be to provide opportunities for social and civic training outside as well as inside the classroom.'

The Board recommends activities suited to the following needs:

(i) The school and college period
(ii) The adolescent period in the case of those who have left school
(iii) Social Service generally.

Its Report is full of valuable constructive suggestions. For the Basic stage it mentions

gardening, folk dancing, various systems of physical exercise, Junior Red Cross work, play-acting, Cubs and Bluebirds (the junior branch of the Boy Scout and Girl Guide movements), indoor and outdoor games, athletics, excursions and hobbies. For children over 12-13, debating, dramatics, organized games, inter-school competitions etc., are suggested, with Young Farmers' Clubs in rural areas. For the High School stage, the following are additional proposals: the Boy Scout, Girl Guide and similar movements, Co-operative Societies, Rural Uplift Associations, as well as the usual games and hobbies, debates, dramatics, excursions and the like.

But, even with all these activities, it is pointed out that, for the 32,000,000 young people between the ages of 14 and 20 a good deal more is necessary if the nation's educators are 'to continue to keep in touch with young people after they have left school and to see that they are provided with healthy amusement and to give them unobstrusive guidance through a number of problems and pitfalls to which they were only rarely exposed while still of school age'.

Mention is made of some of the organizations already doing valuable work in this field, e. g. the Boy Scout and Girl Guide Associations, the Hindustan Scouts with its Girl Scout section, the Y.M.C.A., Y.W.C.A. and the Ramakrishna Mission. But, says the Report, these are not enough, and 'an All-India Youth Movement which would aim at co-ordinating the activities of these bodies, at helping them to extend their range and at supplementing their efforts, is what is really required'.

47. Demobilized officers as youth leaders

As in all other branches of Education, the main problem is—teachers, or in this case 'leaders'. The Board makes an excellent and highly practical suggestion:

'Experience in the West has shown that leadership is the keystone on which this movement rests. Its success and indeed its existence depend almost entirely on the degree of contact between leaders and class-members: so that the personality of the leader is of paramount importance. The good youth leader must have sound technical training, some knowledge of psychology (gained practically rather than theoretically), understanding, adaptibility, a sense of value, a sense of humour, a power of arousing enthusiasm and last, but not least, tact.

At the end of the war a number of officers and others who have occupied positions of responsibility in the services will be demobilized. It is not suggested that military discipline is required in a Youth Movement; very far from it. But the people in question will presumably have exhibited some of the qualities of leadership and may be suitable for training as youth leaders. They may also be better able than others to deal with the demobilized soldier, who, finding that he has not returned to a country fit for heroes to live in, may again constitute a serious social problem in a post-war world.'

Some people may be inclined to feel apprehensive lest the entrusting of the Youth movement to the hands of demobilized military officers might be a step towards the development of war-mindedness, or of fascist tendencies. If one may judge from the young officers whom one meets—who, it must be remembered, are drawn from all classes and not, as in former times, from a particular class in which there is a hereditary custom that some of its members take to the military profession—there is but little danger of that. Having seen the grim side of war, the effects of totalitarian rule, and having tasted the realities of regimentation without any gilt on the gingerbread, they are likely to be the people most ready to work in the opposite direction.

The Report proceeds to give a list of possible activities which might be included among those of the Youth Movement, for example: '(1) Games' Clubs of all kinds, (2) Social Clubs of all kinds, particularly in towns, (3) Young Farmers' Clubs, (4) Organized excursions, (5) Hiking, (6) Youth Hostels. In addition, practical activities such as cooking, first aid, arts and crafts (sewing, knitting and weaving),

mothercraft (child hygiene and care of the young), as well as music, dancing and games, should be provided for Indian girls and young married women. In fact any kind of activity which brings young people together for the purpose of enjoying themselves healthily or giving joy to others.'

The report of the Social Service and Public Administration Committee (of which Sir Maurice Gwyer was Chairman) shows that the Committee had at its disposal full information regarding organizations such as the Institute of Rural Reconstruction at Santiniketan, the Co-operative Institute at Gosaba, the Sir Dorabji Tata Graduate School of Social Work, and the social service centres run by the Ramakrishna Mission and other missionary agencies. On the Committee's recommendation the Board proposes to set up at Delhi a central body to be called 'The All-India Council of Social Service'. It will have an institute for research under its control and will be 'a centre in which an impartial and thorough examination of the problems connected with the Social Services and Public Administration in its relation to the Social Services, could be carried out'. It will include a training school for social workers, and it is also recommended that in each province there should be at least one centre affiliated with the All-India Council, 'the main object of which would be to stimulate and co-ordinate the work of social service agencies, voluntary and official, in the area, and to arrange for the training of social workers of all grades'. The annual recurring cost of the Central Institute (between Rs 75,000 and Rs 1,00,000 per annum) should be borne by the Government of India for an initial period of 5 years. Rs 1,00,00,000 per annum has been provided in the estimates of cost of the Plan for Recreative and Social Activities of every kind.

C. School Medical Service and Physical Education

48. Health of the child

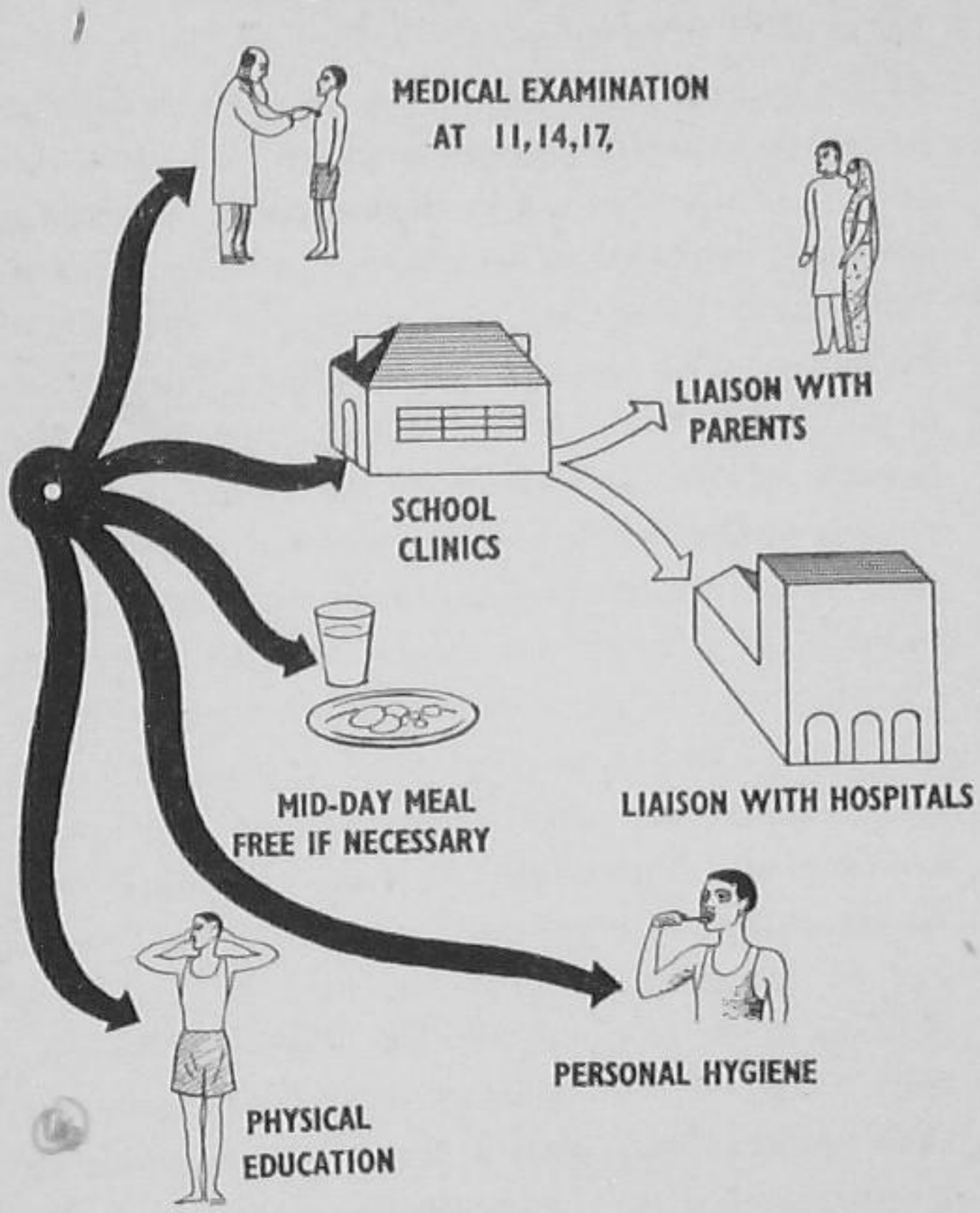
In the volume of its Committees' Reports, on which the main Report of the Central Advisory Board has been based, two reports deal with matters concerning the health of school children, that on *School Buildings* and that on *Medical Inspection and the Teaching of Hygiene*. These two reports are in fact by far the longest in the volume, and between them they take up nearly half the total number of its pages. The report on School Buildings includes careful consideration of matters such as proper accommodation, lighting, heating, ventilation, sanitation, hygienic furniture, and adequate provision of recreative facilities. The report on Medical Inspection is an exhaustive study of all aspects of the health of the school child in India, and its proper maintenance. It includes a chapter on past attempts at medical inspection and treatment of school children, very thorough chapters on the aims, organization and methods of a complete School Medical Service, a chapter on 'Treatment and Follow-up of Defects'; another on 'Nutrition'; one on 'Personal and Environmental Hygiene', one on 'The Teaching of Hygiene in Schools, and in Training Schools and Colleges', one on 'Physical Education', one on 'Corporate Activities', one on 'Administration', and a final one comprising a summary, and the recommendations of the Committee seriatim. These eleven chapters with their appendixes cannot be ignored by anyone concerned with the health of school children in India. They will form the concise standard treatise on the subject for many years to come.

Among the most important recommendations of the Committee which have been accepted by the Board are the following:

(*a*) Routine medical examination of every child on entry into a Junior Basic School, again at the age of 11, and again at about 14, on completion of Basic education. High School children to be examined again at the age of 16 or 17. Records to be kept, with height and weight records (to be main-

tained by the school) twice a year.

(*b*) School clinics to be set up as widely as possible: otherwise, treatment to be given at special hours in the local hospital. Systematic attempts to be made at liaison with and co-operation from the parents.



(*c*) A mid-day meal to be provided for every child at school, free if necessary, or on a contributory basis, or brought from home.

(*d*) Proper attention to be paid to the teaching of personal hygiene, and to the maintenance of a healthy environment in the school, with the co-operation of both teachers and children.

(*e*) Physical education (including organized games) to be a part of the curriculum of every school. Every Secondary school to have a qualified physical instructor. District Inspectors to organize local training-camps for instructing Primary school teachers in physical education and its technique. A special effort in this direction in Girls' schools.

In the estimates of the cost of implementing the Plan as a whole, 10 per cent of the total gross expenditure on the schools has been provided for School Medical and other special Services, including the cost of mid-day meals.

D. The Education of the Handicapped

49. 'The Handicapped'

The thoroughness with which the Central Advisory Board has tackled the investigation of India's educational needs is manifested in no detail more pointedly than in the inclusion of a telling, if concise, chapter on 'The Education of the Handicapped'. It is unsigned, but it has clearly been written by a psychologist, and by one who has his heart in the right place. It is also a testimony to the far-sightedness and sympathy of the Board that they have not overlooked the need for providing for those whom they compassionately designate 'The Handicapped', rather than just the mentally and physically deficient. The lack of any adequate provision in India for these unfortunates hitherto is nothing short of shocking.

The Report first of all very rightly discriminates between the mentally handicapped 'who are born with intelligence below the average', and those 'who are "backward" owing to some form of maladjustment or physical ailment which has caused temporary mental retardation'. Its authors are justly cautious also in defining even those in the first category. They say: 'In the process of selection it is useful to remember that an individual child is much too complex in his make-up and interests to be explained in terms of a few broad principles. "Intelligence Tests" have, however, come to be generally regarded as reliable methods and the I. Q. (Intelligence Quotient) or M. R. (Mental Ratio) is considered to be a fairly accurate index of the educable capacity of the child.' Children with I. Q. below 70 are usually termed 'feeble-minded': they 'may be kept in ordinary schools, provided they are only called upon to deal with simple concrete things'. Those whose I. Q. falls below 55, i. e. 'imbeciles', can find

no useful place in the modern world and require special care at home or in institutions.

'In Western countries it is estimated that the number of people with an I. Q. less than 55 is approximately 0.3 per cent of the population. It would appear on that basis that British India has between six and fourteen a population of 166,305 which will fit into no kind of school when young, and into no occupation when grown up.'

The number of children in India between 6 and 14 who are 'so blind as to be unable to perform any work for which eyesight is essential' is calculated to be about 400,000. There are about 50,000 who are deaf-mute, and 150,000 who are deaf. Separate provision is recommended for each of these categories in institutions for which expert teachers must be trained. There is also to be both medical and educational assistance for the cripples, speech-defectives, and for the 'social misfits' formerly ordinarily dubbed as 'juvenile criminals'.

E. Employment Bureau

50. Employment Bureaux

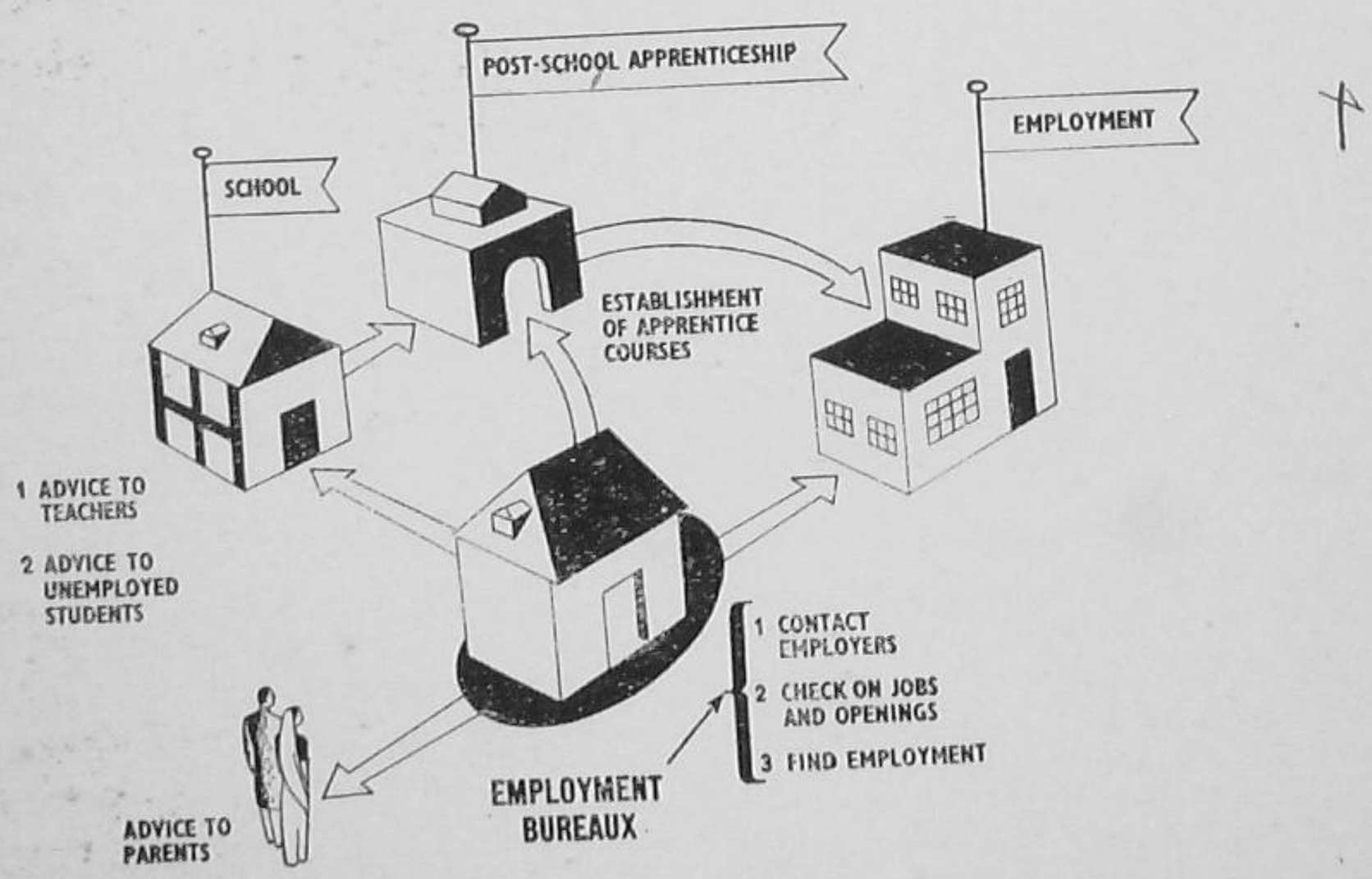
This magnificently comprehensive scheme is appropriately rounded off with a chapter on 'Employment Bureau'. It opens thus:

'The Employment Bureau is an essential adjunct to any educational system. In one sense schools and colleges are the factories which turn out what are potentially the most important and most valuable of all a country's products, viz. its future workers and citizens. It may seem strange that education authorities should take less trouble than other manufacturers to find a market for their output, but in India this is unfortunately the fact. Hardly anything is done to advise parents as to the occupations for which their children are most fitted, or to place those leaving school or college in suitable posts'.

It proceeds:

'The main functions of an Employment Bureau may be summarized as follows:

(*a*) to establish contact with all schools



Provision for the cost of all the above has been included in the 10 per cent gross annual expenditure on Basic and High Schools, set apart for 'special services', such as the Medical and Health Services.

from which on completing the course boys and girls normally enter employment and to advise parents and head teachers in the light of (*i*) school records (*ii*) aptitude and other tests (*iii*) the

openings for employment available in the area, as to the occupations which leavers should seek to enter;

(*b*) to establish contact with employers of Labour in the area with a view to (*i*) ascertaining what openings are likely to be available and the essential qualifications for filling them, (*ii*) persuading employers to recruit the employees through the Employment Bureau (*iii*) minimizing so far as possible blind-alley occupations;

(*c*) to place in suitable employment those leavers who have not already obtained posts for themselves;

(*d*) to arrange for the after-care of young workers especially in order to deal with misfits (Experience in Great Britain has shown that it is normal for young workers, particularly in the lower grades of Labour to change their jobs several times before settling down), and

(*e*) to establish and supervise in co-operation with employers regular systems of apprenticeship in those trades for which these are suitable.'

'The senior members of the staff of an Employment Bureau must be carefully selected persons of both sexes with specialist qualifications' continues the Report. 'All Employment officers should undergo a course of Applied or Industrial Psychology, including aptitude and intelligence testing. Special arrangements will have to be made to set up such courses and it is possible that the services of the experts now engaged in selecting Officers and N.C.O's for the Fighting Services may become available after the war and form the nucleus of the organization required.'

'The clientele of the Employment Bureau will mainly consist of boy leavers from Middle Schools in urban areas, from Junior Technical and Industrial Schools, and those boy leavers from High Schools of various types who do not intend to proceed to Universities or other places of further education. An annual expenditure calculated at the rate of Re 1 per school leaver, viz. Rs 64,00,000 should cover the ultimate cost of Employment Bureau.'

CHAPTER EIGHT

BUILDERS, CARETAKERS AND CRITICS

51. Co-ordination of education in Provinces and States

A description of the great educational structure planned for India would not be complete without mention of those who are to erect it, room by room, and those who are to maintain and look after it. The final chapter of the Board's Report entitled 'Administration', is therefore an important one.

It was made clear in the first chapter of this booklet (§5) that it was not in the remotest degree the intention of the Board, in preparing this Plan for India's education, to suggest, much less to propose, that education should cease to be a provincial responsibility. This is emphasized at the beginning of the chapter on 'Administration' in the following words:

'Apart from a number of educational institutions of an All-India character, which together with the Centrally Administered Areas come under the control of the Government of India, responsibility for all forms of education in their areas rests with the Provincial and State Governments.'

Although the estimates of the cost of the Plan have been prepared to meet the needs of the territories formerly included in British India, the necessary figures have also been included in many cases, under a separate heading, to show the cost of extending the Plan into the Indian States. In this connexion it is interesting to note a remark of the Board, partly complimentary to the States, and partly by way of suggestion to them as regards future developments. It runs:

'No attempt has been made in this report to deal in any detail with the problem of the organization of public instruction in the Indian States. Some of the larger States are already in advance of the rest of India in the provision which they make in this respect and it may be assumed that they will be anxious to keep pace with any reconstruction scheme that may be introduced in British India. In the case of those States which do not constitute economic units for educational development on a large scale, the solution may be found in grouping them where geographically convenient or in attaching small States to larger ones which are contiguous. Small isolated States may also arrange to participate in the facilities of the nearest educational unit in British India. It will clearly be desirable that arrangements should be made particularly in the higher stages of education for all States to have access to institutions in British India and *vice versa*.'

Turning then to the question of any possible changes in regard to administrative control in India, the Report says:

'So far as British India is concerned, it would seem inevitable that for geographical, historical and other reasons the Provinces should remain the main units for administrative purposes, except in regard to University and higher Technical education, which will be dealt with later. It is true that in several respects some of them are by no means ideal as administrative units for education. It is also clear that the establishment of a national system on the scale contemplated in this report will involve (*a*) much closer co-operation between the Central and Provincial Governments, (*b*) the breaking down of inter-Provincial barriers, (*c*) financial arrangements weighted in the interest of the poorer areas.'

The Board, when it speaks of 'co-operation' means that and not control. It declares:

'Apart from the need for national planning and for co-ordination of effort on a national basis as the plans are carried into effect, the consequential reform of educational finance,

whatever the precise form it may take, will almost certainly involve some kind of subsidy from Central to Provincial revenues. This need not, however, entail any onerous interference by the Centre in Provincial affairs: indeed in the Board's opinion it would be impracticable as well as undesirable for the Centre to intervene in the sphere of local administration.' It then proceeds: 'At the same time there will have to be some effective liaison between the Central and Provincial Education Departments in order that the former may not only advise and assist the latter in conforming to the general scheme but may also ascertain that the central subsidies are being spent on approved developments. A similar arrangement has been working in England for many years with surprisingly little friction and increasing benefit to all concerned.'

With regard to the breaking down of inter-Provincial barriers in respect of technical and higher education, no thoughtful person will dispute that this is an urgently needed reform. The difficulties may not be felt so much by those residing in big provinces where there are even now not wholly inadequate facilities for such education. They are intensely felt by those who live in the smaller ones and in Indian States. It is literally true that hundreds of promising young people are unable to proceed with studies to prepare them for entering the medical, engineering, and other professional lines, owing to the fact that access to the nearest institution for such studies is to all intents and purposes barred to them because they are not domiciled in the area to which it belongs. The Board very rightly says:

'The location of technological and research institutions must be largely determined by industrial and commercial requirements and not by Provincial areas. It is at the same time essential that in a national system, students, whatever their place of origin, should have access to those institutions which provide the special training they need. To make this possible reciprocal arrangements will be required for the admission of students, and there must be an All-India body to see that these arrangements are effective and generally to control and co-ordinate development.'

The All-India body proposed is the *National Council for Technical Education* of which details have been given in Chapter V of the Board's report.

52. Co-ordination of university education: University Grants Committee

A much less popular proposal, and one which has already aroused shouts of protest from those connected with University administration, is that which is made in Chapter IV. No doubt the Board anticipated such protests, for it is almost apologetic in setting forth the reasons for the proposal. After appreciating the usefulness of the Inter-University Board, but stressing that it is a purely advisory body, it says:

'It would appear that some authority is needed which would co-ordinate university education in the interests of the country as a whole. It is not suggested that such a body should be directly or indirectly under the control of the Central Government, even though the financial implications of educational reorganization may ultimately make it desirable that the Central Government should relieve Provincial Governments to a large extent of financial responsibility for university education. It should also refrain from any interference in the ordinary administration of individual universities.

What is contemplated is something on the lines of the University Grants Committee in Great Britain, a body which has operated with admitted success and without friction in a country where Universities are at least as jealous of their autonomy as Indian Universities.'

This Committee, the Board proposes, should be constituted by Statute, and should consist of 'a few eminent persons not directly connected with Government, whether Central or Provincial, or with any particular University, though for obvious reasons it is desirable that they should have considerable experience of University administration'.

The main function of the Committee is to exercise a general supervision over the allocation of grants to Universities from public funds. To enable them to plan ahead, financial

assistance should take the form of block grants for a period of years, mainly from the Central Government, but also from Provincial Governments should they desire to make them. It is suggested that Provincial Governments should be asked not to make direct grants for substantial new developments without first consulting the University Grants Committee.

In addition, the Committee is to be empowered

(*i*) to encourage private benefactions;

(*ii*) to co-ordinate University activities with a view to avoiding overlapping and to adjusting so far as possible the output of the Universities to the economic needs of the country;

(*iii*) to prevent undesirable competition between Universities, and to remove all inter-provincial barriers;

(*iv*) to visit Universities periodically with a view to ascertaining their needs at first hand;

(*v*) to establish cultural contacts and to arrange for the exchange of teachers and students with foreign universities.

It is only fair to add that, not only members of the public who are concerned with Universities, but also several members of the Board itself, have singled out this proposal as one regarding which they entertain some fear lest it should be the thin end of the wedge to destroy the autonomy of the Universities. Sir Mirza Ismail, Khan Bahadur Mian Afzal Husain, the Hon'ble Mr. Tamizuddin Khan, the Hon'ble Khan Bahadur Sayidur Rahman, the Hon'ble Pir Illahibux Nawazali, Mr M. Ruthnaswamy, and the late Sir Meverel Statham are members of the Board who have expressed this fear in notes of dissent.

53. Local responsibility for Basic education

Another point at which an encroachment may have to be made upon the powers of bodies at present entrusted with responsibility is in connexion with the implementation of the Plan so far as it relates to Basic education. It is unfortunately not in doubt that most of the local bodies set up to control primary education in the Districts and Municipalities have proved incompetent, and Basic education is likely to fail from the start if it is left entirely to their mercies. The Board has therefore recommended that 'before embarking on their reconstruction programmes Provincial Governments should resume all educational powers from local bodies, except where they are satisfied that these are competent to undertake the enlarged responsibilities'.

It is, however, obviously desirable to retain and encourage local interest in education, and therefore:

'where sufficient people with the requisite knowledge, enthusiasm, integrity and standing are prepared to offer their services, School Boards should be established to deal with Basic (Primary and Middle) Schools in areas of suitable size as well as bodies of School Managers for individual schools. The members of these bodies in both cases should be nominated by the Provincial Education Department, and it cannot be too strongly emphasized that they should on no account be set up unless enough people of the right kind are available to serve on them.'

But the Board is emphatic regarding their powers.

'The powers of these bodies may be gradually enlarged, as and when they prove their value, but should in no case include any control over the appointment, promotion, transfer or dismissal of teachers. Where such bodies after a reasonable period of trial show themselves apathetic or inefficient, they should be at once abolished.'

As regards the higher administrative machinery, the Report says:

'As enlightenment spreads and interest in education increases, it may be both desirable and practicable to establish Education Committees for larger districts with such functions advisory and/or executive, as circumstances suggest, and at the Provincial centre an Advisory Board on somewhat similar lines to the Central Advisory Board of Education.'

Improved salary-grades have been proposed for the Educational Administrative staff (see

Appendix C 7 at the end of this book). Arrangements for interchange of higher staff among the Provinces have been suggested, in the interest of co-ordination. 'There should be one senior educational service for the whole of India, but in order to ensure a fair amount of representation to individual provinces some posts should be filled through the Federal and others through Provincial Public Service Commissions.'

Criticisms and Conclusions

54. Some minutes of dissent

Some objections to various parts of the Plan have been mentioned and some have been dealt with in the foregoing chapters, when considering the particular points criticized. A few other criticisms may be referred to here.

First of all, mention must be made of criticisms put forward by members of the Board itself, in their Notes of Dissent printed at the end of the Report.

Khan Bahadur Mian M. Afzal Husain, M. Sc., M. A. (Cantab), I. A. S., then Vice-Chancellor of the University of the Punjab, was of opinion that with the aid of modern equipment, such as the magic lantern, epidiascope, cinematograph, gramophone, radio, etc. 'knowledge which it would take a child weeks to acquire under the existing methods, he could acquire in a much shorter time and with very much less strain on the teacher. Similarly mental and intellectual development, which to a large extent goes hand in hand with acquisition of knowledge, will be a rapid process, if science is applied for that purpose also. It is suggested that experiments should be set on foot immediately to test the value of the above-mentioned aids to education'.

Such an investigation would certainly be of interest, but, if the present writer may be permitted to hazard an opinion based upon more than thirty years' work as a teacher, the idea of attempting to produce what might be termed 'hothouse' growth in human beings is rather a dangerous one. Analogies between the growth of plants and of human beings are suggestive if not altogether reliable as a guide, and if we are to judge from the unsatisfactory results of too rapid stimulation of plants by means of chemical manures, artificial heat and other such methods, the effect of similar attempts to hasten the maturity of human beings might be very injurious. Still more unpleasant to contemplate is the Khan Bahadur's corollary that when children have been stimulated to complete at the age of 11 years an education which they would normally complete at 14, they should be put to work at that tender age and 'Child labour could be employed for suitable agricultural occupation and for such industries as manufacture of radio sets, cine-projectors, sewing machines clocks, etc, etc, i.e. such occupations where physical strength is not needed'.

To my mind this savours too strongly of Aldous Huxley's artificial production and conditioning of human beings in various categories from Alpha to Epsilon, in *Brave New World*!

55. Area-to-area development

A much more serious criticism is the same member's objection to the area-to-area development of the Plan, as proposed by the Board.

The Board has been very emphatic in its recommendations that Basic Education from 6 to 14 is an organic whole and must not be taken up in two portions. The paragraph of the Report which deals with this point is worthy of quotation in full. It runs thus:

'A word of warning based on experience elsewhere is necessary against any proposal on economic grounds to apply compulsion only up to the end of the Junior Basic (Primary) stage in the first instance and then extend it gradually upwards, as circumstances suggest or finances permit. It is true that this method has been followed in England and other countries but those who have had experience of it know how much inefficiency and waste it has entailed. It is significant that for this very reason Education Authorities in England are still wrestling over seventy years after the passing of the Education Act of 1870 with the task of reorganizing the lower storeys of the educational structure. Furthermore basic education from 6 to 14 is an organic

whole and will lose much of its value if not so treated; in any case an education, which lasts only five years and ends about the age of eleven, cannot be regarded as an adequate preparation either for life or livelihood. *If, as would appear to be the case, a universal compulsory system of basic education can only be introduced by stages, the progression should clearly be from area to area and not from age to age.*' (italics are mine.)

The recommendation underlined above has been strongly criticized by members of the public, mainly on the grounds that if some areas are provided with a compulsory system from 6 to 14, and others with nothing or next to nothing by way of improved education, even for a few years, great dissatisfaction, jealousy and even serious unrest may be the result. The Khan Bahadur puts the matter in a nutshell when he says in his Note of dissent :

'If in a province a certain consolidated area is taken, then the people of this area will get an advance of perhaps a quarter of a century over the people of certain other areas. Because of their better education they will usurp all power in administration and industry. This will bring about serious social conflicts. Even if the unit from area to area development is a village out of a group of seven adjoining villages then the same consequences will result. We have experience of the result of such development as schools and colleges were located in urban areas and the city people took advantage and received education and attained power. We have for this reason clash of urban and rural interests in administration, industry etc. One limb of the tree will become too large. This must be avoided. Therefore, the progress should be from age to age and compulsory education must start all over simultaneously.'

There is food for much thought on this problem. On the one hand the Board's emphatic warning, based on the experience of men such as Dr Sargent himself who have spent a lifetime in tackling educational problems, must not be lightly set aside. British experience is often quoted as a reason for doing things: here let it be at least heard as an argument for *not* doing them.

56. Extension of compulsion 'from age to age'

But the other side of the picture also must not be ignored. To the present writer the most serious aspect of it (even more serious than that of the possible stirring up of jealousy between villages or larger areas) seems to be the *economic* one. It is quite true, as the Board says, that 'an education which lasts only five years cannot be regarded as an adequate preparation for life or livelihood', but if education is to be universally compulsory up to the age of 14, will not that very livelihood, from the poor peasants' point of view, be seriously threatened? As was pointed out in Chapter 3, everyone who knows the present conditions of the Indian countryside is well aware that the peasant now has to make use of every member of his family old enough to do any sort of work, to eke out a subsistence. If he is deprived of the help of all his children up to the age of 14 he will regard it as nothing short of a disastrous loss. He will literally curse the hand (of the educationist) that seeks to confer a blessing upon him.

It will be argued in reply that the peasant does not really need more labour: he is already under-employed, and the problem could be solved by educating him and his family to use their leisure more productively.[1] This is true, but such education will take time. Until it has been set going, and the peasant has seen, *from his own experience of a few years of it*, that he *can* improve his economic position without depriving his young family of an education which will without doubt enable them to rise, might it not be wiser to 'hasten slowly', and to implement the Plan in stages, even if that method has some other temporary disadvantages? In the meantime, the stern but kindly warning of British educationists should not be ignored. India would like, if possible to take advantage of the experience gained in Britain, to avoid the difficulties which British educationists

[1] See also the arguments advanced in Chapter 3, § 19

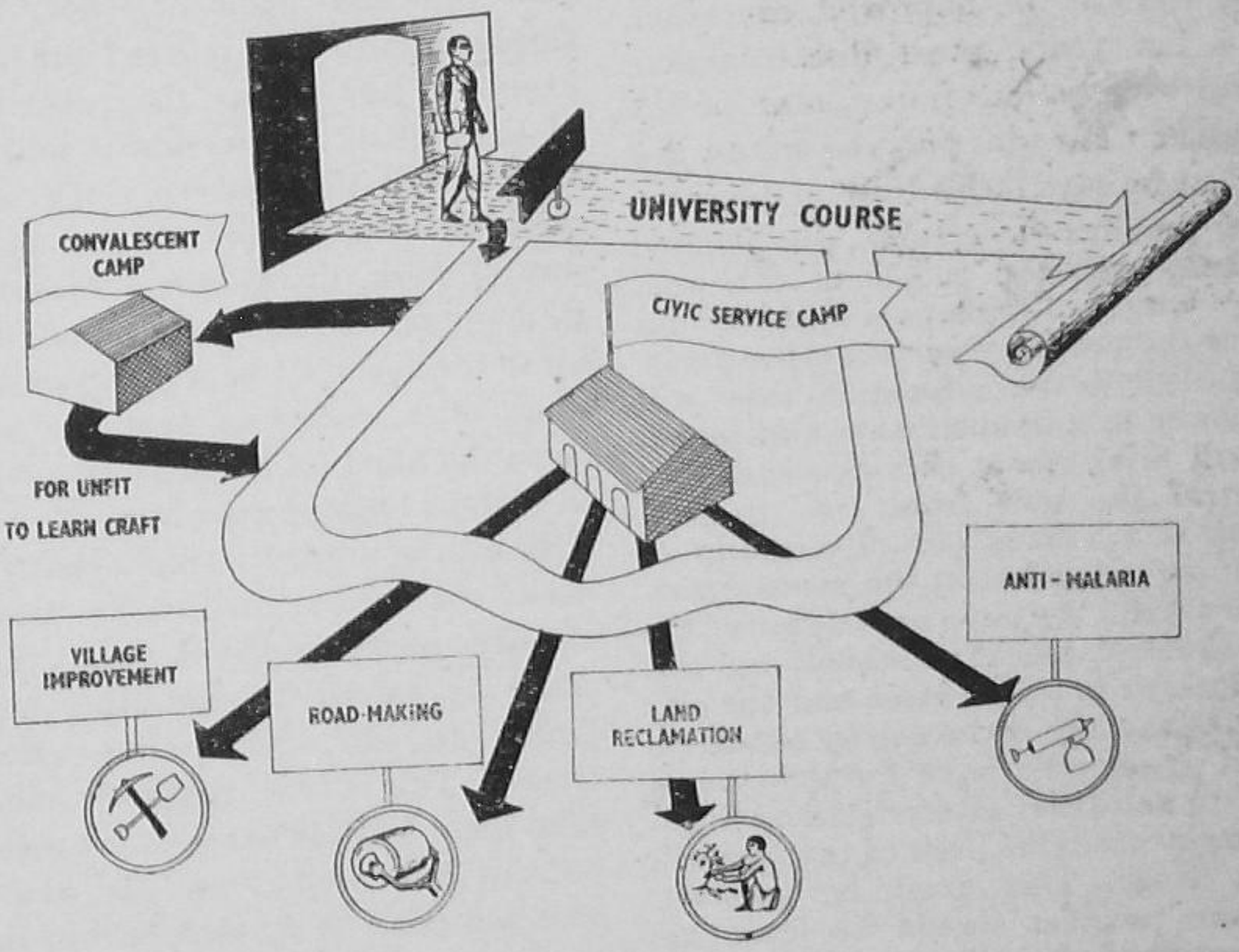
tell us have arisen through the extension of compulsion 'from age to age'. It may be found that Indian conditions are so entirely different from those which pertained in Great Britain, a highly industrialized country even 50 to 70 years ago, that the dangers are also of a different character. In any case this is surely a problem which ought to be examined again, and with all the expert help available. The experience of the U.S.S.R. should also be carefully studied along with that of other nations. It is suggested that the Central Advisory Board should complete their fine work on the Plan by undertaking such a re-examination as an Annexure to the Report, as soon as possible. Their recommendations would be of the greatest possible assistance to Provincial Governments in deciding how best to implement the Plan.

57. Conscription of matriculates: other proposals

The Khan Bahadur makes another practical proposal in his Note. He favours a measure of conscription of the educated, to speed up the work of liquidating illiteracy, and reducing cost. He says:

'Every Matriculate before he is admitted to a University Course must undertake some teaching work. Every Matriculate or Graduate who seeks employment must have done at least two years teaching work.'

This proposal might perhaps be made more practicable, and less liable to bring into the teaching profession many who would be quite unsuited to it, if it were modified in the direction of making a minimum period of *some* sort of public service a compulsory condition of entering upon Higher Education of any kind. The best way would be to include attendance at, say, at least two vacation



'Civic service' camps, during the University course of three years, among the conditions for graduation. Such camps would provide both training in and actual performance of various kinds of civic service, according to the needs of the area. It should include manual labour, such as making village roads, land reclamation, and anti-malaria work, which should be done by everyone, as well as more sedentary forms of service. Those certified as totally physically unfit for such labour should be sent to convalescent camps instead, and given intellectual or craft work appropriate to their condition.

Certain members of the Board object to the proposals for any centralized control, on the grounds that the political future of India lies in the direction of its partition into wholly autonomous areas. The same members say that 'the speed of progress envisaged in the Report must at least be doubled if not quadrupled, no matter even if we have to resort to means and methods, as Russia did on emancipation from the Czarist regime.' It may be remarked on this that it is most improbable that the U.S.S.R. would have reached its present educational position *in the thirty years* that have elapsed since the Bolshevik Revolution, if that country's government had relaxed central control to the extent implied. The U.S.S.R. is a Federation, and in some respects even a Federation of Federations, but no one can possibly deny that the directive power of the Central authority is very great.

Two members, Mr Ruthnaswamy and the late Sir Meverel Statham, have expressed regret that the problem of religious education has not been dealt with in the Report. Members of the public have also made similar criticisms. The Board, probably expecting this criticism, has already appointed a special Committee to examine and report on this difficult question. Mr Ruthnaswamy draws attention to the example of Scotland in this respect, where provision for religious education exists which 'reconciles the freedom of denominational schools with the needs of the State'.

Mr Ruthnaswamy opposes the proposal to include provision for Pre-Primary Education in the Plan. He is of opinion that 'this taking up by the State of the making of the child from the age of 2 or 3 years leaves little room for education by home and by the mother'. He views with horror 'the provision to be made against mothers being at work away from their homes' and says: 'I am hoping and praying that this evil of western industrialism —mothers at work in factories—will not be reproduced in India. Nothing, not even the brightest and most up-to-date nursery school, can be a substitute for the influence of the mother, in regard to the earliest education of the child.'

He is right, but the question arises, when children *are* being neglected through the necessity for their mothers to work, not only in factories but also in fields, and in the domestic, nursing and other services, whether it is going to make things better by refusing to provide for the care of such children. Is there any serious danger that mothers will seek employment in preference to looking after the home, if the need for the former is removed? If it be admitted that there is no real danger of that, then the remedy lies in increasing the general economic prosperity of the country, and not in refusing to provide Nursery Schools for those who really need help in looking after their small children. It is not only mothers who go out to work who need such assistance; it is also those whose families are too large for them to deal with efficiently. There are many such in India, and for them what a boon Nursery Schools would be, and how much better for the children than an overcrowded home! Even the most loving mother finds it difficult to be perfectly patient with a toddler constantly demanding her attention when she has simultaneous demands being made upon her from perhaps half-a-dozen other quarters!

Sir Meverel Statham, whose death not long after the Report was completed removed an educationist truly sympathetic with India's needs and demands, has expressed his opinion that a grave omission in the Report is that 'it does not deal at all with the Indian soldiers returning in very large numbers to their country after the war. The training of the returned soldiers and their replacement in civil life, in addition to educational concessions and probably special provision needed for their children and dependants, will be of primary importance for many years to come'. The Education Department of the Government of India in consultation with the appropriate

authorities of the Defence Department, has already taken up this matter.

58. Can the cost be reduced ?

Sir Meverel also expresses himself as in favour of a different method of approach to the financial aspect of the Plan. He believes that the gradual increase of annual expenditure, rising from Rs 10 crores per annum in the fifth year from the start of the Plan, to Rs 24 crores in the tenth year, Rs 61½ crores in the twentieth year, Rs 165 crores in the thirtieth year, and Rs 312 crores in the fortieth (see Appendix B) is wrong.

'Both from the point of view of expediency and of finance, it would be very much better to raise a lesser sum than Rs 312 crores immediately after the war and get to work in carrying out the main recommendations of the report immediately. Any suggestions both in regard to expenditure and policy which may take effect only 40 or 50 years hence are in grave danger of being put on one side and neglected. The ultimate huge figure of expenditure, viz. Rs 312 crores, may in itself result in an undesirable postponement of action. This figure can comparatively easily be reduced to a figure which could be raised almost immediately after the war without immense difficulty and more particularly in any way damaging the main objectives of the report.'

Sir Meverel mentions two examples of possible economy: he would cut out Pre-Primary Education altogether thus saving Rs 3.2 crores, and he would cut out the entire expenditure on making adults literate, costing Rs 41.63 crores. His argument in favour of the latter very drastic cut is that if Basic education is concentrated upon with almost fanatical zeal from the start, the literacy problem will solve itself within a generation. But, the question arises (it seems to the present writer), *can* Basic education for nearly 5.16 crores of children, involving the recruitment 18 lakhs of teachers, be accomplished within less than thirty to forty years, even with the firmest will to achieve it? The example of Soviet Russia seems to be the most reliable guide. Will India do better than the U.S.S.R.?

Sir Meverel is also not satisfied that the Board has been wise in assuming 'that in the future boys and girls will receive equal and similar treatment'. He believes that 'for many decades to come, the education of girls will, in a sense, still have to be treated as a special problem'.

Right at the opposite pole—in relation to the question of the relative importance, on the one hand, of a drive for universal literacy and, on the other hand, Basic education is the Editorial commentary on the Report contained in the September 1944 number of *Education*, the official organ of the United Provinces Secondary Education Association. This critic damns the Plan on the grounds of 'its serious defects of heavy expense and an inordinately long time for its fruition' which, he says, are :

'Directly traceable to its adopting a scheme of mass education which has not passed the stage of experiment in any part of the world. The fun of the situation is that this scheme was sponsored by no less a leader of the Indian people than Mahatma Gandhi. The Congress leaders who have foisted this scheme upon a teaching profession, ill prepared to do even elementary justice to it, may well feel, when faced with this Report, that they have been hoisted by their own petard.'

The writer continues:

'Basic education, by which is meant education through a basic craft, is impossible as a scheme of mass education. No scheme of mass education can have any chance of success which cannot be comprehended easily by a teacher of average ability. Basic education to be successful must have teachers of exceptional ability. These cannot be had by the millions, and so the Activity School with the Basic School as its Indian counterpart should remain for a few decades at least an experimental institution only. Let it remain the ideal of the educational administrator, but in the present state of our country when nine-tenths of our population is absolutely illiterate, the most urgent need is literacy, *not* basic education.'

His constructive alternative is:

'If we decide to start with a plan to educate *all* the children and adults of the land for

adequate literacy and the elements of citizenship, then it should be possible to carry it out in less than one-third of forty years—for a cost which should not exceed half of what has been estimated in the official scheme. A total of six years of compulsory elementary school course consisting of the first four years devoted mainly to the attainment of adequate literacy and the next two years of a predominantly vocational education is the maximum that may be planned by a National Government for its first ten or fifteen-year plan of bringing the whole school-going population under education.'

To make the cost less, this is what the writer of the Editorial proposes :

'(*a*) the length of the compulsory education course reduced from eight to four years in the first instance, and to six years at a later stage (*b*) the curriculum made simpler and more easily comprehensible by the teacher of average ability (*c*) the number of pupils per teacher raised (*d*) the double shift introduced in the interest alike of the taxpayer, the child and the teacher.'

By these devices, says he, 'the cost of compulsory elementary education which is estimated at 200 crores annually can be brought down to less than half of that figure'.

59. Conclusion

We have devoted considerable space to these alternative proposals because they exemplify the type of alternative which alone is possible if an appreciably cheaper Plan is to be thought of. Comment seems unnecessary, except to say that such an alternative seems strange, emanating as it presumably does, from the pen of one who has been a teacher. Primary education to be of *four* years' duration, the course simpler (presumably just the three R's taught in the old way, as the Activity method is to be eschewed, on the ground that India's average teachers will find it too difficult to understand), the number of pupils per teacher *raised*, and, on top of this, the *double shift*. This may be 'in the interest of the taxpayer', but it passes human comprehension how it can be said to be 'in the interest alike of the child and the teacher'.

The usual red herring is also drawn across the trail—that this costly Plan is merely another clever creation of foreign bureaucrats, devised to trap India into a further half-century of subservience to foreign interests, etc. Well, such comments may catch a few readers who do not care to take the trouble to study the reports of the Board and its Committees. They will not catch those who do take that trouble.

It seems a pity that among those who have been led away by such criticism are a few who have served the cause of India's children well in the past. The only comment upon the stupendous task of planning that has been accomplished by the Board and its Committees, made by the pen of one who was once a generous critic while at the same time a powerful one, is this :

'All the good that can be said for his (Dr Sargent's) proposed reconstruction is that it increases the salaries of the teachers, and such increase has been overdue for a very long time. Otherwise, we are not given the slightest idea as to the way in which he may propose to vivify, let us say, art education. I should like to know if Mr Sargent is satisfied with the art education as at present provided. There is no mention whatever of religious education. No mention whatever of the way in which art education might become Indian. No mention whatever of patriotism or of Indian ideals in education. No mention of the Realities. Only a workshop of forms except here and there, as in the case of the improvement of what should be the very honourable status of the teacher. All he does is substantially to perpetuate the existing system which every patriotic Indian wants to scrap at the earliest possible moment, knowing, however, full well that it will be a long time before India enters into her educational heritage.'

Yes; it will be a long time, if we are content with vague generalities like this. Possibly, if the Board's Report had been filled with pages upon pages of description of 'the ancient ideals of Indian education', it might have met with a warmer welcome in some quarters. The present writer yields to none in his admiration of those ancient ideals, or in attempts

to translate them into forms suited to India's modern needs; but he is prepared to say frankly that there would be no justification for spending in a Report of this kind either time or space in describing 'how to vivify art education', how to teach patriotism, religion and so on. 'The Realities' for the immediate as well as the long-term reconstruction of Indian education are not to be found in philosophical abstractions, important as those may be as bases for the work of the individual planners as well as of the individual workers of the Plan. Such abstractions are the invisible source of power operating through the 'workshop of forms'. It is the *workshop* and the *tools* and *those who will use them* that the Board's Report is concerned with. The improvement of the status of the teacher is admitted to be a reality worth aspiring to achieve. It is only one of the *many* such tools which the Board has proposed to use for the building of a better education for India. There are many others, as anyone may see who glances even cursorily at the Report. Among them are the extension of the primary course to ensure permanent literacy; basing the primary course upon the 'Activity' principle; the proper training of teachers; the provision of sufficient teachers to staff schools adequately; the systematic attention to health and nutrition; the preparation for a variety of careers, and guidance and assistance towards suitable employment; the encouragement of creative and healthy use of leisure, and of civic service.

All these proposals are only *tools* which the Board recommend the Central and Provincial Governments to order, procure, and use. They are costly tools, many of them. Those who are to use them must therefore be *trained*, trained thoroughly and paid properly. Only with such tools and such workers to wield them can India hope to have a new system of education worthy of her past greatness and of her future aspirations.

APPENDIXES

A. Total Cost of the Plan.
B. Incidence of increased Cost of the Plan from start to 40th Year.
C. Salaries proposed for all grades of teachers and administrative officers under the Plan.

APPENDIX A.

Total Annual Recurring Cost of the Board's Plan

Heads of expenditure	Estimated gross annual expenditure	Estimated income from sources other than public funds	Estimated net expenditure to be met from public funds
	Rs in Lakhs	Rs in Lakhs	Rs in Lakhs
1. Basic (Primary and Middle) Education	200,00	—	200,000
2. Pre-Primary Education	3,20	—	3,20
3. High School Education	79,00	29,00	50,00
4. University Education	9,60	2,90	6,70
5. Technical, Commercial and Art Education	10,00	2,00	8,00
6. Adult Education	3,00	—	3,00
7. Training of Teachers	6,20	1,70	4,50
8. School Medical Service[1]	—	—	—
9. Education of the Handicapped[1]	—	—	—
10. Recreative and Social activities	1,00	—	1,00
11. Employment Bureaux[2]	60	—	60
12. Administration[3]	—	—	—
Total	312,60[4]	35,60	277,00

1 An amount equal to 10 per cent of the gross expenditure at the appropriate stages has been provided to meet the cost of the School Medical Service and the Education of the Handicapped.

2 Special provision has been made for this service in the beginning: ultimately it should be absorbed in Administration.

3 Provision to cover the cost of Administration has been included at all stages. It is assumed that this will approximate to 5 per cent of the gross expenditure.

4 See Appendix B for approximate incidence of increased cost up to this maximum.

APPENDIX B.

Approximate incidence of increased cost of education involved by the adoption of the Plan

		Rs in Lakhs	
5th Year	...	10,00	It is assumed that capital expenditure on school sites and buildings will be met out of loan. Provision has accordingly been made for interest and sinking fund charges only.
10th Year	...	23,80	
15th Year	...	37,40	
20th Year	...	61,45	
25th Year	...	106,00	
30th Year	...	165,00	
35th Year	...	250,00	
40th Year	...	312,00	

APPENDIX C.

Salaries proposed for all grades of teachers and administrative officers under the Plan

1. **Junior Basic (Primary) Schools,** *including Pre-Primary (Infant & Nursery Schools).*

Minimum Salary Scale P.M. — Remarks

(*a*) *Assistant Teachers*, in all types of school: Rs 30-1-35-3 (biennially)—50 p.m.

For men and women alike. Free houses in village schools, or 10% extra house allowance. In cities or areas where cost of living is specially high, 50% extra. Pension or Contributory Provident Fund.

(*b*) *Head Teachers* :

Grade. Size of School :

- A. 1 or 2 class sections : Rs 10 in addition to salary under (*a*) above.
- B. 3, 4 or 5 class sections : Rs 50-4-70 p. m.
- C. 5 or 6 to 8 or 10 class sections : Rs 60-4-80 p.m.
- D. above 8 or 10 class sections : Rs 80-4-100 p.m.

For men and women alike. Free houses in village schools, or 10% extra house allowance. In cities or areas where cost of living is specially high, 50% extra. Pension or Contributory Provident Fund.

2. **Senior Basic (Middle) Schools**—(*Vernacular and Anglo-Vernacular*).

(*a*) *Assistant Teachers*, in all types of school: Rs 40-2-80 p.m.

(*b*) *Head Teachers* :

Grade. Size of School :

- A. 3 or 4 class sections : Rs 80-4-100 p.m.
- B. 4 or 5 to 6 or 8 class sections : Rs 90-4-110 p.m.
- C. Over 6 or 8 class sections : Rs 110-4-130 p.m.

For men and women alike. Free houses in village schools or 10% extra house allowance. In cities or areas where cost of living is specially high, 50% extra. Pension or Contributory Provident Fund.

		Remarks
3. High Schools.		
(*a*) (*Non-graduate*) *Trained Teachers* in all types of schools : Rs 40-2-80 p.m.	For those on special posts of responsibility (Hostel Supt., Games Supt., Science Supt., Library Supt., etc.) Rs 20 p.m. extra.	For men and women alike. *Plus* 10% house allowance in normal areas. *Plus* increase up to 50% in cities or areas with specially high cost of living. *Plus* $6\frac{1}{4}$% extra for Contributory Provident Fund.
(*b*) (*Graduate*) *Trained Teachers* in all types of schools : Rs 70-5-150 p.m.		
(*c*) *Headmasters & Headmistresses* of schools up to 250 pupils on roll: Rs 175-10-255 p.m.		
of schools up to 500 pupils on roll: Rs 250-10-350 p.m.		
of schools over 500 pupils on roll: Rs 350-15-500 p.m.		
4. Technical Institutions.		
(*a*) *Teachers of general subjects in Technical High Schools* : Same as Teachers in ordinary High Schools (see 3*a* & 3*b*), plus up to 5 increments for appropriate industrial or commercial experience after the age of 20.		*Plus* increase up to 50% to meet higher cost of living or other special circumstances. *Plus* $6\frac{1}{4}$ % extra for Contributory Provident Fund.
(*b*) *Teachers of technical subjects* :		
(*i*) Workshop or laboratory assistants — Rs 50-1-75 p.m. (initial salary to be fixed according to experience.)		
(*ii*) Teachers — Class III — Rs 75-5-150 p.m.	*Plus* Rs 25 p.m. extra for those on posts of special responsibility.	
(*iii*) Teachers — Class II — Rs 175-10-325 p.m.		
(*iv*) Teachers — Class I — (including Heads of Depts) — Rs 400-25-1000 p.m.		
(*v*) Principals—Salary according to the nature and size of the institution.		

5. **Adult Education** Literacy Teachers : allowance of Re 1 per hour for 100 hours.

6. Teachers Training Schools and Colleges.

I. *Training Schools.*

(*a*) Instructors : Rs 100-5-150 p. m. For those on special posts of responsibility : Rs 25 p.m. extra.
(*b*) Assistant Principal : Rs 170-10-250 p.m.
(*c*) Principal : Rs 250-10-350 p.m.

} *Plus* 6¼% extra for Contributory Provident Fund.

II. *Training Colleges.*

(*a*) Junior Lecturers : Rs 150-10-250 p.m.
(*b*) Senior Lecturers : Rs 300-20-500 p.m.
(*c*) Principal : Rs 750 p.m.

} *Plus* 6¼% extra for Contributory Provident Fund.

7. Administrative Staff.

(*a*) Assistant Inspectors : Rs 150-10-250 (Efficiency Bar)/10-350 p.m.
(*b*) Deputy Inspectors : Rs 250-15-550 (Selection Grade)/20-750 p.m.
(*c*) Grade I : Rs 400-25-1000 p.m.
(*d*) Special Posts (Chief Inspectors, Male & Female), (Deputy D.P.I.'s, D.P.I. &c.) The remuneration will depend mainly on the size of the areas of administration.

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