THE ADAPTATION OF MODERN EDUCATION
TO SPECIFIC CONDITIONS IN INDIA.

by

[Signature]

Submitted to the Department of Education and the Faculty of the Graduate School of the University of Kansas in partial fulfillment of the requirements for the degree of

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Date: Sept 26, 1924
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INTRODUCTION.

THE ADAPTATION OF MODERN EDUCATION TO SPECIFIC CONDITIONS

IN INDIA is a problem as yet far from solution. Indeed up to the present, the whole problem of education in India has been barely touched by any influence whatever of a modern character. In contrast to India, America at the time of her establishment as a nation inherited a system of popular education. And from that time to this the progress of the United States in nearly all lines of endeavor has been coordinated with the evolution of her present efficient standard of education. The conclusion from this contrast, at least in the mind of the westerner, is that India's development would be much accelerated by an application of modern education to her present situation. Every attempt, however, to act on this conclusion and impose western systems of education on India's people, is greatly handicapped by the foreign character of those systems. Only as indigenous factors are taken account of and a remodeled system grows up from within, can modern education take its rightful place as the primary agency of India's growth.

(A) THE SOLUTION OF THIS PROBLEM OF PRIMARY IMPORTANCE.

That the adaptation of modern education to specific conditions in India is a problem, the solution of which is of primary importance, is evident to those sympathetically acquainted with the general condi-

Note: Bibliographical references may be found on page . Use the bracketed numbers as inserted in the body of the text for guides.
tions prevalent in that land today.

(a) This primary importance of our problem is shown first by the fact of the general educational destitution in India.

To the popular mind in England and America the illiteracy and poverty of India present this need for education and also an appeal for immediate action. The percentage of literate in India is almost in inverse ratio of that in America. (9) Of all her nearly 320,000,000 human individuals only fifty-nine out of every thousand can read or write at all in even their own language. And (12) official statistics for British India for 1915-1916 state that eighty-nine out of every one hundred lower primary pupils never reach the upper primary standard. India has been so untouched by modern education that as yet even a desire for it has never been formulated or shown by the mass of her people. In place of such a demand in the Indian common mind there is only a traditionally resigned acceptance of their present illiterate state and poverty. In their apathy there is not even the consciousness of any other, better condition to be desired.

Be the industrialist the necessity for immediate educational advance in India is urgently recognized. A full, satisfactory educational scheme is the necessary keystone for all material development within the country. Industries, home and foreign commerce, finance, the very civilization of the people depend for progress upon education of the proper sort.
To the constructive statesman popular education is the most
fundamental and vital of all demands. One of India's own respected
statesmen says (3) that no social duty of the community is more urgent
and essential than that of educational diffusion, and he proposes
that "the motto today for British and Indian statesmen must be 'Edua-
cation! Education! Education!' ". He adds, "there is no running
away from this need for educational diffusion, since it is a question
of life and death for India .... Modern India is, with the possible
exception of China, the most ignorant of civilized countries; Most
of the ills of India can be ascribed to the general want of knowledge".

Education is a fundamental factor in the revived national
self-consciousness into which India is only just now coming. The
declared policy of the British Parliament in 1919 provides for (5)
"the increasing association of Indians in every branch of the adminis-
tration and the gradual development of self-government in India as
an integral part of the British Empire". India is looking forward
to the full working out of these reform schemes but her political
destiny is dependent not so much on the British Parliament as on the
education that she receives in these critical, changing years. It
is indeed essential just now, as it never was before and possibly
never will be again in India, that her people be educated in the
true and fundamental principles of good citizenship. This fact was
recognized by Parliament itself, for in the Montague-Chelmsford Re-
port it is stated that (10) "educational extension and reform must
inevitably play an important part in all political progress of the
country". That important document declares further that (10) "reforms in education must precede all attempts at governmental and political reform".

To the professional mind of the modern educator the present early stage to which organized school systems in India have been developed, presents the challenge of almost unspoiled opportunity. India need not go thru the centuries of slow evolution of educational policy as has the West. With the proper adaptation and application of western, modern-educational experience India may avoid much costly experiment and take advantage of a matured system.

(b) For a second reason, the solution of the special problem of this thesis is of primary importance. The adaptation of modern education to specific conditions in India is prerequisite to the satisfactory adoption of any system of education. However widely and clearly the general need of education may be recognized, the application of western education without suiting it to peculiar circumstances in India would not prove a satisfaction of her need. On the one hand India should not adopt without adapting European and American educational methods, lest she become herself only a copy of a western power. On the other hand India must guard against a procedure such as is included in much of the present day "nationalist" propaganda, which would eliminate all influence of western progress and retrogress to an ancient stage of Hinduism. The task of education in that land is rather to discover the dormant, latent resources and capacities of India and the Indians, and then provide an environment of the best
of modern culture so as to promote the natural growth of a unified national spirit. Education should not de-nationalize the people of India. Rather the purpose of true education is to nationalize and unify them in the course of their own fullest development. True education will not fit India into the exact mold of other nations but rather will allow her own peculiar capacities the freedom of growth to a natural fruition. This can be done only by a co-ordinated, intelligent, purposeful co-operation between educational authorities and Indian leaders in the working out of the educational program to be followed.

(B) DEFINITION OF THE FIELD OF STUDY.

Before we can properly define our field of study we must make a clear delimitation of the scope of education itself. Therefore, to govern our further consideration of education in this thesis, we offer an inclusive, modern definition. Education is the providing of an environment which will stimulate and develop those innate capacities of the individual and the nation, which are for their own wellbeing, and that will lead them to the fullest utilization of the natural resources of the country. Thus, our conception of education will not be limited to the curricular subjects of even our widely departmental, modern, American school system. The idea of education, in the intention of this thesis, will be expanded to include all possible activities which tend to the advancement, development, and improvement of the people, whether such endeavor come within or without the present conception of "school". Real education in India, as elsewhere, must in-
clude all organized phases of human activity, whereby her material resources and the innate capacities of her people shall be developed for her own greatest well-being. This standard of education is summed up in the word "growth" and all that promotes growth.

For several reasons we would not limit the scope of our study in this thesis to any field less inclusive than that suggested in the definition of education offered above. We would not confine our attention to one or more specific departments of education, but would make a comprehensive survey of the whole situation.

As a reason of first importance for setting so broad a scope to our study, we would call attention to the fact that the field has been so little touched, either in whole or in part, that it seems well to establish at the outset a unified policy for all departments. The special problem of this thesis - the adaptation of modern education to specific conditions in India - has been so little considered that there is practically no literature available of a date earlier than the last decade. In very recent years a few references to experiment and research are found relative to the suiting of school systems to the needs of India. Most of these attempts, however, have been limited to a narrow field and a particular department of education. Before such independent and specialized schemes become far advanced, there is need of a balanced, comprehensive establishment of educational policy and procedure as a whole for India; the stating of the general philosophy of education that shall prevail; the finding of the principles and processes upon which the new system of education shall be based; and the determining of the direction of the
course to be followed. With later years a sub-division of the field into specific problems of research must necessarily be made.

A second reason for a comprehensive rather than a limited study of this field is suggested. The war and post-war changes in America have been quickly relegated to a matter of course. But in India the readjustment is not so easily made. The foundation of the whole structure of life in India has been shaken. This war period has pushed India involuntarily into a most critical position. All our previously acquired western enlightenment is now being flooded into that land which is unprepared to accept it. Not in one department or two, but in every phase of activity there is need for a co-ordinated system of education, adapted to India's conditions.

A third reason, relatively unimportant yet personally imperative, requires the proposed broad definition of our field of study. It is impossible from this distant land of America to conduct firsthand observation and experiment, or even to secure a satisfactory amount of reference material. This difficulty increases as the scope of the field is narrowed. Only actual presence on the field, considering the immature state of existing organizations, would warrant undertaking a study of any specific detail of education in India. Whereas with respect to the whole educational situation, the writer's previous residence of six years in India is a very decided aid in assimilating and coordinating available material.

On the basis of all these reasons, it is therefore not the intention of this thesis to concentrate attention on class-room procedure, textbooks, mental tests or grade-by-grade curricula, tho these
are details of importance in a highly developed school system. It is rather our deliberately chosen purpose to diffuse our efforts over all phases of education in India, yet to keep within a unifying idea, and that idea is the adaptation on general, broad principles of modern education to India's needs.

(C) THE OUTLINE OF STUDY.

The outline of our study includes various broad surveys of India along such lines as closely affect the educational situation. These surveys will be accomplished in the following order:

(a) THE STATUS OF EDUCATION IN INDIA, PAST AND PRESENT. Of prerequisite importance both for the student in America and for the worker in India, is a review of what has been attempted and accomplished in the field of Indian education. (3,a) "Indian education is unintelligible except thru its history".

(b) MATERIAL RESOURCES AND ESSENTIAL OCCUPATIONS. Careful consideration is given to determine the material resources and the essential occupations of India. These undoubtedly form one of the most decisive factors conditioning India's educational needs.

(c) HUMAN RESOURCES AND FACTORS CONDITIONING THEIR DEVELOPMENT. Still greater importance is attached to the study of the human resources of India. Racial and individual characteristics are observed and the present degree of attainment along various lines is noted.

In the light of the findings from the foregoing surveys the problem of the thesis will be before us. The determination of procedure will be attempted. (a) The adaptation of the general rela-
relationship of education to other aspects of life in India will be con-
sidered preliminary to any proposals for the educational program
itself. (b) Adaptations of the present educational policy in India
will be suggested so as to overcome some of its most serious handicaps.
(c) A rational order will then be adopted for the consideration of
different phases of instruction and according to this classification
some adaptations of the general divisions of subject matter within
the courses of instruction will be proposed.
CHAPTER I.

THE STATUS OF EDUCATION IN INDIA, PAST AND PRESENT.

We cannot intelligently consider any problem of India's further educational growth until the background be filled in with at least the main points of progress and policy of the past. Thus also we will reveal the causes of much that is in operation at present.

(A) THE DEVELOPMENT OF INDIAN SOCIETY.

Modern Indian society is so complex and so divergent from that of western lands that a bird's eye view of its outstanding groups is needful for students from other countries. The average American thinks and speaks of all the inhabitants of India as of a homogenous class, the Hindus. In fact, however, other divisions of society are also of prominence.

In the earliest days, India is supposed to have been inhabited by an aboriginal people. These were overcome and forced to the southern part of the peninsula by a prehistoric invasion of an Aryan race from across the mountains to the northwest. Descendants of these original inhabitants are yet to be distinguished from their conquerors; they are shorter, of a darker skin and of a markedly different race and religion. Those invaders of possibly four thousand years ago, were the progenitors of the present day Hindu, with the multitudinous divisions of his own community into castes.

With the teachings of Buddha, a reformed Hindu Prince, in the fifth century before Christ, a new religion and division of society
was established. The Buddhists at one time attained political dominance in India, but today they have almost disappeared from the plains of their native land.

Immediately after the beginning of the second millennium of the Christian era, Mohammedan invaders, following probably the same route as the ancient Aryans, discovered the riches of the northern plains of "Hindostan". Successive incursions during the next four or five centuries established a Mohammedan dynasty in Delhi as Emperors of India. Wholesale conversions at the point of the sword and indiscriminate slaughter of those maintaining their ancient faith leave Northern Indian society today predominantly Mohammedan.

About four or five centuries ago under Guru Nanak a reform branch of Hinduism came into prominence in the Punjab. These Sikhs, forced to organize as a military-religious body for self-protection, gained a power out of proportion to their numbers and it was from this warlike people that England received the rule of the Punjab in 1849.

The Christian community, the widely scattered over the land, is found in greatest numbers where Christian Missions first began their work. The yet of comparatively small numbers and having been derived from classes of society which had been neglected by other religions, yet their high percentage of literacy and other factors peculiar to a Christian community are placing them in a position of recognized influence.

(B) ANCIENT EDUCATIONAL SYSTEMS.

The educated Indian is quite conscious of the fact that millenniums ago his land was once quite enviable in its "golden age".
We too, if we are properly to evaluate the India of today must recognize the worth of her yesterday. Bishop Fisher has drawn a graphic and almost incredible picture of ancient India: (4) "Back in the year one, when our ancestors were savages roaming thru the forests of Europe, India had a matured civilization with wealthy cities, monastic orders and flourishing markets. Two thousand years B.C. Indian astronomers made fairly correct calculations of the solar year; her mathematicians had devised a system of notation, including both fractions and algebra; she had a system of medicine with hospitals and dissecting rooms. Her great epic - the Mahabharata - comes down from the year 1200 B.C. By 500 B.C. there was a well authenticated philosophical system and an art of music with its seven notes. A Sanskrit grammar had been compiled in B.C. 350....But she had known little of unity as a nation."

As the centuries passed India lost the culture of the ancient days. The domestic, political dissensions, augmented by the constantly recurring Mohammedan invasions from the north-west, became the basis of educational decay. Recurrent warfare from the year 1001 A.D. onward led to the destruction of almost everything educational. When England in trade competition finally dominated the political situation in India, there were left but the ruins of that educational system which had had an origin earlier than that of any other now existing. Its enormous ancient literature and its fixed molded social strata - the castes - alone remained of the past. These had been preserved by the Brahman hierarchy of religion and education, which, thru the many vicissitudes of wars and conquests and thru periods, the very history of which is now a blank page, had remained constant.
In the few, small, unorganized pre-English schools that the Brahmins were responsible for, theoretically all except the "untouchable outcastes" might enjoy the advantages of education. (1) Practically, however, none lower than the shop-keeper, merchant, and money lender castes received even the most rudimentary instruction, and they only what was essential in primitive business operations.

The pre-English days kept no statistics, so we cannot give accurate percentages. But later, (1) in 1825-39, British investigations carried out in a province where already many British schools had been established, estimated that about 5.5% of the adult male population could read and write. Female literacy was negligible and was evidently considered even by these British investigators as beyond educational feasibility. In modern days of woman's rights, however, their half of the population must be reckoned in, thus lowering the actual percentage of literacy, even in a province dependent on a British Government Presidency town, to two and three fourths a century ago.

The indigenous Hindu schools, with seldom more than one teacher, assembled in some hovel, or better under the shade of the village tree. (1) The lone teacher usually was a little-respected, untalented member of the writer caste, who received no fees or salary, but merely occasional presents and weekly or monthly gifts of supplies of all kinds. These varied in total value from ten cents to a dollar and a half a month. He had no books or even manuscripts. In the whole course of about five years, he brought his boys by four stages to the attainment of advanced arithmetic, mensuration, accounts, and the composition of letters written on paper.
A higher but very rare form of Hindu school, which was the exclusive inheritance of Brahman boys, gave instruction in grammar, lexicology, poetical and dramatic literature, rhetoric and astronomy, with special emphasis on law, philosophy and astrology. In these higher schools the courses of study often lasted twenty years, establishing almost a parental relationship between pupil and teacher. (1) "The general characteristics of instruction given were impracticability and thoroughness.... Hiftiest questions evoked discussions lasting for days.... This kind of training produced its characteristic results, an unworldliness and a devotion to knowledge, a want of practical sagacity, intellectual isolation and class feeling more intensified than has been witnessed in any other country". Thus we find that of the Hindus the lower orders were entirely uninstructed; the middle classes had a very scanty and strictly commercial training; the Brahmins, a caste of comparatively few numbers, were so privileged that most of the men could read and write, and some of them received a liberal education in abstract and metaphysical studies.

The Mohammedan schools of a century ago (1) were of a literary type basing all on, and summing up all in, the Koran. By this type of study even the most ignorant could repeat some unintelligible verses from their sacred book in the Arabic language. Persia, which along with Arabic was held a sacred language, was the subject of instruction in all their elementary schools and Arabic in turn was a subject of drill in the very rare high school. In these higher schools, by means of the Arabic, courses in rhetoric, logic, law, ritual and theology were given. But in general the state of Mohammedan learning in India at that time was comparable with European learning before the invention of printing.
(C) EARLIEST WESTERN INFLUENCE

Such then, was the character of the two indigenous school systems which the British found existent in India when they first assumed responsibility for the government of that land. And in those earliest days, little benefit educationally was derived from the change in governmental control. For to quote from the Encyclopedia Britannica (8) "during the early days of the East India Company's rule the promotion of education was not recognised as a duty of government".

(8) "Meanwhile the missionaries made the field of vernacular education their own. Discouraged by official authorities and ever liable to banishment or deportation, they not only devoted themselves with courage to their special work of evangelisation but were also the first to study the vernacular dialects spoken by the common people". F. W. Thomas says that (1) "in India, as elsewhere, the pioneers of education were the missionaries". (1) Even before English control, St. Xavier was at Goa in the sixteenth century, Dutch missionaries were in Ceylon in the seventeenth, and Danish missionaries were on the south-east coast in the early eighteenth century. True, their numbers were insignificant, but these earliest attempts at western education in India eventually incited the English Missionary Society to follow their example. They faced and attacked the most fundamental problems of India's educational policy, problems which are still warmly debated, such as religious education, provision for teachers, choice of language as a medium of instruction, production of a vernacular literature, text-books, etc. The first English Mission was established in Madras in 1727. Others followed slowly. Beginnings were so small
and obstacles so great that by the close of the eighteenth century it is doubtful whether there were one thousand Indian Children receiving instruction in all the European Schools in India.

In the early part of the nineteenth century this work was greatly accelerated by the advent of new Missions, so that, tho the work had been confined almost entirely to the sea-coasts, now (1) within only twenty years this one thousand was increased to fourteen thousand. (1) "Until he became at the beginning of the present (nineteenth) century to be regarded by the Company as a dangerous character, the missionary was simply a despised interloper". He labored against the opposition of the Indian as well as the indifference and disdain of his fellow countrymen, who were seeking economic and political advancement. Yet (8) "the interest of missionaries in education ... has never ceased to the present day, tho now comparatively overshadowed by government activity".

During this earliest period there were but a very few isolated official attempts at establishing schools, and they mostly with (1) "the double purpose or arresting the decay of oriental learning and of encouraging cordial feeling between the English and their subjects".

(D) FROM 1815 - 1835.

The general interest of the English people was not aroused on the subject of education in India until about one hundred years ago. (1) First by independent articles in current periodicals, and then thru three successive government inquiries, the status of education was determined and steps taken for the "moral and intellectual amelioration of the masses in their deep ignorance". (1) In 1813 England
realized it her duty "to improve the state of knowledge among her subjects in India", and Parliament introduced into the new charter of the East India Company a provision of Rs.100,000 (at today's exchange, about $33,000) for encouraging and administering higher education in India. Until 1825 the Company was rather embarrassed with this amount of money and no very definite steps were taken as to its disposal. But in 1825 decisive action was begun by the establishment of a "Committee of Public Instruction". All money and government institutions previously established were placed under the authority of this committee. These institutions included the Calcutta Mohammedan College, the Benares Sanskrit College and five other scattered colleges. All of these provided only oriental instruction with the exception of the Hindu College at Calcutta. This college had been founded in 1816 by David Hare, a Calcutta watch maker, and a number of leading Hindus of Calcutta. It was supported by private contributions with the expressed purpose of teaching European knowledge. To this college modern India owes more than to any other of that day and it is still occupying a prominent place in India under the title of "Presidency College".

Throughout the whole of this period of education in India (1) the controversy between "Orientalists" and those favoring European learning was of chief interest. (1) The seal of many of the English of the Company to forward Oriental learning was shown in the continued annual publication of $20,000 worth of Oriental books in spite of the fact that proceeds amounted to only Rs. 1,000 in three years. In opposition to the policy of the Orientalists the desire of educated
Hindus and Mohammedans was shown preponderantly in favor of western learning. Instead of a heavy deficit each year, the School-book Society on its publication of English books realized a twenty per cent profit. Arabic and Sanskrit students had to be paid to attend school and even then came only in small numbers, while large numbers were ready to pay for English education.

In the three years between 1828 and 1830 English classes were introduced in all the chief colleges. This was an innovation which greatly increased the popularity and enrollment of these schools.

In 1830 Dr. Alexander Duff arrived in Calcutta with instructions from the General Assembly of the Scotch Kirk to found a seminary somewhere inland. (1) "Acting on the advice of the venerable Cary and of Ram Mohan Roy and with the active assistance of the latter he ventured to disregard his commission and to open a school at Calcutta. Indifferent no less to missionary tradition than to home authority he determined that in his school Christianity should be taught, not during a stolen hour or two in the week, but every day and in every class and with unmistakable thoroughness". (15) "Duff firmly made up his mind ... to bring the youth of India under Christian influences by means of schools". (1) He chose English as the medium of instruction and the science and literature of Europe as the content of his school course. "The school was an eminent success". This added much to the weight of Dr. Duff's part in the controversy that was then waging over Oriental versus European instruction in the schools. (15) "His example became of the most radical importance in the later development of the Indian
educational system .... Duff forever secured a place for the mission school among the missionary methods of India."

(1) In 1835 the grant to the Public Instruction Committee was increased to ten times the former amount of Rs.100,000. This brought to a climax the old controversy concerning the content of instruction. An equal division of the Committee into opposite parties delayed decision until 1835, by which time Lord McCaulley had arrived in India as President of the Committee. Thru his championship and celebrated "minite of 1835", proclamation was issued which established the supremacy of European studies in India. The first provision of the new proclamation of 1835 by Lord Bentinck, was the resolution "that the chief aim of the educational policy should be to promote a knowledge of European literature and science".

(2) FROM 1835 - 1853.

In the years 1835-42 the number of Government Educational institutions increased from twenty-three to fifty-one. And the number of students within these Government schools and colleges grew from 3390 to 8205.

In 1839 Lord Auckland restored funds for the promotion of Oriental education and for founding scholarships in such courses, but still he allowed the supremacy of English.

During the latter part of this period, 1835-54, another controversy came to the fore, English vs. Vernacular as the medium of instruction. (Foot-note)

Note: Concerning this controversy over the medium of instruction in schools, it must be noted that there and was is in India no living vernacular language of great literary worth; nor is there any single vernacular in use in common throughout India. Persian and Arabic were foreign impositions and not in common use. Sanskrit, the indigenous had ceased to be of common use for 2,000 years.
For years the "filtering down" theory had been favored, which attempted to educate the upper classes in expectation that from them knowledge would permeate the whole population. By this system a class of teachers, translators and authors was trained, who in turn were supposed to pass on down to the lower strata of the people their knowledge. Instead, however, of universally benefitting poor and rich this method but served to dam up "the waters of knowledge" within this class of the favored few. The poor remained in their ignorance.

Various experiments were tried to coordinate the efforts of the government, as well as of private bodies, into efficient educational systems and to solve the ever perplexing problem of the proper medium of instruction.

In all the various provinces and Presidencies, (1) the most successful of official schemes was the establishment of vernacular schools in the newly formed North-West Provinces in 1845. These were divided into three grades very similar to the present organization:

(a) Zillah or District Schools (High School), (b) Tahsil or sub-division schools (Middle School), and (c) Halkabandi or Village "aided schools" (Primary School). By 1854 in eight districts of the North-West Provinces, progress had been so exceptional that there were 897 schools and 23,668 scholars, an average of 26.4 students per school.

At the close of this period in 1853, in all state schools (1) there were but 28,000 Indian children receiving instruction, of whom at least half were in secondary or upper schools. Eighteen years had passed, during which McCauley's "minute" had largely set early Government education into the channel of the English language as a
medium and European knowledge as the content of study.

At the same time, however, Protestant Missions were teaching 100,000 pupils, of whom a proportionately small number, only 12,000 were in High Schools and Colleges and the remaining great majority were in Vernacular Elementary Schools. From the first the Missionary had necessarily learned the vernacular for the conduct of his own work. Thus he maintained a close contact with the masses and instead of following the government lead in emphasizing higher education, the Missionary generally favored the policy of increased vernacular, elementary instruction. As to the education of girls, up to the close of this period, it had not even been tried in Government schools, whereas Missionaries had done pioneer work along this line and had charge of 15,000 girls in school. Viewed as a whole it may be said that education in India, during the periods thus far reviewed, had been predominantly missionary. Down to 1854 not only (15) "the elementary school system, with the exception of the native schools, had been completely under missionary control", but also "almost half of the scholars attending the High Schools had likewise belonged to them".

The renewal of the charter of the East India Company every twenty years from 1793 to 1853 had brought to the fore each time certain important problems, so that the dates 1813 and 1833 had marked the introduction of definite new policies with regard to education in India. Now with the closing of the next score of years, in 1853, more than
usual interest was aroused because of the need of decision on many hotly debated problems.

The question that had been of greatest contest was that of "religious education", or the use of the Bible as a text-book in the schools. Missionaries and their work of Christian instruction, whenever not actively opposed, had been suspiciously ignored by civil officials. The Government was so determined to remain "neutral in religious matters" that it dared not make an open declaration of its own faith. (1) This policy of the Government provoked from Dr. Duff a denunciation without religion, its plans without a providence, its ethics without a God. Some have attempted to ease the threat of such a policy by the statement of what they consider a great virtue: the Government (1) "had placed a Bible in every school and college library". At the same time, however, Mohammedan and Hindu sacred books were prescribed as texts in Government Oriental schools. A further evidence of the weakness of the position taken by the Government on this question was found in the admission of the anti-religious educational party, that (1) "there was no strong objection among the natives to the study of the Bible or its use in the schools".

(1) Two other far reaching questions needing definite discussion were: (a) the contention that native education was now ripe for the establishment of a University in each of the Presidencies; and (b) the advisability of expanding general Government elementary education. By this time the old question of the medium of education had been pretty commonly solved by the use of the vernacular in the ele-
mentary schools and of English in secondary and higher schools.

(F) THE "DESPATCH OF 1854" AND ITS EFFECTS.

Provoked by these discussions and in answer to these questions the document which became most famous in the whole of British Education in India, was Sir Charles Wood's "Despatch of 1854". This Despatch as it was amended five years later, exercised so great an influence and was so set as the rule of future conduct, that during the succeeding period of nearly thirty years it amounted almost to history written before the time. For the purposes of this review, a summary of its provisions may stand, except for a few statistics, as a record of what was actually done between 1854 and 1882.

Throughout all its provisions, (1) "the despatch strenuously reaffirms the policy of religious neutrality". It commends to the Government of India, "the improvement and the far wider extension of education, both English and Vernacular, and prescribes as the means for the attainment of these: (a) the continuation of a separate department of the administration of education; (b) the institution of Universities at the Presidency towns (Calcutta, Bombay, and Madras); (c) the establishment of institutions for training teachers for all classes of schools; (d) the maintenance of the existing Government Colleges and High Schools and the increase of their number where necessary; (3) the establishment of new Middle Schools; (f) increased attention to vernacular schools for elementary education; (g) the introduction of a system of grants-in-aid".
This system of grants-in-aid was to be based on (l) "the principle of strict religious neutrality, and aid was to be given to all schools imparting a good secular education provided they were under adequate local management and were subject to Government inspection, and provided that fees, however small, were charged in them...A comprehensive system of scholarships was to be instituted so as to connect lower schools with higher schools and higher schools with colleges. Female education was to receive the frank and cordial support of the Government". But in addition to private schools under government grant-in-aid, (l) "vernacular institutions should be provided by the direct instrumentality of the officers of the Government on the basis of some one of the plans already in operation for the improvement of indigenous schools, or by any modification of those plans which may suit the circumstances of different provinces."

Such, then, was the plan and also the procedure with hardly a variation until 1882, (l) by which time the whole scheme involved an expenditure of an annual \( \text{\£}1,500,000 \) in contrast to the \( \text{\£}100,000 \) of 1853. The number of children under education had increased from 50,000 in government schools and 100,000 in Protestant Mission or private schools to a total of 3,000,000 all subject to at least the inspection of the government.

The provision for grants-in-aid for non-governmental schools, after its revision in 1885, (l) "proved an immense success". This policy affected over half of the total number of schools of that day. And by this scheme the Government was able by the expenditure of only eighteen
and a half lakhs (Footnote) of rupees (617,000) per annum to attract
from non-governmental sources for the cause of education, nearly sixty
lakhs (86,000,000.)

The three universities provided for in the 1854 Despatch (1)
were actually founded in Calcutta, Bombay, and Madras, in 1857, the
year of the mutiny. Using the University of London as a model, these
universities have not teaching staff but confine their attention to
holding examinations for matriculation in all affiliated colleges and
for all degrees. The universities in India confer upon successful
candidates the following degrees: F.A. (First Arts), B.A., and M.A.

The following is a classification of "teaching institutions"
as distinguished from these universities. This classification, des-
crptive of such institutions as were established in the period which
were now reviewing; still represent the system in practice, except
for one or two minor changes:

TEACHING INSTITUTIONS
(Tabulated from information in "The History of British Education in India

<table>
<thead>
<tr>
<th>Class of Education</th>
<th>Type of School</th>
<th>Years</th>
<th>Limit of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. University</td>
<td>(a) First Class Coll-</td>
<td></td>
<td>F.A. examination</td>
</tr>
<tr>
<td></td>
<td>ege</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) Second Class Coll-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ege</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Secondary</td>
<td>(a) High School</td>
<td>10th &amp; 9th</td>
<td>Matriculation examination</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) Middle School</td>
<td>8th, 7th, 6th</td>
<td>M. D. Scho. Exam.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Primary</td>
<td>(a) Upper Primary</td>
<td>5th &amp; 4th</td>
<td>Upper Pri. Examination</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) Lower Primary</td>
<td>3rd, 2nd, 1st</td>
<td>Lower Pri. Exam.</td>
</tr>
</tbody>
</table>

The Middle Schools are of two types: the "Vernacular" and the "English"

Note: (9, a) "The method of numerical notation in India differs from
that which prevails throughout Europe. Large numbers are not punctuated
in hundreds of thousands and millions but in lakhs and crores. A lakh
is one hundred thousand (written 1,00,000) and a crore is one hundred
lakhs or ten millions (written out as 1,00,00,000)."
instruction, and the "Anglo-Vernacular" in which English is taught as a subject and used as a medium of instruction. Very recently, in the Punjab at least, the fifth year has been taken from the Upper Primary and added to the Middle. This makes the Lower Middle composed of the fifth and sixth grades and the Upper Middle of grades seven and eight. The first four grades have now been combined into a single Primary Department with no distinction between Lower and Upper.

From the founding of the above mentioned Universities in 1857, the number of affiliated colleges increased about 250% in 25 years. The secondary schools between the years 1854 and 1892 showed a progress much greater than that for the colleges. Statistics for these schools indicate an increase of very nearly 520% in the number of schools and an unknown percentage in scholars. Primary education also showed a remarkable growth during this period, but proportionate to that of the secondary schools, it was not as great as had been in the intention of the Despatch.

**INCREASE BY DEPARTMENTS BETWEEN 1854 AND 1882.**

*(Tabulated from figures in "History of British Education in India")*

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Colleges</th>
<th>Secondary Schools</th>
<th>Primary Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unaided</td>
<td>825</td>
<td>572</td>
<td>936</td>
</tr>
<tr>
<td>Aided</td>
<td>700</td>
<td>572</td>
<td>782</td>
</tr>
<tr>
<td>State</td>
<td>15</td>
<td>719</td>
<td>1637</td>
</tr>
<tr>
<td>Totals</td>
<td>990</td>
<td>5400</td>
<td>4161</td>
</tr>
</tbody>
</table>

Note: Under "Secondary Schools" the double set of figures differentiate High and Middle Schools.
In the matter of special education it is worthy of note that the provision in the 1854 Despatch for normal training was so far carried out that by (1) 1882 nearly half the teachers in Government Primary Schools had certificates.

Other professional schools, however, did not show so much progress. (1) The number of Engineering Schools of various grades and accommodating a total of 600 students, had increased to a total of eighteen for all India. Medical Schools and Colleges were twelve in number with about one thousand students. A contrast of these numbers with those shown in the table above will show the relative emphasis placed on professional education and on the arts or liberal education.

The work with the women and girls had begun to show some signs of organization. Aside from zenanna instruction, or teaching within the homes, which was largely carried on by Missionaries in connection with their religious instruction, (1) there were altogether nearly 130,000 girls under school instruction, these almost entirely in primary schools.

(9) THE COMMISSION OF 1882-5 AND ITS RESULTS.

In 1882 because of increasing agitation, largely fostered by Missionaries, a special Government Commission was appointed to investigate thoroughly and report on educational conditions as found at that time and to propound means and methods for the rectification of any existent abuses. In a thesis of this sort it is unnecessary to state more than the chief points of attack upon the existing practices, and then summarize the reports and recommendations of the Commission. The great Despatch of 1854 had very strongly emphasized the extension of elementary education. Its author, later in explanation of its real meaning, stated
that (1) "the great object was to promote the general education of the people of India and to leave the higher and richer portion of the people to provide mainly for their own education". But the educational department was accused of directly violating this fundamental principle and of encouraging secondary and higher education to the injury of primary. The Commission found this to be true on several counts and they refiled the stress on the need of elementary education for the masses as an end in itself, not merely as preparatory to higher education.

(1) The Department was also accused, in violation of the provisions of the Despatch, of discriminating against and unfairly handicapping aided schools. This had been done by allowing lower fees in state schools; by too rigid regulations in the conduct of schools; by preferment of state-school students over "aided" in the granting of scholarships; and in many cases, by the direct and open hostility of many of the officials of the Department toward aided schools, especially those of the Missions. These accusations also were largely supported by the Commission, which took steps to remove these handicaps and to encourage the expansion of private aided schools, as a policy more efficient and economical than state supported schools.

This Commission more clearly defined and regulated the local Boards which had the control of district and municipal schools. By this action they very much enhanced the effectiveness of such Boards in the whole educational policy.
(1) Of the total of 222 resolutions in this report, 180 had been carried unanimously by the Commission. The public as a whole accepted its findings with very little serious criticism. The Governor General in Council approved it in its entirety with the exception of three of the 222 resolutions. Two of these that were rejected are worthy of mention in a combined form even in this condensed review. The only provision that had been made by the Commission for the moral education of school-children was "that a moral textbook, based upon the fundamental principles of "natural religion" was to be used in all colleges and the Principal was everywhere to be required to deliver lectures on the "duties of a man and a citizen". British consistency on the subject of neutrality of religion was shown by the rejection of this recommendation.

The agitation, which had called forth this commission, had had a stimulating effect on primary education, even before the Commission's report was published. (1) But after the adoption of the report, the average annual increase of 70,000 pupils as reported for the previous decade was more than doubled to 161,000 during the following decade. Certainly this was a worthwhile accomplishment for any Commission.

(1) TWENTIETH CENTURY PROGRESS.

By the beginning of the present century need was felt for still further reform, especially in secondary and higher education. The comparative withdrawal of the Government from the direct support of the higher schools and the placing of their responsibility upon
private effort, with Government grant-in-aid, worked out to the
development of a few favored Government institutions and the inef-
ficiency of the remaining majority. Indian parents were unable to
pay fees sufficient to cover the additional expense that devolved
upon private enterprise.

(9) In 1904, under Lord Curzon, the whole system was exam-
ined, reported on and improved. Under the "Universities' Act" of that
year, Government tightened its control of the Universities, and thru
them of the schools and colleges. The Universities were given the
responsibility of granting recognition to schools and of inspecting
all schools and colleges, tho this inspection was ordinarily conducted
by officers of the Department of Public Instruction. The "teaching
function" was also permitted the Universities. However in practice
this was limited to post-graduate work and research.

With this new Act there was another acceleration of school
work. (9) From 1902 to 1919 there was over a 50% increase in the
number of male students and about a 300% increase of female students.
This gave a total in 1918-19, of 7,936,577 enrollment in schools.
The expenditure on education within the same period had increased
over 300%, reaching an annual total of Rs.12,98,65,073.(§43,287,691.)

By way of historical reference at this point we would note
that (10) "the most vigorous stimulation of educational interests
has come, within the past two years, from a far-reaching project of
political independence for India, culminating in the presentation to
the House of Commons of the Montague-Chelmsford Report in July, 1918".
The adoption of this report in 1919 "transferred" eleven different Governmental Departments to Indian management. Now "Education" and its closely allied subjects, "Agriculture" and "Health" are under the direction of Indian Ministers. Thus we are at the beginning of a new era of possible educational advance, with the weight of responsibility resting more and more upon the Indian people themselves.

Also (10) "another report, akin in spirit to the Montagu-Chelmsford Report, and upon which were based many of its conclusions, was the Industrial Commission Report, presented early in 1918 and embodying the results of many months of investigation in the leading provinces of India. The primarily economic in subject and aim, it, like the Montagu-Chelmsford Report, was of distinct value educationally". Since the practical influence of these reports lies yet largely in the future, a consideration of their recommendations will more properly come within Chapter IV.

(1) THE PRESENT STATUS.

Today we stand just at the close of the first century of real interest on the part of the British Government in education in India. Even the four of every five villages in India lack educational facilities of any kind whatsoever, and even the work ahead calls for a further expansion of vision and of multiplied effort, yet such statistics as listed below were undreamed of in 1825. The history of education that has been indelibly written into the life of India during this century and the statistics here presented are, on the whole, a worthy report and an honor to the name of the British in India.
Under the heading "special schools" the following table is of interest:

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Number of Schools</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal (Male)</td>
<td>948</td>
<td>22,100</td>
</tr>
<tr>
<td>(Female)</td>
<td>118</td>
<td>3,500</td>
</tr>
<tr>
<td>Art</td>
<td>9</td>
<td>1,400</td>
</tr>
<tr>
<td>Law</td>
<td>1</td>
<td>71</td>
</tr>
<tr>
<td>Medical</td>
<td>27</td>
<td>5,000</td>
</tr>
<tr>
<td>Engineering &amp; Surveying</td>
<td>17</td>
<td>1,300</td>
</tr>
<tr>
<td>Technical &amp; Industrial</td>
<td>269</td>
<td>5,400</td>
</tr>
<tr>
<td>Agricultural</td>
<td>20</td>
<td>420</td>
</tr>
<tr>
<td>Reform</td>
<td>6</td>
<td>1,245</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2,598</td>
<td>78,400</td>
</tr>
</tbody>
</table>

(Tabulated from figures in (5)).
Mission schools, tho their number is a comparatively small part of the totals listed above, still are an important factor in education in India. The report of a few years ago (16) showed the following number of schools under Mission management: 780 Secondary; with 94,099 pupils; 91 industrial training schools with 5,597 pupils; 12,173 elementary schools with 462,818 pupils; 56 kindergartens with 2,008 pupils.

More than one-half of the total expenditure on education in India for the year 1919-20 came from fees and Provincial resources, while the rest was raised from local rates, municipal funds, endowments, etc. (5).

In 1920 (5) from the colleges in India, 1,259 were candidates for the M.A. or M.Sc. degrees; 15,631 for the B.A. or B.Sc.; and 18,641 for the F.A. or F.Sc; while for college entrance 56,626 passed the Matriculation examinations. Today it is estimated that 18,569,431 of the people of India can read and write, while 1,700,000 of them have a knowledge of English.

For all this work, the Aga Khan pays the tribute that (3) "everywhere, whether directly or indirectly, it is Britain that stands for law and order, for the cement between the ancient cultures of the East and those both ancient and modern of the West". Another

| Total Population:                      | 320,000,000 |
| Percentage Literate:                  | 6%          |
| Estimated of School-age:              | 75,000,000 (about 24% of total population) |
| In School                             | 8,206,225   |
Indian statesman, Sir Narayan Chandavarkar, Kt., under the caption of "The New India", testifies that "the result of all these years has been that the British Government has by its work created a "New India", asking for a fuller life than of old and claiming the right of her people to govern themselves in the principles of law, liberty and self-government, in accordance with what is best in her ancient civilization and with the spirit created by the British Government itself, all these years. The new era, the new reforms, the new law declaring the reforms to be the first substantial step toward the goal of complete self-government for the people of India, as a part and partner of the British Empire, are the natural result of that spirit and therefore a tribute to that Government".
CHAPTER II

MATERIAL RESOURCES AND ESSENTIAL OCCUPATIONS.

All the thoughtful educators are conscious of the modifications on their program by the natural, material resources at hand, and also by the occupations that are essential to the existence and welfare of the people for whom the program is devised. India, differing from other nations in many such characteristics, must be studied with individual care to determine her specific requirements.

(A) A GENERAL SURVEY.

(4) "India has magnificent natural resources. She produces two fifths of the world's total supply of cane sugar; one third of the total tea, tobacco, rice, and cattle output; one fifth of its cotton and one tenth of its wheat. She contains one fifth of the total railroad mileage of the world. Yet one fifth of her population is underfed .... The present income even if equitably distributed would not suffice to provide with even the indispensable elements of a reasonable life." (6) "The problem in India is always to get enough food for the people; that is, enough to stave off starvation." Such is the tone of all general statements relative to the material resources and conditions in India.

In her essential industries, India is prodigally inefficient and her accomplishments entirely inadequate. Formerly the Indian village was a self-contained unit, deriving its entire sustenance from the land. Artizans, menials, and others living in the midst
of this social and industrial situation, which was hereditary and unvarying, received in return for their labor shares of the produce of the land. Trade also was transacted almost exclusively in kind.

This old community system has proven insufficient to meet the demands of modern industrial development. As yet however, no practical improvement has been made and conditions are such that one of India's own sons laments that (3) "scientific inquiry into the needs of Indian agriculture and the establishment of rural co-operative credit societies has had very small effect on village life. A typical rural scene in an average year is essentially the same now as it was half a century ago". And he adds, "I could safely challenge any widely traveled and observant fellow-countryman, familiar with social economics on each of the great continents, to deny, after due reflection, that the present condition of Indian agriculture and of the 219,000,000 (1911 estimate) human beings dependent thereon is the greatest and most depressing economic tragedy known to him".

(B) AGRICULTURE.

It takes only casual study or observation to realize that (8) "India may almost be said to be a country of a single industry -that industry being agriculture. According to the census of 1901, two thirds of the total population were employed in occupations connected with the land, while not one tenth of that proportion were supported by any other single industry .... All other industries are only subsidiary to this main occupation". Furthermore, (3) "the exploitation of the surface of the soil must remain the predominating feature of India's economic life, far surpassing all other activities in importance".
Seventy-two percent of the total population of India, that
is about two and a quarter million individuals, are now directly
supported by the land. This number is inclusive of the 69% occupied
in the ordinary cultivation of the soil and the 3% in gardening, for-
etry, stock-raising, etc. These are working and overworking by in-
efficient means the tillable land of a country, which has a total area
of not more than three-fifths of that of our own United States. In
1911, in all occupations other than agriculture, there was a grand
total of only 35,325,000 persons employed in India. (4) In England,

<table>
<thead>
<tr>
<th>Agric. Occupat's</th>
<th>Other Occupat's</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>England</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

in sharp contrast, the proportion of the population employed in other
industries as compared with agriculture is eight to one. This sort of
a comparison in India, even when all other industries, trades and pro-
fessions, with all forms of public and domestic service are combined
against agriculture, shows a ratio nearly the inverse of that in Eng-
land. Even in the United States, with her vast plains and comparatively
sparse population, only 36% of all those in occupations of all kinds
are agriculturists. Thus it is easily seen that (4) "The fundamental
factor of poverty (in India) is unquestionably correlated with the
undue preponderance of agriculture as a means of livelihood."

Not only is this startling percentage of India's people directly dependent on the farm, but the whole population is living so close to the limit of supply that they are all very quickly affected if the crops fail. The cause of famines is the failure of the monsoon rains, and (4) "in the last century there were thirty-one widespread famines in which 32,000,000 men, women and children died of starvation." The widespread, these famines rarely affect the whole country at one time. It has, therefore, been possible to greatly mitigate the shock of famines by the recent development of several agencies, such as the spread of railways for the transportation to supplies, the development of great irrigation districts, in some localities the growth of manufactories and in others the improvement of rural credit. But yet there is no sufficient alternative source of income in the time of drought or poor harvest, and today it may be truly said that the main cause of death at famine times is the lack of money to buy supplies which might be shipped in from other more fortunate districts, or from foreign lands.

Even aside from famine times and conditions, the poverty of India is so appalling that it is variously estimated that up to one half of the agricultural population of India is continually hungry. That is, this large proportion of the people, not merely occasionally suffer, want, but are never sufficiently nourished. A few of the outstanding causes of this situation are so apparent that even a layman needs not be told that (9) "agriculture suffers thru lack of organi-
zation and equipment." Their holdings - we would hardly call them farms - are small, being usually from one to eight acres and this often subdivided into unsymmetrical parts among many different inheritors. The owners and other laborers do not live on their plots, but those cultivating a section of considerable size group their homes together in a village life. Then day by day they disperse to the work in their individual fields. (9) "Their equipment, which consists of a wooden plough and leveling beam or drag and no harvesting machinery, depends chiefly on cattle for power". The Indian still threshes by the treading of oxen or by hand-beating, and winnows by the agency of the wind. The animals which he uses in farm labor as a rule, are light and active but possess little hauling power. Thus the the individual agriculturalist (9) "as a rule possesses an intimate knowledge of the essentials of his own business, he fails thru lack of ways and means".

In view of the above picture of primitive methods, the statistics given below showing the acreage under chief crops and their production in 1919-20, are almost incredible. These seem optimistically prophethecal of India's wealth, which will be disclosed by rightful education.
## Chapter II

**Page 40**

### Area Under Chief Crops and Production

**In 1919-20, (5)**

<table>
<thead>
<tr>
<th>Crop</th>
<th>Area sown</th>
<th>Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>72,427,000 acres</td>
<td>32,000,000 tons</td>
</tr>
<tr>
<td>Wheat</td>
<td>22,949,000 &quot;</td>
<td>10,122,000 &quot;</td>
</tr>
<tr>
<td>Cotton</td>
<td>23,952,000 &quot;</td>
<td>5,796,000 bales</td>
</tr>
<tr>
<td>Linseed</td>
<td>3,103,000 &quot;</td>
<td>409,000 tons</td>
</tr>
<tr>
<td>Rape and Mustard</td>
<td>5,895,000 &quot;</td>
<td>1,158,500 &quot;</td>
</tr>
<tr>
<td>Sesamum</td>
<td>4,254,000 &quot;</td>
<td>449,000 &quot;</td>
</tr>
<tr>
<td>Ground Nuts</td>
<td>1,585,000 &quot;</td>
<td>822,000 &quot;</td>
</tr>
<tr>
<td>Jute</td>
<td>2,889,000 &quot;</td>
<td>8,161,000 bales</td>
</tr>
<tr>
<td>Indigo</td>
<td>235,000 &quot;</td>
<td>32,000 cwt. of dye</td>
</tr>
<tr>
<td>Sugar Cane</td>
<td>2,686,000 &quot;</td>
<td>3,056,000 tons</td>
</tr>
<tr>
<td>Tea</td>
<td>691,000 &quot;</td>
<td>337,055,000 lbs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net area surveyed</th>
<th>625,149,442 acres</th>
<th>Forests</th>
<th>36,325,520 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivated area sown</td>
<td>222,625,488 &quot;</td>
<td>Irrigated</td>
<td>49,963,033 &quot;</td>
</tr>
<tr>
<td>&quot;  &quot;  &quot; fellow</td>
<td>52,134,792 &quot;</td>
<td>by canals</td>
<td>23,197,000 &quot;</td>
</tr>
<tr>
<td>Uncultivated but culturable</td>
<td>12,414,708 &quot;</td>
<td>by tanks</td>
<td>7,837,000</td>
</tr>
<tr>
<td>Uncultivated and not culturable</td>
<td>145,769,969 &quot;</td>
<td>by wells</td>
<td>12,692,000</td>
</tr>
<tr>
<td>Sown more than once in year</td>
<td>32,165,049 &quot;</td>
<td>other means</td>
<td>5,757,000</td>
</tr>
</tbody>
</table>

---
The value of crops on canal irrigated lands in 1918-19 was \( $96,600,000 \). These figures reveal one undertaking of the British Government which has been of great magnitude and of tremendous value to India. Of all the cultivated land in India one tenth has been redeemed by canal irrigation, and made the most dependable and profitable of the whole.

Reports state that (9) "cattle breeding, which is in a very backward state in India has received great attention in all provinces of India, both to improve breeds and to induce the people to devote more care to a problem so closely wrapped up with their welfare. In the latter direction success has been limited but in the former most valuable results have been obtained".

Relative to the present efforts on the part of the Government of India for the improvement of agricultural conditions, it must be remembered that (9) "there is an essential difference between agricultural departments in the East and in the West, in that, whereas the latter have arisen to meet the spontaneous demands of the cultivators of the soil, the former are entirely the creation of a government anxious to give all the assistance it can to its agricultural subjects. The demand for improved agriculture has not in India, except in special cases, come from the cultivator and it is necessary for the Department to put forth every effort, first to ascertain the needs of the cultivator, and then to demonstrate how they can most effectively be met. The work of the Agricultural Department has two main aspects, on the one hand by experiment and research, improved
methods or crops are developed, or the means of combating a pest are worked out; on the other hand, ascertained improvements must be demonstrated and introduced as far as possible into the practice of the Indian cultivator. Furthermore, (9) "it is essential to the scheme adopted, that facilities for the best agricultural training shall be made available in India in order that the country may become self-supporting as far as possible, in regard to the scientific development of agricultural methods, on lines suited to local conditions."

Up to the present, apathetic and so apathetic have been the habits of the people, and so recent have been these attempts at technical instruction in improved agriculture that little change has been made in the situation. For all of India's 220,000,000 agriculturalists there are only twenty agricultural schools with 420 students. This is less than .00002 of 1%. In other words, out of every half million of India's people one individual is receiving expert training in her chief industry. However, as a hopeful sign, the Director of Agriculture says concerning Vernacular Agricultural Schools, (7) "There is a constant demand wherever I go for more schools of this type ... The biggest trouble is to get good and suitable teachers and we have accordingly made provision for training teachers for the work at Loni, the original and largest school."

Of an influence as yet wider than that of these schools, and meeting with a more appreciative reception are the Rural Cooperative Credit Societies. (9) "The organization of cooperative credit, which
has been taken in hand by Government and which has already proved successful in many Provinces, will undoubtedly lead to an increase in agricultural capital". By the aid of these societies the farmer is freed from his perpetuated slavery to the money-lender. Formerly agriculturalists, to secure a loan, were forced to pay to the professional money-lender as high as six or seven percent a month interest. This often required a continued annual payment of three-fourths of the amount of the capital borrowed, while at the same time there was no reduction whatever of the original debt. Now, thru these Cooperative Credit Societies, credit is granted for the improvement and extension of farms at a reasonable rate of interest.

In pursuance of this same cooperative idea among farmers, in other lines than finance, interesting ventures are being tried in the way of (9) Community Dairy and Poultry Societies. These show promising results but are hardly more than experimental as yet.

A rapidly extending demand for machinery in connection with agriculture and irrigation has been created by the activities of these cooperative organisations together with the very rare independent, wealthy land-holder. (9) "But while there is everywhere immense scope for the employment of the most modern machinery, progress is greatly hampered by the attitude of the manufacturer of it....Makers have, generally, no direct representative in India, being content with representation by agents in the large towns. There are no stocks of machinery in the country, spare parts are difficult to get and exorbitant prices are often charged for them."
The live-stock statistics for 1919-20 (5) show a great preponderance of cattle - 117,428,000 head. This figure, large as it is, but again reveals India's poverty for it averages only a little more than one cow or ox to every two persons on the farm. Yet the people are dependent upon these animals for the motive power in their work as well as for their milk. For the support of all live-stock, especially during certain seasons and in certain provinces, every vestige of grass is cropped sheer with the surface of the earth, so that no opportunity is allowed for it to grow to such a height that it may be cut and dried. In fact, in some sections at least, there is not even a word in the common vocabulary meaning "hay". The staple fodder is but the chaff and finely broken straw left upon the threshing floors. The average man on the farm thinks that his animals would not survive without these rations, material which in American we consider fit only for bedding for the stock. Consequently the cattle are stunted and lacking strength and it is considered a good cow that gives three or four quarts of milk per day.

(C) NON-AGRICULTURAL OCCUPATIONS

The over-prominence of agriculture as the almost exclusive industry of India, the inexpertness of methods and the insufficiency of the produce, not only mean the employment of nearly three fourths of the total population on the farm for the production of that which is necessary to the existence of all, but also so limit the general supply of labor that all other industries are seriously handicapped in any program of expansion.
As noted before, in all other occupations combined, it is estimated that there are little over 35,000,000 persons as against the nearly seven times that number in the single field of agriculture. (5) The tea industry, closely allied to agriculture, employs 943,000. After that the most important industry in India is the weaving of cotton goods. Others are silk-rearing and weaving, shawl and carpet weaving, wood-carving and metal work. Of mill and factory industries there are only four groups that employ over 100,000 each: cotton spinning and weaving mills, 282,297 persons; jute mills, 264,373 persons; cotton ginning and pressing factories, 133,323 persons; and railway and tramway works, 115,529. This whole general class of industries, inclusive of all mills, factories, etc., employed in 1919 only 1,238,410 people. From another angle also the undeveloped character of these industries is shown for in March, 1920, there were in all India only 3,668 incorporated joint-stock companies.

Occupations, other than those usually classified as industries, show the following returns: Professions and Liberal Arts, 5,325,000 (inclusive of 2,769,000 in religious service, 674,000 in instruction, and 627,000 in medicine); Transport, 5,022,000 (inclusive of telephone and telegraph); Domestic Service, 4,599,000; Fishing and Hunting, 1,855,000; Mines, 530,000; and all others combined (exclusive of Agriculture) 13,227,000.
India is the third largest cotton producing country in the world. In the early days of the East India Company, India exported large quantities of cotton goods to England and Europe. But with the invention and development of power looms in England, competition became severe. And in addition, with the imposition of 67% duty of foreign goods entering England, the tide was turned until in 1918-20, 13% of all of India's Rs.13,00,00,000 of exports was raw cotton, and 36% of total imports was cotton manufactured articles. Thus the old cotton weaving industry of India has been broken up. Those formerly employed therein, were forced back onto the already over-crowded field of agriculture for their support. This fact but augmented the malproportion of the population dependent on agriculture.

India, with her varied climate and immense extent can come as near a complete variety of production as it is desirable for any country, with great trade interests to possess. In fact there is practically no limit in natural resources for Indian industrial expansion. There are opportunities in all lines for the enterprise and capital of the Indian People. Nevertheless, the large proportion of "European Goods" in the Indian shops are manufactured from Indian raw materials, and yet these manufactured articles are well within the range of local Indian enterprise. Recently some awakening to these opportunities is apparent for the "hitherto she has derived benefit too exclusively from the raw and unfinished form of her products, the war has given a very notable impulse to Indian industries".

Of these prospects for expansion, one of the most potential in resources and one that would tremendously benefit India in most
all of her other developments, is that of Hydro-Electric operations. Actual enterprise in this as yet is not beyond its initial stages of promotion, but the Indian Year-Book (1921) emphatically estimates its importance as paramount. (9) "India promises to be one of the leading countries of the world in regard to the development of Hydro-Electric power and great strides in this direction have already been made. India not only specifically lends itself to projects of the kind, but peremptorily demands them.... India is severely handicapped compared with other lands as regards the generation of power by the consumption of fuel, coal, and oil. These commodities are all difficult to obtain.... Water power and its transmission by electricity offer immense possibilities both as regards the quantity available and the cheapness at which the power can be rendered in all parts of India"

The banking systems and commercial relationships in India are in an especially backward state. Such a condition seriously handicaps nearly all forms of economic and industrial progress. (3) "Banks and branches of banks are found in only 153 towns, an average of less than one place of banking for every 2,000,000 people. Four out of every five towns of 10,000 population are without even a branch of a joint-stock bank".

The exports and imports of India (5) are by far the greatest with the United Kingdom, while the United States in 1921 stood second and Japan third. In 1921 as against 1920, the imports from the United Kingdom, which were chiefly cotton goods, iron, steel, machinery, etc.,
nearly doubled, while total exports to the United Kingdom, chiefly tea, jute, and raw cotton, dropped to only five-ninths of the former year. This situation is clearly disastrous to India's trade growth. All imports (exclusive of Government stores) totaled (5) Rs. 558,64,50,331 (\$1,196,150,110) and all exports only Rs. 282,14,63,553 (\$940,494,513).

Very little indeed can be said of India's probable vast resources that lie under the earth's surface, yet undiscovered. In mines of all kinds (5) in 1919, only 249,156 persons found employment, and their output considering the vastness of the country and the population is indeed meager: coal, 22,628,037 tons; manganese ore, 537,395 tons; wolfram, 3,577 tons; mica, 45,784 cwt.; copper, 32,759 tons; rubles, 158,577 carats; gold, 507,261 ozw. As yet practically no scientific attempt has been made to claim the treasures under foot.

India today is awaiting with the patience and apathy of ignorance, for modern education and its supporters to reveal her own almost untouched wealth to her, and to aid her in the transition from indescribable poverty and physical plenty.
CHAPTER III
HUMAN RESOURCES AND FACTORS CONDITIONING THEIR DEVELOPMENT.

Without a review of the historical setting and without a study of material resources, it has been seen that no program for educational advancement could be intelligently formulated. So, also, but with far more emphasis, no program will be efficient that does not take careful account of the vital statistics and the living conditions of the country in which it is to operate. Any educational proposal must seek to adapt itself to the distinguishing personal characteristics of the people for whom it is prepared, and develop to their richest fruition all the potential capacities of the human individual and the nation. In any comprehensive educational program of far greater influence than India's unexplored and undeveloped material resources, are the immaterial factors of the human mind.

(A) DIVERSITIES OF PEOPLE.

Lack of unity and multiplied divisions and dissensions have characterized the people of India in the past, and still form an outstanding factor to be dealt with in any approach to the problems of India. In this respect India is the antithesis of China, in which the effect of millenniums has been the unification of her hundreds of millions into one unvarying mold. Indeed in many traits, we find that those who today compose the proudest of Indian peoples, much more closely resemble the Europeans and Americans than they do their closer neigh-
bors, the Mongolian race. For the Indian partakes of the same ancient
Aryan blood of which we ourselves boast.

In India's mixed multitudes, (6) forty-five stocks have been
distinguished, these mingling their voices in one hundred and seventy
different languages and dialects, of which thirty-three are more pre-
valent in India than is English. No one of these vernacular tongues
is national. English alone, the understood as yet by only (6) 1,700,000
people, is a language in daily use throughout all provinces.

(E) POPULATION STATISTICS

This conglomerate population of nearly 320,000,000 people
in India, is congested in a territory having an area of only about
(6,8) three-fifths of that of our United States, whereas its numbers
are nearly three times those of our own land. To use a different com-
parison (9) the people of India exist in a land about equal in size
to the combined countries of Europe, excluding Russia, but with a
population exceeding that of those densely settled lands.

The density of this population follows the tillable land.
Want of water is the explanation of the comparatively sparse popula-
tion in several more or less level tracts scattered throughout India.
In 1911 there were only (5) 2,153 places classed, rather liberally,
as cities and towns; that is, "inclusive of all continuous collections
of houses inhabited by not less than 5,000 persons, all municipalities,
all all cantonments and civil lines". These towns and cities showed
a combined population of nearly 30,000,000; that is, in India there
is an urban population of only 9.5% as compared with the 78.1% in Eng-
lish cities and 45.6% of the cities of Germany. The remaining part of the population, over 90%, still lives in villages.

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<th>STATISTICAL RATIOS BETWEEN</th>
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<td>Total Populations</td>
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<td>3</td>
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<td>Density of Population Per unit of Area</td>
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The movement toward the cities, however, has now become discernable. Low-castes and high alike are just beginning to hear the call for laborers in the new industries and in the trade expansion. Thus the modern economic pressure is profoundly affecting the old conceptions of caste, forcing an intermingling in modern city life of those who were formerly strictly separated one from the other. In 1911, of cities of 100,000 or more population, there were only thirty which all told included only 2.2% of the inhabitants of the whole country. Calcutta and Bombay now both claim well over the million mark.

(5) GENERAL LIVING CONDITIONS.

Mass ignorance may be considered as the mother of nearly all the appalling evils of India. It engulfs 94% of the great population in an intellectual darkness so dense that not a ray of light from any written or printed page may penetrate.

Poverty is possibly the condition most apparent to our Western eyes. In all India there is practically no "middle class" such as is
the stabilizing influence in America. A very few are fab-

uously and proverbially rich. The remaining overwhelming majority
are incredibly poor. As given in the estimates of the previous chap-
ter, possibly one half of the total agricultural population never have
their hunger fully satisfied, and have no reserve at all to meet special
times of want. The average income per person in India is but (4) $20.00
per year as compared with $400.00 in the United States. But worse
than the inadequacy of this income, (3) "there is also the terrible
waste of energy arising from the general incapacity of the untaught to
recognize the value of time or to distinguish between economy and waste".

Whichever may have been the cause and whichever the effect,
whether the poverty accounts for the physical weaknesses, or whether
these physical conditions explain the poverty, true it is that these
two factors are highly correlated. And from the facts related in the
previous chapter regarding the insufficiency of even plain food, much
may be surmised relative to the physical welfare of the people them-
selves. They have little endurance and soon succumb to the hardships
of their life. Insurance calculations show that (4) "the expecta-
tion of life at birth for an Indian is twenty-two whereas it is forty-
six for an Englishman".

As a product of ignorance, disease thrives on the multitudes
of India. During the fifty years that sanitary departments have existed
some improvement has been effected within towns, but in the rural
sections, which include the great mass of the population, progress
has been extremely slow. (9) "The reason lies in the apathy of the
people and in the tenacity with which they cling to domestic customs
injurious to health .... The village house is still often ill-ventilated and over-populated; the village site is dirty, crowded with cattle; choked with rank vegetation and poisoned by stagnant pools; the village tanks are polluted and used indiscriminately for bathing, cooking and drinking. That the way to improvement lies thru the education of the people has always been recognized”.

In 1910 a Government Department of Sanitation was created and imperial grants were made to local governments to aid in this work. Government conferences have been held. (9) “An India Research Fund Association has been founded to further the prosecution of research and the propagation of knowledge, and experimental measures, generally, in connection with the causation, mode of spread and prevention of communicable diseases”. A definite policy of sanitation has been adopted which to some degree affects every municipality and to a lesser degree, thru the civil-surgeon, every district. Some training classes are now open for sanitary inspectors and further arrangements are being made for other parts of the staff.

As yet, however, all this organization is a beginning hardly appreciable considering the colossal needs of the country. (5) Between 1896 and 1920 there were 10,000,000 deaths from plague alone in all India. (9) In the last half of 1918 it is estimated that 7,000,000 died from Influenza. During that same year there were 506,502 deaths from Cholera; 440,752 from plague; 276,648 from Dysentery and Diarrhoea;

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<th>Year</th>
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95,076 from small-pox; and probably over 4,000,000 from all kinds of fevers.

In times of epidemic the people, except in the cities, take little or no precautions. Instead of quarantine, the terror-stricken villagers leave their own homes deserted save for the dead or dying, and flee to neighboring villages, thus spreading contagion. In the towns and cities, even with the greater opportunity for supervision, the congested conditions make these ravages still more deadly than in the country.

(D) RELIGIONS

However much we may disagree with his findings, we must admit that probably of all people of the world, the Indian, unaffected by western civilization and culture, is most religious. He is not ashamed to talk freely concerning his ancient national orders of philosophical, religious and metaphysical thought. His daily life is largely overshadowed by religious rites and observances. Such has been his custom for ages and such is his ingrained nature today, and such must be taken into account in any plan for his education. The mixed variety of religions in India is well known to the popular mind. The chief divisions of religious faiths in India are shown thus:

**RELIGIOUS STATISTICS FOR 1911**

*Diagram Drawn from Table in Statesman’s Year-book 1922*

Total Population (1911) 313,547,840

- Hindus - 217,586,892
- Muhammadans - 26,647,299
- Buddhists - 10,721,404
- Animists - 10,295,191
- Christians - 3,872,216
- Sikhs - 3,014,399
- Jains - 1,248,127
- Parsees - 100,000
- Jews - 20,968
As may be seen from this diagram, if the Hindus were unified by a democratic spirit, they might largely dominate the situation. But probably not in the whole world is there any other system more formally and definitely antagonistic to democratic union than is orthodox Hinduism. (4) With the Vedic theory of creation itself, men were arbitrarily differentiated into four main castes. Terrific punishments were imposed in the next existence for transgressions of the racial barriers set up in this. This conception of caste is therefore one of the basic facts of that faith and has been magnified from century to century (4) till the census of 1901 distinguishes as many as 2,376 distinct castes. Under all this ineradicable burden of successive ranks on ranks of social and religious grades, are those "untouchable" 53,000,000 human beings whose only associates are the parish dogs and other scavengers of an unsanitary land.

The educational status of the Indian Christians today is a striking and irrefutable testimony of what can be done for the most degraded of India's masses. Government statistics (9) show that, proportionate to the total numbers, nearly three times as many of the Christians are literate as of the Hindus, and nearly four times as many as of the Mohammedans. And it must be remembered that the great part of this Christian community has come from the depressed classes above mentioned. These in their former state were absolutely enveloped in an intellectual darkness more dense than we in America can imagine to be the state of human beings.
Chapter III
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[2] CAPACITIES FOR SCIENTIFIC AND MATERIAL DEVELOPMENT.

Little can yet be affirmed regarding the capacity of the Indians for educational development along material lines. Not enough opportunity has yet been given for them to display capacities which have had almost no outlet for most of their racial history. Wonderfully keen imitative powers they certainly do have, and great numbers of the young men are eagerly striving for what they may gain from the West in the way of mechanical and technical training. At first with this new line of endeavor may be more or less superficial and to us indifferently good, but there is no reason to doubt that eventually, with an adapted and balanced education, they may display a satisfactory ability in scientific and material development. A few of India's names have already gained international fame and are looked on as authorities in the scientific world.


Of all human resources the most important in education are the children. India's future is absolutely dependent upon her development of this greatest of all her assets. It is upon the boys and girls that the hopes of India specially depend. The adults of the nation, with their mature minds and bodies are too set for hope of much effect by education. But the young have yet within them the potentialities of the highest and the best. These children, however, are steadily and irrestrainably moving onward toward maturity. Soon their life's course also will be set. (4) "By the time a generation is old enough to think very consciously about itself, it is practically past help".

What we do now will largely determine what India will be tomorrow.

The British Minister of Education, a few years ago, called education, (14) "The eternal debt than maturity owes its children".

Conservative estimates list India's children of school-going age at between 50,000,000 and 75,000,000, probably much nearer the latter figure. Scarcely 8,000,000 are found in school now. This means that at least five of every six and possibly nine of every ten children in that land, are not receiving even a common school education. And, as has been noted before, four of every five of India's innumerable villages are absolutely with no educational facilities.

At the close of this chapter it must be admitted that we have determined very little concerning the human resources, dormant in the vast multitude of India. We have observed some of the outstanding factors conditioning their development. But it has been found more difficult to estimate what lies under the present pall of illiteracy in India, than to assay the ores of her hills.
CHAPTER IV
PROPOSALS RELATIVE TO ADAPTATION.

In opening this chapter in which a solution of our problem will be advanced, it is well to restate the bounds that we have set to our efforts. India's most urgent need educationally is not the minute discussion of some detail of curriculum or practice, but is the setting of the goal of attainment, the laying of the course in broad principles and resolutions, with a spurring of efforts to accomplish what is set before us. Therefore the problem considered here is the adaptation of modern education, in its broad principles, to specific conditions as found in India, so that the people of that country may attain the highest possible individual and national development.

(I) GENERAL ADAPTATIONS REQUIRING PRELIMINARY PROPOSALS.

Several considerations, preliminary to taking up specifically the program of education are of peculiar interest and concern. These themselves deal with conditions which demand for India an adaptation of western educational procedure and administration.

(A) PLACING OF RESPONSIBILITY FOR THE EDUCATIONAL PROGRAM.

The first of these preliminary considerations is the placing of the responsibility for proposing and carrying into effect the educational program. In India, more than in any western land, it is necessary to lay the weight of responsibility for education upon a small minority of the people. In America popular demand may often hasten
improvement in educational conditions. But in India popular demand on any issue has never been heard. It is obvious that little initiative in matters educational can come from the ninety-four percent of the population which is absolutely illiterate. The large part of this overwhelming majority have not even a desire for education either for themselves or their children.

Therefore, for the present generation at least, in the promoting of all educational programs, it must be remembered that practically all responsibility rests upon six percent of the whole people. This fact multiplies the proportionate weight of responsibility as it is placed on the present inadequate staff of professional educators in India. This situation demands a tremendously greater concentration of effort with clearer, sounder plans and methods than those which might serve in an already educated country.

The acuteness of this particular situation will gradually diminish. Education begets a desire for education. A very rapidly accelerated interest may be expected. Someday a popular administration will be developed. But for this generation, those engaged in education in India, whether as officials or teachers, must recognize their extra responsibility. They must assume far more concern for the proper administration and development of school affairs than if they were laboring in a land where organization is complete and interest general.

(B) OVERCOMING THE APATHY OF THE MASSES.

We have noted the improbability of initiative on the part of the common people of India, and have placed the weight of responsibility
for educational advance during this generation upon the educated minority and especially upon the professional educator. But such a measure is not a real-solution of this phase of the problem. It is only a partial and temporary relief in the situation. Every effort must be employed to overcome the inertia of the masses. Their apathy must be dispelled and then we may be in a position to accomplish what we desire.

(a) First, every opportunity and means must be used to stimulate a general interest in education. (16) "Children remain uneducated, not merely because their parents are poor, but still more because they take a low view of what is required for their spiritual welfare. And one reason why effort after effort at social betterment has failed is that the people are so inert and so weak in character that they are unable to avail themselves of what is attempted on their behalf."

(1) The proposals, to be presented later, relative to the adaptation of the educational program to the more practical and pressing needs of the common people, will, if carried out, prove the greatest means of stimulating this desired interest. As the villager sees that education is a real benefit to him in his own circumstances, the natural desire for self-profit will provide an effective stimulus.

However, methods more direct in their application may also be suggested for impressing upon the people of India the desirability of education.

(2) The Government might very profitably enlarge the scope of the activities of the present force of school inspectors.
These officials visit all parts of the provinces but confine their attention to the inspection of schools already established and the commenting on the work that is being done. Let them be made responsible also for visiting centers in which as yet no school work is being carried on. By contact with the head-men of the villages and by informal conferences with the people, these inspectors may arouse much more of a demand for and support of local educational institutions.

(3) A unique method of bringing home to the villager his loss thru illiteracy and the gain to be derived from the education of his children has been quite successfully worked out by at least one Missionary Society. Boys from a Christian Boarding School were organized into teams with a limited amount of easily procured paraphernalia. During school vacations these teams visited most of the villages having Christian inhabitants within the territory of that Mission. Plays or pageants were presented in native style, revealing markedly the great immediate advantage of education even in the village life. By education the man of the village may keep in communication with his son who has gone off to the army. By education he may avoid many of the unjust extortions of the money lender. By education he may escape complications set for him by unscrupulous petty officials. By education life itself, even in the village, comes to mean more than a mere existence.

(b) Education cannot, however, wait till popular demand has been created for it. Preceding any such universal demand
advantage must be taken of every possible opportunity to promote a system of universal, compulsory education. This type of educational administration has long been recognized as an ideal in more developed countries.

Professor Huxley, long ago, stated it as the business of the United Kingdom (4) "to provide a ladder, reaching from the gutter to the University, along which every child in the three kingdoms should have the chance of climbing as far as he is fit to go". Such a ladder is more indispensable to the right development of India than it was before to England.

In Japan, by decree of the Emperor in 1872, elementary instruction was made universal and compulsory. Whether or not we approve of the outgrowth, we have to admit that within a half century she has accomplished her purpose with a phenomenal success and transformed her position from that of the "Hermit Nation" to one of the recognized world powers.

The American policy in the Philippines has been the universal education of all classes. After only sixteen years control 50% of the children of school age were found in school, whereas in India after a century of emphasis on higher non-compulsory education, only 20% of the children of school age had been given their rightful inheritance. (4) "Her educational policy is the secret of the United States’ rapid achievement in the Philippines. Education has been a primary consideration and education that began not at the top to train
a small office holding oligarchy, but one that began at the bottom and worked up". Judge Elliot of the Philippine Commission says, (4) "The higher education of the select few will never save a democracy".

One writer, himself an Indian statesman, pleads that (3) "unless the Government and the governing classes take up the task of raising the masses of the people gradually, but surely, thus founding the fabric of the commonwealth on the widest and deepest basis possible, namely the whole population, the State renders itself liable to years and years of anarchy and disaster and perhaps dissolution". (3) "Since the earliest years of the present century, Indian Leaders, under the inspiration of the lamented G. K. Gokhale, have advocated universal and compulsory education in full recognition that its cost will have to be borne in some form or other by the tax-payer of the country... (He says) I do not deny the practical difficulties in the application of the principle under the diversified conditions obtaining in the vast territory of British India; but with patient determination these can be steadily surmounted and it seems to me that there is no strong reason for not giving local option to confer this great boon on the people, other than the reluctance of an overwhelmingly non-indigenous administration to impose new taxation".

Another writer with an equal interest in the welfare of India, but seeing from a different angle, unites in the same sentiment, saying that, (4) "compulsory and universal education is the question of the hour in India today. In 1915 Mr. Gokhale introduced a resolution
before the Viceroy's council for the establishment of free and compulsory education."

In India, however, it must be remembered that the Government is control is looked upon as a "foreign power". And the it is sympathetically in favor of educational advance, yet it naturally hesitates to force innovations upon people who themselves have not made the demand. The Government, however, is not asleep to the strategical importance of universal education. In June of 1918 there was a plan issued by the Imperial Government of India, definitely disclaiming any policy of federal compulsion as being unwise under present conditions, but urging all local bodies to assume the burden of a solid advance toward mass education.

Mitigating this handicap under which the Government labors is introducing new expenditure on the educational program, other factors have recently developed. The time seems to have come for the setting in operation of schemes for universal education. Actual movement is already to be noted. For "the first phase of educational legislation of a compulsory nature ever enacted in India was that passed by the legislature of Bengal early in 1918... It strikes at the very root of mass illiteracy of the Province, applying its provisions equally to both sexes, (a signal advance over eight years ago, when a similar provision was defeated) making the period of compulsory to include the whole of the child's eleventh year and thus giving a minimum of five years of school attendance. The compulsory feature is not, as yet, applied to rural areas, but schools are provided in each of the more than 1,100 villages of the
Province, containing one thousand inhabitants and at present without a primary school. No fees are allowed to be charged in any grade of school work. The Times of India well summarizes the situation in saying that the act must be applied "along the sound principle that whether the State finances are flourishing or reverse, primary education is a necessity for which money must be found".

Indeed today in several provinces (9, a) the legislative councils have approved of measures whereby municipalities "are empowered to impose a system of compulsory primary education within their areas". According to the new reform schemes the Minister of Education in India is himself to be, hereafter, an Indian. Certainly with educational measures which may originate in his office, much of the former stigma applied to the Government will be removed. Legislation in favor of universal compulsory education should take precedence in national budgets, as well as in policy and practice, over practically every other issue in India today.

(C) ADAPTATION TO THE IMMENSITY OF THE FIELD

The magnitude of the program that must be devised is another outstanding factor in the educational situation in India. No other land, with the exception of China, can begin to compare with India in the numbers to be cared for. This is a condition that requires the special adaptation of any existent system before it can be applied to India. There is no precedent by which this phase of the problem can be approached. So large a single field has never before been attempted by organized education. The number of children of common-school age alone equals the entire aggregation of any single nation of Africa,
Europe and America, with the single exception of the United States.

(a) The financial provision for the physical equipment and the supply of teachers necessary to carry out a program of universal compulsory education, such as advocated above, is appalling. When the present paucity of equipment and organization is considered, the advance that must be made is evident. Granting for the purpose of comparison that the present provision is sufficient to accommodate satisfactorily the ones already in school, even then this must be multiplied ten times over to include all of school-going age.

We cannot in this thesis digress to the question of supplying funds. Only we would call attention to the fact that in matters that seem essential to the Government, some method of provision is found. The expenditure in 1921-1922 on the British regular army in India, which was paid out of the Indian Exchequer, was (6, a) £ 60,137,000. The expenditure during the preceding year from public funds on education in India was only (9, a) Rs. 10,06,76,671 (¥ 6,711,791). The question therefore resolves itself into one of the comparative importance of education in the estimation of the Government. The military expenditure is almost ten times the educational. The number that should be accommodated in school is also just about ten times the number at present enrolled. If the Government of India could be made to realize that the proper education of its subjects was as vital as the maintenance of an army, then all necessary funds would be forthcoming.

Figures for expenditure on these same items in the United States, show an interesting contrast in the emphasis placed upon these important phases of national life. In 1922 the United States made a total expenditure of (6, a) $395,389,759 under the War Department, and
in 1920 $1,045,055,545 on education. That is, taking those figures of expenditure as the basis of calculation, the United States con-

| Comparative Emphasis on: |
|--------------------------|------------------|
| Army in:                 | Education in:    |
| U.S.A.                   | U.S.A.           |

siders the education of her children more than twice as important as the maintenance of an army. Whereas the Government of India, by the same standard of comparison, ranks the support of its army as of ten times the importance of educating India's children.

A fully expanded educational program can and should be financed in India. (14) Statistics show the the richest states in the world are those that have spent most on education. The wealthiest individuals as a rule, are those that spent most in time and money in education. As a mere financial venture, the expenditure necessary for a complete educational program in India would be sure of most profitable returns.

(b) The supply and training of teachers who are to care for these 75,000,000 youths of India is another aspect of the immensity of our field. This alone makes a problem of tremendous proportions. Allowing the very maximum capacity of forty pupils per class, the number of teachers to be provided must reach nearly the 2,000,000 mark.

An American official review of this phase of the situations says, (10) "The Government of India has always been alive to the nec-
essity of having a supply of teachers for primary schools adequate both in number and attainments, but progress has been hampered in many ways .... Considerable improvements have been effected, but no improvement can be fundamental unless the teacher's profession is so elevated socially and financially as to attract an adequate number of candidates of the proper stamp. This has been attempted by increasing salaries, the effect of which has been to increase the numbers of the applicants in many provinces, if not to elevate the quality. Of approximately 150,000 teachers of the vernacular, barely 60,000 are trained. The magnitude of the problem is serious. If the wastage of teachers of the vernacular be estimated at 6% each year, the training institutions should turn out 12,000 teachers a year. But in 1917 the number turned out was only a little below 9,000. Thus the normal supply is not maintained, to say nothing of the increase necessary for extension .... The dire necessity of supplementing salaries in various ways is a significant commentary upon the real situation. Teachers in many places are granted very precarious fees; again, they serve as branch post-masters, an arrangement long criticized, but still continued by the authorities; and in more remote settlements they eke out their salaries by having charge of the cattle pounds, sanitation, and registration of cattle in the district. As the directors recognize in their reports, the raising of the standard of teachers and their place in the public estimation can only come thru increase of salaries. This raising of salaries will undoubtedly attract many more of the numbers wanted but to meet the demands of the situation and offer any assurance of eventual complete success, there must be the est-
ablising of Normal Schools (or as they are known in India, Teachers' Training Schools), sufficient in number and themselves imbued with the best spirit of genuine education.

Certainly there is no more important technical feature in the program of education, than teaching the teacher to teach. In the hands of the teachers of the country, the teachers that now are and the multiplied number that must be, the whole educational scheme fails or succeeds. They are the commissioned officers of the educational department and other organizations of education. First the master must be great that the pupil may have the vision of greatness, for it is indeed the exceptional pupil that becomes greater than his master.

The demand made then as a vital part of plans for adapting procedure in India to the immensity of the problem, is for trained teachers, teachers with proper mental abilities, themselves alive to the purpose and goal of their labors, teachers whose lives are dedicated to the service of a better India.

Germany, at the initiation of her special educational program, sent selected men to learn of Pestalozzi and others; then, by these, she instilled into her great army of teachers the spirit she wished and set before them the goal of the future. In the program for India, tho having a different spirit and vision, similar emphasis must be placed on teacher training. And it must be an emphasis sufficient that the quality of educational work may hold at least proportionately even with the necessary numerical expansion of the schools.

(c) Cooperation is the one single factor that will promote the actual expansion of the present educational force so that
it may adequately provide for India's vast multitude of children. Cooperation is the antithesis of the movement popular today among many of India's influential classes. Records show that (2, a) the non-cooperationist movement has had some injurious effect on education, for instead of the usual annual increment there was a slight falling off in the number in school in 1920-21. Cooperation with and by the Government for the realization of the proposed educational advance is imperative. The provision of satisfactory education is a problem so great that there is no solution within the power of any single organization. It must have the combined strength and support of all agencies, not in suspicion of and opposition to one another, but linking together every effort in a harmonious procedure.

(1) Manifestly, the greatest co-laborer in any movement that will affect the life of all the people, is the Government. For the past, much severe criticism is found relative to the part that the Government has not taken. One says, (3) "British rule in India has been criticised and rightly criticised for having allowed the twentieth century to dawn and grow without having grappled fully and successfully with the illiteracy general in India, and with the unsanitary environment of the masses, so bad that avoidable deaths are counted by the million every year, while the standard of physique of the masses is deplorably low .... The Indian public conscience unanimously demands that British rule should come into line with progressive modern ideas and attack illiteracy and other social problems, left far too long unsolved".
Especially is this opportunity for growth owed India by the Government because of India's loyalty and support during the war, in men and money. (10) "This demand for mass education, scarcely heard ten years ago, has now so grown in volume as to fill the journals and public press, and to occupy a large part of the attention of provincial assemblies. It has also significantly written itself on the mind of the governing Englishman, as is shown most conclusively by the Montagu-Chelmsford Report to Parliament, and on Indian soil proper by the circular letter addressed in 1917 to the local governments by the Imperial Government".

In accordance with this demand by India's leaders and also in accordance with the policy advocated in the Montagu-Chelmsford report, (2) "the new reform scheme has placed in the hands of Indians whole departments of the political and social administrations - known as 'transferred subjects'. Among these there is none more important than education. In the past the schools have followed English curricula and English methods, but both British and Indian educational leaders have expressed dissatisfaction with that system as inadequate and unsuited to Indian needs. Now it devolves upon the Indians themselves (as administrators of the Government Educational Department) to work out an educational system that shall be both economical and consistent".

From all this review it is evident that the Government of India today is showing many signs of an increased interest in matters of education and an increased willingness to cooperate with the Indian people and other agencies to further a complete program of education. The
resolutions already proposed by the Government are so broad that their fulfillment by cooperative effort will set a pace that is bound to win success.

(2) Next to the Government in order of those to whom the appeal must be made for cooperation are the great National Conventions of the Indian people. These non-official leagues, representing almost every shade of political, social and religious opinion in India, have become mighty instruments for shaping the course of public action. But far too much, each faction has attempted in its own effort to work out reforms, each usually selfishly seeking the betterment of its own constituency and too often only uniting when there is common antagonism to policies of the Government, which they think to be foreign impositions. Such courses can only complicate the dismemberment of India as a national unit and preclude any genuine national progress. But if these organizations, which are of strategical importance today, could cooperate with a Government, that, however much it has been criticized adversely in other matters, has faithfully kept the honor of its word, - a Government, that is now pledged to the fulfillment of a comprehensive program, then with united effort the outlook and promise of success in meeting the common desire of all parties will be well assured. Certainly now, at least, in the inclusive field of education, with the Government represented by blood-brothers, in the office of the Minister of Education, this cooperation is feasible.

(3) In any such program of cooperative activity in India, the Missionary may be counted on to exert his every energy. It is the Missionary that has been largely influential in inaugurating
reform schemes and advance in education. The Missionary has always stood ready to cooperate in any movement that has meant the betterment of India. Of past missionary efforts many testimonies might be given but here we will quote only from the present Viceroy of India, Lord Reading. He says, (4) "Every administrator in India must acknowledge that the educational system was created and developed by Missionaries; that many of the reform movements in society and in Government were brought about by Missionaries; that the human contacts of one race and color with another race and color which are creating a new India, were the direct result of the preaching and practicing of the brotherhood of man by the Missionaries."

It seems then possible, with the Government, the National Conventions, and the Missions, as well as many minor forces working as "one", that a work, which has seemed too vast to attempt single handed, may now be completed. Already we feel the impulse of confidence in the final successful outcome as we see affairs working out with this new spirit.

(D) UNIFYING THE DIVERSE ELEMENTS.

The diversities of the people of India enlarge the problem of education until it seems like that of a continent rather than of a nation. Racially, politically, socially, religiously, India is a country at present divided against itself. In education as in almost every other field, the handicap to progress in India has been diversity and dissensions.

Preeminently it is the work of education to provide the unifying element, not only in order to forward the progress of India as a
nation but especially to insure a sound foundation for the development of its own further program. To do this requires of education what it has not had to provide in other lands. No other country, not even America, "the melting-pot of the nations", has a problem quite similar to this presented here. A very special adaptation of any existent system must be made to successfully cope with this situation. Positive measures are necessary, not negative.

(a) The development of a national self-consciousness is the first essential in such measures. The new nationalism must be distinct from color, race, language or religion, and must be truly universal within the borders of India. National self-respect and self-reliance are the foundations upon which this national self-consciousness can be built.

National self-consciousness we believe to be the rather ill-defined goal of those sincerely favoring the non-cooperation movement. However, their means to the end is not wisely considered. Reversion to pre-English manner of life is impossible in these days. The various parts of the world have become too intimately associated in this twentieth century to allow any country to exist unto itself. A mutual adjustment of international relationships is compulsory, especially for any nation containing one-fifth of the human race. Furthermore, the mass of the people of India are not non-cooperationists. Even the majority of those professing non-cooperation as a principle are not consistent. The real move of the people today is toward a more and more complete acceptance of western ways. Mr. Lajpat Rai expresses in words what practically all express in action, (14) "I come to the con-
clusion, therefore, that any widespread revival of the ancient or
medieval systems of education is unthinkable.

As this same writer urges, however, the goal of national self-
respect and self-reliance and thru them self-consciousness, may be
arrived at by positive measures, without retrogression. Knowledge of
the past achievements and glory of India are legitimate features of
any national life that may develop in that land. This knowledge may
be promoted by the study of Indian history. The Indian people should
be conscious of the fact that they have no inherent racial inferiority.
A common belief, much as this expressed by Lajpat Rai, would do much
to lift their heads and create within them that patriotic sentiment
vital to a unified nation: (14) "Our people are inferior to none,
either in mental or physical capacities .... At no period of our hist-
ory except within the last two hundred years were we in a position of
inferiority, either culturally or otherwise, to the nations of the world
as they then were".

In addition, however, to past achievements, recognition of
present values and future possibilities is an important phase of educa-
tion, that may lead to a positive self-consciousness by the nation. In-
dia's resources, material and human, are inestimable and give promise
of India's high rank among the nations of the world. With this in mind,
the fostering of love for country and people may become a direct ob-
jective of education. Loyal, patriotic teachings and programs may
impress the mind of the presentschool children so that the next genera-
tion of India's people will have a national leadership with a unified
purpose.
This proposal of national self-consciousness and patriotism is in accord not only with the best interests of the people of India but also with the policy of the present Government. The acceptance by Parliament of the Montagu-Chelmsford report means India for the Indians eventually, autonomy, self-government, home-rule. England is pledged to the withdrawal of British rule as fast as India becomes prepared to take control of her own affairs.

[b) Tolerance on a vast scale is also necessary for the accomplishment of the goal of national unity. Mutual tolerance, especially tolerance socially and religiously, must be brought about if the different factions of India are to be politically united.

The present state of multitudinous social compartments is the antithesis of national unity. Many Hindu leaders, the it is their own past system that is being attacked, are the most urgent in their demands for this reform and the breaking of caste barriers.

The religious divisions in India are hardly less marked than are the social. Indeed religious barriers are the basis for most of the social and political distinctions. Active antagonism between various factions in India is marked by religious distinctions even more than by social. The absolute monotheism of the Mohammedan abhors as blasphemous the polytheism of the Hindu. The orthodox Hindu does not conceal his detestation of the slaughter of animals for food. Militarism has long been an outstanding characteristic of the Sikhs. Distrust and hate marked by religious parties have long been fostered in India until today unity in a national spirit seems remote indeed and any cooperation between factions is but temporary and superficial.
Until India comes to the realization that religion is a matter of individual decision and not a compulsory class distinction, she cannot attain national unity. Under the present situation no unprejudiced observer can consider immediate, absolute home-rule without grave concern. For wherever the "rule of Britain" is at all relaxed the old time lines of opposition become apparent. Mutual religious toleration however, not the negative and indefinite quality of "neutrality", is desired. And this is desired not only from the Government but also from the various religious constituencies themselves. Freedom of religious education and freedom of individual decision are essential, rather than a negation of all that concerns the moral and religious life of the people.

Further discussion both of the social and religious elements, as they affect the actual program of education, will appear later. Here, however, the emphasis is laid on the need for adjustment of the relationship of these communities, that a true national existence may be given birth in India.

(c) The establishing of national ideals must necessarily be a third tremendous factor in unifying India's diverse elements. Such ideals must first be consciously realized by the leadership of the nation, then the educational program must be so shaped as to achieve these ideals.

No other instrument in the hands of a nation is nearly as effective as is education for the development of national character and spirit. The spirit today governing the educational authorities will be dominant in every phase of national life within a few decades. If
national ideals are now wrongly conceived, then wrongly directed education will produce disastrous results. But right ideals rightly taught will give birth to a nation of right character. This is no new theory. There are classic illustrations both of ancient and recent date.

Greece, in her golden-age, definitely proclaimed her educational policy as that of complete physical development and capable citizenship for the services of the state. As long as that spirit was maintained, Greece ruled the world by military and civil supremacy. A century ago, Germany, tho she had been recently humbled under a foreign invasion, determined to dominate the world in army, in government, in intellectual attainments and in industrial expansion. To this end she molded the growing generations until she became a synonym for each and all of these desired accomplishments. Japan, till a half century ago the "Hermit Nation", determined to take her place among national forces in the world. She set her standard and attained it by a phenomenal expansion of directed education of all classes. In 1895 Japan startled the world by her debut as a military power and since that has amazed us by her unprecedented industrial expansion.

Wrongly directed education, the more it is expanded, the worse it becomes. Germany's policy, the universal in its scope, was not democratic nor individualistic in its touch. An efficient machine was built out of Germany's human assets, a machine that did mighty things at the direction of its operator, but a machine that failed in the end because the personal, individual life that is vital to national existence in our democratic twentieth century had been crushed out.

Right education, on the other hand, based on the highest ideals
of a national democracy, will progressively eliminate these diversities of people and unify them into that form of nationalism that alone is standing the test of the present century. The sanctity of the individual and his right to an equal opportunity to develop along the lines of his innate ability must be recognized as the fundamental principle supporting such a democracy. True democracy is not the equalizing of all individuals within the nation, either economically, socially, or any other way. Such a procedure, even if possible, would multiply a standardized individual. This result in manufactories is economic efficiency, but with human beings it would be the stagnation of society. True democracy, however, is the providing of an environment, the giving of an opportunity to each individual to develop and grow according to his own innate capacities and tendencies. Only thus can the individual realize himself and the nation realize the greatest good from the individual.

In India, far more than in America or in most European countries, the individual needs individualizing and his worth needs recognizing. The past has amalgamated great strata of the people into an almost impersonal part of the structure. The individual, the most valuable national resource that India possesses, has been covered up as effectively as are the coal and iron of her hills. Before any other great progress can be made, before any other resources can be put into efficient service, this fundamental individual must be dug out of the dust of time and the intrinsic and basic worth of his personality recognized.
To realize, then, the unifying of all these diverse elements of India, these various separate units of human humanity must first be discovered and then they may be recombined, not as a machine, and yet not as separate classes and groups, but as a living organism, the many peoples, religions, and languages of India into ONE Indian Nation. To accomplish all this, national ideals such as proposed above, must be conceived today by the educational authorities; they must be definitely formulated and set before the youth of India as the goal of national attainment.

(E) ELIMINATING DETRIMENTAL FEATURES OF THE PRESENT EDUCATIONAL SYSTEM IN INDIA.

Two or three features of the current system of education in India are so outstandingly detrimental to an efficient program, that they deserve serious consideration even in a thesis with a purpose such as this. It is truly a work of adaptation to devise measures for the elimination of these handicaps and the inauguration of corrective substitutes.

(a) Criticism of the present examination system has been severe but not too severe for the fault. Real education is the forming of actual habits and practices of right-living. But in opposition to this ideal, the mere cramming of information for examinations is encouraged if not actually forced upon the pupils when examinations are given impersonally by official bodies that have had no part in the instruction. One critic says, regarding the present system, that (4) "education (after 1862) became a mere competition in cramming; the fellow with the best memory won. There was no effort to teach students
to think or reason, no attempt to recognize or encourage originality as distinguished from parrot-like memorising. A still more sharp denunciation of this system was made by Theodore Beck of the North-West Provinces in 1896 and is still valid today. (3) "The University system is simply a cramming system. The student 'cram' up large numbers of subjects, which he gets up by heart and never learns anything at all .... At present (and still, we may say, at present) a Master's work is judged by the percentage of students he cram thru a University examination .... the examination takes his (the student's) whole attention; he has no regard or love for knowledge in itself or such love as he naturally possess ... is knocked out of him by this degraded ideal of working simply for examination ... I think (he says) it is a very debatable question whether the Universities are a blessing or a curse to India, as far as education is concerned. The Universities do not educate; the Colleges educate; the Universities tie the hands of the Colleges, they say what the Colleges should do."

This examination feature of the present administration puts the stangle-hold not only on all earnest efforts of the professor and student, but chokes out the very spirit of growth that is our ideal in all education. A some correlated system of instruction and examination must be devised and promoted that the benefit of all other educational reforms be not lost by this treacherous fault.

(b) The balancing and due proportioning of the various scholastic departments is another reform that must be bro't about before the proposals to be suggested for the educational program can
be effective. Undue weight allowed to secondary education has produced the characteristic commonly known as "top-heaviness". In this situation (10) "less than 3% of the total population are enrolled in the elementary schools in which the average duration of school life is less than four years, and nearly half the children are in the infant sections of the primary and in which a relapse into illiteracy in adult life is the rule; whereas in the field of higher education the percentage of the total population enrolled, one twentieth of 1%, is nearly equal to that of England's one sixteenth of 1%, and considerably larger than that of Japan's one-fortieth of one per cent. of the total population".

(10) "Furthermore, India is the only country in the world where the educational ladder, fragmentary at best, has its higher end in another country. This evil too, must be cured by the further establishment in India of centers of professional and cultural learning for native Indians, themselves graduates of the continuous system of schools below". (3) "The broad aim (of higher education) must be to make India sufficiently well equipped educationally to give her sons the general and special culture they seek, so that the ambitious should no longer be under the virtual compulsion to spend years of their normal student life abroad".

Such an unbalanced condition as this which now exists between the various grades of education demands attention. Any reform, tho, at this point must be positive rather than mere negative. We must guard against a false balancing by the lowering of the present standards of ordinary secondary education. Rather the deficient departments
must be so improved that the balance of the whole structure will be
tained in harmonious proportion. This will necessitate an effi-
cient, free and compulsory educational system, such as has already been
proposed, especially in the primary and lower secondary schools.

(c) "Religious neutrality", as it has been defined
by former practices in education as well as in other fields in India,
is another aspect of the current educational system, detrimental to
educational advance. Viewed in the light of the broad definition
of education offered in the Introduction, as the provision for the
well-being and growth of the individual, this subject of religion in
education appears, more than any other, to demand reform. Especially
is this demand emphasized when the evil of non-morality, accompanying
the lack of religious education, is considered. This is an opinion
in the minds of many thoughtful students and workers both Indian and for-
eign. However, mention of this constantly recurring subject has al-
ready been made, and later a final discussion will be given. So here
it need only be classified as one of the most serious drawbacks to be
found now in India's educational policy.

(II) ADAPTING THE EDUCATIONAL PROGRAM TO INDIA'S NEEDS.

The central problem demanding consideration in this thesis
is the adaptation of the general school program and procedure to meet
the specific needs as they have been found to be in India. To this,
all previously considered proposals for adaptation have been prelimi-
inary and with the purpose of insuring the successful operation of the
proposals now to be presented.

It is apparent even to a casual reader than conditions as they
have been described in India are hardly comparable to those in any western land. Poverty is found in place of plenty. Illiteracy there ranks about in proportion as literacy in America. Diseases in India thrive in unsanitary surroundings. The average expectancy of life is one-half that in England and America. Natural resources have remained undeveloped and to a large degree undiscovered. General industries are dormant. Quite evidently the educational systems current in America and England will not fit these conditions in India. Many radical changes must be effected before modern educational systems as known in western lands, may be adapted to the best interest of India and the Indians.

Again, before taking up specific proposals, we must see clearly the real objective of true education. That we would advocate here is that system of education which will enable each individual and the nation as a whole to develop for their own greatest well-being all natural capacities and to utilize most profitably the material resources of their land. This is well expressed by Lajpat Rai, (14) "The first requisite of an efficient system of national education, is that it enable every citizen to live better and to help others live better".

As a convenient and broad classification of the various proposals here to be presented, let us use Herbert Spencer's "rational order of subordination in the process of education". "Education," he says, "Tells us in what way to treat the body; in what way to treat the mind; in what way to manage our affairs; in what way to bring up a family; in what way to behave as a citizen; in what way to utilize those sources of happiness which Nature supplies; how to use all
our faculties to the greatest advantage to ourselves and others; how to live completely. And this being the great thing needful for us to learn, is by consequence the great thing that education has to teach. To prepare us for complete living is the function which education has to discharge." All this discussion he condenses and classifies under four points, which we will adopt as heads for succeeding discussion.

1. That which prepares for direct self-preservation.

2. That which prepares for indirect self-preservation.

3. That which prepares for parent-hood.

4. That which prepares for the miscellaneous requirements of life".

(A) THAT WHICH PREPARES FOR DIRECT SELF-PRESERVATION.

India is far more vitally in need of that form of education which prepares for direct self-preservation than are any western lands. In India, if in any land, such an order of "subordination in the process of education" is valid which gives primary consideration to that which prepares for direct self-preservation. Other lands may be prosperous enough so that abundance of means are at hand for self-preservation without burdening the educational program with the responsibility of preparing for them. But in India provision of means for direct self-preservation is extremely inadequate and education consequently must assume the responsibility of preparing the people of that land to obtain these means. We do then, in our proposals for adaptation of any existent systems of education, give this phase primary consideration.

An almost untouched field lies open to our efforts, for education in the past in India has neglected this primal requisite of life
and has laid the emphasis on more liberal or clerical training. The former Viceroy, Lord Chelmsford, a few years ago in addressing the recipients of degrees at Calcutta, recognised the danger of the old emphasis and strongly advocated the readjustment of the present policy. He said, (10) "Only the other day I asked a law student why he was taking up law, with all its risks and disappointments. He answered, 'What else is there for me to take up?' I am not going to discuss his answer, but this I will say, it is my sincere hope, and it is the policy of my Government, to endeavor by all means in our power to open up other avenues of employment. So long as students think that the only avenues of employment are in the legal and clerical professions, so long shall we get congestion and overcrowding in those professions, with consequent discouragement, disappointment and discontent. Our policy, then, is first to provide that there shall be many opportunities of a livelihood opened to the educated classes and next to endeavor to divert the students into channels other than those of law and government clerical employ".

(a) Improvement of Agriculture.

Facing the common facts of daily life, the most elemental pre-requisite for direct self-preservation is the provision of food. And knowledge of how to produce food, just plain, nourishing food, now a knowledge of foreign languages, not the high tone of a liberal education, is the thing first and foremost that India demands from modern education. Improved methods of Agriculture are therefore our first consideration.

Farmers, the coming generation of farmers, must be educated in farming. They must know how to get several times the present crop
yield from the present acreage. They must know how to make productive much good land that now lies useless. They must know how to store away with the least loss or dispose of to advantage, crops in excess of immediate needs. They must know how to become managers and owners of their own land. They must know how to obtain and efficiently operate modern farm machinery. They must know how one man may, with a far greater crop yield, the work now done by seven.

Not only is the physical preservation of the 219,000,000 agriculturists at stake, but while the gigantic incubus of ignorance is fastened upon the food supply, little improvement can be expected in any branch of living. The present over-encumbrance of the agricultural occupation must be reduced to efficient working numbers. Six men of every seven now employed in agriculture must be set free to enlist in the armies of new industries and professions. By such attainments in this fundamental business of providing food for all, progress of all kinds will be accelerated to geometric progression. (3) "It is not merely conceivable but certain that with concentration and national effort on agriculture and subsidiary forms of exploitation of the earth's surface, India could double her economic wealth in the next few years".

The only hope for the improvement of this situation is education, deliberate, concentrated, purposeful education. Schools giving adapted, technical instruction in agriculture must be within access of every community. What little has yet been done by Government in this form of education has made practically no impression on the mass need. Twenty agricultural schools of all classes with only four or five hundred students, would hardly be sufficient for one province, let alone
the whole of India. The Government and all other educational agencies must for the present at least place tremendously increased emphasis upon these agricultural schools. Many times the present number of institutions must be provided and made available for all classes.

One outstanding instance of the type of agricultural education that we are advocating is worthy of multiplication in every part of the country. (4): "The work of Samuel Higginbottom, an American Missionary, who has been appointed in charge of agriculture for the state by the Maharajah of Gwalior, is typical of the new day (to be). Higginbottom, one of Princeton's national football stars and a post-graduate of Ohio State Agricultural College has "sold" to the princes of India a realization of the necessity of introducing agricultural education into their states, just as an American business man goes out and sells advertising. He demonstrated American weeder's doing the work of nineteen men. He showed them a machine for cutting several tons of grass in the time it takes a ryot to cut enough to feed one horse for a season. Old fashioned threshing with oxen used to cost fifty cents per one hundred pounds; Higginbottom threshes by machinery for six cents per hundred. Farm laborers in India cost only eight cents per day but modern machinery brings in a harvest at one-third of this cost. Higginbottom teaches a ryot how to save 42 1/2 miles of plowing in a single acre. He teaches him rotation of crops, how to use manures, how to build silos and store away food for the cattle against years of drought. As a result, "Sam" Higginbottom is not only an official of the State of Gwalior but he is agricultural advisor to the native states of Ratnan, Kotah, Jalawar, Dhar and Jaora, while thru his influence the Maharajahs of Dilaner and
Jodhpur are looking for American experts who can give them their entire time.

Indigenous organizations and societies seem to have little realized that in their national life this education for efficient agriculture is of crucial importance. To them must be presented the appeal for informed, hearty co-operation with the Government and foreign societies in their efforts to meet the situation. To these indigenous societies this need must be presented as primary and basal, coming even before political independence and economic stability in importance.

In addition to organized schools for technical instruction in agriculture, many other agencies are open to the educationalist by which he may give instruction in this fundamental requisite for self-preservation. Rural co-operative credit societies in every community; model farms, widely distributed; the organization of frequent agricultural exhibits in every district; conventions for the discussion of best ways of organization and improvement; traveling lecturers on matters of interest to the farmer; all these are urgently required as means of instruction to the actual laborer of the soil. But even more value possibly than the direct instruction imparted in these ways, such agencies mean the stimulating of a desire for something better in agriculture. They serve as advertisements to "sell" the idea of technical instruction to the masses. They become agencies to secure students for full courses of instruction in the agricultural schools. The few attempts along these lines, so far made, have been so markedly successful that the Minister of Agriculture in his 1918-19 report, says in support of
this policy, that (7) "a desire for more extensive education has arisen in many parts of the country and instances are not wanting in which co-operative societies have started new schools or have given scholarships to selected students".

In this campaign for arousal of interest in better farming the Co-operative Credit Act of 1904, revised in 1912, has had possibly the greatest influence of any effort to date. It was seen that (9) "one of the chief causes of the ryot's (small land holder's) poverty is that owing to the absence of security and his short-sightedness due to want of education, he does not as a rule collect and lay by his savings but fritters away his small earnings in extravagant and unproductive expenditure on the purchase of trinkets and ornaments and on marriage and other ceremonies". Thus he incurs heavy debts at the exorbitant interest of upwards of 75% and is kept in that condition by devices of the money-lender, from whom the proverbial Jew could take lessons. He is virtually enslaved for life. The psychological appeal which improved financial conditions offer him changes the potential condition of the agriculturalist from this slavery to the money-lender to independent proprietorship. With such independence is aroused also the desire for personal improvement in many other ways.

These co-operative societies are for the purpose of raising funds from the deposits of members and loans from non-members, Government and other co-operative societies, and the distribution of this money to members in the way of loans at a reasonable rate of interest. These societies serve also to aid in the liquidation of old debts, give lessons in self-help and instill a sense of communal life. Observation
of this experiment has shown that the provision of cheap capital for the purchase of agricultural requirements, such as implements, seeds, manures, etc., combined with habits of thrift and self-help, are great factors in the immediate relief of the agriculturist and for implanting within him the ambition to learn still better methods. As yet, however, the work is but begun, and there are unestimated opportunities for the expansion of this agency. The immediate demand in this branch of the work is for trained, local secretaries to organize and direct new local societies.

Thru the Imperial Agricultural Institute at Pusa, for research and post-graduate study, there are developed improved seeds and stock of all kinds. Better methods of cultivation and improved implements are demonstrated; the study of soils, fertilizers, crop and stock diseases in conducted as are also agricultural engineering and well-boring experiments. Educational efforts of this kind on a national scale with the local officials taking an active part and enlisting the voluntary assistance of the public, is required to raise the standard of the farm products of India.

(b) THE CARE OF PUBLIC HEALTH.

The care of public health is a second factor of direct self-preservation that is of strategical importance almost equal to that of the supplying of necessary food, and possibly far exceeding the former in difficulty of attainment. The present lack of sanitation and habits of good health, presents the necessity for emphasis on instruction in the care of health to a far greater degree than is common even in America. The educational program for India needs to be so adapted that this type
of instruction receives almost primary attention. We need only review
the depressing conditions set forth in the previous chapter, with its
millions dying yearly from preventable diseases, with the diseased,
weakened and unfit bodily conditions of most of the living; with the
expected length of life only half of that in England, to determine that
efforts must be concentrated for the lifting of this incalculable burden
from the people of India, even before trade expansion or industrial de-
velopment can be successfully considered. Sanitation and health-improve-
ment efforts would produce a double benefit, first, the direct advantage
to all affected thru better living conditions; and second, the accelera-
ated progress in all other developments due to increased life and energy.

Here, as in food-shortage and in nearly all of India's other
ills and evils, ignorance is the cause and education the only effective
cure. The spread of knowledge and the practical application of that know-
ledge can alone make the very homes of the people fit places in which
to live. To make such education effective, we emphasize again the need
that the educational system be universal and, as soon as practical, com-
pulsory. This program for better health conditions must reach five
villages out of every five. It must give within the prescribed school
training a course not only of sufficient class instruction in the laws
of personal, home and community hygiene and sanitation, but also a
course in which the children shall have ingrained in them actual prac-
tices and habits in accord with these laws. Such a course should be-
come in each school a community enterprise for the health of all. Practical
habits of physical care must be formed in early life and therefore must
be well begun within the elementary school life. By much as life itself is more important than a knowledge of the liberal arts, so much more necessary in the schools is emphasis on the care of public health than upon the learning of English or Arithmetic or History.

As for combating and eradicating actual disease scourges, the work [3] "must be taken in hand on a great national scale commensurate with its vital importance". For such a crusade, many times more than the present force of trained physicians, nurses, hospital, and dispensary attendants will be required. Herein this subject makes a further demand on education. A comprehensive program should be formed at once for the increase of schools imparting this kind of technical training, looking forward eventually to the provision of efficient medical aid within the reach of every needy individual. Immediate action should be taken to work out the provisions of such a program as rapidly as at all feasible, for the direct self-preservation of the people is largely dependent thereon. Certainly there is little hope for victory over such enemies as cholera, plague, influenza, tuberculosis, small-pox, and fevers of all varieties while there is yet only one responsible physician with a few scattered assistants and sub-assistants in charge of the health of a district of a half million human beings. And still more is this true when these people over whom this small force has supervision know nothing of the care of their own bodies and physical surroundings and when their needs of medical attention are vastly more than with a similar group in America. It is nothing short of criminal negligence and national suicide to allow such training to take a relatively very unimportant part in the system of education.

(B) THAT WHICH PREPARES FOR INDIRECT SELF-PRESERVATION.
In a country so destitute as India it is hard to know at what point to distinguish between direct and indirect self-preservation. However, industrial and vocational development and education are perhaps a shade less immediate in their demands than are food and health. Yet training for the vocations of life certainly does have a decided reflex influence at least on those factors that prepare for direct self-preservation. Then for lack of money, food cannot be bought and health cannot be cared for, then indeed industrial, economic advance becomes direct in its preservation of self.

The subject of education in vocations and industries is so vast and so complicated that it will be impossible to attempt to give a comprehensive survey of the field, only some of the general principles and activities of great national importance can be here advocated. Enough had already been said of agricultural education so that here we need only mention the fact that it is and is likely to remain the chief industry of the nation.

In educating India for industries, a tremendous handicap is to be overcome in the antipathy on the part of all "educated" to anything involving manual labor. The past system has set the wrong emphasis and precedent, and the traditions of milleniums look at "work" as degrading and unfitting for any except the lowest and illiterate. Yet specialized industry of today (4) "needs instructed labor, very different from that which can be supplied by the average ill-fed, ignorant coolie". The responsibility for India's present attitude toward bodily labor is divided, for as one writer says, (4) "Not England alone but also the Indian people in their demand, may be blamed for not having developed a system
of education including training in work, in science and in industrial life, but only that of a literary character. It is only recently that this national self-consciousness has produced the recognition of this need. Another authority emphasizes the same contention, saying that "only of late years has any complaint arisen against the real element which is wrong in the situation, namely the inadequacy of facilities for training in manufactures, commerce, and the application of science to active industrial life".

A hopeful note in this phase of the situation is found in that already the beginning of new interest in industries of many kinds is developing. And the financial successes produced by some of those recent enterprises are greatly accelerating that interest. In fact, today, it seems that industrial and vocational education are coming so into demand that it will keep all educational agencies actively engaged just to direct the expenditure of this long pent-up store of energy.

Many of the same labor difficulties met with in America and Europe are likely to affect the coming industrial expansion in India. Yet thru the lessons learned in the experience of these western lands, proper education may eliminate decades of strife and loss. The right relationship of capital and labor, the true spirit of nationalism and adapted methods of efficiency and management are forces that education may use with great effect to aid India thru any such crisis.

Some system of vocational training, such as has proven effective in Japan, must be adapted, improved and introduced in India. In the Japanese Middle Schools there is a double direction to instruction that of (11) "fitting students for the Higher Schools and that of pre-
paring them to enter immediately practical pursuits. If the pupil has the latter object in mind, from the beginning of the fourth year he may elect a supplementary technical course. Provision is also made for the introduction of technical studies during the entire five years of study, if local authorities deem it prudent, when agriculture, industry, and commerce are taught. Thus the Japanese lay a foundation for their remarkable system of technical education in the preparatory institutions. The principal object of the higher technical instruction is to fit men to enter factories as experts.

In India, the Commission of 1882 did suggest that there be two branches to secondary education. (9) "one leading to the entrance examinations of the Universities and the other of a more practical character, intended to fit youths for commercial and other non-literary pursuits."

No this proposal was not carried out successfully forty years ago, today indications are so favorable, in fact conditions demand it, that action on a large scale may be expected immediately. Otherwise within a few years the school system will be hopelessly swamped by the demands made upon it.

A greater equality of financial recognition might be given to positions employing the vernacular language. Such action would impart a further impulse to this movement toward industrial development and would turn it in the right direction. Only by this recognition of the vernaculars in business positions can the present over-balanced leaning in favor of English education and positions requiring English be stayed and the native languages and service find their intrinsic worth.
Especially is there need of industrial education along those lines that will use native raw material and thus prevent the expensive necessity of first exporting the raw and again importing manufactured material. As previously mentioned, a large proportion of the "European goods" in the shops are manufactured from Indian raw materials, yet are well within the range of local Indian enterprise. With this condition in view the demand for vocational education includes the bringing in of new industries and occupations and an increased emphasis upon those that are now relatively unimportant. These industries, if properly developed, would enrich the whole country and be an effectively important agency in preparing for indirect self-preservation.

With this coming increased wealth, in another way much added responsibility is placed on education, for if this wealth is to be a blessing to its possessors, there must be instruction as to its best expenditure. Profitable uses of this money must be taught in place of the mere frittering of it away on cheap baubles and trinkets.

We have seen from the review thus far, that (10) "on the whole, industrial education in India has hitherto attained only allimited measure of success. The causes, racial and governmental, lie deep below the surface, but that the situation is capable of improvement and that it is improving is emphasized by the directors of the advanced Provinces".

The professional man, as well as the laboring man, looks to modern education for radical improvement in his conditions. (1) "The bench, the bar and the Government service may be said to represent the whole of the small middle class. The professions suitable for educated
men are notoriously glutted and a large discontented surplus is left, whose disappointment vents itself in perpetually carping at the Government, vilifying the officers, black-mailing and spreading sedition. Education, technical and professional, on lines other than the few mentioned above must be fostered. The duty of education here must include the definite fitting of many for the professional services, in which as yet the supply has not equalled the demand. Even the introduction of professions entirely new to the life of India may be necessary for the satisfactory absorption of the excess number of those that are now fitting themselves for "white-collar" and positionless lives.

Commercial education also is essential to the elimination of the extreme poverty of the country, and thus to preparation for indirect self-preservation. Despite optimistic reports of officials, who see things in the mass and do not see the individual's condition, whose judgement is formed from the few commercial successes and not from the conditions of the common people, (4) "the life long torment of bitter poverty and chronic hunger" is still widespread. From the Maharajah to the peasant the custom of the ages has been the individual hoarding of treasure. This withdrawal of wealth from circulation has had a large influence in establishing the impossible rates of interest and the scarcity of available capital for local industries. Instruction, therefore, in handling capital and in the expansion and safe-guarding of banking systems is seriously needed. A course in "thrift-education" adapted from that which is now so successfully practiced in America, would be a good first step toward national economic reform, and itself relieve the fin-
ancial pressure of countless individuals.

(0) THAT WHICH PREPARES FOR PARENT-HOOD.

Three factors are to be considered in this thesis under the caption of "that which prepares for parent-hood". Whether or not these factors were in Spencer's mind when he first suggested this division, in this thesis at least, they are considered unquestionably vital to the right parent-hood of India. Without them no adult is fit for parenthood and no child can prepare himself for that fundamental responsibility which devolves on most human beings. These indispensable characteristics of education are social, moral and religious. We have reserved final treatment of these subjects to this point, not because they seem of third rate importance, but rather because the former considerations seemed so immediately pressing in their demands.

(a) Under the topic "social education", there is no necessity for listing the blots on the name of India. Caste and the low status of women are known the world over, wherever the name of India is mentioned.

(1) Diametrically opposed to the development of democracy, caste has set its heavy barriers to stop all progress. Its efforts, however, are proving less and less availing. More and more those walls of social partition are disintegrating under the attacks of modern education. (2) "The economic pressure of these days and the influence of western education are profoundly modifying the conception of caste ... and it is bound ultimately to collapse before the intellectual and economic influences which are molding modern India."
Continued effort must be expended to entirely clear India's reputation of this blemish, but victory seems assured with the advance of western contact.

2) The effort of education to raise the status of women has not met with so obvious a success as it has in the overthrow of caste. Far greater activity must be concentrated upon this problem. We of the West today, need not have "woman's rights" presented in an argumentative way. By how much more then, do we recognize the necessity of raising this half of the population of India out of a state and condition that our women have never been subjected to.

As far back as Sir Charles Wood's Despatch of 1854, the education of women as a statement of policy received frank and cordial support. This Despatch recognized that (3) "thru female education a far greater proportionate impulse is imparted to the education and moral tone of the people than by the education of men". Indeed, a higher status of women is not contrary to the practice of ancient India, for (3) "in early Aryan days, indications are that women received education almost on a par with men and down thru the centuries to 1000 A. D., many were as well educated as men. Then came a marked falling off, indeed of all forms of education till the centuries preceding British rule were the darkest of all."

But today, (3) "suttee, infant marriage, the compulsion of permanent widowhood and the enervating restrictions of the purdah"*  

*Purdah - the curtain separating the harem from other parts of the house, from behind which Mohammedan women of the upper class may not appear except with covered faces.
these and other social evils have so handicapped India that it is impossible to conceive of her taking a proper place in the midst of free nations until the broad principle of equality between the sexes has been generally accepted by her people. The time has come for a full recognition that the happiness and welfare of the women themselves must be the end and purpose of all efforts toward improvement -- not merely the necessity of providing educated and intelligent wives and daughters, sisters and mothers for the men. But to effect such a standard as here suggested the education of men in India in regard to the rightful place of women, is almost as essential as the education of the women themselves.

We are indeed (3) "building on sand unless girls be given the same advantages of open air and exercise as boys have. -- The sons of India must search with heart and soul for remedies for these calamities if their country is not to become a byword of the nations for low vitality and dangerous disease". Education is the natural agency that will bring about the better conditions desired for the women, for (3) "with the love of fresh air instilled in school-girls as well as boys, a life of seclusion behind the purdah, that potent cause of the scourge of tuberculosis amongst the women, will cease to be wide-spread in the classes by whom it is now followed. A girl brought up in a healthy school, with fresh air and full exercises and instruction in the use of a sensible toilet, will no more accept the life of immurement in the dark, musty rooms of the zenana, than she will go to suttee of her own free will."

The Prime Minister of Mysore State set before India an example stimulating imitation, when he expressed the objects of female education
at least such as are first needed - in referring to the founding of a school for girls in Mysore State. This school was "started by Her Highness, the Maharani in 1882, not for the purpose of qualifying women to tunnel mountains or make laws or to make money, but to make them good directors of home power, a power which we all know is beyond our means to keep from them, and which they exercise upon us when ignorant with all the powers of a despot but which, when they are enlightened, they use benefi-
cally."

(b) The combined subject of moral and religious education has been so mooted a question that we have restrained what might be con-
sidered merely a professional, missionary view. However, here we hope that the opinion expressed may not be passed without serious considera-
tion.

We recognize that the classification of moral and religious edu-
cation under the heading, "That which Prepares for Parent-hood", is un-
usual but from our point of view, whether in India or America, the edu-
cation of would-be-parents in morals and religion is as essential for
the future peace and welfare of the home as is instruction in physiology
and hygiene. If the home and the nation are to be safe-guarded, would-
be-parents must have instruction not only in the care of the body but
also in the development of character.

In this treatment the two subjects of morals and religion seem
inseparable. Past experience in India has shown that with the exclusion
of religious education all moral instruction also has been discarded.
All attempts to reinstate moral education without religion have failed.
In America some of our most advanced educators and many of the judges of our juvenile courts are recognizing the lowered moral standard of youth due to the lack of religious education. In a thesis of this nature it is not our intention to contend for any particular kind of religion but merely properly to relate sincere religious faith with the maintenance of any acceptable moral standard. Religious convictions are the only foundation upon which an effective appeal can be made for moral actions. Morality is the expression of character formed and kept stable by religion.

To become "be-imam" (without faith) and in that state to fall short in the moral fiber of the people is one of the gravest dangers and the greatest calamities that lies ahead of India's present educational policy and procedure. "Religious neutrality", so rigidly interpreted that no attempt has been made even to insulate morals, has been the Governmental policy throughout its operation in India. Religious neutrality as observed has meant the non-recognized of any religion or moral code rather than equal recognition and mutual tolerance of all. (17) With the smashing of all bonds of the past social orders by modern secular education, with no substitute for moral or religious instruction and no habits along these lines insculated, education fails completely in its most critical duty. Far better would it have been to withdraw all contact with India and leave her to her ancient customs and rites than to destroy her old moral and religious supports by modern education that has nothing to substitute in their place. All previously considered phases of education are of little value in establishing and perpetuating the good of the country unless there be with them provision for character building. India
has been known as a land of religions and if modern education leaves her stranded with physical and material wealth but irreligious and lacking in any incentive to observe even her own moral codes, then such an education must be branded as an agency of destruction and not of growth.

Indeed many Indian parents are disturbed, not so much at the idea of a foreign religion superseding their old belief but that the morality of their children which was founded on ancient customs, is decaying thru the enlightenment of simple, secular knowledge. They have complained that (1) "English learning led to nothing but vanity, irreligion and vice". The author of the prize essay of 1890, altho he had approved the Government in its policy of absolute religious neutrality in past years, even with its consequence of non-morality and often times of the destruction of even indigenous morality, yet by the time of his writing, he ventured to raise the question of such a change in the situation, that possibly in addition to (1) "the pure influence of English literature, the Bible might without danger be introduced as a text-book". He even affirmed that we need not shrink from employing the Bible, even where the teacher is not a Christian, for he claimed that in most parts instead of a prejudice we will find a widespread desire to study the sacred books of the English. The teaching of the Bible would at least have the effect of (1) "setting its lofty ideals, in its own vigorous language before the Hindu students and which might help to forward the imparting of morality."

In recent time, in support of this serious criticism of past policy there is an expression of the highest official opinion. On this
subject nothing less in weight than the Montagu-Chelmsford Report is summarised thus (10) "Examining the charge that the traditional educational system of India has failed in character development, the report finds that the question trenches upon the very complicated domain of religious belief, which in India, as in all primitive countries, is crystalized along racial lines. The Governmental schools have either utterly ignored the problem and attempted no moral instruction, or if a few here and there have attempted it, the disadvantages under which the teachers labor, the indifference of the children and the hostility of parents have been so great as to nullify all attempts. The mission schools alone have dared to inculcate ideas of duty, discipline, and civic responsibilities and obligations, and in this field they have had results worthy of admiration."

(D) THAT WHICH PREPARES FOR THE MISCELLANEOUS REQUIREMENTS OF LIFE

Under this fourth point in Spencer's 'rational order of subordination', for the purpose of this thesis, almost all that is now found within the field of school instruction may be combined. These phases of present instruction are important and essential to a complete and rounded educational program, yet they are rightly fourth in order of consideration when compared with the immediate demand of the former proposals. Certainly there is much less need for adaptation these branches of learning than of those previously considered.

We would not, however, maintain that there is no need for consideration and no call for adaptation under this heading. Even here in the literary courses and in the instruction usually given in the liberal arts,
many and radical reforms are suggested. But in the intent of this thesis such suggestions are of a nature calling for later and separate investigation and development. Therefore, further mention of them here will be omitted.

SUMMARY OF PROPOSALS AND CONCLUSIONS

Adaptation has been seen to be possibly the most pressing need in the educational field of India. At almost every point of contact our western systems prove unfit to the conditions over there and such systems, however excellent in their native lands, need remodeling before their application to this new country.

Not only within the actual program of instruction but also preliminary thereto, adaptation has been found necessary in the relationships of education to general factors within the life of India.

Assumption of responsibility for the educational procedure by an extremely small minority was proposed for India, such as is not necessary in England or America. Methods for the stimulating interest in education and for the expansion of the school program to universal proportions are proposed for India, whereas in many western lands such considerations have ceased to be of concern. The immensity of the field in India required special consideration as to the provision of funds and teachers and as to a cooperation of all educational agencies on a scale unknown elsewhere except in China. Proposals for the unification of the diverse elements of Indian society into one national spirit were found to be peculiarly necessary. Also the educational system at present in force in India has come under review and proposals have been made for the elimination of sev-
eral features which seem detrimental to a successful policy.

In the central problem of the thesis - the adaptation of the educational program to specific conditions in India - the degree of emphasis that we have placed on different phases of instruction and the order of importance in which we have considered them are quite radically different from those of any educational system at present in wide use.

In support of such proposals let us state again that the one test has been the welfare and growth of India. We feel that now is the best opportunity for rectifying the course of education. It may be done much more satisfactorily now than a generation hence, for the education of the un-educated is easier than the re-education of the wrongly educated.

For the educational program in India we have proposed primary emphasis on those factors which prepare for direct self-preservation: improved methods of food production and the universal and intelligent care of public health. Scarcely secondary to the preceding proposal we have classified industrial and vocational development as that which prepares for indirect self-preservation. Under "preparation for parent-hood", in addition to proposals for the elimination of certain social restrictions which unfit the youth of India for the assumption of the responsibilities of parent-hood, we have also ventured to propose a course of instruction in morals and religion which is in advance of any widely accepted, existent system and yet that seems vital to the security of the home and family life. The need of adaptation at many points in the courses of instruction ordinarily given in the schools of India is recognized but pro-
posals for such are not considered as immediately pressing and are therefore referred to separate investigation and future development.

In conclusion we would state again that the ideals and proposals set forth in this thesis are admittedly different from the present practice of any nation. And so they should be. They should not be what India can most easily copy from other nations but should be what will best promote her own natural growth. If any objects that we have set ideals too high for attainment especially for backward India, we would remind you that educationally India today is more plastic than are the newly old nations of Europe. The bonds of the past centuries are being broken. Now is the time to remold, or rather to encourage India to seek her own natural, national, ideal mold. Ideals have purposely been set at the highest. No individual or nation ever rises above its ideals. These ideals may serve as standards and determine the spirit and attitude even tho they may not be at once concretely incorporated into perfect practice. All that has been proposed and much more is rightfully the field of modern education adapted to India's specific needs.
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