

PROGRESS
OF
20
EDUCATION IN INDIA

1902—1907

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PROGRESS OF EDUCATION IN INDIA 1902—1907.

INTRODUCTORY.

1. THIS review of the progress of education in India for the five years ending 31st March 1907 is largely based upon the provincial reports, relating to the same period, which have been written by the Directors or under their instructions; that is to say by Dr. Bourne for Madras, Mr. Selby for Bombay, Mr. Hornell (under Mr. Earle's instructions) for Bengal, Mr. de la Fosse for the United Provinces, Mr. Bell for the Punjab, Mr. Covernton for Burma, Mr. Sharp for Eastern Bengal and Assam, and Mr. Hill for the Central Provinces. The excellence of many of these reports has considerably lightened the task of measuring and recording the general advance which has been made.

2. I have to acknowledge gratefully the valuable help which I have received in preparing this review from Mr. G. Fell of the Indian Civil Service, who was placed on special duty for that purpose for three months from October 1st, 1908; and I am also much indebted to the labours of Mr. G. R. Kaye and Babu Pramatha Nath Chatterjee, members of my staff. The Directors have been good enough to render assistance by reading the proofs and making some suggestions and corrections upon them. Those parts which relate to Agriculture, Forestry and Veterinary Science have been contributed by the Department of Revenue and Agriculture, each being based on a report specially furnished by the Inspector General; and that relating to Medical education is the work of Surgeon General Bomford, Director General of the Indian Medical Service.

3. The area to which the review relates, being the aggregate of those covered by the provincial reports named above, with the addition of the North-West Frontier Province and Coorg, amounts to 1,118,566 square miles, with a population of 241,264,968 inhabitants. These reports cover almost but not quite the whole of British India; and some include, while others do not include, returns from the Native States in political relations with the local Governments. The details of the territories included and excluded are shown in a table prefixed to the general statistics in the second volume of this review. The area of the Native States included in the statistics is 154,493 square miles, with 11,705,848 inhabitants. In Bombay they bear a considerable proportion to the British territory, the total population being twenty-five and a half millions, of whom seven millions live in Native States and about eighteen and a half millions in British territory. In the other provinces the population of Native States included nowhere amounts to one-tenth of the whole.

4. The only changes made in the total area since Mr. Nathan wrote his review five years ago are the inclusion of returns from Manipur in the statistics of Eastern Bengal and Assam, and from the Southern Shan States in

those of Burma. These have added 46,605 square miles to the area and 1,100,819 inhabitants to the population.

Within the area covered by the review the constituent parts remain the same, with the exception of Bengal, Eastern Bengal and Assam, and the Central Provinces. The rearrangement of their boundaries, reducing the area of Bengal and uniting Assam with Eastern Bengal; prevents the statistics of to-day from being compared with those of five years ago over the areas affected, except where special calculations have been made for the purpose. In the Central Provinces, where the area and population have under the same rearrangement been slightly increased, the breach of continuity is less important.

5. This review has to record the application of a common policy of educational expansion and reform, remarkable for its width of range, for the ample and prolonged consultation upon which it was based, and for the general agreement which was reached as to the lines upon which it should proceed. Under Lord Curzon's Government a general enquiry was held which extended to all kinds and grades of institutions, from the Universities to the primary schools, and which brought under examination the methods, organization, tendencies and results of Indian education as a whole. Consultation began after the publication of Mr. Cotton's review in 1899, and was matured at the Simla Conference over which Lord Curzon presided in September 1901. The resolutions of the Conference, which were unanimous, led to the issue of general orders on some points, while others, relating to Universities, European schools and industrial schools, were reserved for further enquiries.

In March 1904 the Governor General in Council issued a resolution reviewing the whole subject and describing the general lines of the policy which had thus been shaped in consultation with local Governments and Administrations, and which had met with their hearty concurrence.

6. The execution of the work then put in hand has proceeded continuously in all provinces; and since local conditions differ greatly and local initiative takes many different forms, the changes which have now to be recorded, while resting upon common principles, exhibit a copious variety in their application.

7. The Universities have been reconstituted under the Act of 1904, have revised their regulations, have instituted the regular inspection of colleges, and have received powers, which they will doubtless develop, of becoming teaching bodies. Colleges, which can no longer be admitted to affiliation or retain it without satisfying the standards newly laid down by the Act, have set to work to remedy the defects which inspection has disclosed and to confine their teaching to those subjects for which they are properly equipped; and they are being aided in carrying out these improvements by grants which depend upon inspection. Both colleges and secondary schools are making better provision for the residence of those students who do not live with their parents.

Stricter conditions have been laid down and are being enforced for secondary schools, without which they cannot obtain or keep the privilege of recognition. The system of examinations has been simplified, and increased provision has been made for the training of teachers. But both in their buildings and equipment and in the quality of their teaching, the secondary schools leave much to be desired; and their condition was being examined by local Governments at the close of the quinquennium, and measures for their further improvement were being considered.

Primary schools have increased considerably both in number and in strength, although as yet this increase does not nearly reach the point of fully meeting the demand. Examinations have been simplified, and the system of awarding grants on the results of individual examination has been almost entirely abolished. The buildings have been improved, the pay of teachers, though still very low, has been raised, the courses of studies have been widened, many of the text books have been re-written so as to deal in simpler language with more appropriate topics, and those modes of teaching which aim at training children in observation and intelligent reasoning are being

more widely adopted. Increased provision has been made for training primary teachers. The course of training has been extended to two years where it previously fell short of this, and a better class of teachers is being obtained.

The education of girls, almost the only feature in the educational system the improvement of which is not chiefly a question of money, is spreading more rapidly than before, though it is still confined to a very small fraction of the population. The demand for it is now found to be increasing, and the chief difficulty in meeting this demand lies in the want of qualified teachers. More facilities have, however, been provided for training women teachers, and the number of students under training has been thereby increased.

The greatest industry of the country, agriculture, will now possess a central institution for teaching and research, on a scale not previously attempted in this country, and the provincial agricultural colleges are being correspondingly improved. A scheme for providing a technical institution of the highest rank for the benefit of other industries has been brought near to completion; and, in the meantime, scholarships have been established which enable selected students at the rate of ten a year to attend technical institutions in other countries, and are beginning to produce a supply of men qualified to take part in the scientific development of industries. A school for coal mining has been established, and arrangements have been made to add to and improve the institutions at which weaving and other industries are taught. Formerly, one cause assigned for the backwardness of technical education was the reluctance of the educated classes to avail themselves of it, but this reluctance is fast disappearing and the demand is now in many places strong. One of the chief hindrances to the further progress of technical education arises from deficiencies in the system of general education upon which it must rest, and for which it cannot be substituted.

The special schools for Europeans have long suffered, and still suffer, from poverty and consequent inability to command the services of good teachers. The regulations by which their studies are directed have been revised, more liberal grants are being made to them, and the training of men to teach in them has been begun.

The education of Chiefs and Nobles has received a remarkable impetus, especially in Rajputana and Central India, by the reorganization of the Chiefs' Colleges and the provision of a well qualified staff of masters, both European and Indian. The course of studies has been revised and includes teaching of a special kind suited to those who are to rule or to assist in the administration of Native States.

The Education Departments, both in their higher and lower branches, had in many provinces fallen behind the requirements of the work of teaching and inspecting. They have been and are still being brought up to a higher standard of strength.

8. So far as the progress made in the quinquennium admits of being brought to a numerical standard, the case stands thus:—The period which immediately preceded it had been characterised by an exceptionally rapid rate of increase in the number of students receiving instruction in Arts colleges, and by an actual decrease in the number of pupils attending primary schools. The numbers of pupils in the higher institutions have now continued to increase, but at a lessened rate; and the vernacular education of the masses, the growth of which had been arrested, has now expanded again more rapidly than it has ever done since the years 1871 to 1882. In Arts colleges the number of students, which had grown in the preceding quinquennium, from 13,933 to 17,148, now stands at 18,001. In Medical colleges the number, which had previously increased from 1,067 to 1,466, now stands at 1,542; in the Engineering colleges the number, which had previously increased from 831 to 1,025, now stands at 1,243. Secondary schools show an increase of seventy-seven thousand pupils as compared with an increase of eighty-three thousand in the preceding quinquennium, and the number now stands at 658,305. But when the figures of vernacular education are considered the increase may best be exhibited by a comparison with the total progress made in the preceding fifteen years. During the period 1887 to 1902 the number of pupils in all

institutions of which the Educational Department has cognisance rose from 3,021,721 to 3,886,493, showing an increase of 864,772. During the five years under review this number rose to 4,774,480, showing an increase of 857,987. During the fifteen years ending in 1902 the pupils in primary schools increased in number by 627,912; during the last five years they have increased by 621,539. The number of girls at school increased in the fifteen years ending in 1902 by 151,600; and in the five years under review by 186,480. The number of Muhammadan pupils increased in the fifteen years ending in 1902 by 173,965; and in the five years under review by 191,896. From 1887 to 1902 the number of students in training colleges and schools for masters remained almost stationary, being 4,451 in the former year and 4,600 in the latter; in the year 1907 it had risen to 8,225.

9. Such improvement and expansion as have taken place in the educational system would have been impossible without considerable increase in expenditure. The Government of India in 1902 made an assignment of forty lakhs annually for this purpose, and followed this by assignments of five lakhs annually for Universities and colleges, two and a half lakhs for European education, two and a half lakhs for certain new departures in technical education, and thirty-five lakhs for primary education; besides making assignments, which do not pass through the educational budgets, of twenty lakhs annually for the Agricultural Department, a large part of which was devoted to the improvement of Agricultural colleges, and also of certain sums for the improvement of Chiefs' Colleges. The local Governments have supplemented these assignments by further provision from their own resources, so that the expenditure on education from public funds in the year 1907 was 296 lakhs of rupees, as compared with 177 lakhs in the year 1902. With additions from sources other than public funds the total expenditure on education in India amounted to 559 lakhs of rupees in the year 1907, as compared with 401 lakhs in the year 1902.

The success of the efforts which are being steadily made in all provinces to raise education to a higher level and to extend its benefits to a larger proportion of the population, must chiefly depend upon a continuance of the growth of its financial resources.

CHAPTER I.

UNIVERSITIES.

Introductory.

10. "THE most noteworthy fact in the recent history of English University development," according to an authoritative document lately issued, "is the gradual abandonment of two old ideals, namely that of the Federal University and of the University which examines but does not teach". In India the principle of the Federal University which examines those whom it has not taught received, by the Act of 1904, a new lease of life. That Act expects the teaching to be done, as heretofore, in affiliated colleges, and the examinations to be conducted by the University; and it strengthens the tie between the University and the colleges by the institution of a system, not hitherto tried, of the inspection of affiliated colleges by the University.

11. In order to sever the federal tie between the outlying affiliated colleges and the examining University at headquarters it would have been necessary either to create a large number of additional Universities or else to cut off from the existing Universities all the outlying colleges. Proposals for additional Universities were indeed made before the Commission. No one could reasonably have proposed that any of the five Indian Universities should have been resolved into its elements in the way in which the Victoria University was resolved, its constituent colleges at Manchester, Liverpool and Leeds becoming each an independent University. Attached to the Indian Universities there were, excluding colleges in Ceylon and a few moribund institutions which have since disappeared, some 175 colleges, not geographically distributed at the rate of one to a large town, city or defined area, but clustered in the large cities to the number of 22 in Calcutta and 14 in Madras, while such places as Allahabad, Nagpur, Benares, Poona, Trichinopoly, Dacca had two or three apiece. To convert colleges into Universities was, therefore, out of the question.

Assuming for the moment that in any place in which colleges are established all the students of those colleges could meet for common teaching and that, therefore, the establishment there of a teaching University would be possible, there are in India approximately 100 such places, ranging from Bellary with its 25 students to Calcutta with its 6,000. Some reformers who appeared before the Commission desired to mitigate the inconvenience of maintaining connection between a college and a distant seat of the University by creating new Universities, usually proposing that these also should be centres of affiliated colleges. Such proposals were put forward on behalf of Nagpur, Rangoon, Aligarh (where the project of ultimately establishing a University has always been cherished), and also on behalf of Bangalore, Trivandrum, Trichinopoly, Tanjore and Hyderabad. Of all these proposals that for Nagpur had the most numerous supporters, but the Commission considered it to be not immediately practicable, and no addition to the number of Universities was recommended or made.

The other alternative, if the federal principle was to be sacrificed, was to concentrate University teaching in a few University centres, and to cut off the outlying colleges. There were a few witnesses who advised this course. Some idea of the unpopularity which would be incurred by any scheme requiring all students to resort to the headquarters of a province for

the course of instruction necessary for a degree may be gathered from the general opposition which was offered to the proposal of the Commission to disaffiliate second grade colleges (of which there were ninety-two), requiring them all within a given time either to rise to the level of first grade colleges or to revert to that of high schools. Upon this proposal the Government of India declared that they were not yet convinced that the expansion of high schools into second grade colleges was an evil, provided that the second grade colleges were within their own limits efficient. "Under the peculiar conditions which prevail in India such classes may indeed serve a useful purpose in several ways. Not only do they cheapen a particular stage of education which many students are unable to pursue further; they also in many cases defer the separation of a student from his family, a point to which Indian parents rightly attach much importance. The fact which lies at the root of the matter is that, owing to the special conditions of India, the two years of the First Arts course, which are in other countries the last two years of school life, have been here included in the college course. In time it should be possible to remedy this defect." Thus the result of the inquiry into the Universities was to leave aside either as impracticable, or as not at present practicable, all schemes for concentrating in a few centres what is at present known as University education in India.

12. The Acts of Incorporation of the older Universities recited in their preamble that "it has been determined to establish an University at Calcutta (Bombay and Madras) for the purpose of ascertaining, by means of examination, the persons who have acquired proficiency in different branches of Literature, Science, and Art, and of rewarding them by academical degrees as evidence of their respective attainments, and marks of honour proportioned thereunto". The Act of 1904 declared the Universities to be "incorporated for the purpose (among others) of making provision for the instruction of students, with power to appoint University Professors and Lecturers, to hold and manage educational endowments, to erect, equip and maintain University laboratories and museums, to make regulations relating to the residence and conduct of students, and to do all acts, consistent with the Act of Incorporation and this Act, which tend to the promotion of study and research".

These provisions may perhaps hereafter exercise a powerful influence; for the present the important sections of the Act are those which, leaving untouched the principle of affiliating distant colleges to a central examining University, endeavour to make this connection between college and University closer and more effective than it has hitherto been. To each University territorial limits are assigned; the conditions which a college must fulfil in order to receive and retain the privileges of affiliation are prescribed in some detail; in order that the University may be satisfied as to the fulfilment of these conditions, systematic inspection of colleges by University inspectors is established. The Act also required the appointment of new senates, syndicates and faculties for all the Universities; it made the office of a senator tenable for five years only, instead of for life; it limited the number of senators and of syndics; and required the senates to prepare and submit for the sanction of Government within a year (or longer, if the Government should so appoint) a new body of regulations, the Government having power, after consulting the senate, to make such additions and alterations as they considered necessary, and having power to make the regulations if the appointed time should pass without the senate submitting a draft. Immediately after the passing of the Act, the Government of India made a recurring grant, to last for five years, of five lakhs of rupees per annum for the improvement of University and college education.

13. Such were the main features of the measures of University reform which were brought into operation in 1904. The Bill was introduced into Council at Simla on 4th November 1903; it was debated in Calcutta on December 18th and referred to a Select Committee which reported on 19th February 1904: it was then debated for three days, and passed upon March 21st, 1904.

Passing of
the Univer-
sities Act,
1904.

Territorial Limits.

14. Acting under section 27 of the Act, the Governor General in Council, by notification dated 20th August 1904, defined the territorial limits of the several Universities as follows:—

University.	TERRITORIAL LIMITS.	Native State or Colony.
	Province (including any Native State under its political control and any foreign possession included within its boundaries).	
Calcutta	Bengal, Burma and Assam	
Madras	Madras and Coorg	Hyderabad, Mysore and Ceylon.
Bombay	Bombay and Sind	Baroda.
Allahabad	United Provinces of Agra and Oudh, the Central Provinces (including Berar) and Ajmer-Merwara.	The States included in the Rajputana and Central India Agencies.
Punjab	Punjab, North-West Frontier Province and British Baluchistan.	Kashmir, Baluchistan.

The only University which had previously granted affiliation to colleges outside the limits assigned to it by this notification was Calcutta, which had affiliated colleges in Ceylon (now assigned to Madras), in Nagpur and Indore (now assigned to Allahabad) and in Simla (now assigned to the Punjab). The notification did not of itself affiliate the colleges to the University to whose territory they were transferred, but rendered it necessary that they should, if they still desired to retain their status as affiliated colleges, make application for that purpose to the University to which they would henceforth belong. In addition to these cases where a transfer of authority took place, there were a certain number of colleges having a double affiliation, both to the University of their own province, and also to Calcutta. Instances of this were the colleges of Agra and Aligarh. The affiliation to Calcutta, which had in such cases been only nominal, was now extinguished. Provisional arrangements were also made whereby the boys in the high schools of these transferred areas who were reading for the Calcutta Entrance examination, and the college students who were reading for the Calcutta University examinations, should be enabled to continue their studies till the end of the year 1906 under the jurisdiction of that University, and should proceed from that point into the course of the University to whose jurisdiction the territory was transferred.

Oriental titles had previously been granted by the Punjab University upon the results of examinations held not only in the territory assigned to the Punjab University but also at Benares, Lucknow, Hyderabad (Deccan), Jubbulpore, Tonk, Nagpur, Peshawar, Jodhpur, Jaipur, and Almora. The University now lost its power to hold such examinations outside its territorial limits.

15. The Act was brought into force for the different Universities on the following dates:—

Calcutta	1st September 1904.
Bombay	18th July 1904.
Madras	9th September 1904.
Punjab	1st October 1904.
Allahabad	1st October 1904.

Dates of
bringing the
Act into
force.

Formation of Senates.

Constitution
of the existing
senates.

16. The first business to be taken in hand was the formation of fresh senates at each University. The existing senates numbered:—

	Number of Fellows.
Calcutta	181
Bombay	296
Madras	198
Punjab	126
Allahabad	112

These numbers, which were especially large at the three older Universities, had grown to this extent, as the Hon'ble Mr. Raleigh stated in introducing the Bill, because the distinction of a Fellowship, carrying no emolument, and involving no obligatory duties, had been bestowed by Government very freely and in many cases merely by way of compliment.

"A considerable proportion of the existing Fellows," he remarked, "do not take any active part in University business; they attend in large numbers only when an appointment is to be made, or when a vote is to be taken on some question which has excited interest out of doors." For the new senates the Act fixed the number of ordinary Fellows at a minimum of fifty and a maximum of one hundred for the three older Universities, and at a minimum of forty and maximum of seventy-five for the two others. These numbers are exclusive of the Chancellor, the Vice-Chancellor, the Rector of the Calcutta University, and the *ex-officio* Fellows, who are also members of the senate. Almost as a consequence of the imposition of a maximum limit to the number of ordinary Fellows, the Act limited their tenure of office to five years, thus following the unanimous recommendation of the Commission.

The Hon'ble Mr. Raleigh, in introducing the Bill which was to give effect to this recommendation, remarked:—"If the senate is to be a representative body, it seems expedient that its membership should be renewed from time to time, so that any study or interest not adequately represented may be strengthened; and this end is best secured by providing for a regular rotation."

Appointment
of Rector of
the Calcutta
University.

17. The creation of a Rector at the Calcutta University is a novelty introduced by the Act. The post is held *ex-officio* by the Lieutenant-Governor of Bengal, with precedence next after the Chancellor; and thus the anomaly by which the head of the local Government at the seat of the University had rank only as an *ex-officio* Fellow is removed.

Ex-officio
Fellows.

18. The *ex-officio* Fellows have been reduced in number, the figures being as follows:—

	Before the Act of 1904.	Under the Act of 1904.
Calcutta	9	10
Bombay	10	5
Madras	8	6
Punjab	41	3 and also the representatives of Chiefs.
Allahabad	12	4
Total	80	28

The Act permits the local Governments to make additions to the list of *ex-officio* Fellows up to a maximum of ten at each University.

Election of
Fellows.

19. In the Universities of Calcutta, Bombay and Madras the Acts of Incorporation provided for no elective element in the senate, the whole of

which was to be either *ex-officio* or nominated, but in 1890 the Chancellor of the Calcutta University set the example, which was followed at Bombay and Madras, of permitting elections to be held at the rate of two or three a year. The electorate was confined at Calcutta to Masters of Arts or holders of corresponding degrees in other faculties, at Bombay to graduates of ten years' standing, and at Madras to Masters of Arts or Law, Doctors of Medicine, or Bachelors of twenty years' standing. The same qualifications were required in the candidates for election as in the electors. In this way the number of elected Fellows at these three Universities respectively stood, before the Act of 1904 was passed, at twenty-one, seventeen and sixteen.

In the Universities of the Punjab and Allahabad, on the other hand, the Acts of Incorporation permitted election by the senate up to a number not exceeding that of the nominated Fellows; and the practice at Allahabad had been to elect a Fellow as often as one was nominated, so that there were forty-three elected Fellows before the passing of the Act; while in the Punjab the practice of election by the senate, which had been followed in earlier years, had fallen out of use, so that when the Act came into force there were but two elected Fellows remaining in the province.

The Act of 1904 considerably increased the proportion of elected Fellows in each University except Allahabad, for it required that twenty Fellows should be elected at the three older Universities and fifteen at the other two. Of the elected Fellows at the older Universities ten were to be elected by the registered graduates, who must be Doctors or Masters or graduates of ten years' standing, and ten were to be elected by the faculties, the Chancellor having power to prescribe the qualifications of the Fellows to be elected by the faculties.

At the two junior Universities ten were to be elected by the senate or by registered graduates and five by the faculties. The practice of election by the senate was to last until orders should be issued by the Chancellor, with the previous sanction of the Governor General in Council, for its replacement by election by graduates; and up to the present no such orders have been issued.

20. The Act also secured the maintenance of a certain professional element in the senate by a provision, which was new, that not less than two-fifths of the Fellows elected by faculties and of those nominated by the Chancellor should be persons following the profession of education, and it enabled the Chancellor to declare vacant the seat of any ordinary Fellow absent from senate meetings (other than Convocation) for the period of a year.

21. Thus the new senates formed under the Act are more compact bodies than those previously existing; they contain a smaller number of *ex-officio* members, and (except at Allahabad) a smaller proportion of persons nominated by Government, and a larger proportion of persons elected; the presence of a professional element is secured, and a certain measure of regular attendance is required.

22. For the first exercise of the rights of voting and of nomination, so as to bring the new senates into existence and to lead up to the declarations which were to be published in the *Gazette of India* of the due constitution of the bodies corporate, the Act contained special transitory provisions. The practical result was that the senates of the several Universities were called into being in the order given below for each University:—

Calcutta—

Elected by the elected Fellows	5
Elected by Masters of Arts, holders of a higher degree, or B. A.'s of before 1867	5
Nominated by the Chancellor	64
Elected by the above, as by faculties	10
TOTAL	84

Constitution
of new
senates.

Bombay—

Elected by the elected Fellows	5
Elected by graduates of 10 years' standing and those who had obtained the highest degrees in any faculty	5
Nominated by the Chancellor	80
Elected by the above, as by faculties	10
TOTAL	100

Madras—

Elected by the elected Fellows	5
Elected by registered graduates	5
Nominated by the Chancellor	50
Elected by the above, as by faculties	10
TOTAL	70

Punjab—

Nominated by the Chancellor	50
Elected by the above	10
Elected by these 60, as by faculties	5
Nominated by the Chancellor	10
TOTAL	75

Allahabad—

Nominated by the Chancellor	45
Elected by the elected Fellows existing at the commencement of the Act	5
Elected by the Fellows newly nominated	5
Elected by the above, as by faculties	5
Nominated by the Chancellor	15
TOTAL	75

Date of formation of new senates.

23. The names of the *ex-officio* Fellows, whom the transitory provisions of the Act had excluded from any share in these electoral proceedings, had now to be added to the lists together with those of the Chancellors, the Vice-Chancellors, and at Calcutta, the Rector, and the declarations, with the lists of the senates, were published in the *Gazette of India*. The dates of these notifications and the total number of persons included in the bodies corporate were as follows:—

Calcutta	7th December 1904	96
Bombay	8th December 1904	106
Madras	1st December 1904	77
Punjab	16th December 1904	86
Allahabad	25th November 1904	80

Composition of new senates.

24. The composition of these bodies was such as to give fair and adequate representation to educational interests both Government and private, and to non-educational interests both official and non-official, and these interests were represented by Europeans and Indians in fair and, where possible, equal proportions. At no University did the senate as formed under the Act fulfil the apprehensions of those who feared that all directive and administrative power would be placed in the hands of European Fellows, chiefly European professors in Government and Missionary colleges, and that the Indian element would be placed in so hopeless a minority as to dissociate it for all practical purposes from the government of the Universities. The following were the numbers of European and Indian ordinary Fellows in the bodies corporate as published in the *Gazette*:—

	European	Indian
Calcutta	41	43
Bombay	41	59
Madras	36	34
Punjab	35	40
Allahabad	39	36

Appointment of Provisional Syndicates.

25. The first duty of the reconstituted senates was to appoint provisional syndicates, in accordance with the following words of the Act:—

"The senate shall in such manner as the Chancellor may direct appoint a provisional syndicate to conduct the executive business of the University until the syndicate has been constituted under this Act." (Section 12 (p.), Indian Universities Act, 1904.) The syndicate to be formed later was to consist of the Vice-Chancellor, the Director of Public Instruction, and not less than seven or more than fifteen Fellows "elected by the senate or by the faculties in such manner as may be provided by the regulations"; and the regulations were to be such as to secure the appointment of a certain minimum proportion of heads of, or professors in, affiliated colleges.

The orders issued by the Chancellor of the University of Calcutta directed that the provisional syndicate should consist of 10 elected members and the Vice-Chancellor; that the faculties, *i.e.*, the Fellows whose names were included in the lists previously compiled for the purpose of electing to the senate by faculties, should elect these 10 members, a stated number being elected by each faculty; that a stated number of the members so elected by each faculty should be heads of, or professors in, affiliated colleges; and that the election should be held in the presence of the senate assembled in meeting and not by each faculty sitting separately.

The orders at Bombay also directed that the Director of Public Instruction should be a member of the provisional syndicate; they made no provision for the elected members to be chosen in the presence of the senate assembled in meeting, but the groups of Fellows authorised to elect syndics in Arts, Law, Medicine, and Engineering, respectively, met separately for the elections.

26. The provisional syndicates appointed under these orders proceeded to carry on the executive business of the Universities; but on 25th January 1905, the Registrar of the Calcutta University received notice from Sir Gooroo Dass Banerjee (a member of the senate) declaring the provisional syndicate to have been formed in contravention of the Act; and on 26th January 1905, the High Court of Bombay heard arguments on an application from Sir Pherozeshah Mehta for an *interim* injunction to restrain the provisional syndicate of Bombay from carrying on the business of the University, and for a declaration that the provisional syndicate had not been validly appointed. It was argued that the procedure described above did not come within the terms of the Act directing that "the senate shall, in such manner as the Chancellor may direct, appoint a provisional syndicate." The point was not decided by the Court. On the 3rd February 1905, a Bill "to validate action taken under the Indian Universities Act 1904" was introduced in Council, and on the 6th February the hearing of the case in the Bombay High Court was adjourned *sine die*. The Bill, which was passed on the 10th February 1905, under the title of the Indian Universities (Validation) Act, 1905, put an end to the prevailing state of suspense by enacting that all directions, declarations and orders made in pursuance of the authority of the Indian Universities Act, 1904, should be deemed to have been duly made, and that the bodies corporate and provisional syndicates constituted and appointed under these directions, declarations and orders should be deemed to have been duly constituted and appointed. Upon the passing of this Act the senates settled down to the business which lay before them, of framing a new body of regulations and of carrying out the inspection of colleges.

Passing of the Indian Universities (Validation) Act, 1905.

New University Regulations.

27. The Act did not prescribe a set of regulations for the Universities but it required that at each University the reconstituted senate should prepare and submit for the sanction of Government a revised body of regulations within a year. Powers were given to Government (a) to extend this period of a year, (b) to amend the regulations submitted by the senates, (c) to make a body of regulations in the event of the senate not submitting proposals within the appointed time.

Dates of sanction and part taken by Government.

28. The regulations of the Allahabad University were sanctioned by the Government on the 9th September 1905 in the form in which they were first submitted by the senate. At the other four Universities it was necessary to grant an extension of the period. The regulations of the Punjab University were sanctioned within the extended period, on the 30th January 1906. The Government referred back to the senate the first body of regulations presented for approval and consulted them as to amending the regulations relating to the control of Government over text books, the admission of private candidates to the Matriculation examination, the conditions for the recognition of schools, the agency by which the compliance of schools with those conditions should be ascertained and the minimum age for Matriculation. When the senate had considered these suggestions and submitted a revised body of regulations, the Government sanctioned the revised regulations in the form in which they were submitted, without insisting on those points in which after mature consideration the senate had not fully embodied the suggestions of Government. The regulations of the Bombay University were submitted within a second period of extension and the Government sanctioned and made them on the 30th August 1906. The chief points on which the Governor in Council proposed for the consideration of the senate some amendments in the regulations submitted were the conditions under which a member of the senate should be competent to be a member of more than one faculty, provisions for the possible supersession of the L. M. S. degree in Medicine, and the preliminary qualifications for beginning medical studies at the University. The senate accepted all the suggestions except one, of which the Government had merely desired further consideration.

29. In Calcutta and Madras the senates were unable to submit draft regulations within the extended periods. In both these Universities, therefore, the regulations were made under the powers conferred upon Government under section 26 (2) of the Act. For the University of Calcutta the Government of India appointed a small Committee, consisting of members of the senate representing the various interests concerned, to utilize the materials provided by the senate and to complete the work; and promulgated the regulations, in the exact form in which they left the hands of the Committee, on the 11th August 1906. In Madras the senate continued their deliberations at the request of Government after the lapse of the extended period, and submitted a draft body of regulations, not as regulations for the official sanction of Government, but as recommendations, and Government promulgated a body of regulations on the 27th December 1906. The Government of Madras referred back to the senate the first instalment of regulations submitted, requesting attention to some points of legality or convenience in the procedure for elections and similar matters; when the full body of regulations was finally submitted, the Government remarked that if longer time had remained at their disposal they would have wished to refer back to the senate for further discussion certain important points of principle, the chief of these being the exclusion from the undergraduate course as a compulsory subject of the classical and vernacular languages of India, and the extent to which the regulations required students to specialise in their studies for the B. A. degree. The Government introduced a regulation requiring composition in a vernacular language as a compulsory subject in the Intermediate examination, but otherwise left untouched the courses of study contained in the regulations recommended by the senate.

It will thus be seen that the new regulations were framed without any considerable recourse on the part of Government to their power to amend the proposals placed before them by the senates.

30. The new regulations of the five Universities are bulky, and their topics are numerous. They deal with the constitution of the working parts of the Universities, in so far as those are not prescribed by the Act, and with procedure, with University professors and lecturers; with examiners and examinations, courses of study and degrees; with registers of graduates and students; with inspection of colleges, and rules to be observed by colleges in respect of the transfer of students; with the residence and conduct of students; with the admission of external students to examinations and degrees;

with the age of admission of students to the University, the recognition of schools from which pupils may be admitted to Matriculation, and the conditions under which persons may be admitted to Matriculation who do not come from recognised schools.

Functions of an Indian University.

31. In presenting to view the chief features of the revision undergone by the regulations, it may be convenient to begin by describing the general type to which the Indian Universities, as governed by the Act and the new regulations, approximate. This is intended only as a description of the type or mean, and freely omits mention of the exceptions and qualifications that would be required if it professed to be an accurate analysis. It is followed by an account of the salient points in which the new regulations show a change of practice from what existed before. Those who have occasion to pursue the subject in further detail will refer to the regulations themselves.

32. An Indian University affiliates and inspects colleges, prescribes courses of study for students, holds examinations, and confers degrees; and it has also recently acquired powers, at present undeveloped, of becoming a teaching body. It is situated at the headquarters of a Government and exercises its powers within defined territorial areas; and these areas, which are co-extensive with one or more provinces and Native States, cover in the aggregate the whole of India, including Native States, and do not overlap. It affiliates colleges which are situated anywhere within its territorial limits, i.e., up to an extreme range of about 700 or 800 miles from headquarters. It does not manage these colleges, but it lays down conditions to which they must conform in order to obtain and retain affiliation, and it satisfies itself as to the observance of these conditions by inspection.

It admits to its preliminary examinations pupils who come from recognised schools and it lays down the conditions with which those schools must conform. The observance by the schools of these conditions is usually ascertained by the local Education Department.

It admits to its University examinations, and confers degrees upon students from affiliated colleges almost exclusively; others can only be admitted by special arrangement.

33. It is governed by a senate consisting of from 75 to 100 members. ^{Senate.} The head of the Government at the seat of the University, whether he be Governor General, Governor or Lieutenant-Governor, presides over the senate as Chancellor, and nominates the Vice-Chancellor. Government nominates about 80 per cent. of the members of the senate, and the remainder are elected by the senate or its faculties or by the body of graduates of the University. Certain high officers are *ex-officio* members of the senate. The power of the University to affiliate or disaffiliate colleges or to make or amend regulations is subject in each case to the sanction of Government. In other matters the acts of the Universities are not submitted to Government for sanction. The members of the senate are nominated or elected for a term of five years. They consist of Indians and Europeans in about equal proportions and they contain many of the heads and professors of colleges. The colleges have not any defined rights of representation on the senate, but in practice they obtain representation through the nomination of Fellows by Government and election of Fellows by the senate or graduates. The senate contains others not connected with the colleges or with teaching, and these may be either officials or non-officials.

34. The senate is divided into faculties; every member of the senate ^{Faculties} being assigned to at least one faculty and sometimes (under restrictions) to more than one. The assignment of members to the faculties is made by the senate itself. Thus a faculty does not mean a collection of teachers of the subject, but a section of the senate containing those members of it who have been assigned to the faculty as being most competent to take part in the work of the faculty in that subject. The faculties are those of Arts, Science, Law, Medicine, Engineering, but in two Universities (*viz.*, Bombay

and Madras) there is no separate faculty of Science, in Allahabad there is no faculty of Engineering and no faculty of Medicine. In the Punjab, the faculties of Engineering and Science have been combined. There is an Oriental faculty in the Punjab University alone.

The faculties have power to elect persons to fill some of the vacancies that arise among the members of the senate, and in three Universities they may add to their number persons, other than registered graduates, who possess special knowledge of the subject of the study represented by the faculty; they also elect some of the members of the syndicate, and they usually appoint the boards of studies. They also report upon matters referred to them for consideration.

Syndicates.

35. The syndicate is the body in which the executive government of the University is vested. It consists of 12 to 18 members, of whom the Vice-Chancellor and the provincial Director of Public Instruction are appointed *ex-officio*, and the remainder are elected either by the senate or by the faculties or by both. The colleges have defined rights of representation on the syndicate, to this extent, that among the elected members of the syndicate a number not falling short by more than one of a majority must be heads or professors of colleges. One University has required by its regulations that a majority of the elected members of the syndicate shall be heads or professors of colleges.

The syndicate conducts the affairs of the University, subject to the control of the senate. Certain of the more important matters of University business, such as the institution and conferment of degrees, the making of regulations, the affiliation and disaffiliation of colleges, must go before the senate, and in such matters the syndicate prepares the business for the consideration and decision of the senate. In other matters the syndicate disposes of the business without reference to the senate, but its decisions may be brought before the senate for revision. The Universities differ slightly in their enumeration of the matters which the syndicate is instructed invariably to bring before the senate for sanction. Subject to the control, either general or specifically reserved, of the senate, it is the duty of the syndicate to transact the business of the University, that is to say, to administer its property, control its servants, keep its accounts, conduct its correspondence; to appoint examiners and provide for the conduct of examinations in accordance with the regulations; to arrange for elections; to appoint members to the boards of studies; to conduct inquiries and arrange for the inspection of colleges affiliated or seeking affiliation; and to submit to the senate proposals for the assignment of members to faculties, for the appointment of University professors and the definition of their duties and remuneration, and for the making of new regulations.

The syndicate may refer matters, for consideration and report, to the faculties and boards of studies.

Boards of studies.

36. Boards of studies are advisory bodies, usually appointed by the faculties and submitting their recommendations to the syndicate. Each of the principal branches of knowledge studied at the University is represented by a board of studies, and thus each University has fifteen or twenty of these boards. They consist of not more than ten or twelve members, and may have fewer, and they may contain persons chosen from outside the senate. The most important of their duties are to recommend courses of study and textbooks for the University examinations, and to propose the names of examiners.

Examiners.

37. One University disqualifies the college professor and teacher from being appointed examiner in the subject which he is engaged in teaching, but usually there is no further qualification laid down for the examiners than that they shall be fit and proper persons, recommended by the board of studies and approved by the syndicate. They consist largely of the teachers of the subjects, with the assistance of outsiders, and not infrequently a teacher of a subject at a college affiliated to one University is employed as an examiner

by another University. The Universities do not as a rule stereotype in their regulations the procedure to be followed in setting and marking papers, but where this is laid down in detail by the regulations, the usual rule is that the examiners in a subject constitute a Board and set and mark papers in consultation. Practical difficulties prevent rules of this kind for the concentration of business being laid down universally.

38. A boy who wishes to enter an Indian University as a student must, unless he has been under genuine private tuition, come from a recognised school, that is to say, a school which has been certified to conform to certain well defined conditions of constitution, management and efficiency. He must have completed the age of fifteen or sixteen years, must bring a good conduct certificate, and must pass a Matriculation examination. For this he has not to resort to the seat of the University but attends at the nearest local centre; and he pays an examination fee of ten or twelve rupees. He is examined in five or six subjects, of which English is invariably one, and the others usually include a classical or vernacular language, Mathematics, Elementary Science, and some History and Geography. The examination is conducted as a rule entirely on paper, and the questions are set and answered in English, except those set to test the candidates' knowledge of classical and vernacular languages. Having passed the Matriculation examination, the student must, unless specially exempted by the senate, be enrolled in a college in order to pursue his University studies. The figures do not tell us how many students annually obtain admission to the University and become enrolled as college students. About 11,000 annually pass the Matriculation examination at the Indian Universities, so the number who enter the Universities cannot be larger than this; but many pupils pass the Matriculation examination without any intention of proceeding to the University. They wish to pass it as evidence of the satisfactory completion of their school studies.

39. When the student has matriculated and entered college his studies are pursued entirely in the English language. A choice of courses lies before him. First, if he takes the most frequented road he will graduate in Arts after a four years' course, and in order to do this he must pass an examination after two years called the Intermediate examination in Arts. A fair example of the subjects which may be taken for this examination is English, a classical language, History, and Deductive Logic. After passing the Intermediate examination he reads for another two years and then passes an examination for Bachelor of Arts. The differences between the examinations in the degree of Bachelor of Arts are sufficiently important to be explained in detail and are so explained below; but for the purpose of this generalised description it may be sufficient to say that English language and literature always finds a place as one of the subjects of examination and that the others may be two or three in number and offer considerable choice in Literature, History, Philosophy and, where there is not a separate Science degree, in Science.

40. Secondly, he may choose to graduate in Science instead of in Arts, and all the Universities provide for this choice, although some still give him the degree of B. A. at the end of it, whilst others offer him a separate degree of B. Sc.; and some require him to make his choice between Science and Arts at the threshold of his University career, while others provide a common course of one or two years for Arts and Science students before they begin to differentiate in their studies. Where the separation between Arts and Science is most complete the student will, two years after his Matriculation, pass an examination termed the Intermediate examination in Science, at which he will be examined in English, Chemistry, Mathematics or Physics, and one other subject of Science, and, in two Universities, in vernacular composition. Two years later he will appear for the examination of Bachelor of Science, at which he will be examined in three subjects, all scientific, selected by him from a list.

Professional
courses.

41. Thirdly, the student may decide to pursue professional study at the University; that is to say, he may become a medical student or an engineering student and may graduate in those subjects.

The law students do not begin the study of this subject until they have passed the B. A. or B. Sc. examination; and similarly the teaching degree, where it is given, is for graduates.

Medicine.

42. If a student intends to pursue Medicine, some Universities permit him to do so immediately after Matriculation and some compel him to continue his general literary studies for one or two years after Matriculation before enrolling himself as a medical student. Some give him a choice between an inferior medical qualification called the Licentiate, and a superior called the degree of Bachelor of Medicine, while others offer him only the course leading to the degree. The purely medical course, if begun immediately after Matriculation, lasts from five to seven years, and if begun two years later lasts four or five years, and it usually contains two professional examinations before the final examination for the degree of M. B.

Engineering.

43. The student who takes up Engineering begins as an ordinary Arts or Science student and continues in that state for two years. Then he diverges to the Engineering school and undergoes a three years' course before he can graduate as a Bachelor of Engineering.

Oriental and
Agricultural
courses.

44. These are the main lines of choice open to the undergraduate student, but to make the classification complete it should be added that one University provides a so-called Oriental course of study, the main feature of which is that English is dispensed with as a medium of instruction, and offers a degree of Bachelor of Oriental Learning to those who follow a four years' course; and one University offers a degree of Licentiate of Agriculture obtainable by students of the agricultural college four years after Matriculation, of which the first is spent in the ordinary Arts studies and the last three in the agricultural college.

45. Arts, Science, Medicine, Engineering,—these are the subjects in which students graduate, besides a sprinkling who graduate in "Oriental Learning" and Agriculture. The mean annual numbers who have so graduated during the past five years are as follows:—

Bachelors of Arts	1,481
Bachelors of Science	25
Bachelors of Medicine	12
Licentiates in Medicine	136
Bachelors of Civil Engineering	18
Licentiates in Engineering	35
Licentiates in Agriculture	6
Bachelors of Oriental Learning	2
	1,715

Law courses.

46. The student who has graduated as Bachelor at one of the Universities can begin the study of Law and can graduate as a Bachelor of Law in two years. The Bachelor of Arts or Science or Law or Medicine or Engineering can usually proceed, if he wishes, to a higher degree of Master or Doctor. Sometimes these higher degrees are given after an examination and require a student to prolong his college course for the purpose, and sometimes they are given with no further examination, either after some years' practice or upon the presentation of a thesis.

Courses for the Various Degrees.

47. For those who merely require an outline of the conditions under which the Indian Universities now work, the foregoing generalised description may serve. It will now be convenient to fill in the outline, first by giving particulars of the various degrees at the different Universities; next, by

specifying the subjects of examination for the B. A. and B. Sc. degrees at each University; and thirdly by specifying for each University the chief points in which the new regulations differ from the old.

48. The particulars of the degrees now offered by the different Universities, of the examinations by which those degrees are approached, and of the length of time ordinarily required in study for each, are represented diagrammatically in volume II, table 22.

49. The courses of study for the B. A. degrees under the new regulations are as follows, and are expressed in terms of the examination syllabuses.

CALCUTTA.

1. English.
2. Composition in the vernacular of the candidate.
- 3 and 4. Two of the following subjects, one of which at least must belong to Group A.

A.

- I.—A classical language.
- II.—History.
- III.—Political Economy and Political Philosophy.
- IV.—Mental and Moral Philosophy.
- V.—Mathematics.

B.

- I.—Physics.
- II.—Chemistry.
- III.—Physiology.
- IV.—Botany.
- V.—Zoology.

No candidate is allowed to take up Mental and Moral Philosophy unless he has taken up Logic in the Intermediate examination in Arts, and no candidate is allowed to take up any subject in Group B or Mathematics, who has not taken up the corresponding subject in the Intermediate examination.

The courses are no longer divided into A and B or the Arts and the Science course. Composition in the vernacular has been made compulsory and is a new feature of the examination. Honours could before be taken in more than one subject, but under the new regulations a candidate may take up the honours course in one subject only.

50. BOMBAY.

1. English (with composition).
2. Classical language.
3. History and Political Economy.
4. One of the following:—

- (a) Language and Literature.
- (b) Logic and Moral Philosophy.
- (c) Mathematics.
- (d) Chemistry.
- (e) Natural Science.

Roman History and General Jurisprudence have been excluded from the optional subjects of the examination under the new regulations, but a new subject, "The transition from Ancient to Modern History," has been substituted. There is no honours examination in Bombay.

51. MADRAS.

- I.—English language and literature.
- II.—One of the following groups:—

- (i) Mathematics.
- (ii) Physical Science.
- (iii) Natural Science.
- (iv) Logic, Psychology and Ethics.
- (v) History and Economics.
- (vi) Two languages already studied in the Intermediate course, with portions of the history and literature of both languages.

The courses taken by undergraduates in Part II of the B. A. degree examination are related to the optional groups of the Intermediate examination. This has established a closer relation between the Intermediate and the B. A. examination than was hitherto the case. Under the new regulations candidates are given the option of presenting themselves for the whole or for either part at any one time, but no candidate can appear at the examination more than three times.

The honours examination has been newly instituted and will be held from March 1914. For this degree the course will extend over a period of not less than three years and will comprise instruction in—

- I.—English.
II.—One of the following branches of knowledge.

- (1) Mathematics.
- (2) Physical Science.
- (3) Natural Science.
- (4) Mental and Moral Science.
- (5) History and Economics.
- (6) Two languages, other than English, already studied in the Intermediate course.
- (7) English language and literature.
- (8) Sanskrit language and literature.

The B. A. honours examination is quite separate from the B. A. examination. In order to be eligible for the B. A. honours degree, a candidate will have to pass two examinations:—

First, in English, which is to be called the Preliminary examination in English, the course corresponding to that of the B. A. degree; and

Second, an examination in one of the eight branches of knowledge contained in the courses of study (Part II).

The Preliminary examination is open to those who have completed a course of instruction for one year at least after passing the Intermediate examination.

A pass B. A. can go up for the honours examination after a two years' course.

52. PUNJAB.

- I.—English.
II.—Two of the following:—

- (1) A classical language.
- (2) Pure Mathematics.
- (3) Applied Mathematics.
- (4) History and Political Economy.
- (5) Philosophy.
- (6) A branch of Science.—(Physics, Chemistry, Botany, Zoology, Physiology and Geology.)
- (7) A second branch of Science.

Under the new regulations the B. A. course is no longer divided into A and B courses, but combines the two courses in one.

The institution of an examination for honours is a new feature of the regulations. There was no such examination before. Any candidate may be examined for honours in any one of the subjects he takes up for the B. A. examination, on payment of an extra fee of Rs. 20. He is not required to attend any special lectures. Two honours papers will be set in addition to the pass papers in each subject, and unless a candidate obtains 50 per cent. of the marks in the pass papers in the subject in which he seeks for honours, his honours papers will not be examined.

53. ALLAHABAD.

A candidate for the B. A. degree has to pass in three branches of study:—

- Group A.—English.
Group B.—Classical languages (*i.e.*, Latin, Greek, Hebrew, Arabic, or Arabic with Persian, Sanskrit); Mathematics.
Group C.—Philosophy.
Political Economy.
History.

A candidate must offer English, and either two subjects in group B or one subject in group B and one subject in group C.

Physics and Chemistry have been excluded from the B. A. course under the new regulations and appear only in the B. Sc. course.

No provision for honours examination is made in the new regulations.

54. The courses of study for the B. Sc. examination under the new regulations are as follows:—

CALCUTTA.

Three of the following subjects:—

1. Mathematics.
2. Physics.
3. Chemistry.
4. Botany.
5. Geology.
6. Zoology.
7. Physiology.
8. Experimental Psychology.

Three subjects are now taken instead of the six prescribed under the old regulations. English is excluded altogether.

The examination was previously open to those who had taken the Intermediate examination in Arts; but under the new regulations it is open only to those who have passed the Intermediate examination in Science.

In the honours examination a fuller course in each subject is prescribed and candidates cannot take up honours in more than one subject.

55. BOMBAY.

Two of the following subjects:—

1. Mathematics.
2. Experimental Physics.
3. Chemistry.
4. Botany.
5. Zoology.
6. Animal Physiology.
7. Physical Geography and Geology.

There have been no changes in the subjects of examination under the new regulations.

56. PUNJAB.

- I.—English, and
II.—Any one of the following groups:—

- (1) Mathematics and Astronomy.
- (2) Botany and Zoology.
- (3) Geology and Mineralogy.
- (4) Physiology and Chemistry.
- (5) Physics and Chemistry.

The rules about honours in the B. A. apply to the B. Sc. examination also. There was no honours examination under the old regulations.

57. **ALLAHABAD.**

- English and either
A.—
Mathematics.
Physics.
Inorganic Chemistry.
or B.—
Inorganic Chemistry.
Organic Chemistry.
Biology.

The honours examination is abolished in the B. Sc. examination as in the B. A.

Changes brought about by the New Regulations.

58. It now becomes necessary to summarise the chief points in which the new bodies of regulations differ from the old. Some of these, being of a kind required by the Act, are common to all the Universities; and these are upon the whole the most important. The reconstitution of the senates, with the provisions for the election of some of its members, and the statutory definition of the constitution and powers of the faculties and the syndicate, are partly new and partly a legislative recognition of what already existed.

Changes in
the faculties.

59. The changes in the faculties are as follow :—

	Old faculties.	Change now made.
CALCUTTA	Arts, Law, Medicine, Engineering	Science added.
BOMBAY	Arts, Law, Medicine, Engineering	No change.
MADRAS	Arts, Law, Medicine, Engineering	No change.
PUNJAB	Arts, Science, Law, Medicine, Engineering, Oriental.	Engineering has been combined with science.
ALLAHABAD	Arts, Science, Law, Engineering	Engineering abolished.

These changes are slight. Science is not a new subject at Calcutta but was formerly studied (as it is still at Bombay and Madras) as one of the branches of the Arts course. The Engineering faculty at Allahabad was a skeleton, and was intended to provide for the possibility of the Thomason College, Rurki, preparing its students for University degrees. But the affiliation of Rurki was nominal only; the Rurki college granted its own certificates and still does so. The shadow of connection between it and the University has now been abolished.

The rights of the faculties to the election of members of the senate are new both in law and in practice, and the new regulations relating thereto are consequential upon the Act.

The powers of the faculties to add others (not being members of the senate) to their number, for purposes other than the election of syndics, are also new, and the exercise of these powers is provided for by the new regulations of all the Universities except Madras.

60. SYNDICATES.—The composition of the old and the new syndicates is shown by the following table :—

	OLD.			NEW.		
	Ex-officio.	Elected.	Total.	Ex-officio.	Elected.	Total.
Calcutta . . .	1	10	11	2	15	17
Bombay . . .	5	10	15	2	13	15
Madras . . .	1	8	9	2	10	12
Punjab . . .	1	20	21	2	15	17
Allahabad . . .	7	12	19	3	15	18

The number of *ex-officio* members was prescribed by the Act, but in the number of elected Fellows the Universities had discretion between a minimum and a maximum. The tendency has been to approach the maximum, except at Madras, which as heretofore has the smallest syndicate.

61. The old and the new constituencies for electing the elected members of the syndicate are shown in the following table :—

	SENATE.	ELECTED BY THE FACULTIES.						
		Arts.	Science.	Law.	Medicine.	Engineer- ing.	Oriental.	Total.
Old—								
Calcutta . .	Nil.	5	..	2	2	1	..	10
Bombay . .	Nil.	4	..	2	2	2	..	10
Madras . .	Nil.	5	..	1	1	1	..	8
Punjab . .	Nil.	5	3	3	3	1	5	20
Allahabad .	12	..	..	..	..	..	..	12
New—								
Calcutta . .	4	4	2	2	2	1	..	15
Bombay . .	Nil.	5	..	3	3	2	..	13
Madras . .	10	..	..	..	..	..	..	10
Punjab . .	Nil.	4	3	2	2	..	4	15
Allahabad .	Nil.	9	3	3	..	..	..	15

It will be noticed that Madras has abandoned election by the faculties in favour of election by the senate as a whole; and that Allahabad has done the converse; and that Calcutta alone has combined the two methods.

62. The representation of colleges on the syndicate, in accordance with the statutory requirement that a prescribed proportion of the elected syndics shall be principals or professors, is new. This requirement is translated by the regulations into the following numbers :—

Calcutta	7 out of 15.
Bombay	6 out of 13.
Madras	5 out of 10.
Punjab	7 out of 15.
Allahabad	8 out of 15.

The boards of studies have been increased in number.

	Numbers of Boards.	
	Old.	New.
Calcutta	10	22
Bombay	none	none
Madras	14	14
Punjab	9	14
Allahabad	5	18

They are elected by the faculties everywhere except at Madras, where they are appointed by the syndicate.

63. Five other changes are common to all the Universities. They relate to (1) the inspection of colleges, (2) the residence of students, (3) the exclusion of non-collegiate students from University examinations, (4) the recognition of schools and the exclusion from Matriculation of school pupils who do not come from recognised schools, (5) the age of admission to Matriculation.

64. *Inspection of colleges.*—The inspection of colleges is prescribed by the Act, and the manner in which the first inspections have been carried out is described below. The regulations provide for the continuance of periodical inspection on the lines already adopted. The Calcutta and Punjab Universities prescribe annual inspection, Bombay triennial, Madras "from time to time," and the Allahabad regulations still await completion on the subject.

Formerly the Universities, speaking generally, took no cognisance of the internal condition of affiliated colleges. The power of inspection now

conferred upon them is coupled with the power of calling upon a college so inspected to amend within a specified period any faults noticed at the inspection, in respect of any of the matters referred to in a comprehensive section of the Act. The constitution of the governing body, the qualifications of the teaching staff, the premises and equipment, the residences of the teaching staff, the financial resources of the college, any undue competition in respect of fees, and any injurious effect which the college may have upon the interests of education or discipline, are matters to be passed in review by the University. Its inspecting powers apply alike to colleges which are managed by Government, and those which are managed by private persons, and they are irrespective of whether the college receives support from public funds or not. The Calcutta University has gone furthest in codifying the requirements which it will enforce in affiliated colleges, but all have made some rules, as for instance respecting the terms on which a college may admit a student who comes from another college. Whether embodied in general rules or in particular requirements made after inspection, the jurisdiction of the University over the colleges is now established, and the University is now responsible for seeing that the colleges are kept in a state of efficiency.

65. *Residence of students.*—All the Universities have now adopted regulations by which students who do not reside with parents or guardians must reside in hostels or approved lodgings.

66. *Exclusion of non-collegiate students.*—By the Acts of Incorporation of the three oldest, though not of the two youngest, Universities non-collegiate students could not be admitted to degree examinations except by the special order of the senate. The new regulations apply this principle to all University examinations, except the Matriculation examination, at all Universities. The dispensing power was freely exercised in the past; the present regulations appear designed to guard the exceptions more vigilantly, limiting them for instance to persons occupied as teachers, or to female candidates.

67. *Recognition of schools.*—Formerly all the Universities except that of Bombay kept lists of recognised schools, and exacted from the Matriculation candidates who were sent up by those schools certificates of conduct and proficiency from the headmaster. Others were freely admitted as private candidates, but were usually required to produce similar certificates from some responsible person such as an inspector of schools or a member of the senate. The keeping of a list of recognised schools was a proceeding which could have very little practical effect so long as any candidate who presented himself for Matriculation could be admitted to the examination as a private candidate upon the satisfaction of some easy formalities. A great difference has now been made by the adoption at all the Universities of regulations admitting to the Matriculation examination only those candidates who are sent up by recognised schools or who have been under *bonâ fide* private tuition. The boy who is at a recognised school but has failed to obtain the necessary certificates from that school cannot now present himself as a private candidate. If a school forfeits recognition or is unable to obtain it, the pupils of that school can no longer be admitted to the Matriculation examination as private candidates. Consequently it has become incumbent on every school that wishes to prepare pupils for the Matriculation examination to apply to the University for recognition, and to conform to the conditions laid down for recognition. The conditions laid down require that the schools shall be satisfactory in respect of constitution, management and financial stability, premises and equipment, staff, instruction and discipline. This is a summarised description of the conditions, the various Universities differing chiefly in the extent to which they elaborate these conditions in detail in their own regulations. At one end of the scale stands Madras, which contents itself with recognising all schools recognised by the local Education Department, so that the conditions are those contained in the departmental code. At the other end of the scale is Calcutta, which devotes a chapter of regulations to the purpose, and requires detailed reports to be submitted to the University. The Allahabad University prescribes general conditions and requires that recognition shall be obtained through the Education Department; the Bombay University prescribes the conditions and keeps the list, and reserves freedom either to accept the list of the Educa-

tion Department or to institute its own enquiries; the Punjab University recognizes the schools recognized by the Education Department and permits schools which are excluded from that list to appeal to the University.

68. *Age for Matriculation.*—Before the new regulations were passed, the only University that prescribed a minimum age for Matriculation was Allahabad, and there the minimum fixed was 16 years. This minimum age was originally fixed by the three older Universities, but had been abandoned by them all. The new regulations fix the minimum age for Matriculation as follows:—

Calcutta	.	.	.	.	.	.	.	.	16 years.
Bombay	.	.	.	.	.	.	.	.	16 years.
Madras	.	.	.	.	.	.	.	.	15 years.
Punjab	.	.	.	.	.	.	.	.	15 years.
Allahabad	.	.	.	.	.	.	.	.	16 years.

The age means in each case the number of years completed; the date by which the prescribed number of years must have been completed is either just before the examination begins or just after it is completed.

69. The remainder of the changes in the regulations may best be reviewed by showing the chief changes at each University separately. The most complete revision is that undergone by the regulations of the Calcutta University; the most fundamental change in the character of the course of studies for the ordinary degree is that effected by Madras; Allahabad and Bombay (except in the Medical degrees) have done little more than make the minimum of change required in order to give effect to the Act.

70. *CALCUTTA.*—At the Calcutta University a new Faculty of Science is created.

Formerly every member of the senate had to be assigned to one faculty and might be assigned to more without limit. Now he need not be assigned to any, and must not be assigned to more than two. The elected members of the syndicate number fifteen instead of ten, and are elected partly by the faculties and partly by the senate, instead of entirely by the faculties.

Boards of studies are extended to all the faculties. A whole-time Registrar and a whole-time Inspector of Colleges are appointed; and provision is made for the appointment of University professors, assistant professors, and demonstrators by the senate, and readers and lecturers by the syndicate, subject to the approval of Government. A register of students is introduced.

Rules are laid down for colleges, prescribing the number of lectures to be given in each subject, limiting the number of pupils in a class, and regulating the size and equipment of science rooms.

The number of lectures to be attended by a student is raised from $\frac{2}{3}$ to $\frac{3}{4}$ of the total number delivered in his college.

A paper on vernacular composition has been made compulsory at the Intermediate examination both in Science and Arts, and for the B.A. The setting of text books for examination has been curtailed, and a greater use made of the method of defining a subject by means of a syllabus, accompanied by a list of books recommended.

In the Arts course the studies for the Intermediate examination are recast, the candidates are given more choice as to subjects, and the standard of marks required for a pass is raised. Formerly this examination was held in five compulsory subjects, *viz.*, English, Mathematics, a classical language, Physics and Chemistry, and History or Logic. There were also four optional subjects of which one could be taken. Now there are two compulsory subjects which must be taken by all candidates, *viz.*, English, and composition in a vernacular language. Besides these, there are three more subjects, of which two must be chosen from a group of four and one from a group of seven subjects. These subjects are a second language, History, Logic, Mathematics, forming the first group, and Physics, Chemistry, Geography, Physiology, Botany, Zoology and Geology forming the second group.

The Intermediate examination is now divided into (1) Arts and (2) Science course,—and a candidate in order to pass in the Arts course is not required to take up Science or Mathematics at all.

In the examination for the B.A. degree, courses are no longer divided into A and B, corresponding roughly to a “literary” and a “scientific” course. For both, English was compulsory and for the A course Philosophy and for the B course Mathematics in addition. As there were three subjects in either course it followed that only one subject in each course was optional. In the A course, the optional subjects were a second language, History and Political Economy and Mathematics; in the B course they were Physics and Chemistry, Physiology with either Botany or Zoology, and Geology with either Mineralogy or Physical Geography. Under the new regulations, out of four

Changes shown in detail for each University.

subjects, two, *viz.*, English and a vernacular language, must be taken by all candidates; but of the remaining two, one must be selected from a group of five subjects (group A) and the other from an extended list consisting of group A and five other subjects (group B). These subjects are: Group A—a classical language, History, Political Economy and Political Philosophy, Mental and Moral Philosophy and Mathematics; group B—Physics, Chemistry, Physiology, Botany, Zoology.

The M.A. degree is obtainable, as before, by examination in one subject, but cannot be obtained until two years after the B.A. This limitation is new.

There is a new degree of Doctor of Philosophy obtainable three years after the M.A., upon a thesis, in respect of which the candidate may be submitted to examination.

In Science there is a new Intermediate examination, separate from the Intermediate in Arts; and the degree of D. Sc. is now called M. Sc., and a new degree, called D. Sc., is obtainable three years after the M. Sc.

In Medicine the L.M.S. is abolished; and there are new degrees of Master of Surgery and Master of Obstetrics, and a new diploma of Public Health. Medical students will begin their medical studies after Matriculation instead of after the F.A. and their medical studies will last six years instead of five; but the medical studies of those who begin after the Intermediate Science examination will be for five years only.

In Engineering, instead of F. E., Licentiate, and B.E., there are Intermediate, Bachelor of Engineering and D. Sc. (Engineering). The Engineering student will still have a four years' course leading up to the degree of B.E., but his first examination will be at the end of the second instead of the third year. There are three branches of the B.E., but a degree is no longer given in electrical engineering only; this must now be combined with mechanical engineering. The engineering syllabuses have been recast.

In law, instead of B.L. and Doctor in Law, there are B.L., M.L., and D.L. Law students will have to undergo a longer course than formerly and pass another examination before taking the B.L., and they will have to attend a "Moot Court."

There is a new degree of Bachelor of Teaching and an inferior title called Licentiate.

An important feature of the new regulations is the provision made for the development of the teaching side of the University's functions. It is laid down that the University shall provide for post-graduate teaching, study and research in the faculties of Arts and Science. Though the new regulations were made so late in the quinquennium that little or nothing had been accomplished by the close of the period in the direction of appointing University lecturers, still the matter was under consideration, and it is probable that this provision will result in the establishment of a fully-organized school of University teaching in Calcutta, especially for the M.A. course.

71. BOMBAY.—At the Bombay University there was previously no limit to the number of faculties on which a member of the senate might serve. Now no member may be assigned to more than one, except on special personal qualifications which must be stated to the senate and recorded in the minutes.

In the courses of study and the examinations leading to the B.A. and M.A. degrees there are hardly any changes. Contrary to the recommendations of the Universities Commission, the University decided to retain the Previous examination, which is peculiar to Bombay, and comes one year after Matriculation. The Intermediate examination remains as before, with four compulsory subjects, *viz.* :—

- I. English.
- II. Classical Language.
- III. Mathematics and Physics.
- IV. Deductive Logic.

In the B.A. examination each candidate must as before take the three compulsory subjects of English, a classical language, and History with Political Economy, and must also take one optional subject. The only change is that Roman History and General Jurisprudence, formerly one of the optional subjects, has now been struck out of the list.

The M.A. remains a degree taken by examination in one subject selected, and involves a fifth year of study.

In the courses leading to the B. Sc. degree there is no change.

In the courses of Engineering and Agriculture the revised regulations sanctioned by Government contain no change from the old, but in both these subjects revision is under consideration, and will, if approved by the University and Government, be carried out by further amendment of the revised regulations. In the course of studies for the degree of LL.B. slight alterations have been made, and in place of the old examination for Honours in Law a new degree of Master of Laws has been created, obtainable by examination by Bachelors of Law of two years' standing. Medicine is the only subject in which an important change has been made, affecting the courses of study and degrees. When the form which the medical degrees should take at the Indian Universities was prescribed by a despatch dated 18th August 1858, the arrangement contemplated was that there should be one course of medical teaching, leading up to what was called the degree of Licentiate in Medicine and Surgery, and that there should be a distinction between those who began that course after Matriculation and those who did not begin it until after the B.A., the former being eligible for the Licentiate only, and the latter, after two

years' practice at their profession, for the Doctorate. This arrangement was not preserved at any of the Universities except Bombay, and at Bombay it had been so far modified, that candidates for the Doctor's degree were required, for two years after taking the L.M.S. degree, to have attended at a recognised hospital and to have received lectures. In other words, the M.D. of Bombay implied a full University Arts course, followed by seven years of professional study. These conditions were prohibitive. During ten years there was only one candidate for the Doctorate at Bombay, and he was unsuccessful. There was no M.B. degree at Bombay, and no other medical qualification except the L.M.S. The L.M.S. course was of five years duration, wholly devoted to scientific, medical and professional studies, and was entered immediately after Matriculation, with an additional preliminary test in English and in the mechanics of solids and fluids.

The revised regulations now establish a new Medical course of five years, leading to the new degree of M.B., B.S. (Bachelor of Medicine and Surgery.) Further degrees of M.D. and M.S. (Doctor of Medicine and Master of Surgery) are obtainable by examination in single branches of Medicine and in Surgery respectively, and are open to medical graduates after three years' practice, or after two years' post-graduate study, reduced to one year for those who have obtained honours at the M.B., B.S. examination. There was much debate whether the course of medical studies leading to the degree of M.B., B.S. should be entered by undergraduates on passing the Previous examination (one year after Matriculation) or the Intermediate examination (two years after Matriculation). Finally the Government left the decision to the senate, which decided for the lower qualification. For the present the course of studies for and the degree of L.M.S. as previously existing are retained side by side with the studies for and the degree of M.B., B.S. But it is not intended that this retention shall be permanent. The total abolition of the L.M.S. was proposed, but was deferred owing to representations of the need for an inferior medical qualification. The senate resolved to retain it until such time as Government might be pleased to create a responsible body to grant diplomas of qualification unconnected with the University; and a regulation was inserted terminating the admission of students to the L.M.S. course after Government shall have constituted a new qualification in its place, outside of the University.

72. MADRAS.—The number of elected members of the syndicate is raised from five to ten; election of syndics by faculties is replaced by election by the whole body of Fellows; instead of the election of a new syndicate each year, the office of Syndic is made tenable for two years, elections to be made as vacancies arise. A Fellow can be assigned to one faculty only, instead of to several. The Intermediate examination, which formerly consisted of five compulsory subjects, *viz.*, English, a second language, Mathematics, Physiology, or Physiography, and History (Greek and Roman), has now been altered so as to consist of English, Vernacular Composition and one of the four following optional groups :—

- (1) Mathematics.
- (2) Natural Science, Physics and Chemistry.
- (3) Ancient History, Modern History and Logic.
- (4) Ancient or Modern History, a classical language, and a second classical or a foreign or vernacular language.

It is explained that the old Intermediate course was too wide in range, and that this led in practice to a low standard of requirement in the examinations. The intention of the alteration is that the student shall not be compelled to take up any subject at the Intermediate examination which he will not have to continue to the degree stage, or which is not subsidiary to some subject of the degree course. The first two optional groups of the Intermediate examination are designed for students who will take up Mathematics or a Science subject for their degree course, and the third and fourth for those undertaking a literary course. With respect to the fourth group Dr. Bourne remarks that it "represents an attempt on the part of the University to promote a more intelligent study of the Indian classical and vernacular languages. So far the teaching of these subjects has been almost exclusively in the hands of pundits ignorant of English and unacquainted with Western ideas and methods of dealing with language teaching. It is hoped that in time a course of studies in Indian classical and vernacular languages combined with a sound course in English and History leading up to a degree will produce a class of teacher who will be able to reform the classical and vernacular teaching in schools and colleges."

It is this grouping of subjects and admission of option into the Intermediate examination that caused the local Government to doubt whether the new courses of study were not too much specialized.

"The age of Matriculation," they remarked, "has been fixed at 15 and, though doubtless the average age is higher, it is a serious question whether a more general plan of study would not be better adapted to the youth of the students, and the circumstances of education in the country, at any rate during the first two years of undergraduate study, specialization commencing after passing the Intermediate examination and thus securing for these young men a wider survey of the field of knowledge before

settling down to cultivate one restricted portion of it. The courses proposed for the undergraduate examinations have been however so fitted and adapted to the specialized plan of study as not to admit of easy alteration without reconstituting the whole scheme of studies. It is now too late so far as the present regulations are concerned to submit the matter for further discussion, or to undertake the task of revision, if that course were approved. In these circumstances the Government have accepted *en bloc* the senate's recommendations as to the courses of study."

An important change has been made in the B.A. course by the institution of a new B.A. honours course lasting three years and distinct from the pass course which lasts two years. The old B.A. course, writes Dr. Bourne, "was a compromise between a pass and an honours course, and did not very well serve the purpose of either. It was perhaps too ambitious for the ordinary student of average ability, while for the students of first-rate capacities, of whom every year an appreciable number pass through the University, it was not ambitious enough and did not profitably provide for the whole time available for study."

The pass B.A. course now consists of English and one of the following six subjects, or groups of subjects:—

- (1) Mathematics.
- (2) Physical Science.
- (3) Natural Science.
- (4) Logic, Psychology and Ethics.
- (5) History and Economics.
- (6) Two languages already studied in the Intermediate course.

No student proceeds to the degree examination in any subject in which he has not undergone a preliminary training in the Intermediate course. The B.A. honours course extends over not less than three years, and comprises modern English and one optional subject, which may be one of the six optional subjects for the pass course or advanced English or advanced Sanskrit. A much fuller and more advanced treatment of these subjects is required than in the pass course, and the standard in most of them corresponds to that of the former M.A. examination. In all the subjects a considerable option is allowed. In Mathematics, for instance, the student is expected to acquire a sound knowledge of pure and applied mathematics up to a fairly advanced stage, and also of two specialized branches of mathematical knowledge to be chosen by him from a list of eleven.

The M.A. examination has been given up altogether; the degree itself is reserved for graduates in honours on attaining a certain University standing. The new regulations do not materially affect the courses of studies and the examination for degrees in Teaching, Law, Medicine and Engineering.

"It is much too early yet to say," writes Dr. Bourne, "what will be the effect of these new regulations upon University education. Upon one point however there can be little doubt: in order to undertake the new courses the colleges, especially those of the second grade, will have to increase their expenditure and to improve their staff."

"There are indications that for a college to succeed it must take up one of the groups of Science subjects, and this will involve laboratories and apparatus which most of the colleges do not now possess. A first-grade college which undertakes one or more of the courses in honours in addition to pass courses will have to add to its staff one or more special teachers of the rank of professor. In the Presidency town inter-collegiate arrangements, if it were possible to devise them, might to some extent reduce the number of additional professors required; the appointment of University professors or lecturers might also relieve the position, but no formal proposals with this object have as yet been made."

73. PUNJAB.—The faculty of Engineering has been amalgamated with that of Science. The elected members of the syndicate, reduced in number from 20 to 15, are elected as heretofore by the faculties.

A register of students is established.

The Intermediate examination in Arts was formerly held in three compulsory subjects and one optional, the compulsory subjects being English, a classical language and Mathematics. In the examination for the B.A. degree the candidate had formerly the choice of two courses, one of which had as its basis English and a classical language and the other had as its basis English and either Mathematics or a branch of Science, and in either case he took a third subject chosen by himself from a list of optionals. Now the only compulsory subject is English and the candidate may take in combination with this any two others from the list.

Honours papers have been instituted in the B.A. and B.Sc. examinations, but no separate honours courses of lectures are required to be given.

A new degree of Bachelor of Teaching, obtainable two years after the B.A., has been instituted.

A new degree of Master of Science has also been instituted, and is a new name for the old degree of Master of Arts in a Science subject.

In Medicine there were formerly two courses, one begun after the Intermediate examination, lasting five years, and leading to a Licentiate of Medicine and Surgery,

and another, begun after graduation, lasting five years, and leading to the degree of Bachelor of Medicine.

Both these courses have been abolished, and instead of them there is now one medical course entered after passing the Intermediate examination in Science, including a special paper. This course lasts four years only, and leads to the degree of M.B., B.S., with the degrees of M.D. or M.S. obtainable after four years' practice in the profession or three years' post-graduate attendance at a hospital, this period being reduced to two years for an honours graduate.

In Law a Licentiate is no longer granted to those who begin to study law after the Intermediate examination. The LL.B. course is now approached in the way which prevails at other Universities, after graduation in Arts or Science.

There is a lower grade legal qualification called the First Examination in Law, conducted through the medium of Urdu. This takes the place of what was previously called the Licentiate. The examination is open to those who have passed the Intermediate examination of any of the faculties of the Punjab University. Those who pass the examination are entitled to practise as Mukhtiyars in the lower courts. Lectures are delivered in Urdu for the benefit of those who do not know English and yet have passed the Intermediate examination of the Oriental faculty.

The Oriental examinations in Law and Medicine, long in abeyance, have been removed from the regulations.

74. ALLAHABAD.—At the Allahabad University election of the syndicate by faculties is substituted for election by the senate from amongst prescribed categories of Fellows. Some changes are made in the Intermediate examination in the Arts course. This examination, as formerly, is designed to lead either to the B.A. or to the B.Sc., and consequently offers a choice between two courses of study; but in the course designed to lead to the B.A. Mathematics is no longer compulsory but may be replaced by Deductive Logic. This change however is said not to have given general satisfaction and may be brought under reconsideration. Physics and Chemistry used to figure as an optional subject in the B.A. course as well as in that for the B.Sc., but now do so no longer.

The M.A. degree is still, as formerly, obtainable by examination, but there is now a new examination interposed between the B.A. and the M.A., and similarly between the B.Sc. and the M.Sc. These are styled the Examination Previous to the M.A. and the M.Sc.

A degree of Licentiate in Teaching for graduates in Arts or Science, who have undergone a course of training at a training college, has been instituted.

General tendencies of the changes effected by the New Regulations.

75. After recounting these numerous changes in the regulations affecting the course of studies, it is natural to ask what general tendencies may be discerned in them. Are there any ideas, and if so what, that are common in this recasting of the rules relating to the studies of University students? Or are there no general tendencies, and has each University been developing upon lines of its own?

76. In answer to these questions it may be observed, first, that the Universities all agree in preserving the English language as the chief instrument of study and English literature as one of the most important subjects. The idea that University studies can be carried on in this country without recourse to the English language has met nowhere with support in University circles, and the Oriental faculty of the Punjab University, which alone has tried the experiment, is a dwindling and almost defunct body.

Some who are willing to concede that English must necessarily be the instrument of University studies in this country nevertheless hold that English literature need not bulk so largely as a subject of study. Towards this view the changes in the regulations show some slight inclination. Everywhere in the B.A. course English literature is a subject of study throughout, and English is also a subject of study in the B.Sc. courses of Allahabad and the Punjab. Calcutta, however, has now followed the example set by Bombay, by excluding English as a subject of study from the list of subjects for the B.Sc. examination and carrying it only as far as the Intermediate examination. Madras, in this matter, is to be ranked with the two junior Universities; for whatever selection of Science subjects may be made by the candidate for the B.A. degree there, (at Madras there is no B.Sc.), the combination must include English literature.

77. Next may be noted a certain increase in the honour paid to the vernacular languages of India. Previously vernacular languages found

Importance
of the study
of English.

Study of
vernacular
languages.

no place in University courses except in Madras, where they were alternative to a classical language. Now there are two Universities, viz., Calcutta and Madras, which have made the vernacular language a compulsory subject of study for the Intermediate examination, and one University, Calcutta, which requires an exercise in the vernacular from all candidates for the B. A. degree; while Madras, though not requiring a vernacular to be studied for the B. A., permits the vernacular history and literature to be chosen from among the various alternatives. In the other Universities the vernaculars find no place either as optional or compulsory subjects of study.

Study of
Science.

78. The next question is whether the recent revisions show any tendency to comply with the exhortations of those who desire to drive the Indian students to the study of Science, to the exclusion of other subjects usually included in a liberal education. The answer to this question is that upon the whole the Universities are moving away from this, and are tending to give the student his choice. The tendency is to improve the facilities for teaching Science and to teach it better, but to abstain from forcing it upon reluctant students. Under the old regulations there were two Universities, viz., Calcutta and Bombay, at which it was impossible to take the Bachelor's degree without having studied Science as far as the Intermediate examination. Now there is only one, viz., Bombay. Moreover the arrangement of courses at the Universities now tends more than it formerly did to direct the student to a limited range of study.

Specializa-
tion of
studies.

79. This brings us to the subject of specialization. Upon the whole, the Universities now exhibit a tendency towards greater and earlier specialization in University studies. Bombay indeed still adheres to its all-round curriculum of four compulsory subjects for the Intermediate examination, and four subjects, in only one of which an option is allowed, for the B. A. The remainder of the Universities used similarly to have a cast-iron Intermediate examination in which little or no choice was given to the candidate; but Calcutta and Madras have now completely abandoned this principle at the Intermediate examinations, and Allahabad has also lessened the amount of compulsion at this stage. The result is that now, except at Bombay, the only subject which every undergraduate must study after Matriculation is English, or (at Calcutta and Madras) English and the vernacular; as to the rest of his subjects, he selects them from groups of options both for the Intermediate examination and for the examination of Bachelor of Arts.

At Calcutta also the Intermediate examination in Arts was formerly common to the students who were destined for the B. A. and B. Sc. degrees. Now a separate Intermediate examination is provided for the Science students, so that their separation from the Art students begins at the beginning of their University career.

80. The reform of University studies in India is a favourite subject for speculative writers, and the changes which they propose are often of a fundamental character. In considering the changes which have just been recorded the reader who is acquainted with this country will not fail to bear in mind that they represent the conclusions of zealous bodies of men specially chosen to consider the subject, and chosen for their experience, capacity and variety of interest.

Inspection of Colleges.

81. The Universities Act lays down in detail the points on which a college applying for affiliation must satisfy the syndicate, and requires the syndicate to appoint a competent person to make local inquiries. The Act also requires the syndicate to cause every affiliated college to be inspected from time to time by one or more competent persons. This is an entirely new departure; and since money has been provided to enable the Universities to carry out the duty of inspection, and also for the purpose of enabling the colleges to carry out the improvements found by the body of inspectors to be necessary, these provisions are a powerful engine

for the improvement of University education, and are indeed the most important in the Act. The inspection of colleges by the Education Department was prescribed by the Despatch of 1854, but had long fallen into desuetude, if indeed it had ever been taken in hand in a systematic manner. No University had any system of inspection of affiliated colleges, but the Madras University had a regulation permitting inspection of premises, equipment and qualifications of teaching staff, and the Allahabad University had laid down and applied regulations requiring any college newly seeking affiliation in Science to be properly inspected before its application could be granted. All the Universities have now made regulations for the inspection of colleges and all have carried out a general inspection of their colleges by means of Committees appointed for the purpose. These Committees have made the most thorough and searching inquiries into the colleges, and their reports fully describe the state of affairs.

82. The first in the field was the Commission appointed by the University of Madras; this Commission consisted of six members, of whom three were Indians and three were Europeans. All were members of the senate and all were professionally engaged in education, two being in the service of Government. After circulating some preliminary literature describing the points on which information was required, the Commission started in July 1905 and spent 71 days on their tour of inspection, exclusive of the time occupied in the consideration of their report. The points on which information was required from the colleges were practically the same as those which the Act lays down for inquiry in the case of colleges newly seeking affiliation, and may be summarised as relating to (1) constitution and management, (2) staff, (3) buildings and hostels, (4) equipment (furniture, appliances, laboratories and museums), (5) numbers and qualifications of students, (6) finance, (7) libraries, (8) registers, (9) miscellaneous (physical education, clubs, societies, etc.). In their report the Commission expressed the opinion that any smaller number of members than they had would have been insufficient and undesirable. "The variety of subjects dealt with requires a considerable number of experts or authorities. The persons forming an inspecting body are principally and necessarily of the same class as those whose work is inspected, and in consequence a body of opinion is necessary in order to be of any weight. . . . The procedure at inspection varied slightly in the case of different colleges. . . . Usually, however, the procedure began with a meeting of the Commission with the Head of the College . . . when tabulated statements prepared beforehand were received. . . and questions asked in connection with these statements. . . . On the conclusion of an inspection each section of the Commission put together their notes of inspection and these collectively formed a connected report on the college inspected. Each report was then discussed and provisionally passed, with such alterations as appeared necessary, by the whole Commission. Finally, all the reports underwent a thorough revision before being sent to press. These reports deal almost wholly with matters of fact."

83. The Calcutta University appointed two bodies of inspectors, one for the Calcutta colleges, the other for the mufassal colleges. The body of inspectors for Calcutta colleges consisted of four members, two being Indians and two Europeans; of these one was a judge and another a lawyer and the other two were officials of the Education Department. The body of inspectors for mufassal colleges consisted of three members, two being Europeans. Two were non-officials, being principals of institutions in Calcutta.

The forms for returns were with one or two minor exceptions the same as those for Madras. Inspection began on September 1st, 1905.

84. The Committee appointed to inspect the colleges affiliated to the Bombay University consisted of three members only, namely a principal of a Government college, a professor of Science in a Native State college and a lawyer. The inspection lasted from June 28th to September 8th, 1906.

85. The Punjab University appointed one Committee of six members to inspect the Lahore colleges and a second Committee to inspect the mufassal colleges. These adopted the same forms as the Madras University. Their inspection took place between November 1st, 1905, and January 11th, 1906.

86. The Allahabad University appointed an inspecting body of eight, consisting of four officials, three representatives of privately managed colleges and one Indian gentleman. The inspecting body was appointed for three years and the following principles for its guidance in the work of inspection were laid down by the Committee and accepted by the senate:—

- (1) "An important part of the inspection would be the conference with the principal and with the whole staff, which should invariably conclude it, and when possible with the governing body also.
- (2) "It is not expedient to select men for appointment on the ground of special knowledge in some particular branch of study, but that great weight should be attached to their possessing experience in and proved capacity for inspection work.
- (3) "That in no case a principal or a professor take part in the inspection of the college to which he himself belongs or in that of a college in the same city.
- (4) "The Committee do not recommend that any stereotyped report should be prescribed."

The Committee began work in the cold weather of 1906-07, but did not finish their labours during the quinquennium. The condition of the colleges as revealed by these inspection reports of the different Universities will be noticed below in that part of the Review which relates to colleges.

Grants in Aid.

87. On the 24th March 1905 the Government of India made the first of the annual grants of five lakhs of rupees which had been promised for five years, in aid of the Universities and colleges. Except in the Punjab, where the University managed the Oriental and Law colleges, the Universities used until this time to discharge their functions without receiving grants from Government. The fees received from examinations were enough to cover their expenses, and to provide the salaries of the paid servants of the University. The members of the senate who attended meetings paid for their own travelling.

travelling
inspection
and adminis-
tration.

The first necessity arising from the Act was the holding of frequent meetings of Fellows and Syndics. It was not desirable that those who live away from headquarters should be prevented, by the cost of travelling, from taking due part in these proceedings, and a sum of Rs. 5,000 was set aside for the travelling expenses of Fellows and Syndics at each University. The next important matter for which provision had to be made was the expense of carrying on the inspection of colleges required by the Act. The terms of the Act were: "The syndicate shall cause every affiliated college to be inspected from time to time by one or more competent persons, authorised by the syndicate on this behalf." The details of carrying out this injunction were to be settled by University regulations. But the Universities had no funds with which to pay inspectors or to pay travelling expenses or honoraria to persons deputed to inspect colleges. If inspection was to be useful and not perfunctory, it was necessary to provide a considerable sum for carrying it out. In addition to these two purposes of travelling expenses of Fellows and the cost of inspection, there were certain other expenses likely to arise under the Act from the increase of administrative work thrown upon the Universities. For the three purposes of travelling expenses of Fellows, cost of inspection and increased administrative charges, consolidated grants were made to the Universities amounting to one lakh of rupees, annually divided as follows:—

	Rs. in thousands.
Madras	25
Bombay	15
Calcutta	30
Allahabad	20
Punjab	10
TOTAL	100

These figures represent the grants made for the second and following years of the five for which the grant was allotted. In the first year the sums were slightly different and included two sums of Rs. 15,000 and Rs. 24,000 to Allahabad and the Punjab, to wipe off the deficits in the current accounts of these Universities.

89. Next came the question of making grants for University buildings. One of the first requirements of a University is a hall in which the senate can meet and in which degrees can be given. Perhaps the next necessity may be reckoned to be offices for the Registrar and his clerks, and the third, buildings in which to conduct University examinations at the headquarters. A University library for the benefit of the students and college professors when at headquarters may be counted as a desirable addition, and beyond these the requirements of the Universities in the way of buildings are for the most part bound up with the question of University teaching.

At the beginning of the quinquennium the Universities were thus provided with buildings:—

SENATE HALLS.—All the Universities were provided with senate halls except the University of Allahabad, which used the Vizianagram Hall of the Muir College for senate meetings.

EXAMINATION HALLS.—There were none, but it was the custom to use for examination purposes the senate halls (which were insufficient), to borrow rooms in colleges and other institutions, or to use temporary erections.

LIBRARY BUILDINGS.—One University only, that of Bombay, possessed a library building. The books belonging to the Universities were stored in the senate halls.

LECTURE HALLS AND LABORATORIES FOR UNIVERSITY TEACHING.—None were possessed by any University.

In the distribution of the five lakhs grant made from Imperial revenues in aid of Universities and colleges, the principle upon which allotments were made for University land and buildings was to make grants-in-aid of definite schemes which were mature for aid at the time when the distribution was settled. The total sum, spread over five years, which could be spared for this purpose was Rs. 6,35,000. The Universities which profited by it were those of Calcutta, the Punjab and Allahabad.

90. To the Calcutta University was assigned a sum of Rs. 3,80,000, to aid in carrying out a scheme which had been under discussion since 1891, for buying land to the west of the existing senate hall, and for erecting on it:—

- (a) A University Library,
- (b) Laboratories for testing the practical work of candidates in Science examinations,
- (c) A large hall for purposes of examination.

The land was estimated to cost Rs. 1,80,000, and this sum the Government of India gave: the buildings were estimated to cost Rs. 2,75,000, and towards this the Government of India gave Rs. 2,00,000. This land was bought; the buildings are to be erected, and the balance of the cost is to be met from other sources.

91. To the Punjab University was assigned for building purposes a total sum of Rs. 1,70,000, from Imperial revenues; but Rs. 50,000 of this was allotted in the year preceding the general distribution of the five lakhs grant, and was not counted in that grant. This grant of Rs. 50,000 was a contribution towards the erection of a new University hall, for the purpose of convocation and examinations, capable of seating 600 persons, and estimated to cost one and a half lakhs. The hall, which was built from the plans of Bhai Ram Singh, Vice-Principal of the Mayo School of Art, was opened on the 23rd December 1906. At either end there are Committee rooms. The total cost was Rs. 1,75,000, of which University funds contributed Rs. 1,25,000.

Besides a grant of half a lakh to this hall there was assigned to the Punjab University from Imperial revenues the sum of Rs. 1,20,000,

being a contribution towards a programme, estimated to cost Rs. 1,34,000, for—

	Rs.
(a) Oriental College buildings	75,000
(b) Oriental College boarding house	20,000
(c) University library	30,000
(d) Furniture for University Hall	9,500
TOTAL	1,34,500

The following extract from a joint memorandum by the Vice-Chancellor and Registrar of the Punjab University explains the project of a University library :—

“The Punjab University considers one of the most necessary improvements of the University to be the acquirement of a good reference library. The University maintains at present a Law College library, an Oriental College library and a University library. It is proposed to combine these into one University library with Oriental and Law sections. The Oriental and Law section will remain with the Oriental and Law Colleges, for the purposes of those colleges, but will be made accessible to all readers in the University library. The number of colleges located in Lahore affords an additional reason for founding a good library in this University. There is a constant demand not only on the part of students, but also on the part of professors and teachers for a better supply of books. A number of the Arts colleges possess well-arranged college libraries, but their scope is necessarily limited. Senior students, graduates and professors are hampered by a lack of books not available in any library in Lahore : research is handicapped by the great expense it involves for the individual.”

92. To the Allahabad University the sum of Rs. 1,35,000 was assigned. The purposes for which this grant was made were :—

	Rs.
(a) the acquisition of a site for University buildings	35,000
(b) office for the Registrar	20,000
(c) University library	80,000
TOTAL	1,35,000

A site has been acquired; the Registrar's office is being built; a Committee was appointed in 1905 to consider the question of a library.

Summary of expenditure from the Imperial grant.

93. After making provision, from the twenty-five lakhs grant (five lakhs for five years), for the allotments mentioned above in aid of University inspection, administration and buildings, there remained a sum of thirteen and a half lakhs available for colleges. The Government of India decided to allot this to local Governments in aid of Arts colleges only, and to exclude Government colleges from all share in it, the local Governments being expected to defray, from their own resources, the cost of the necessary improvements in Government colleges.

The principles on which this sum was allotted and applied will be noticed in the chapter upon colleges. Including this sum, the total assignment of the Imperial grant of 25 lakhs was as follows :—

A. To Universities.

- (1) For administration, inspection, and travelling.
- (2) For land and buildings.

	(1) Rs. (in thousands).	(2) Rs. (in thousands).	Total Rs. (in thousands).	
Calcutta	1.40	3.80	5.20	
Bombay	73	—	73	
Madras	1.20	—	1.20	
Punjab	74	1.20*	1.94	
Allahabad	1.08	1.35	2.43	
	5.15	6.35	11.50	

* Exclusion of a grant of half a lakh in 1903-04.

B. To provinces, for colleges.—

	Rs. (in thousands.)
Madras	3,70
Bombay	2,50
Bengal	2,70
United Provinces	2,10
Punjab	80
Central Provinces	65
Eastern Bengal and Assam	1,05
	13,50
Total to Universities	11,50
Total to colleges	13,50
Grand Total (5 lakhs for 5 years)	25,00

Provision of University Buildings.

94. Besides the additions to University buildings made with the assistance of the Imperial grant, the quinquennium has seen the provision of a University library at Madras and of a University school of Law at Allahabad. By the permission of the Madras Government a portion of the Connemara Public Library has been set aside for the use of the University. The University, having received a legacy of Rs. 28,000 for the purpose from the estate of Mr. William Griffith, has expended this in the purchase of books, and incurs an expenditure of Rs. 6,000 annually from its own funds for new books and for the cost of the staff. At Allahabad arrangements have been made to hand over to the University the Law classes held in connection with the Muir Central College, together with the professional staff attached thereto. The classes are still conducted in the buildings of the Muir Central College, but the local Government has given a grant of a lakh of rupees to assist the University in establishing it in buildings of its own.

95. At the close of the quinquennium the provision of University buildings stands thus :—

Senate Halls.—Every University possesses one, except Allahabad, which uses the Vizianagram Hall.

Examination Halls.—One is in course of provision at Calcutta, together with Science examination laboratories. A new hall has been provided at the Punjab University. There are none at the other Universities.

Library buildings.—These have been provided at Madras and Bombay, and are in course of provision at each of the other Universities.

Lecture halls and laboratories for University teaching.—There are at present none. A University Law school at Allahabad and a building for the Oriental College at Lahore are projected.

96. These new buildings and projects by no means exhaust the list of the additions to University buildings which it is desirable to make. They represent only what was most immediately practicable from the funds available. Bombay remains without an examination hall, and accommodates its candidates in temporary *mandaps*, which are inconvenient and unsightly. Mr. Selby reports that a generous offer of three lakhs towards the building of a hall has been made by Sir Cowasji Jehangir, and expresses a hope that with this assistance the hall will soon be supplied.

Another scheme which has been put on one side for the present for want of funds is that for the concentration of higher Science teaching in Bombay at a central school belonging to the University. This project was put forward in the year 1903 by Dr. Mackichan; and possessed the greater authority in that its author had served as a member of the Universities Commission and was at the time Principal of the Wilson College, Bombay, and Vice-Chancellor of the Bombay University. There are four colleges in Bombay city, viz., the Elphinstone, St. Xavier's, the Wilson, and the Grant Medical College, and at each of these instruction is given in Science. Dr. Mackichan's plan, which commended itself to the Director of Public Instruction, was to establish, at a probable cost of twenty lakhs, two fine and well-equipped University Laboratories, one Physical and the other Chemical, in which the instruction required for all the degrees in Science should be given

Other projects for University buildings.

to students of all colleges affiliated to the University. He suggested that two University Professors in Science might be obtained by offering a salary of Rs. 500 a month to two of the Professors in the Wilson and St. Xavier's Colleges, as an addition to the incomes received by them from their own colleges; and that two lecturers should be obtained at salaries of Rs. 500 each by selecting two Indian graduates to be trained in the University of London. The cost of providing these salaries, or the greater part of it, was to be borne by Government; and it was hoped that of the twenty lakhs required for establishing the school, if Government contributed half, the other half might be obtained by private subscriptions. Dr. Mackichan propounded this scheme in an eloquent Convocation address in February 1903. At the end of the quinquennium it still awaited the necessary support from some liberal donor or donors.

In the Madras Presidency the equipment of the colleges for higher teaching in those sciences which require elaborate laboratory accommodation is, except at the Presidency and the Trivandrum Colleges, inadequate. A scheme for a University school for such higher teaching has been discussed there also, but has not yet been put forward in a definite and authoritative manner.

In the Punjab, buildings and a boarding house for the Law College are still to be provided, and the Engineering class requires to be housed more suitably.

Number of Graduates.

97. It is sometimes supposed that the output of graduates from the Indian Universities is in excess of the number for whom there is employment; and indeed it is very common for persons who write about the social and political condition of India to treat this supposition as if it were a demonstrated fact and to build upon it the theory that the presence in the country of a large body of graduates seeking employment and finding none is the cause of some disorders in the State.

The total annual output from all the Universities in India has only once exceeded 2,000. In 1893-94 it was 1,421, in 1898-99 it touched 1,500 for the first time, and in the three closing years of the quinquennium it averaged 1,935. These numbers include all the Bachelors of Arts, of Science, of Engineering, of Oriental Learning and of Medicine, and in addition thereto the Licentiates of Medicine and Surgery and of Engineering. Some of these graduates proceed to higher degrees, but for the purpose of counting the output of the Universities, those who take higher degrees should neither be added to the 1,935 nor subtracted from them. Nineteen hundred and thirty-five pass through the portal of the Bachelor's degree or Licentiate: some of these proceed to higher degrees, others go out at once into the world. Of the 1,935 graduates of the Universities, 540 become Bachelors of Law, and in most cases proceed to the Bar. This leaves a yearly supply of nearly 1,400 graduates available for the other professions, for the branches of the public service in which graduates are employed, for teaching in colleges and schools and for service in Native States. The colleges and secondary schools, if they were able to offer salaries sufficiently attractive, would be capable of absorbing as teachers nearly the whole of this number. At present these institutions are obliged to employ men who are not graduates, owing to two causes, a dearth of graduates, and inability to pay sufficient salaries to attract graduates. A return was made in 1903 of the number of higher posts in the public service held by Indians: this return took count only of posts at a pay of more than Rs. 75 a month, and this is a higher rate of pay than a young man would usually expect to receive immediately upon leaving the University. Consequently the return does not show the full extent of the demand for graduates in the public service; but it showed that Indians were employed in more than 16,000 posts at a pay exceeding Rs. 75.

The following extract from an official letter written by the Madras Government in the year 1902 shows that in the opinion of that Government there is not an excessive production of graduates in Madras:—

"The benefits which higher education has conferred, small as the progress has been, will be readily conceded, and His Excellency in Council

is convinced that any action which checked its development would be a serious misfortune. Young men of education are wanted in the interests alike of the efficiency and the purity of the administration of the State, for the extension of primary and secondary instruction and for the development of the trade, the industries and the resources of the country. And what is the supply? The Madras University serves a population of at least 50 millions and yet the number of graduates in Arts in 1900 was only 365, while in 1901 it was not more than 331, and in no year in the past decade has it reached 500. The number of students on the rolls of colleges is practically the same now as it was in 1890-91, and any attempt to make this branch of education self-supporting or even materially to increase the contribution demanded from those who benefit by it must result in a serious falling off in the number of students, which His Excellency in Council would view with grave apprehensions."

98. The most striking feature about the numbers of graduates at the Indian Universities is not the magnitude of their total or any increase in it, but the very high proportion of wastage. It takes 24,000 candidates at Matriculation to secure 11,000 passes, it takes 7,000 candidates at the Intermediate examination to secure 2,800 passes, and it takes 4,750 candidates for the B. A. degree to secure 1,900 passes.

There are 18,000 students at college in order to supply an annual output of 1,935 graduates. This means that a very large number fall out by the way without completing successfully their University career. The phenomenon, peculiar to India, of candidates for employment urging as a qualification that they have failed at a University examination (meaning that they have passed the preceding examination and added thereto some years of study for the next) is due to two causes, the large number of students whom the University rejects at its examinations before it grants the B. A. degree to the remainder, and the dearth of graduates. If there were enough graduates forthcoming to fill the places, those who can only urge as their qualification that they have failed in the Bachelor's degree would no longer be serious competitors.

99. The proportion of students who graduate in the four main faculties is as follows:—

Arts	85 per cent.
Science	2 "
Medicine	9 "
Engineering	4 "
TOTAL . 100 "	

Percentage of graduates in different faculties.

The conclusion often but erroneously drawn from these figures is that a "purely literary education" is followed at the Indian Universities to the almost total exclusion of Science. This conclusion is arrived at by the omission to observe that in some of the Universities the Arts degree is granted upon Science subjects. An analysis of the returns of four of the Universities shows that the proportion of graduates in Arts who take one or more Science subjects at the B. A. examination is as follows:—

	Percentage.
Calcutta	36
Madras	46
Bombay	34
Allahabad	25

In these calculations Mathematics is not counted as a Science subject.

100. Of the 1,935 persons who graduate annually at the Indian Universities, about 540 proceed to the degree of Bachelor of Law and to the degree of M. A. Those who take both these degrees are included in these numbers. English is still the subject in which the greatest number of M. A.s take their degree; and next to English by far the most widely studied subject is physical science. After this, but at a long interval, philosophy and mathematics come next in order of popularity amongst the subjects in which students carry their studies up to the Master's degree. The numbers who resort to the higher degrees of D. Sc., M. O. L. and M. D. are at present negligible.

Higher Degrees.

CHAPTER II.

ARTS COLLEGES.

Introductory.

101. A GENUINE movement for the improvement of colleges throughout India has been begun during the quinquennium, and is still proceeding. All affiliated colleges, that is to say all institutions in which students are prepared for University examinations and degrees, have been brought under regular inspection by the Universities; the Universities have received powers, which they are exercising, of calling upon the colleges to remove the deficiencies revealed by inspection, and they also (notably the University of Calcutta) have so exercised their powers of making regulations as to lay down general rules for observance by colleges. Fortunately the colleges have not only been brought under criticism and regulation, but have been supplied with funds both from public and from private sources, whereby their requirements, which were found to be very numerous, are being supplied. Upon the continuance of financial support the prosperity and efficiency of Indian colleges now depend; the machinery for formulating their needs and for seeing that the money is properly applied is satisfactory and is working well. Faults in the constitution or management of colleges are being removed, college buildings are being improved, the conditions of residence of the students are being reformed, the numbers and qualifications of college professors are rising, the lecture system is being supplemented by more tutorial assistance to students, libraries and scientific equipment are being more liberally supplied, and a higher standard of college education, in the widest sense, is being realized. These improvements are being carried out with as much tenderness as was possible to existing institutions. Some of the weakest of them have fallen out, and in many cases colleges which were attempting too much have been obliged to limit their efforts to teaching those courses which they can properly undertake; but a higher standard has nowhere been enforced without reasonable notice nor has deserving effort been treated with harshness. So much having been said in general terms, the condition of the colleges may now be reviewed in greater detail.

Classification and Number of Colleges.

102. The total number of colleges affiliated to the Indian Universities is 176. Their location is shown in the map in Volume II. Of these colleges, 161 are Arts colleges, that is to say they prepare students for degrees in Arts and Science; three are Law colleges (including the Law school in Bombay), four Medical, three Engineering, one Oriental, one Agricultural, and there are three teachers' colleges. This is the total number of separate institutions; but twenty-four of the Arts colleges have also Law classes attached to them. The following table compares the number of affiliated institutions at the beginning and end of the quinquennium, arranging them by Universities:—

Universities.	1902.	1907.	Change.
Calcutta	82	55	—27
Bombay	14	15	+1
Madras	60	53	—7
Punjab	16	21	+5
Allahabad	31	32	+1
	203	176	—27

and the following shows the same comparison, arranging the colleges by their kind:—

	1902.	1907.	Change.
Arts Colleges	188	161	—27
Oriental „	1	1	..
Law „	3	3	..
Medical „	4	4	..
Engineering „	4	3	—1
Teaching „	2	3	+1
Agricultural „	1	1	..
	203	176	—27

103. The changes in the numbers of affiliated institutions which have taken place during the quinquennium are rather apparent than real, and are chiefly due to the removal of fictitious or duplicate entries. Thus the Calcutta University has been shorn of all the colleges situated outside its territorial limits, but these institutions were in many cases also affiliated to the University to which they now exclusively belong, and their affiliation to Calcutta was nominal.

The list of colleges affiliated to Calcutta previously included nine situated in Ceylon. Ceylon has been transferred to the sphere of influence of the Madras University, but its colleges have not yet been affiliated thereto.

Secondly, there were some colleges on the lists of the Universities which had only a nominal existence, mere dummies which had once sent students up for degrees but had long since ceased to do so. Thirdly, there were numerous schools (especially schools for European boys) which had at some time or another obtained affiliation up to the Intermediate standard and which in some years had a class of undergraduates and in other years had not. Some of these have renounced their shadowy pretensions to the title of college and have been struck off the list. A considerable number, however, still remain. They are not in truth colleges; the provision which they make for their occasional undergraduate students is neither separate from the school nor permanent nor up to University standards. The schools will continue to disappear gradually from the lists, and their disappearance will cause a further apparent drop in the numbers of the affiliated colleges. Lastly, there are a few real cases of weak institutions that have been obliged to close, owing to their inability to conform to the standards required by the Universities.

Those which have thus dropped out are—

Calcutta.—Rajchandra College, Barisal.

Madras.—St. Michael's College, Coimbatore.

St. Mary's College, Madras.

San Thomé College, Madras.

Aurangabad College.

Shimoga College.

Holy Angel's Convent, Trivandrum.

Punjab.—Baring High School, Batala.

Allahabad.—Jaynarain College, Benares.

Madhav College, Ujjain.

Rutlam Central College.

Government College, Fyzabad.

Reasons for
the change in
the numbers

Those which have been affiliated during the quinquennium are—

Calcutta.—Wesley College, Bankura.
Hindu Academy, Daulatpur.

Punjab.—Auckland House, Simla.
St. Bede's College, Simla.
Sri Pratab Hindu College, Srinagar, Kashmir.

Allahabad.—Christian College, Allahabad.

Question of
the continu-
ance of
second grade
colleges.

104. Of the affiliated Arts colleges 88 are first grade and 73 are second grade (*i.e.*, teaching only up to the Intermediate standard). All the colleges which have dropped off the list during the last five years have been second grade colleges. The second grade colleges are found chiefly in the territories of the Universities of Calcutta and Madras, which have 21 and 33 respectively. In Calcutta their abolition is now advocated. The Committee appointed to inspect colleges in the city of Calcutta remark :—" Though reasons may be put forward for maintaining second grade colleges at certain mufassal stations, when there are no colleges of the first grade, there can be no possible reason for their continued existence in Calcutta. They serve no useful purpose and merely tend to withdraw students from the more efficient first grade institutions."

The mufassal inspection committee of the Calcutta University were equally adverse to the continuance of second grade colleges, describing them as incurably defective, declaring that "the second grade college as a status definitely recognised is to be condemned", and proposing that no new second grade colleges should be affiliated, and that those existing and unable to rise to the first grade should be ranked as schools, but permitted to prepare pupils for the Intermediate examination of the University. After discussing whether the line of division between school and University teaching should be drawn at the Intermediate examination, the Committee record their emphatic opinion that the second grade college as such is educationally unsound and detrimental to the highest interests of the University. In Madras the Commission observed that the second grade colleges were rather schools than parts of a University, and that even with the removal of their obvious defects they would still be far from the realisation of the idea of a University college.

Distribution
of colleges
by provinces.

105. The following table shows the distribution by provinces of the colleges of every description affiliated to Indian Universities at the close of the quinquennium :—

PROVINCE.	Arts.	Orien- tal.	Law.	Medi- cine.	Engineer- ing.	Teach- ing.	Agricul- ture.	Total.
Madras	36	..	1	1	1	2	..	41
Bombay	7	..	1	1	1	..	1	11
Bengal	38	..	..	1	1	..	..	40
United Provinces	23	..	..	..	..	..	..	23
Punjab	12	1	1	1	..	1	..	16
Burma	2	..	..	..	..	..	..	2
Eastern Bengal and Assam	11	..	..	..	..	..	..	11
Central Provinces and Berar	3	..	..	..	..	..	..	3
North-West Frontier Province	1	..	..	..	..	..	..	1
Ajmer	1	..	..	..	..	..	..	1
French Territory	1	..	..	..	..	..	..	1
Native States	26	..	..	..	..	..	..	26
TOTAL	161	1	3	4	3	3	1	176

106. The Arts colleges are divided into first and second grade as follows :—

PROVINCE.	First grade.	Second grade.	Total.
Madras	11	25	36
Bombay	7	..	7
Bengal	27	11	38
United Provinces	13	10	23
Punjab	9	3	12
Burma	1	1	2
Eastern Bengal and Assam	3	8	11
Central Provinces and Berar	3	..	3
North-West Frontier Province	..	1	1
Ajmer	1	..	1
French Territory	..	1	1
Native States	13	13	26
TOTAL	88	73	161

Division of
Arts colleges
into first and
second grade.

107. The figures given above are from the records of the Universities, and the names of the colleges will be found in a list in volume II. But the statistical tables in volume II of this review, which are based on returns furnished to the Education Departments, differ from the University lists in the following respects. Twenty-three out of the twenty-six colleges in Native States, one in French territory and one in Ajmer, are not included in the statistical tables. The statistics of the Bengal Education Department omit the following institutions, the affiliation of which was merely nominal, and has indeed been discontinued since the close of the quinquennium :—

La Martinière School, *Calcutta*.
St. Paul's School, *Darjeeling*,
St. Joseph's College, *Darjeeling*,
Doveton College, *Calcutta*,

and also omit the Armenian College, which withholds returns; and on the other hand, the departmental statistics of Bengal include as a college Loreto House, a girls' school with one college student, which is not on the University list. The departmental statistics of the United Provinces omit two schools which are found on the University lists, but which have no college students, *viz.*, St. Peter's College, Agra, and the Boys' High School, Allahabad. The departmental statistics of the Punjab omit the following European schools which are included in the University lists as Arts colleges, *viz.*,

Bishop Cotton School, *Simla*,
Auckland House, *Simla*,
St. Bede's College, *Simla*.

Thus the Arts colleges, the returns for which are included in departmental statistics, are as follows :—

PROVINCE.	First grade.	Second grade.	Total.
Madras	11	25	36
Bombay	9	1	10*
Bengal	26	8	34
United Provinces	13	8	21
Punjab	8	1	9
Burma	1	1	2
Eastern Bengal and Assam	3	8	11
Central Provinces and Berar	3	..	3
North-West Frontier Province	..	1	1
TOTAL	74	53	127

* Includes two 1st grade and one 2nd grade college situated in Native States.

The discrepancies between the departmental returns and the University lists of colleges in British India are of no great statistical importance, as they are chiefly due to the omission from the departmental returns either of colleges with very small college classes, or of dummies. In the remainder of this chapter the figures used are those of the departmental statistics.

Geographical
distribution
of colleges.

108. The provinces present very marked differences from one another in respect of the geographical distribution of colleges, and these differences when examined will be found to depend not merely upon a difference of policy or of standard in the admission of colleges to affiliation, but also on a difference in the geographical circumstances of the province. When a province easily falls into a certain number of natural divisions distinguished from one another by racial and linguistic differences; when these divisions have been accepted as a basis for the administrative areas of Commissioners' divisions, and when in each of these divisions there is one city having a population of 100,000 or 150,000 and far surpassing in respect of population any of the other cities in the division, then the location of the colleges in such a province presents an easy problem; the natural course is to plant the colleges at these large centres. Such is the case in Bombay. The capital city contains three colleges all of the first grade, Poona (population 153,000) has two first grade colleges, and the cities of Karachi (population 117,000) and Ahmedabad (population 136,000) are each supplied with a first grade college and serve the divisions of Sind and the Northern division respectively. The only division which is not supplied with a college is the Southern division and this contains no one city of predominant size. But the deficiency is to some extent supplied by the existence of a second grade college in the Native State of Kolhapur. The great Native State of Baroda has one first grade college, and Kathiawar contains two, at Junagadh and Bhavanagar respectively.

Similarly the United Provinces of Agra and Oudh present no difficulty. There are seven large cities with a population of more than 130,000, namely Lucknow, Benares, Cawnpore, Agra, Allahabad, Bareilly and Meerut, and there is no other town exceeding 80,000 in population. Six of these seven large cities form the headquarters of one of the administrative divisions of the province and they form convenient centres for the whole of the province with perhaps the exception of the hill country. Consequently we find that colleges are placed in them all and that in addition to these there are only Aligarh, where the great residential college of Muhammadans is situated, and a few places in the hills which are served by college classes attached to the hill schools. Although there are eight second grade colleges on the list in the United Provinces, five of these are merely classes attached to European high schools. There are only two colleges for Indian students outside the large towns, viz., one at Almora and one at Gorakhpur.

In the Central Provinces again two centres and only two are found; Nagpur, with a population of 128,000, and Jubbulpur, with 90,000; the headquarters of the Marathi and Hindi speaking divisions of the provinces.

In the Punjab the distribution of colleges resembles that of the United Provinces. There are three large cities, Delhi, Lahore and Amritsar, whose populations are 209,000, 203,000 and 163,000, respectively; and college education is practically confined to these three cities, in spite of there being an array of cities in the mufassal with populations ranging from 50,000 to 90,000. There is, however, one second grade college at Sialkot, and the Native States of Patiala, Bahawalpur and Kapurthala are each supplied with a college.

But the case is entirely different in the provinces of Madras and Bengal. The capital cities of Calcutta and Madras are of course natural centres for students and colleges to congregate in, but outside of these capital cities there are but few large towns. In Bengal there is Patna with 145,000 inhabitants; and in Madras there are Madura and Trichinopoly with 155,000 each. But there are no other places with a population of even 80,000.

In the absence of large provincial centres with a predominant claim for the establishment of a college to supply the surrounding country, colleges have grown up wherever a school was big enough to aspire to a college class.

The consequence is that Madras has a college of some sort in every city of over 30,000 inhabitants, and has no fewer than twenty-five centres of collegiate teaching.

Bengal is not so profusely supplied. The places originally chosen by Government for the establishment of colleges were Calcutta, Hooghly (population 44,000), Krishnagar (population 24,000) and Berhampur (where the college has since been transferred from Government to private management). These existed before the University and were incorporated in it on its foundation. To these were added colleges at Patna (population 135,000) and Cuttack (population 51,000), in 1862 and 1876 respectively, being the outgrowth of Government high schools. The remainder of the province was left to be covered by private effort; but private effort has not covered it in any systematic fashion. It has established colleges in about half the places of from about 40,000 to 50,000 inhabitants, but has passed by an equal number of places of this size, while we find also colleges in Bankura (population 21,000), Hazaribagh (population 16,000), Uttarpara (population 7,000) and even three colleges established in villages.

In Eastern Bengal and Assam there are colleges at each of the ten largest towns, or in other words there is a college in every place with a population of 12,000 or over. The places are Dacca (population 90,000), Chittagong (population 22,000), Barisal (population 18,000), Rajshahi (population 22,000), Mymensingh (population 14,000), Tangail (population 17,000), Comilla (population 14,000), Pabna (population 18,000), Sylhet (population 14,000), and Gauhati (population 12,000).

In Burma there has been no demand and there is consequently no supply of colleges at any place except Rangoon. But Rangoon contains two colleges to supply the needs of 135 students, of whom only about seven or eight graduate annually as Bachelors. Thus Madras, Bengal and Eastern Bengal and Assam stand in an entirely different position from the rest of India. Not only do they differ by the accomplished fact of a large number of colleges having been established at places that are neither important in size nor as centres, but if the University question were a new one and colleges were now for the first time being established, the conditions in these provinces would be different from those of the rest of India, and the problem where to locate the colleges would be a different one. So too when the improvement of colleges is in question. Bombay, which has only four places at which all collegiate education is centralised, may with confidence build on existing foundations and go on improving the colleges at each of these four centres to keep pace with the advance in the standard of University education; but it would be a very different thing for Madras to give a complete University education in twenty-five centres or Bengal in nineteen or Eastern Bengal and Assam in ten. It is not surprising that a feeling is growing in favour of classifying second grade colleges as schools.

Management of Colleges.

109. Of the 127 Arts colleges mentioned in the provincial returns, twenty-three are managed by the provincial Governments, four by municipalities, one by a local board, three by Native States, and ninety-six by private bodies. Of the colleges that have dropped out during the quinquennium one is a Government college, namely, the second grade college at Fyzabad, where the high school previously had college classes attached. The only Government second grade colleges that now exist are the Mangalore College, the Calcutta Madrasa, the Chittagong College and the Cotton College, Gauhati.

With respect to the management of Government colleges it is to be noted that these, equally with privately managed colleges, are now under the inspection of the Universities, and that the proposals for their improvement which arise out of such inspection are in due course submitted to the local Governments.

In the case of Government colleges in Madras it was remarked by the Commission of inspection that frequent transfers of the staff, due to the exigencies of the public service, detracted from continued efficiency, and an

attempt has been made to remedy this defect by the formation of a separate collegiate branch of the subordinate service. The appointments included in this branch of the service are now graded in such a way that the promotion of an officer will not entail his transfer from the college where he is employed.

Colleges managed by municipalities.

110. The municipalities which manage colleges are those of Salem, Palghat and Tellicherry in Madras, and Midnapur in Bengal. It was found that in the municipal colleges in Madras the functions of the principal were generally ill-defined and there was a tendency for the management to pay too little attention to his views, especially in the matter of appointments to the staff, and to interfere unduly with his discretion in matters of detail; and no provision was made for earmarking for college purposes any surpluses which accrued from the year's working of the college, such surpluses being merged in the general balance of the municipality.

Colleges under private management.

111. Of the colleges under private management forty-three are connected with missions and the remainder present all varieties. Sometimes the control rests with a body of managers constituted by formal deed and representative of the public interests of a locality, or of a community of creed or race, receiving endowments and collecting funds from its supporters and rendering accounts to them; sometimes it is hereditary in the family of a zemindar or titular Rajah by whom it was founded and by whose descendants it is supported; sometimes the college is managed by a single proprietor.

Distribution of colleges by management.

112. Thirteen colleges under private management have dropped out during the quinquennium, of which six belonged to missionaries. The following tables show the distribution of Government, missionary colleges and other privately managed colleges through the provinces:—

COLLEGES UNDER PUBLIC MANAGEMENT.

	Government.	Boards.	Total.
Madras	4	3	7
Bombay	2	..	2
Bengal	8	2	10
United Provinces	2	..	2
Punjab	1	..	1
Burma	1	..	1
Eastern Bengal and Assam	4	..	4
Central Provinces and Berar	1	..	1
	—	—	—
TOTAL	23	5	28
	—	—	—

PRIVATELY MANAGED COLLEGES.

	Missionary.	Other.	Total.
Madras	18	11	29
Bombay	2	3	5
Bengal	8	16	24
United Provinces	8	11	19
Punjab	4	4	8
Burma	1	..	1
Eastern Bengal and Assam	..	7	7
Central Provinces and Berar	1	1	2
North-West Frontier Province	1	..	1
	—	—	—
TOTAL	43	53	96
	—	—	—

113. A list of the missionary bodies supporting colleges affiliated to Universities may be of interest.

Name of Body	No. of colleges.	
CHURCH OF ENGLAND—		
Church Missionary Society	8	
Society for the Propagation of the Gospel	3	
Dublin University Mission	1	
Cambridge Mission	1	
	—	13
ROMAN CATHOLIC—		
Society of Jesus	6	
Brothers of St. Joseph	1	
	—	7
SCOTTISH CHURCHES—		
General Assembly of the Church of Scotland	2	
Free Church of Scotland Mission	1	
United Free Church of Scotland	3	
Punjab Mission of the Church of Scotland	1	
	—	7
METHODIST MISSIONS—		
Wesleyan Missionary Society	3	
North India Conference of the Methodist Episcopal Church	1	
	—	4
CONGREGATIONAL MISSIONS—		
London Missionary Society	4	
	—	4
AMERICAN MISSIONS	10	
CANADIAN MISSIONS	1	
	—	11
		—
TOTAL	46	

Three of these colleges are in Native States.

"A defect peculiar to many missionary colleges," writes the Director of Public Instruction, Madras, "was the virtual absence of an effective managing body. In many cases the governing body was situated at a distance or met infrequently, and practically the whole management devolved on the principal, who was left without guidance or supervision and in certain cases without expert advice in subjects of study with which he was not personally conversant."

114. The following are some instances of communities of creed or race or status supporting colleges:—

Community.	Colleges.
Talukdars of Oudh	Canning College, Lucknow.
Muhammadans	{ Aligarh College.
	{ Islamia College, Lahore.
Sikhs	{ Khalsa College, Amritsar.
Arya Samaj	{ D. A. V. College, Lahore.
	{ Central Hindu College, Benares.
Hindus	{ Hindu College, Delhi.
	{ Hindu College, Kashmir.
Kayasths	Kayastha Pathshala, Allahabad.

This list is not exhaustive, for the line cannot easily be drawn between colleges which represent merely a locality and those which represent a community having other characteristics. Instances of privately managed colleges established to supply the wants of a locality and managed by representatives of different interests in the locality are—

Locality.	Colleges.
Ahmedabad	Gujarat.
Sind	D. J. Sind College, Karachi.
Meerut	Meerut.
Bareilly	Bareilly.
Deccan	Fergusson College, Poona.

The criticisms passed in Madras on local committees managing colleges may once more be quoted. These committees "varied considerably in constitution and except in one or two cases the management was far from satisfactory. In many cases the number of members was too large to secure efficient working, the educational qualifications of many of the members were too meagre to entitle them to have a voice in the management of a University college, and the functions of the principal were insufficiently defined and he was subject to too much interference in the internal affairs of the college."

Colleges maintained by wealthy families, and proprietary colleges.

115. Instances of colleges maintained by wealthy families of local importance are the Zamorin's College, Calicut; the Maharaja's College, Vizianagaram; Kallikot College, Berhampur; Pittapur Rajah's College, Cocanada; Rajah's College, Parlakamedi; the Burdwan Raj and the Cossimbazar College; Uttarpara College; Hetampur College.

Purely proprietary colleges, that is to say colleges owned and managed by single proprietors, and unprovided with endowments, constitutions, or other guarantees of permanence, exist only in Bengal and Eastern Bengal and Assam. Their elimination would, in the opinion of the inspection commission of the Calcutta University, be a public misfortune; but the gravity of the situation in which they are placed for want of funds is pointed out, and the amendment of their constitution, so as to render them eligible for assistance from public funds, is discussed.

Colleges in Native States.

116. The following is a list of colleges in Native States; those which are included in the statistics appended to this Review are marked with an asterisk :—

Affiliated Colleges in Native States.

Names of Colleges.	States.
*Bahauddin College, Junagadh	Kathiawar States.
*Samaldas College, Bhavanagar	" "
*Rajaram College	Kolhapur.
Victoria College	Kooch-Bihar.
Nizam College	Hyderabad.
Maharaja's College	Mysore.
Central College, Bangalore	"
St. Joseph's College, Bangalore	"
Sacred Heart College, Bangalore	"
Maharani's College, Mysore	"
Maharaja's College, Trivandrum	Travancore.
Maharaja's College for Girls, Trivandrum	"
Church Mission College, Kottayam	"
Scott Christian College, Nagercoil	"
Ernakulam College	Cochin.
Maharaja's College, Pudukota	Pudukota.
Baroda College	Baroda.
Maharaja's College, Jaipur	Rajputana Agency.
Jaswant College, Jodhpur	" "
Victoria College, Gwalior	" "
Holkar College, Indore	Central India Agency.
Canadian Mission College, Indore	" "
Sri Partab Singh Hindu College, Srinagar	Kashmir.
Mohindra College	Patiala.
Randhir College	Kapurthala.
Sadiq Egerton College	Bahawalpur.

Buildings and Equipment.

117. The statistical tables do not enable us to say more about the funds raised for buildings and equipment in colleges than that colleges received some

indefinite share of the total sum devoted to buildings in all kinds of educational institutions. This total for the five years was 256 lakhs, showing an increase of 154 lakhs, or 151 per cent. over the total for the preceding five years.

The only entirely new building provided during the quinquennium for any Government college was at Dacca, where fine new premises have recently been completed. In accordance with modern requirements these provide residences for the students and also for some members of the teaching staff who will be charged with the duty of supervising them.

The Elphinstone College, Bombay, is not housed in buildings erected expressly for the purpose, and the inconvenience and insufficiency of the present accommodation are such that the removal of the college to another site is now under consideration.

At the Deccan College, Poona, sixty acres of ground have been added, and amongst other structural additions two new blocks of rooms for resident students, each accommodating sixty-four students, and one house for resident professors have been built, and another house is under construction.

The buildings of the Presidency College, Calcutta, have become insufficient for its needs, and the question of its removal has been under consideration; but instead of rebuilding it on another site the local Government has now determined to acquire land adjoining the present site and to carry out extensions.

Extensive improvements are being carried out at the Government College, Patna. The site has been enlarged, and the new buildings will include hostels for Hindus and Muhammadans, houses for the principal and one of the professors and a gymnasium. The science teaching will be given in laboratories for the common use of the college, the Medical school and the school of Engineering.

At the Government College, Lahore, the playground and buildings have been greatly improved and enlarged, and professors' residences have been provided.

The Government College, Jubbulpore, has been extended by the addition of an examination hall costing Rs. 30,000, a gymnasium, and a chemical laboratory. In order to provide for the increase of numbers, the Director of Public Instruction discusses the need of removing the college to a more open site.

118. Turning now to the improvements made in the buildings of colleges under private management, it will be seen that in Madras improvements in buildings have not yet been generally taken in hand, and the grants intended for that purpose have not yet been distributed, but the inspections have enabled the University and Department to take stock of the condition of affairs. Hitherto the needs of second grade colleges have usually been met by the provision of two good lecture rooms in the high schools to which they are attached, and in most cases these had been provided. In the first grade colleges the character of the buildings was not in all cases suitable, and in the majority the accommodation was inadequate or barely adequate for the numbers of students in attendance, and there was one case of gross overcrowding. In the last month of the quinquennium the Madras Christian College put out an appeal for subscriptions in order to carry out extensions of site and buildings to cost £10,000; and Dr. Miller, who has already contributed munificently to the College, gave Rs. 20,000 to this fund, and the local Government gave Rs. 50,000 out of the Imperial grant.

119. In BOMBAY, each aided college received Rs. 30,000 and a promise of a further Rs. 20,000 out of the Imperial grant. At St. Xavier's College, Bombay, a new hostel for students and a new physical laboratory are to be built on a site given by the local Government. At the Wilson College the buildings are to be extended. At the Fergusson College, Poona, a chemical laboratory has been built and equipped from donations at a cost of Rs. 23,000; a library, valued at Rs. 25,000, has been presented to the college, and out of the Imperial grant new class rooms are to be built and the Physical and Biological sections are to be strengthened.

Colleges under private management.

120. In BENGAL, a distribution of Rs. 1,10,000, representing the Imperial grant for colleges for two years, was made in 1906-07; and the greater part of this sum was assigned for buildings, *viz.*—

- Rs. 28,000 for hostels.
- Rs. 50,500 for laboratories.
- Rs. 5,000 for libraries.
- Rs. 10,000 for other buildings and apparatus.

Among the colleges which shared in these grants were some which had previously not been in receipt of aid from Government.

121. Great improvements have been made during the quinquennium in the buildings of privately managed colleges in the UNITED PROVINCES OF AGRA AND OUDH. Movements were set on foot throughout these provinces for improving the colleges which stood in need of it, and the local Government assisted these movements not only by contributions from public funds but also by counsel and encouragement.

The Badshah Bagh, Lucknow, which will form one of the finest college-sites in India, has been bought by Government for the rebuilding of the Canning College and leased at a nominal rent to its trustees; and the Maharajah of Balrampur has given a munificent donation of three lakhs of rupees towards the rebuilding. A residential college will be erected here.

The Meerut College was formerly conducted in an old fashioned bungalow in which the high school also was taught. It has now purchased a fine building originally erected for a school, and Government has made grants amounting to Rs. 50,000 for this purpose.

The Bareilly College formerly occupied class rooms in the buildings of the Government High School. The Nawab of Rampur presented a fine large site for a new building, which is being erected with the aid of subscriptions and grants; and the endowment fund of the college has also been increased by a lakh of rupees. Government contributed Rs. 52,000 towards these purposes.

At the M. A. O. College, Aligarh, a Prince of Wales Science school has been founded to commemorate a royal visit. His Highness the Aga Khan gave Rs. 35,000 towards this purpose, and Sir Adamjee Peerbhoy gave a lakh; and Government contributed Rs. 20,000. A year later the Amir of Afghanistan announced his intention to give a donation of Rs. 20,000 to the college and a permanent subscription of Rs. 6,000. Mr. Lewis, the late Director of Public Instruction, remarks that building operations to extend the accommodation of lecture rooms and hostels, for libraries, museums and college clubs, never cease in this vigorously flourishing institution.

At the Agra College the chief need was the provision of new boarding houses for the students, and this has now been carried out at a cost of Rs. 65,000, of which Government contributed Rs. 30,000. At Allahabad hostels have been erected by private subscription in the proximity of the Muir College, to accommodate Hindu and Muhammadan students respectively. The hostel for Hindus is named after Sir Antony MacDonnell and is a new building erected during the quinquennium. Towards its erection and endowment the managing committee collected Rs. 1,50,000 and Government contributed Rs. 50,000. The Muhammadan boarding house existed previously and it has been enlarged during the quinquennium. It appears that the committee collected about Rs. 50,000 for this enlargement and that Government gave Rs. 15,000 in addition.

Extensive building operations have been carried out at the Central Hindu College, Benares, providing a fine boarding-house and enabling the school and college to be separated. New physical and chemical laboratories have also been built. This college, which owes its vigour and success chiefly to the organizing ability and enthusiasm of Mrs. Besant, shows a record of great progress. The number of students in the college has risen from 84 in 1902 to 235 in 1907. The college staff has increased from 7 to 18; and while its income from subscriptions and donations has not increased its invested funds have risen from Rs. 1,38,000 to Rs. 4,33,000.

Another hostel in Allahabad under private management has been completed during the quinquennium. It is styled the Oxford and Cambridge

Hostel and it is connected with the mission of that name. It is built in collegiate quadrangular style and chiefly serves the Muir College, though not confined to students of that institution. Government gave a grant of Rs. 33,500 to this hostel.

A new college at Allahabad, the Christian College, has been erected.

This list of improvements to the buildings of colleges under private management is a remarkable record.

122. In the PUNJAB also the record is satisfactory and shows striking improvements actually effected. All the colleges in this Province except the second grade college at Sialkot have buildings of their own separate from schools; and the standard of buildings, as judged both by existing provision and by the projects now being carried out, is good. Conditions are rapidly being realised under which there will be no college that is not housed in commodious premises specially erected for the purpose. In Lahore the privately managed colleges are the Forman Christian College, the Dayanand Anglo-Vedic College, and the Islamia College. The first of these was opened in 1889 on a site given by Government, and during the quinquennium the buildings have been largely remodelled, and several large additions made to the boarding house accommodation; a chemical laboratory has been added and the physical laboratory has been enlarged with the aid of liberal grants from Government. The buildings have cost approximately Rs. 2,15,000. In the D. A. V. College, which is maintained without aid from Government, new buildings are in course of erection, and the foundation stone was laid in May 1905.

The Islamia College at present occupies unsuitable and inadequate premises, but a new site of 7 acres has been purchased for Rs. 55,000; and new buildings, estimated to cost Rs. 1,62,000, are being erected. Towards these projects Government has given Rs. 60,000, and the Amir of Afghanistan (who laid the foundation stone) gave Rs. 30,000.

In Delhi there are two colleges, the St. Stephen's maintained by the S. P. G., and the Hindu College. The St. Stephen's College is in collegiate buildings designed by Sir Swinton Jacob, and a house for the residence of the professors has recently been acquired for Rs. 25,000, of which half was contributed by Government. Further improvements in the buildings are required and are being taken in hand. The Hindu College is poorly housed, in a rented building originally designed for other purposes. The college authorities have issued appeals for funds, in order to erect suitable premises, and the future of the college would appear to depend upon this appeal being met and reasonable progress being made with the necessary improvements.

The Khalsa College, Amritsar, was at the beginning of the quinquennium unsuitably housed in the buildings which according to the original design were to serve as boarding houses. In 1904 the Sikh Educational Conference decided to raise funds for the erection of suitable buildings and for the endowment of the college. A sum of 3½ lakhs has been collected for the building fund, and building is in progress.

The Gordon College, Rawalpindi, occupies a large building erected for the purpose; and the Scotch Mission College, Sialkot, is, as mentioned above, at present conducted in rooms built on to the high school. A valuable site has been acquired, and efforts are being made to secure a grant for the erection of new buildings.

123. In BURMA the only college besides the Government college is the American Baptist Mission College, also situated in Rangoon. It is a second grade college, attached to a high school. The University inspecting officer advised the college authorities to improve their high school rather than to extend the college; but the college authorities have made arrangements for the erection of a new building to accommodate 54 students and to serve the purposes of a first grade college.

124. In EASTERN BENGAL AND ASSAM there are seven privately managed colleges, all unaided by Government. They are situated at Dacca, Barisal, Pabna, Comilla, Tangail, Mymensingh, and Sylhet. One of these, the Brajamohan Institute, Barisal, is of the first grade, and the remainder are of the second grade. The Brajamohan institution is a large one storied institution

with a large compound and is provided with hostels. The proprietor has spent Rs. 50,000 upon the premises, and improvements have been made during the quinquennium and are still proceeding. The remainder are all second grade institutions, and generally speaking the premises are of a low standard. One which is described as "moderately housed" is built upon a small plot of land in the centre of a town, and consists of two large and lofty rooms, built of brick; from one of the rooms a portion has been cut off to serve as an office. There is also a rented house for the purposes of a hostel, but there is no other accommodation. The remainder occupy premises which are thus described by Mr. Sharp, the Director of Public Instruction:—"Poor buildings in a somewhat congested compound." "A one-storied brick building. The accommodation provided is on a very modest scale." "Fairly decent tin-houses." "Four small *kutcha* houses with corrugated iron roofs quite unsuitable for educational purposes." "Present building distinctly unsatisfactory." Nothing of any consequence has been done during the quinquennium to improve these premises. It is something that their condition has been noted and that the need for large expenditure, if they are to retain their claim to rank as colleges, has been established.

125. In the CENTRAL PROVINCES the privately managed colleges are the Morris College and the Hislop College, both situated at Nagpur. The Morris College still occupies the premises which it had before its reconstitution, which consist of an old native palace; but it is to be removed to better quarters. The Hislop College has a fine building and is spending money on the improvement of its site.

126. In the NORTH-WEST FRONTIER PROVINCE, the Edwards Church Mission College, Peshawar, is still held in premises attached to the high school, but a separate building on a new site is to be erected.

Equipment.

127. The condition of the colleges as to equipment for the most part resembles their condition as to premises. In the cases mentioned above where new premises are being erected, it will be observed that new laboratories are often included. There have also been grants for equipment apart from grants for buildings and, speaking generally, we may say that those colleges which are well provided with buildings are well equipped, and those which are housed in poor premises are ill equipped. This, however, is not universally true, because equipment wears out and becomes out of date sooner than buildings, and some colleges inhabiting old but well-built premises were found to be ill equipped with scientific apparatus and furniture.

128. MADRAS.—There are six colleges in Madras giving instruction in Physics and Chemistry, and the Commission of Inspectors found the accommodation to be ample in only one of these. The insufficiency and unsuitability of the apparatus employed in the teaching of Physics and, to a less degree, of Chemistry, were severely criticised; but, in one college, the Commission reported the equipment for the teaching of Physics to be very complete and sufficient for teaching up to any standard likely to be set by the University. Too frequently, however, it was found that the instruments provided for the teaching of Physics were in the nature of toys rather than of serious instruments of precision. Two colleges are affiliated in one or more subjects grouped under Biology, and these were found to be adequately provided with laboratories suitably equipped for the purpose. The apparatus and appliances employed in second grade colleges in the teaching of Mathematics, History, Physiology and Physiography were poor, and the deficiency of maps, charts and illustrative objects for the teaching of History was remarked also in the first grade colleges. The Madras Government applied the first instalment of the Imperial grant for colleges to the improvement of mathematical teaching. Each aided college was supplied with a sufficient number of sets of mathematical instruments and apparatus and the Government colleges were similarly supplied from provincial funds. Three lecturers were appointed by the University to lecture upon modern methods in the teaching of Mathematics with special reference to graphical and other practical work, and these lectures were numerous attended by junior college teachers.

129. BOMBAY.—In Bombay several improvements have been made in the provision of laboratories, but the provision for scientific teaching is not yet adequate. In this connection Mr. Selby remarks that scientific teaching is so expensive that it cannot be given on an adequate scale in more than one place. The question of providing for the central teaching of Science in Bombay, referred to in para. 96 above is still under consideration.

College libraries have been improved in Bombay during the quinquennium, but in this respect also there are still deficiencies.

130. BENGAL.—In Bengal, Mr. Hornell remarks that advanced Science teaching will probably have in future to be confined to a few central institutions. Except in the larger Government colleges and in one or two of the private colleges, the provision for the teaching of Science was defective even according to the standard of the old regulations. The Inspection Commission pointed out that under the new regulations the expenditure under this head would be heavier and that a considerable outlay would be necessary in order to provide properly constructed laboratories and apparatus for practical work. The improvements which are being made in colleges include some steps to remedy these deficiencies. The Inspection Commission also remarked that the practical courses laid down for the Intermediate examination in Physics and Chemistry did not necessarily require great expenditure. "Teachers with the necessary enthusiasm and ingenuity can dispense with not a few of the costly productions of the makers of scientific apparatus, and the home-made article frequently answers the purpose just as well." They found that the apparatus possessed by some of the smaller colleges was in some respects needlessly costly and that pieces of apparatus have not infrequently been purchased which, in relation to the actual needs of the course prescribed, might be called expensive toys.

The Commission also found the college libraries inadequate, badly arranged and little used. It was suggested that college librarians might be trained at the Imperial Library, that existing libraries might be improved by the rejection of obsolete and unsuitable books, and that a model catalogue to serve as a standard to colleges generally might be prepared.

131. UNITED PROVINCES.—In the United Provinces, the Muir Central College is well equipped for scientific teaching; but the principal remarks that the delay in the supply of scientific stores from Europe continues to be a constant source of complaint among the professors concerned. This complaint has been made in other provinces too, and measures for shortening the time which must elapse between indenting for apparatus and receiving it have been under consideration. The Director remarks that during the quinquennium there is hardly a college which has not begun the re-organization of its Science department, by the provision and equipment of separate laboratories for Physics and Chemistry, by the strengthening of the professorial staff and by insistence on practical work for students. These improvements are illustrated by the mention of steps taken in most of the leading colleges.

Very few of the colleges in these provinces as yet possess a good library.

132. PUNJAB.—In the Punjab, the most universal defect found to exist in the colleges was the lack of properly constructed laboratories and a sufficient provision for practical instruction in Science. The improvements which are in progress in the colleges are intended to remedy these defects, amongst others. The scientific equipment of the Government College, Lahore, has been increased by provision for the preliminary Science teaching of medical students in Physics, Chemistry, Botany and Zoology. This instruction was formerly given in the Medical College, but has now been transferred to the Arts College.

133. BURMA.—In Burma, the Government College, Rangoon, has hitherto been equipped for the Science side only of the Calcutta B. A. degree, and its scientific equipment was found to be good and sufficient except in some of the requirements for the most advanced teaching of Chemistry. At the Baptist Mission College there is no laboratory and the scientific equipment was found to be insufficient.

Neither of the Rangoon colleges is well equipped with a library, but the Government College students make some use of the Bernard Free Library which is close by.

134. **EASTERN BENGAL AND ASSAM.**—The Government College, Dacca, is fairly well equipped, and will in its new buildings be thoroughly well so. The Government Colleges at Rajshahi and Gauhati have laboratories but that at Chittagong has none. The one first grade college under private management in these provinces, that at Barisal, has a laboratory, which, however, was reported to be ill equipped; and there was no provision for regular periodical purchase of apparatus. The Jagannath College, Dacca, a second grade college under private management, possesses a lecture theatre for the Science class in a separate building. None of the other colleges possesses a laboratory, and all are ill equipped for scientific teaching, but it is said that a laboratory is to be built at the Mymensingh College.

The Director notes the condition of all the colleges in respect of libraries. The Dacca College has 7,000 to 8,000 volumes, the Rajshahi College 6,000, the Chittagong College 5,000, the Cotton College, Gauhati, 2,000, nearly all well chosen and useful; the Barisal College 1,500 volumes, Jagannath College 800 and the City College, Mymensingh, 600, which are well chosen and may form the nucleus of a useful collection. The remaining colleges either have no library or have merely a collection of text-books. In three of the Government Colleges the rule requiring students to deposit money before using the library has been abolished, and its abolition is said to have most beneficial effects. Some of the colleges have reading rooms attached to the libraries, and the Director emphasises the need for employing librarians who shall always be present.

135. **CENTRAL PROVINCES.**—The equipment of the Jubbulpore College for scientific teaching has been improved. Science teaching in the two Nagpur colleges has been greatly strengthened by the provision of a new Science College, the Victoria Technical Institute. At present this institute relieves the two colleges of the teaching of Science to the third or fourth year students, but is expected ultimately to develop into a first grade Science college.

Number of Students.

136. The number of students in Arts colleges, which had been rising steadily for fifteen years, reached its highest point in 1904-05 when it stood at 18,645, and then fell for one year and rose slightly in the following year, so that at the end of the quinquennium it was 18,001.

The fall in the numbers for India is the resultant of considerable rises in Madras, Bombay, the United Provinces and the Punjab, and of a heavy fall in Bengal and Eastern Bengal and Assam.

Causes determining the number of students.

137. The causes which determine the number of students in Arts colleges are (1) the total number of persons who desire to receive a University education, (2) the number who succeed in passing the Matriculation examination, and (3) the amount of accommodation available in the colleges. The number of students desiring a University career may be expected to grow with the prosperity of the country and with the expansion of careers in which the possession of a degree is a qualification. It may be expected to decline in times of plague and famine, and indeed must do so when the colleges are actually vacated by students by reason of plague. Increase in the cost of a college education may be expected to tend to the diminution of the number of students, whether this cause takes the form of an enhanced fee or a more regular collection of the fee or of an increase in the standard of living at college. The Matriculation examination is attended by many more pupils than have any intention of proceeding to college and, therefore, the number of passes is not an exact index to the number who may be expected to become college students. Any increased severity in the Matriculation test throws out some of the candidates who would have proceeded to college. Increased severity in the test for the Intermediate or the B. A. examination tends to increase the number of students, because it refers them back "for further study," to use the old expression. The amount of accommodation provided in colleges fixes the maximum number of students who can be in attendance, and the higher the standard of college building the more rigid becomes the limit. If overcrowding is permitted or if additional accommodation can easily be obtained

by renting rooms or throwing up erections of mats and corrugated iron, the accommodation is elastic, but if on the other hand overcrowding is prevented and higher standards of building enforced, the accommodation tends to contract; and this is especially the case if a college is required to provide not only teaching room but also residential quarters for its students.

Many of these causes have been at work during the quinquennium, but it is difficult to say with certainty which is the determining cause for the decided turn backward at the end of the period.

138. Upon the whole, the conditions have been such that the desire for a University career has been in no appreciable degree relaxed, though there are some signs of a diversion towards technical studies. There has been no increase in the fee rates of any colleges, or at any rate none has been recorded, but there has been increase in the regularity with which the fees are collected; and the recent changes, which tend to gather students into hostels and give them a residential college life must also result, as a general rule, in some increase in the cost of living. It is, however, very unlikely that this cause can have operated sufficiently to reduce the number of students. The number of candidates for Matriculation shows some oscillation during the quinquennium, but upon the whole it is increasing at a fairly constant rate. The number of passes, however, which had been rising up till 1903, received a check in 1904, whether by an abnormal weakness in the candidates or, which is more probable, by an exceptional severity in the examiners both at Calcutta and at Madras; at Madras in December 1903 and at Calcutta in March 1904. If this high percentage of failures at the Matriculation examination brought the number of passes below the numbers which are required to replenish the colleges, that cause has now ceased to operate, for the number of passes at the Matriculation examination has again risen higher than ever before.

139. The decrease in the number of students in Bengal is located chiefly in the private colleges. In some cases this may be due to restrictions placed upon overcrowding, but upon the whole it seems that the number of students who are allowed to pass the Matriculation examination each year is only just sufficient to keep the existing colleges supplied, and that any unusual severity in the test acts immediately on the least popular colleges, and that this is the real determining cause of the decrease in the number of college students in Bengal during the quinquennium. The following figures show that, while the number of students in both Government and aided colleges in India has increased, the number in unaided colleges has diminished :—

	1902.	1907.
Government Colleges	3,926	4,331
Aided	6,925	8,202
Unaided	5,806	4,823

140. The proportion of college students in each province to the population is thus shown :—

	1902 per million.	1907 per million.
Madras	100	121
Bombay	78	108
Bengal	105	95
United Provinces	31	47
Punjab	61	74
Burma	16	12
Eastern Bengal and Assam	17	39
Central Provinces and Berar	19	20

Upon the figures of 1902 the inference might have been drawn that the policy of maintaining numerous colleges in small centres had at any rate resulted in producing the largest proportions of collegiate students, since Madras and Bengal then headed the list; but Bombay, where the colleges are chiefly confined to the large centres, now takes rank ahead of Bengal in this respect.

The figures given above relate both to male and female students in Arts colleges. There are, however, but 160 female students.

Races and
creed.

141. The classification of college students by race and creed at the beginning and end of the quinquennium is given in table 49; and contains no novelties calling for remark.

Age of college
students.

142. It is to be regretted that our statistics do not afford any information about the age of college students. We cannot tell what amount of change in previously existing conditions, has been effected by the enactment of the minimum age limits of 15 and 16 for Matriculation, nor have we information whether the tendency has been for the age of students to rise or to fall during recent years. The Madras University is the only one which gives these particulars. Its figures show that for the last Matriculation examination held during the period under review there were a greater number of matriculates between the ages of 18 and 19 than of any other year; about half the candidates were between the ages of 16 and 19; a third of them were older than this; and a sixth younger.

Residence of Students.

143. The movement towards making the colleges residential is by no means new, but has received a great impetus during the present quinquennium. The original idea with which colleges were established was to provide instruction only and let the residence of students take care of itself. It has long, however, been recognised that this was too narrow a view of the duties of the college towards its students, and the colleges have gradually been taking on a residential character. The Universities Act empowered the Universities to make regulations relating to the residence of college students, and during this quinquennium it has for the first time been laid down as a universal rule that every student who does not reside with his parent or guardian must reside either in a boarding house under supervision or in an approved lodging house. This is specifically provided for by the regulations of all Universities except that of the Punjab, and in the Punjab it is the accepted standard and the inspectors are instructed to report upon the subject when inspecting colleges. The rule as stated above still falls short of requiring that students should reside in college buildings if they do not reside with their parents. There is a great deal of latitude in the permission to live with a "guardian," as the word is not construed in a strict legal sense. One University extends the permission to residence with a friend approved by the parent or guardian, a phrase which probably only explicitly renders what is implicitly permitted elsewhere; while, on the other hand, one University requires that if the student does not lodge with his legal guardian, the guardian shall be approved by the principal of the college. There is also latitude in the permission to live in approved lodgings, for, in practice, the college authorities are compelled to approve such lodgings as are available. Still the enactment of the rules marks a step forward in the recognition of the principle that when students are not residing with their parents the college authorities are responsible for their residence in clean and decent conditions under proper supervision. The advance moreover is being made not merely by the enactment of rules, but by the consent of the students themselves and by the more liberal provision of college residential buildings. When college hostels are opened there is no difficulty about filling them, for the students flock to them in preference to lodgings, even though increased cost may be thereby incurred. Deficiencies in the provision made for supervising students in the hostels are also being remedied, and they all either have been placed or are now being placed under the supervision of resident members of the college staff, whether European or Indian. Moreover those hostels which formerly afforded residence to college students and school-boys indiscriminately are now disappearing, and college students are accommodated in quarters sharply divided from those of schools. Further progress towards the complete provision of residential colleges is now merely a question of funds.

144. The present condition of affairs, therefore, is based first upon the principle that every student not living with his parent or guardian must live under the supervision of the college authorities; and, secondly, upon the fact

that the provision of hostel accommodation is at present incomplete. The residence of students thus falls broadly into two kinds, hostels and approved lodgings. Hostels are either attached to a college, managed by the college, and reserved exclusively for students of the college, or they are inter-collegiate, in which case they may be under separate management, as is the case for instance in some of the hostels of Allahabad and Madras. The Calcutta University further sub-divides lodgings into messes and lodgings. The messes are lodgings hired by a combination of students, and private lodgings are lodgings inhabited by students singly. The system is regulated by a committee of the Senate called the Students' Residence Committee. Permission to live in private lodgings is granted only upon the recommendation of the principal of the college, and in the case of a student under 18 years of age is accompanied by the condition that he must be in the charge of a tutor approved by his parents. The messes are under the inspection of a visiting committee and are placed in charge of resident superintendents. Sometimes they receive subventions from the University, and if so, they must be composed of students belonging exclusively to one college.

145. The number of students in Arts colleges who live in hostels or boarding houses is above 4,000. This figure does not, of course, include students residing in messes or in private lodgings. It represents the point to which the college system in India has at present attained in the progress towards a collegiate residential system. The Punjab, Burma and the United Provinces have at present made the greatest provision, and Bengal the least. Every province except Bengal has made considerable progress in the quinquennium; the retrogression in Assam is apparent only and is due to the alteration in the boundaries of the province.

There is no difference of opinion among the Directors as to the benefit derived from the advance of the residential system. In Bengal, where least progress has at present been made, steps have been taken to bring the lodgings under control, and the imperfections of the system of messes and lodgings have been recognized in the provincial report.

146. During the quinquennium the Bengal Government took upon itself the responsibility of finding mess accommodation for all college students in Calcutta who were not certified by the principals of their colleges to be living either with their parents or recognised guardians. Government engaged accommodation and placed it under the control of the principals of colleges, who recovered, as far as possible, from the students in the shape of rent the expenditure incurred by Government. After a year's working of this plan, it was found that the expenditure incurred by Government exceeded the receipts recovered from students by Rs. 6,400. The next step was to place a resident superintendent in charge of each mess. When the University regulations were passed, Government handed over to the University the control of this system which it had started, and guaranteed an annual grant to indemnify the University against loss, and lent an educational officer free of cost to act as inspector of hostels. Thus was developed, out of a lodging-house or chummery system, a system which, though it falls short of the provision of college hostels, begins to wear the aspect of a residential system conducted in hired buildings.

Mr. Hornell in his Quinquennial Review comments as follows upon it :—

"In last year's report it was observed that, whatever it might be possible to do in the immediate future, there could be very little doubt that the creation of collegiate hostels was the goal to which progress pointed. In his speech at the last Convocation the Hon'ble Mr. Justice Asutosh Mookerjee stated that he fervently trusted that the time might come when all the colleges affiliated to the Calcutta University would be converted into 'truly residential colleges of the type so familiar in the Universities of the West.'"

"Then and then alone," he added, "will there be the growth of corporate life amongst our students, and each college will fittingly be described as a corporation of teachers and students banded together for the promotion of learning."

Progress of
the hostel
system.

Residence of
students in
Calcutta.

He quotes the opinion of the Rev. A. B. Wann, Principal of the General Assembly's Institution :—

"During the last two years of the quinquennium, the system of licensed messes was in force. I cannot regard it as a satisfactory system. Too many students still live with guardians whose suitability is very doubtful, and within the messes it is difficult to obtain a sufficient supply of well qualified resident superintendents. The houses, too, are in most cases not well suited for messes. Nothing short of college hostels for every mufassal student will, in my opinion, remedy the evil which the licensed mess system is intended to remove. It is only in hostels that one can ensure the suitable accommodation, strict oversight, quietness for study, care in sickness and freedom from domestic worries, which students require. Were such provided, I believe the voluntary inflow of students would be so great that the licensed mess system would die a natural death. Such at least is our experience; the great majority of our mufassal students enter licensed messes only after being refused admission to the hostel for want of room."

147. We have already mentioned above, under the head of buildings, many of the cases in which the hostel accommodation of colleges in other provinces is being increased, and the sum of the matter is that although at present only 4,000 out of 18,000 students are living in collegiate buildings, this shows an increase of 70 per cent. in the number during the quinquennium; that the number is still rising; that the movement is all in one direction; that even in the province where at present least has been accomplished, much has nevertheless been done to prepare for advance, and that further improvement is almost entirely a question only of money.

Teaching Staff.

148. There are no statistics of the number, qualifications or pay of the teachers in colleges, but the returns which are now being made by colleges to the Universities will enable the Universities to furnish such statistics in future. For the last Quinquennial Review some statistics were specially obtained, and it was found that there were about one thousand professors and teachers in Arts colleges, which was considerably below reasonable requirements. The inspecting officers of the Universities have found the teaching staff to be, generally speaking, insufficient in number. The colleges number among their professors some men of high distinction and many men of good attainments; but they also include a considerable number of poorly qualified teachers. Less improvement has been made in the *personnel* than in the *matériel* of the colleges, and this is partly due to the fact that the Imperial grant, which gave a great stimulus to college improvement, was not guaranteed for more than five years, and that consequently colleges which were dependent upon it for improvements were shy of undertaking new recurring expenditure.

There have been some additions to the staff of the Government Colleges, and further additions are still being made.

Residences of Professors.

149. As the colleges are becoming more residential in character, residences are being provided in increased number for the college principals and professors in order to enable them to live near the students' boarding houses and to exercise supervision over them. This is a matter which the Universities Act requires the inspectors to look to, and the necessary action is being taken in all provinces.

Tuition.

150. The arrangement most commonly prevailing still at the Indian colleges is for the student to attend every day four or five lectures, and to spend most of his leisure time in transcribing and conning the notes which he has made during lecture hours. This system is not calculated to develop the student's powers of originality, using this term in its humblest sense. It develops his receptivity and his powers of memory, but does not necessarily exercise him in thinking for himself, puzzling out difficulties, using individual judgment in the arrangement of his material, and exploring

points left unexplained in his lectures. The Calcutta University Regulations now require every college to deliver a minimum number of 140 lectures for each subject of the Intermediate examination except vernacular composition, 160 lectures for each subject in the B.A. or B.Sc. examination and 180 lectures for the M.A. or M.Sc. examination. Since the minimum number of subjects for the Intermediate examination in Arts, exclusive of vernacular composition, is four, and for the B.A. three, the minimum number of lectures provided by a college for a University student from Matriculation to the Intermediate examination (two years) must be 560 and from the Intermediate examination to the Bachelor's degree (two years) 480, with an additional 80 if the B. A. with honours is sought. These requirements constitute a minimum which is usually exceeded in most of the colleges.

151. A school of opinion, however, is forming which condemns the excessive use of lecturing, and there are some beginnings of practical attempts to use other methods. The Madras inspecting body noticed as the greatest evil in the teaching of English the tendency to reduce to a minimum the work done by the students for themselves; and the Committee for the inspection of Calcutta colleges remark "Lectures do not constitute the whole, and hardly even the chief part, of a healthy system of liberal education. The sound principle is that the main work shall be done by the student himself and by the intelligent activity of his own faculties. . . . It is the firm belief of the committee that a resolute effort must be made gradually to transform the teaching from the present hybrid kind of class teaching to a system of genuine lecturing, supplemented by practice and if possible some adequate amount of tutorial advice and assistance. It will not be easy to effect this change, but the attempt must be made if education is to be really improved." Mr. Hornell states that at Government colleges the number of lecturers will be reduced and a tutorial system introduced to supplement the lectures. The introduction of a tutorial system is also noticed at Dacca and elsewhere. At present it has not proceeded far in any province, but future reports will doubtless give details of its working and an estimate of its success. The system of college examination of students also appears to be undergoing a process of tightening up; the object of this being to prevent the students from making feverish efforts at the end of the college course to learn up their notes and books for examination purposes.

Discipline.

152. One of the results of a University system of the type which prevails in India is that the students in the large towns have their choice between a number of colleges, and often have their choice between two in small towns. The freedom of students to migrate from college to college has always tended to weaken college discipline, most completely so when colleges have been willing to receive pupils from elsewhere without enquiring whether they had settled their bills and behaved themselves well at the college which they last attended. Rules intended to deal with this evil have been in partial operation for some time past, but they are now universal and are enacted as University regulations under the powers conferred upon the Universities by the new Act. Under the ultimate penalty of disaffiliation all the Universities now require all colleges to conform to rules laid down for the granting of transfer certificates from one college to another. It is a common feature in all the regulations that a student cannot obtain a transfer from one college to another unless he has paid his dues; and all the Universities also require the payment of a special fee for the transfer, ranging from Rs. 3 to Rs. 10. This transfer fee is paid by the student to the college from which he desires to migrate. One University grants the student liberty to migrate free of payment of this fee within his first term at a college. Beyond requiring the payment of dues and of fees, the Universities differ in the restrictions which they place upon migration. The regulations of Madras are based upon the principle that if a student wishes to leave his college and another college is willing to receive him, the student, after paying his dues and fee, need carry with him nothing more than a certificate giving necessary information for enabling his name to be entered in the books. These conditions being fulfilled, the student may migrate for any reasons and at any period of the year.

The conditions at Allahabad are the same, except that if a scholarship holder wishes to migrate he may be compelled not only to pay his dues but to refund the amount of his scholarship. Bombay and Calcutta are more stringent, since they forbid migration during a term and a year respectively. At these two Universities, if a student wishes to migrate on the completion of a term or a year, he can do so without stating any reasons, but he must take with him a certificate of good character and a record of his progress in his studies. The Punjab University is the most stringent of any, for it permits the migration of students only for specified reasons, and the statement of these reasons usually has to be endorsed by the principal of the college which the student is leaving. After a University examination, the student is free to begin afresh at another college, but otherwise his migration is permitted only if his guardian changes his residence, or if the college does not make provision for the teaching of a subject which he has taken up, or if he has religious scruples against remaining where he is.

Participation of college students in political agitation.

153. The development of hostels, the establishment in them of supervising officers, and the enactment of stricter regulations concerning the migration of students, are the chief events affecting the ordinary discipline of colleges during the years under review. During this period, however, the colleges together with the schools have in some parts of India been brought under the disturbing influences of political excitement. The Directors refer in general terms to the subject, and the only specific instances mentioned in any of their reports of indiscipline due to these causes relate to schools, not colleges. In general terms it may be said that where there has been political excitement, college students have partaken of it; that in some places special efforts have been made by propagandists to infect college students with their views: that there may even be cases where colleges have acted as local centres of political movement; and that in some places both college teachers and college students have taken a part in political meetings, demonstrations and agitation, which has caused Government to consider what should be the limits placed to the freedom of college teachers and pupils to engage in such movements.

154. It has long been a rule in Madras for colleges under public management that no student shall take part in political agitation directed against the authority of Government; and in Bombay, after some disturbances in 1897, the local Government passed a resolution declaring that the instruction of youth should be wholly dissociated from politics, that as a consequence of this teachers and professors ought not to take part in political agitation, and that Government would insist upon the observance of this rule in all institutions receiving aid from public funds. The Government of India have had the subject under consideration, and issued general orders upon it after the close of the quinquennium.

Income and Expenditure.

155. The returns of the income and expenditure of colleges and of all other educational institutions are compiled on a principle which stands in need of amendment. They show the total expenditure of the colleges but not the heads of expenditure. They show the heads of so much income as is required to balance the statement of expenditure. Where the income of an institution exceeds the expenditure of the year, the excess is omitted from the returns. Where the income falls short of the expenditure of the year the deficiency is made up by a fictitious entry in the returns. The statements which follow about the income and expenditure of colleges must, therefore, be read subject to this explanation of the weakness of their statistical foundation. The following figures relate only to expenditure upon maintenance and not upon buildings. The maintenance of Government colleges is a charge upon provincial revenues. Their total expenditure in 1907 was Rs. 12,67,000, of which Government contributed Rs. 8,59,000 from provincial revenues and the scholars paid Rs. 3,73,000 in fees. The increase of the annual expenditure from provincial revenues upon Government colleges since five years before is Rs. 2,05,000. The municipalities which, as already mentioned, maintain four colleges, contribute nothing whatever to their support

but maintain them out of the fees and small grants from provincial revenues. The one local board which maintains a college contributes Rs. 1,200 from its own funds and receives Rs. 950 from municipal funds for its upkeep. Taking together the five colleges maintained by municipalities and local boards, their total expenditure was Rs. 35,000, of which Rs. 1,200 was met from local funds, Rs. 5,500 from provincial revenues, Rs. 21,000 from fees and Rs. 5,500 from other sources. The privately managed colleges incurred a total expenditure of Rs. 16,38,000 in the year 1907 as compared with Rs. 14,46,000 in the year 1902, or an increase of Rs. 1,92,000. The greater part of this increase was due to increased grants from provincial funds.

156. As already explained, the Government of India decided to make a grant for five years, amounting in the aggregate to Rs. 13,50,000, for the improvement of college education, and confined this grant to colleges under private management. This enabled the aid given to them from provincial revenues to be more than doubled.

The grant was divided amongst the provinces upon principles which took into account their population and the numbers of students in Arts colleges under private management. Burma did not participate. Since there were in that province only twenty candidates annually for the B.A. examination, of whom seven or eight passed, and since provision was made for these students in a Government college carried on at very considerable cost, the Government of India did not feel justified in making an assignment of Imperial funds for the purpose of rendering special assistance to an aided college.

In assigning to the several provinces their shares in the grant, the Government of India laid down the following principles as to its application:—

- (1) The main purpose for which the grants were given was to assist in the improvement of the efficiency of colleges in those respects in which an inspection by the University showed them to be defective.
- (2) The growth of the residential system was to be encouraged; and adequate arrangements were to be made for the residence of students who did not lodge with their parents, guardians or relatives, and for the proper supervision of resident students.
- (3) Endeavours were to be made to induce voluntary effort to supplement the aid given by Government.

The local Governments were informed that at present the continuance of the special assignment could not be promised beyond the year 1908-9, but nevertheless the grants were not to be limited to non-recurring expenditure, since improvement in teaching must necessarily take an important part in the programme of reform to be carried out.

In three provinces, *viz.*, Bombay, Bengal and the Punjab, the local Government decided to consult the syndicate as to the distribution of the special grant amongst the colleges in the province, and in these cases it was laid down—

- (a) that the Government clearly reserved to itself full discretion to act upon the recommendations of the syndicate or not, as it should think fit;
- (b) that the recommendations of the syndicate should be based upon inspections held under the Act.

157. In addition to the Imperial grant the provincial Governments granted increased aid from provincial funds; and in many parts of India, notably in the United Provinces, these grants from public funds were met by the levy of subscriptions among supporters of colleges. The extent to which the revenues of privately managed colleges were enhanced during the quinquennium from these two sources is shown in detail in table 55 in Volume II. The Imperial grant is not shown in that table separately from, but is included in, the figures of grants from provincial revenues. Taking together all colleges,

whether under public or private management, we find that their total expenditure for 1907 was Rs. 30,12,000, as compared with Rs. 25,63,000 in 1902, and that the sources from which the income was found to meet this expenditure were as follows:—

	1902.	1907.
	(Thousands of Rupees.)	
Provincial Revenues	8,96	11,71
Native State Revenues	46	69
Local funds	27	28
Fees	9,74	10,34
Subscriptions	77	1,19
Endowments and other sources	5,43	5,91
TOTAL	25,63	30,12

These figures are shown for each province in vol II, table 52.

It will be observed that fees are practically stationary, *i.e.*, they have increased exactly in proportion to the increase in the total number of students.

Colleges for Oriental Studies.

158. The general statistical tables for education under the heading of University Education subdivide Arts colleges into English and Oriental. There is but one college in India which can strictly be brought within this classification, *viz.*, the Oriental College, Lahore, for no University except the Punjab has any college affiliated to it as an Oriental college. The tables, however, give nine institutions under the heading of University Education, Oriental Arts Colleges, and these nine are found to be composed of a return of eight from the United Provinces and one from the Punjab. The fact is that if the term is not restricted to a college affiliated to a University in the Oriental faculty, but is extended, as it usually is, to other institutions at which Sanskrit, Arabic and Persian are taught, the word has no clearly defined connotation; and the inclusion or exclusion of Arabic and Sanskrit teaching institutions under the expression Oriental Colleges becomes so arbitrary that no statistical statement can be made of the numerical increase or decrease of institutions and pupils. The United Provinces, for instance, include the Sanskrit College, Benares, in the tables under this heading, but Bengal does not include the Sanskrit College, Calcutta, nor the Calcutta Madrasa, though it treats of them in the body of the report as Oriental colleges; while the Madrasas in Eastern Bengal and Assam, some of which stand on the same footing as the Calcutta Madrasa, are likewise excluded from the tables. It is useless to enter into comparisons of figures which rest on so slippery a statistical basis.

159. The Oriental classical languages are taught as part of the ordinary curriculum of the five Universities. A classical language is usually a compulsory element in the Entrance examination of the University and optional in the Intermediate Arts examination and in the Bachelor of Arts examination; and it usually forms a subject in which the M.A. degree can be taken. Nearly every Arts college, therefore, necessarily has teachers and classes in the Oriental classics. The most notable movement for the improvement of the teaching of an Oriental classic, during the period under review, in connection with the University courses is that made at Aligarh, where, by a combination of private subscriptions and assistance from Government, scholarships have been founded and a European professor and a native assistant professor have been engaged specially for the teaching of Arabic to M.A. students and for post-graduate study of Arabic. An Arabic lecture room has also been built out of subscriptions.

160. Oriental studies are also pursued in schools of the indigenous kind where Sanskrit or Arabic, as the case may be, forms the only or the chief part of the instruction. These institutions usually are under private management and are supported by charitable endowments. They change in character but little from time to time, and their chief function is to preserve the traditional learning of Sanskrit and Arabic. They send scholars for

examinations, which are conducted in Bengal by the Education Department, in the United Provinces by the Sanskrit College, Benares, and in Lahore by the Punjab University.

A reference to tables 60 and 61 in vol. II will show that the number of candidates at these examinations has increased during the past five years and that the total numbers at the preliminary examinations are considerable.

161. There are three of these institutions conducted by Government, *viz.*, the Sanskrit College, Benares, the Sanskrit College, Calcutta, and the Calcutta Madrasa. Two privately managed University colleges, *viz.*, the Canning College, Lucknow, and the Central Hindu College, Benares, have Oriental departments attached to them, which give instruction in Sanskrit in the traditional and indigenous manner. Many plans have been made in the past for the infusion of critical methods into the indigenous traditional studies of Sanskrit and Arabic. These plans were revived by Sir James LaTouche, the Lieutenant Governor of the United Provinces, during the last quinquennium. In a speech made on the 18th February 1904 he expressed a desire to bring more closely together the scholarship of the West and of the East. The outcome of this was the establishment of a trust, called the Sadho Lal Scholarship Endowment Trust, of the value of Rs. 45,000 for the higher study of Sanskrit at the Government Sanskrit College, Benares, to be held by Brahmans who have either graduated at English colleges in India or have attained Sanskrit titles by Sanskrit study, and have a sufficient degree of proficiency in Sanskrit and English to carry their studies of Sanskrit higher. The intentions of the founder are explained by him in the following words:—

“Our aim, as I conceive it, should be to advance the ancient learning of our country by bringing the rising generation into contact with the methods and results of Western scholarship, and thus preparing some among the best of our younger scholars for research in the various fields of Indian enquiry. Our students of Sanskrit fall into two main classes. There is the young man of the old world pandit type, who is already equipped with a deep, and in its kind, most valuable knowledge of Sanskrit, but who lives remote from the discipline of the West; and there is the modern University graduate who, passing in Sanskrit as his “second language” at the degree examination, possesses correspondingly great advantages in his knowledge of English and of general information, but who knows relatively little Sanskrit. Our young pandit should be led to realise the conception that his ancient language and literature and his philosophies have grown and developed under conditions which it is possible to know and state in a systematic form. And for him Sanskrit coupled with English or an Indian vernacular are likely to be the best medium for instruction at the outset, if his interest and progress are to be sufficiently maintained along the lines of new facts and new ideas. On the other hand, among the first tasks to be set to our English-speaking graduates is that of learning Sanskrit from the old point of view, that is to say gaining an intimate knowledge of some of the Shastras as taught and interpreted by the tradition of the country. It was on this foundation of old style learning that scholars like Bhandarkar and Telang raised that superstructure which won for them a most ample recognition from Orientalists in all parts of the world. But without some grounding of the kind, even those of our University graduates who may still retain an interest in Sanskrit are not likely to produce any scholarly and useful work.

“It seems to me that the types of Indian students here described will find their natural meeting point or complement in the European Sanskritist who has succeeded in adding to his purely Western training a technical knowledge of the Shastras and a genuine sympathy for the learning of the country.”

162. Besides these two kinds of institutions for Oriental studies, *viz.*, the ordinary Arts college and the indigenous Sanskrit or Arabic school, there is yet a third kind, of which, however, there is only one example, and that is the side of the Oriental College, Lahore, in which students study for the Oriental faculty of the Punjab University. In these classes students are taught, or are supposed to be taught, Western learning through the medium of

the vernacular, and their studies lead up to degrees called B. O. L. and M. O. L., Bachelor of Oriental Learning and Master of Oriental Learning, names which are a somewhat misleading description of the course of studies.

It was one of the leading ideas in the establishment of the Punjab University to make this experiment of conveying modern knowledge to native students through the medium of their own language. English is not entirely excluded from the course, but is admitted as an optional subject. The experiment so far has been a failure, and during the whole quinquennium nine Bachelors of Oriental Learning and two Masters of Oriental Learning graduated. The Universities Commission and the last Quinquennial Review commented on the ill success attained by this form of Oriental college, and there is at present nothing to add upon the subject.

CHAPTER III.

SECONDARY SCHOOLS.

Introductory.

163. THERE are three leading conditions which in the main determine the grade, the content, and the quality of secondary education in India. These are (1) that boys leave school on attaining the age of sixteen or on attaining a standard of instruction which ordinary boys can reach by that age; (2) that English is the medium of instruction in the two or three top classes; (3) that the total expenditure of secondary schools averages Rs. 25·5 annually for each scholar. No substantial change has taken place in the first of these conditions during the period under review. There was at the beginning of the quinquennium no minimum age limit for entrance to the Universities except at one, where the limit was sixteen; but the standard of examination for entrance to the Universities and the courses of study in the schools were arranged upon the basis of enabling boys of not more than average ability to pass from school to college at the age of sixteen. Three Universities have now fixed sixteen as the minimum age limit for entrance and two have fixed fifteen. There is at present no sign of a desire on the part of parents to prolong the period of school education or to postpone their sons' entrance to the Universities until a maturer age; and indeed the enactment of even the present age limit was not carried without opposition.

164. The use of English as the medium of instruction in the upper classes of secondary schools is mainly the result, perhaps a necessary result, of its use as the medium of examination for entrance to the University, and it is also a means of avoiding the expense of duplicating the staff of teachers in places where more than one vernacular is spoken. This involves as a consequence that secondary schools must undertake the heavy task of putting the younger boys in command of so much English, by the age of about 13 or 14, as to enable them to receive nearly all their instruction in that language; a linguistic accomplishment which can only be attained by great inroads upon the total school time available. It can hardly be said that there is at present any noticeable change in the conditions which give so great prominence to these linguistic studies in secondary schools; but it is worthy of remark that a rule, which has in it the possibilities of extension, has been made by the Calcutta University permitting part of the Entrance examination to be taken in the vernacular, at the candidate's option.

165. The secondary schools have long suffered from a period of financial depression, and although their claims upon the public purse have met with more liberal recognition in the last few years, yet when the increase of pupils is taken into account the State is now doing proportionately less for secondary education than twenty years ago. There has been since the year 1887 an increase in the number of pupils at secondary schools for boys from 272,000 to 473,000, being an increase of 201,000 pupils in twenty years. During the first fifteen years of this period the public funds, provincial and local, spent on secondary schools remained almost stationary, having been Rs. 20,15,605 in 1887 and Rs. 21,69,331 in 1902. The period of the greatest increase in pupils was from 1897 to 1902 when the numbers rose by 82,000. In this period the total amount of expenditure from public funds upon the schools was reduced from Rs. 21,70,000 to Rs. 21,69,000. The tide has now turned, and during the quinquennium the public funds devoted to secondary education have gradually increased from Rs. 21,69,000 to Rs. 31,30,000. The expenditure of public funds upon secondary education, which twenty years ago stood at the rate of Rs. 7·5 a head per annum, now stands at the rate of Rs. 6·6 a head. Put into English money the sum which is spent from public funds, both provincial and local, upon 473,000 scholars in secondary schools is £208,668.

In a speech made on the 20th September 1905, Lord Curzon said :—

"I hope that the Government of India will not be indifferent to the claims of secondary education in the future. When the Universities and the colleges have been put straight, we must look to the feeders, and these feeders are the high schools. Indeed, we cannot expect to have good colleges without good schools. I am not sure, if a vote were taken among the intelligent middle classes of this country, that they would not sooner see money devoted to secondary education than to any other educational object. The reason is that it is the basis of all industrial or professional occupation in India. There is just a danger that between the resonant calls of higher education, and the pathetic small voice of elementary education, the claims of secondary education may be overlooked: and I therefore venture to give it this parting testimonial."

Classification of Schools.

166. The first division of secondary schools is into English and vernacular. English secondary schools are those schools where English is introduced as a subject of instruction in the lower part of the school and as the medium of instruction in the upper part of the school; and vernacular secondary schools are those in which English is not taught at all. The second division of secondary schools is into high and middle schools. These are terms denoting the stage to which the instruction is carried. A high school carries the instruction to the standard of Matriculation for a University or to a standard corresponding to it, and a middle school stops about three years short of the standard reached by a high school.

With these two principles of division we thus have four terms included in the statistical tables within the description of secondary schools, viz., English high schools, English middle schools, vernacular high schools, and vernacular middle schools. The term Anglo-vernacular which is sometimes used is merely a variant for the word English in this connection.

167. The principle of classification described above is likely without explanation to give a misleading idea of the existence of two parallel systems of vernacular and English secondary education. As a matter of fact there are no vernacular high schools in India except one in the Punjab preparing boys for Matriculation in the Oriental faculty of the University, and eight or nine vernacular high schools in Burma turning out altogether about ten boys annually. As there are practically no vernacular high schools, the vernacular middle schools are not feeders to vernacular high schools, but are the highest point reached in the system of vernacular education and really belong to the primary school system.

The term 'middle vernacular' school has never been in use in Bombay, and Madras has now also followed the example of Bombay in classifying all the middle vernacular schools as belonging to the system of vernacular primary education. This review, following the example of Bombay and Madras, will treat of the middle vernacular schools in the chapter on primary education.

We thus simplify the classification of secondary schools given above, and as the vernacular high schools do not call for further notice, we are here concerned only with that secondary education which is termed English or Anglo-vernacular, and in which English is first a subject of instruction and then the medium of instruction. Moreover, since the education of girls is dealt with in a separate part of this review, the secondary schools referred to in this chapter are confined to boys' schools, and the statistics relate exclusively to them.

168. The distinction between high and middle schools is merely one of grade; the high school is as a rule one in which children can be received from infancy and taught up to the age of about 16 or 17; and a middle school is nothing more than a high school with two or three top classes cut off. There is no system of middle schools having a different curriculum from that provided in high schools up to the corresponding stage. The chief purpose of a middle school is to multiply the facilities for education up to the age of 13 or 14 and to pass the pupils on to high schools; but there are some callings for which it is a sufficient qualification for a boy to have passed through a middle school or, which is the same thing, to have reached the top of the middle stage at a high school; and there are also many boys who having begun a secondary education find themselves unable to continue it beyond the age of 13 or 14. Consequently there are a considerable number of persons whose educational attainments are defined as having reached the middle English stage, but it will be seen from what has been said above that this merely means an incomplete high school education and not a secondary education of any distinct purpose or method of its own.

The number of classes in a high school, the division of a high school into different sections termed respectively primary, middle and high, the existence or otherwise of an infant class, the stages at which the teaching of English and the use of English as the medium of instruction are begun, and the provision made for the transition between the vernacular primary schools and the secondary schools, are shown on a plan in table 98 of volume II.

169. In MADRAS, during the past quinquennium, steps have been taken to make the distinction between the systems of secondary and primary schools clearer than it was before. A stronger distinction than previously existed has been made between the primary school and the primary department of the secondary school in such matters as the qualifications of the teachers, the courses of studies, the admission and transfer of pupils, and the regulations under which the amount of grant is affected by the amount of fees collected; and a distinction of the same kind which previously did not exist has now been made between the primary school intended for the masses and the primary school intended to be a feeder to a secondary school. There are now separate lists of secondary schools on the one side, (including all preparatory departments and preparatory schools), and elementary schools on the other side; and the managers of all the institutions whose status was ambiguous were called upon to declare under which of the two systems their institution was to be ranked. If they wished their institution to belong to the system of secondary education, then, however few classes the school might contain, it was compelled to be placed in charge of a University graduate and it became subject to the rules relating to fees in secondary schools. If, on the other hand, they wished it to belong to the system of elementary schools, then English was in no circumstances allowed to be used as the medium of instruction. A pupil wishing to pass from an elementary to a secondary school must first pass the fourth standard in the elementary school and then becomes admissible only to the fourth standard of a secondary school, being thus put a year behind the stage he would have reached if he had joined a secondary school at the beginning. The difference in the courses of study between the primary department of the secondary school and the elementary school, which is foreshadowed by the Government of Madras in their resolution establishing this new distinction between the systems, has not yet been promulgated. As a result of the reclassification of the schools, the Director reports that 4,000 boys have applied to be transferred from elementary to secondary schools.

170. In BOMBAY, secondary and primary education have a common basis; that is to say, the secondary schools do not contain classes for the youngest boys, but take them from the vernacular primary schools after they have passed through the infants and four primary classes there; and there is no distinction in the Bombay presidency, either in respect of curriculum, or fees, or teachers' qualifications, between the primary schools which act as feeders to high schools and those which are frequented by the common people. In all other provinces there are two systems, separate from the beginning, of secondary education and of primary education. The secondary school system provides schools or classes for its pupils from infancy, distinct from the schools intended for the vernacular education of the masses. The distinction between the two is in respect of fees, qualifications of teachers, and administrative rules, and usually also in respect of curriculum; but Bengal has now joined Bombay in having no distinction of curriculum, and in some other provinces this difference of curriculum is somewhat intangible. While preserving this distinction between the secondary and primary school systems, all the provinces permit pupils to pass from the primary school system to the secondary. The new comer to a secondary school, who has begun his education at a primary school, must usually take his place at a point not higher than that at which the teaching of English is begun; but two provinces, those of the United Provinces and the Punjab, make special provision for the passage of boys from the higher classes of vernacular schools to secondary schools; and instead of being compelled to pass through classes in which they tread over again the ground they have covered in the vernacular school, these boys are received into special classes where they learn English almost exclusively, until they are fit to take their places beside boys whose attainments in the other subjects are equal to their own.

The result of the difference of classification, which distinguishes Bombay from other provinces, is that all statistics of secondary education in which the totals of pupils, or masters, or expenditure are involved, understate the numbers in Bombay

as compared with other provinces, since the basis of comparison is not the same. The extent to which this difference of basis vitiates the comparisons is very considerable. For instance, there are in Bengal 125,640 boys in secondary schools, or 5 per mille of the population; and there are in Bombay 51,316, or 4 per mille of the population. But of the boys thus enumerated as attending secondary schools in Bengal, 63,814 are in the primary stage, and therefore, if they lived in Bombay, would be attending primary, not secondary, schools; the number in Bengal who are in secondary schools above the standard at which secondary schools in Bombay begin is only 61,826, or a little more than 2 per mille.

171. In BENGAL, the separation between the secondary and primary systems at their initial stages tends to decrease. In the year 1901 the Bengal Government laid down a scheme of Froebelian instruction to be followed in the six lowest standards of all schools, whether vernacular or Anglo-vernacular. This scheme knew no difference between secondary and primary schools, except that in the secondary schools English had to be studied in addition to all the subjects prescribed for the vernacular schools. This scheme was prescribed for Government and aided schools, and most of the unaided schools did not take it up. Its introduction had two results: the teaching on Froebelian principles being regarded with suspicion and dislike by many parents, either from insufficient appreciation of its principles or from a correct appreciation of the capacity of the teachers to apply them, they withdrew their children to unaided schools where the old curriculum prevailed. On the other hand, some of those parents who either approved or were prepared to tolerate Froebelian teaching withdrew their children from the high schools and sent them to pathshalas (vernacular schools belonging to the primary school system), where the children could receive the same instruction at a lesser fee, and kept them there until the time arrived for their beginning to learn English at the high school. At the end of the quinquennium the curriculum itself was undergoing revision at the hands of the Education Department, but the principle of a common curriculum for the secondary and the primary schools remained unchallenged. The lower classes of the high schools are now very ill-attended and mention is made by Mr. Hornell of proposals for abolishing them.

172. In the UNITED PROVINCES the infants and the two classes above them have during the period under review been severed from those high schools which are under public management. Previously the arrangement was that either the high school contained all classes down to the infants, or else that the infants and four classes above them were put into a separate building, called a branch school. These branch schools were nearly always under the management of the headmaster of the high school. The change instituted in 1906 is the removal of the infants and the two classes next above them both from the building of the high school and from the superintendence of its headmaster, and the inclusion of all the classes above those both in the building of the high school and under the superintendence of its headmaster. The classes thus cut off from the high schools are not merged into the general body of primary vernacular education, but preserve their identity as "branch schools", preparatory to high schools, and belonging to the secondary school system. They charge a higher fee and have a different curriculum from the infants and two lowest classes of the ordinary primary vernacular schools. This difference springs from the presumed higher qualifications of the teachers. In the branch schools drawing and object lessons are taught, and in the vernacular primary schools these subjects find no place. The reasons for excluding the infants and two lowest classes were that they took up room that was required for the upper classes, that the noise interfered with the rest of the school, and that it was a waste of the headmaster's time to supervise them. The reason for not permitting more than the infants and two lowest classes to be excluded was that it was desirable for the headmaster of the high school to be responsible for the whole of the teaching after the point at which English is begun. The division between the branch school and the high school now comes at the point at which the study of English begins.

173. In BURMA, the infants' classes which previously existed in high schools have been suppressed, and the teaching there now begins with standard I.

In the CENTRAL PROVINCES, the secondary school course has been lengthened by one year. It previously consisted of ten classes above the infants' class, and it now consists of eleven. The increase has been made in the high section, which is now a three years' course.

Number of Schools.

174. During the past twenty years the number of secondary schools for boys has increased by 984 and the number of pupils by 200,000. Each of the last four quinquennial periods has witnessed an increase both in schools and in pupils; but the increase during the period under review has been considerably less than in the preceding quinquennium. The numbers now stand at 3,285 schools with 473,130 pupils.

The increases have been as follows:—

Period ending.	Increase in the number of schools.	Increase in the number of pupils.
1892	242	30,309
1897	217	37,741
1902	337	82,483
1907	188	50,943

The number of schools is not increasing proportionately so fast as the number of pupils in the schools, and consequently the average number of pupils to a school continues steadily to rise; the number now standing at 144 as compared with 118 twenty years ago. This is a perfectly natural tendency and may be expected to continue. It means that the growth of the demand for secondary education is showing itself more in the filling up of existing schools than in the addition of new ones. An increase of pupils is shown in every province, and an increase in the number of schools in every province except the Punjab and the North-West Frontier Province. The greatest increase proportionately is shown in Burma, where the number of pupils has risen from 13,321 to 18,897. Naturally, as the Director points out, the greater number of the new pupils are in the primary and middle stages of the high schools, but there appears to be no statistical delusion about the figures, which point to a remarkable expansion in secondary education in that province. The province of Bengal, taken with that of Eastern Bengal and Assam, (the boundaries of which were altered during the quinquennium) shows an increase of about 12,000 pupils in secondary schools; Madras of 15,000; Bombay of 9,000 and the United Provinces of 7,000. In the Punjab and the Central Provinces and Berar the increase is very slight indeed. The increases in the numbers of pupils in the several provinces during the past quinquennium may thus be stated in terms of percentage to the total number at the beginning of the quinquennium:—

	Percentage of increase.
Madras	20
Bombay	20·5
Bengal, with Eastern Bengal and Assam	6
United Provinces	27·7
Punjab	2·7
Burma	41·8
Central Provinces and Berar	2·2

175. The Director in Madras remarks that the increase of pupils in secondary schools in that presidency is to some extent due to the opening of classes for younger boys at high schools which were previously without them. In the Punjab the decrease in the number of schools from 239 to 179 is striking. The Director attributes this remarkable shrinkage to the abolition of inefficient secondary schools which were unable to satisfy the rules for recognition, and also to the destruction of a few schools in Kangra and Dharmasala by earthquake. It is remarkable that the abolition of a quarter of the total number of secondary schools should have been accompanied by an increase, slight though it is, in the total number of pupils.

176. In EASTERN BENGAL AND ASSAM the Director writes that the supply of high schools is in many localities in excess of the demand. "This unnecessary multiplication of high schools is an evil the magnitude of which can hardly be measured. The number of these schools is often beyond the needs of the community. Many of them have been started without any regard to local needs and without adequate resources, with the result that some of them are held in unsuitable buildings and have no books of reference or proper supply of furniture, while others, by the appointment of ill-qualified and inexperienced masters and by a lax system of discipline, degrade alike the standard of education and of conduct The remarks which are here made are not for a moment intended to imply that the numbers of those who should be receiving high education have reached anything approaching their legitimate limits. Moreover, it

is natural that different villages and various communities in large towns should each strive to establish and maintain their own high schools. But the striking disproportion between the increase in number of schools and of pupils sufficiently indicates that there is considerable dissipation of energy and points to the need of greater co-operation."

Ratio of
students to
population.

177. The condition of the several provinces in respect of the proportion of population found in secondary English schools may be seen by reference to table 73 in volume II. The new province of Eastern Bengal and Assam has a greater proportion of its population attending secondary schools for boys than any other province, viz., 3.79 per cent. of its male population of school age. Bengal is next with 3.21 per cent. and Madras third with 3.1 per cent. But the large numbers found in secondary schools in Eastern Bengal and Assam are found, to a disproportionate extent, in the primary departments. Table 74 compares the provinces in respect of the numbers, proportionately to population, found in the middle and high departments of secondary schools. This basis of comparison, as explained above, is fairer to Bombay, where the secondary schools (except in a few instances, e.g., for Europeans) have no primary departments. Accordingly we find that in this table Bombay stands at the head of the list as the province in which secondary education is most widely spread, and also that in which the greatest expansion has taken place during the period under review. In the Bombay Presidency 2.38 per cent. of the male population of school age are in the secondary stage of instruction; Madras stands next with 2.16 per cent., Eastern Bengal and Assam has 1.63 and Bengal 1.58. This was also the relative position of these provinces in 1902; and now, as before, the province in which the smallest proportion of the population is found either in secondary schools or in the secondary stage of instruction is the United Provinces.

Ratio of
schools to
area.

178. A rough guide to the accessibility of secondary schools to the population is the average area served by a secondary school, i.e., the total area of a province divided by the total number of secondary schools. Calculated on this basis the average area served by a secondary English school for boys in 1902 and 1907 was as follows, stated in square miles:—

Province.	Square miles served by one secondary school in 1901-02.	Square miles served by one secondary school in 1906-07.
Madras	325	306
Bombay	442	424
Bengal	112	119
United Provinces	552	541
Punjab	407	543
Burma	2,218	2,587*
Eastern Bengal and Assam	524†	140
Central Provinces and Berar	1,087	952

In the area of Eastern Bengal only, excluding Assam, the number of square miles served by one secondary school in 1906-07 was 76.

Ratio of high
schools to
middle
schools.

179. Secondary schools, as has been said above, fall into two categories, viz., high schools and middle schools, which are distinguished only by grade. The high schools contain all the classes that the middle schools contain, and in addition two or three classes at the top. The middle schools act (1) as feeders to the high schools, (2) as supplying secondary education of a lower grade than the high schools supply usually at a cheaper rate and with worse qualified teachers. There are 1,165 high English schools and 2,129 middle English schools; that is to say, the feeders are nearly twice as numerous as the central institutions. The process which is going on and has been going on during the last fifteen years is not that the central institutions (high schools) are throwing out feeders (middle schools) in greater numbers, but that the proportion of middle schools to high schools is being gradually reduced. In other words, the demand for secondary education of a higher standard is stronger than the demand for its mere extension. Constant as the increase is in the number of new middle schools which are being established, yet the number of new high schools established and the number of conversions of middle schools into high schools are more than proportionate to the extension of the number of middle schools.

* The increase in the ratio of area to schools in Burma is due to the recent inclusion of the Southern Shan States in the statistical returns.
† Assam only.

The provinces differ greatly in the proportion of middle schools which they contain. The United Provinces of Agra and Oudh have fewer middle schools than high schools; in the rest of the provinces the middle schools preponderate. In Bombay there are nearly three middle schools to every high school, and in Burma and the Central Provinces there are more than three middle schools to every high school. But in every province this proportion is tending slightly to decrease.

It is remarkable that although there are only 1,165 high English schools to 2,129 middle schools, yet the high schools contain just over 60 per cent. of the total number of pupils in the receipt of secondary education and the middle schools just under 40 per cent. In Burma and the Central Provinces, however, there are more pupils in middle schools than in high schools. The numbers for all provinces will be found in tables 64 and 65 in volume II.

180. The average number of pupils in high and middle schools is shown by provinces in table 70 in volume II. Over India taken as a whole the average number of pupils in a high school is 247 and in a middle school 88, both numbers showing a slight increase during the last five years. The largest schools of both grades are to be found in Madras, the Panjab, and Burma.

Average
number of
pupils in
each class of
school, and
stage of
instruction.

The proportion of pupils in the high stage of instruction in secondary schools is now 22.9 per cent., in the middle stage 33.2 per cent., and in the primary stage 43.9 per cent. The figures for the several provinces in 1902 and 1907 will be found in table 72 in volume II, but in the use of this table for the comparison of one province with another caution should be exercised. As may be seen from the chart in table 98, the high, middle and primary stages in different provinces contain different numbers of classes, and therefore it is natural that they should differ in the proportionate distribution of scholars amongst the stages. But each province may be fairly compared with itself in previous years. In India as a whole the proportion of pupils in the high stage has increased, the proportion in the middle stage has remained the same, and the proportion in the primary stage has decreased. This change in the proportions of the upper and lower parts of the school is only of recent growth, as may be seen from the following figures:—

	PERCENTAGE OF PUPILS.		
	High	Middle.	Primary.
1892	19.1	32.8	48.1
1897	18.2	33.2	48.6
1902	19.2	33.9	46.9
1907	22.9	33.2	43.9

The change is most marked in Bengal and the United Provinces, but is almost universal. Upon the whole it probably means that more pupils are remaining till the end of the course and fewer dropping off when their studies in secondary schools are incomplete; but a similar statistical result would appear if there were an increased tendency either to send children to the primary vernacular schools to learn the rudiments, before proceeding to the secondary schools, or to keep them at home under private tuition for their earliest lessons. These causes appear to have operated to some extent in Bengal, in consequence of the unification of the studies in vernacular schools and primary departments of secondary schools, on Froebelian principles.

Caste of Pupils.

181. In table 69 will be found particulars, by provinces, of the castes of the pupils attending secondary schools. Similar figures for 1902 not being available, the conditions as existing then and now cannot be compared. The following table gives the proportion which each caste-division bears to the total population of India and the proportion which it contributes to the attendance of the secondary schools:—

CASTE OR RACE, BY RELIGION.	Percentage to total population.	Percentage of pupils to total number in secondary schools.
Europeans, Eurasians and Armenians	0.1	2.5
Native Christians	0.7	4.7
Brahmans	5.1	25.3
Non-Brahmans	63.0	48.3
Musalmans	23.5	15
Buddhists	3.9	2.8
Parsis	0.04	1.0
Others	3.3	.4

Management.

182. In India there are 740 secondary English schools under public management and 2,545 under private management, containing 119,645 and 353,485 scholars respectively. By publicly managed schools are signified either schools directly financed and managed by the provincial education departments, or by local boards or municipalities, or by Native States. Privately managed schools are those which are the property of private individuals, committees or trustees, and which may or may not be in receipt of aid from Government. The greater number of secondary schools under private management are intended to serve a particular locality without distinction of caste or creed, and are brought into existence because the publicly provided schools do not suffice for the needs of the locality, and public spirited people are found willing to contribute to the establishment and support of schools in order to supply this deficiency and to take part in their management. But in addition to these schools of a purely local character there are many established and maintained for the benefit of distinct communities, whether religious, racial or other. Some of them are managed by Christian missions, and all the important religions and communities of India and many of the chief castes are represented by schools primarily intended for the benefit of their adherents and usually bearing a name implying a connection therewith. The expectation of private profit also has led to the establishment of a considerable number of schools, chiefly in Bengal, but under the more stringent requirements for the efficiency of schools now being enforced this motive seems likely to disappear from the field.

183. The portion of the field of secondary education which is taken up by publicly managed schools has had during recent years a constant tendency to decrease, but this tendency has now been checked. Fifteen years ago the number of pupils in publicly managed schools was 28 per cent. of the whole, and five years ago this number had sunk to less than 24 per cent. During the period under review, however, 33 per cent. of the increase in the pupils of secondary schools has been provided for by an extension of the publicly managed schools and 67 per cent. by an extension of the privately managed schools. The proportion of pupils in the publicly managed schools is now 25 per cent. of the whole. The provinces in which publicly managed schools play the least part are Bengal and Eastern Bengal and Assam, in which 88 and 89 per cent. of the pupils respectively are provided for in privately managed schools.

184. The schools maintained by the Education department, usually called Government schools, are intended to keep up the standard of secondary education by serving as models. The policy of Government, as laid down in 1899 and repeated during the last quinquennium, is to provide at least one Government high school for every district, and to this policy no local Government has raised any objection. But its execution moves slowly, and there are at present almost as many districts in India without Government high schools as there are with them. The provinces in which the provision of Government high schools is at present furthest from the standard set down are Madras, the United Provinces, Burma (where there are many districts not requiring a Government high school), and the Central Provinces.

185. There are two important developments to be recorded in the quinquennium. One is the transfer of a large number of municipal schools to the Education department in the Punjab, so as to complete the provision of a Government school in every district; and the other is the movement made in precisely the opposite direction by the United Provinces, where the local Government in the year 1906 made over the district high schools to the management of district boards.

The Education Commission of 1883 abstained from recommending the transfer of schools from the Education departments to municipalities; but the Punjab Government, conceiving such a transfer to be in accordance with the spirit of the report of that Commission, transferred some in the year 1885 and refrained from establishing Government schools in other districts; so that at the beginning of the quinquennium there were only four secondary English schools in the Punjab managed by the Education department, and of these four two were schools for Europeans.

In recent years there have been many complaints by the Directors in their reports of the poor condition of the municipal high schools in the Punjab, and of the scanty interest taken in their management by the municipalities; the fact being that the municipalities had insufficient funds for their upkeep and that the schools were poverty stricken. In the beginning of 1905 the Government took them over, and the Director writes—

“The staffs of these schools have been immensely strengthened and special grants freely given more than once for the supply of improved furniture and appliances. The question of the extension and improvement of the buildings of almost all of them is under consideration, and plans and estimates for the work are being prepared by the Public Works Department in consultation with the Education Department. In some cases administrative sanction has been given. In almost every case much is needed in this direction to make up for years of neglect and starvation under municipalities. In the past there has been little or no thought given to the educational effect of good premises, and the buildings, lacking in a simple, dignified exterior, suggestive of the purpose for which they exist, are seldom calculated to make the pupils proud of their connection with their school or to exercise a constant and impressive influence in the city concerning the requirements of higher education. They are deficient in accommodation in every case, and requisitions for class-rooms, science-rooms with small laboratories, rooms for teaching drawing, examination halls and play-grounds have been prepared.”

186. In the United Provinces, at the beginning of the quinquennium the condition of the district high schools as to management was ambiguous, and they have at times figured in the returns as managed by district boards and at times as managed by the Education department. The fact was that nominally they were district board schools but that practically they were managed by the Education department in most respects; and the district boards budgets bore the cost of maintaining the schools and were reimbursed therefor by Government. With the passing of the United Provinces District Boards Act, 1906, regulations under that Act were made which converted the nominal management of the district high schools by the local bodies into a reality, although on several points a voice and in some cases a decisive voice was still left to the department. The object of the change is stated by the Director to have been “to make the district officer the fountain head of all educational activity in the district and to interest the people through the district board in the schools maintained for their benefit.” Lest, however, this isolated action of the United Provinces should acquire excessive importance by being supposed to mark an important turn in policy, it may be well to record that the transfer of the schools to the district boards had a very brief life, and that shortly after the close of the quinquennium the action taken in 1906 was reversed and the schools were again placed under the management of the Education department with, as the Lieutenant-Governor remarked, “acclamations of approval.” There is indeed no greater mistake than to suppose that the transfer of the management of secondary schools from the provincial Government to local bodies is a concession to popular opinion.

Recognition of Schools.

187. Of the 2,545 schools under private management, 1,785 receive aid from Government and 760 receive none. The Education departments attach conditions to the grant of aid, and they have in practice always laid down fairly complete rules for the good government of schools as a condition of their receiving aid from public funds. The enactment of such rules has been effective where the inspecting staff was equal to the duty of enforcing them, where the amount of aid was worth having, and where the schools had resources from which to incur the necessary expense, and it has been ineffective where these three conditions were not satisfied. But in the unaided schools there had, before the period under review, hardly been even a theoretical assertion of any control, nor had any practical means been devised by which such a control could be exercised. The resolution issued by Lord Curzon's Government in March 1904 asserted for the first time that “whether our secondary schools are managed by public authorities or private persons and whether they receive aid from Government or not, the Government is bound in the interest of the community to see that the education provided in them is sound”; and during the quinquennium steps have been taken to translate this principle into regulations, which are now being carried into effect. The most effective sanction lying behind these regulations is the penalty of debarring schools from

sending up pupils for the Matriculation examination, while the minor penalties are the deprivation of the right to present pupils for Government examinations or for entrance to Government technical schools, and to receive pupils holding Government scholarships. Some control, hardly more than nominal, was previously exercised by some of the Universities over the schools which were admitted to the privilege of recognition. In the Calcutta University, for instance, rules were laid down requiring a school to give certain information as to its management before it could be placed upon a list of recognised schools, and empowering the syndicate to refuse recognition or to discontinue it, if the school were badly conducted or inefficient. In practice recognition was given indiscriminately, and the whole value of the privilege of recognition was undermined by the fact that if recognition were withheld it was open to the pupils of the schools to present themselves for Matriculation, not indeed as school candidates, but as private candidates; but there was no disadvantage to them in appearing under this description except that they were not eligible for Government scholarships. In Bombay, on the other hand, the University kept no list of recognised schools but admitted anybody to the Matriculation examination on production of a certificate of good character; or if he preferred to appear as a school candidate, with an additional certificate from the school-master merely certifying the fact of his attendance at school. Under these conditions the number of persons who used to present themselves as private candidates for Matriculation at the Indian Universities was about 20 per cent. of the total number of candidates.

University
regulations
regarding
recognition.

188. The Universities Act empowers the Universities to make regulations in regard to the conditions to be complied with by schools desiring recognition for the purpose of sending up pupils as candidates for the Matriculation examination and the conditions to be complied with by candidates for Matriculation, whether sent up by recognised schools or not. All the Universities have accordingly made regulations which in the first place require recognised schools to comply with reasonable conditions of efficient and good management, and in the second place close the back door by forbidding the admission to Matriculation of any private candidates except those who have really been privately educated. As the rules stood at the end of the quinquennium, pupils from unrecognised schools could no longer obtain admission to the University.

The Universities differ in the amount of detail with which they express the conditions to be complied with by a school; the Madras University devolves the whole matter on the Education department, contenting itself with the regulation that the only schools to be recognised by the University are those recognised by the Director of Public Instruction. The other Universities describe in general terms the conditions with which the schools must comply; the Calcutta University describes them in greater detail than the others. The conditions thus laid down are that the school must be actually wanted in the neighbourhood, that its financial stability is assured, that its managing body is properly constituted, that it teaches the proper subjects and to the proper standard, that due provision has been made for the instruction, health, recreation and discipline of the pupils, that the teachers are suitable as regards character, number and qualifications, and that the fees to be paid will not involve such competition with any existing school as will be unfair and injurious to the interests of education.

189. With respect to the means provided for ensuring that these conditions are observed by the schools, it may be said generally that in all cases the act of recognition will be that of the University, and that the procedure usually laid down is that the school should in the first place make its application to the Education department for recognition; that the department should recommend to the University whether recognition should be granted or not; and that in the case of the department recommending refusal of recognition the school can represent its case to the University. In these circumstances the greater part of the work will fall upon the Education departments, which alone are qualified to perform it. The procedure provided by the Calcutta regulations differs from that of the other Universities. Here the University requires the schools to report direct to the syndicate, and the syndicate is then to call for a report on the school from a competent inspector, for which purpose the report of the departmental inspector of schools shall usually but not necessarily be considered to be sufficient.

190. The University regulations were passed towards the end of the quinquennium and therefore it belongs not to this but to a future review to record the effect of the legislation in this particular. There is, however, every indication that Universities and departments are carrying out in earnest the powers and duties entrusted to them in respect of secondary schools seeking the privilege of University recognition.

It will be observed that these regulations leave still untouched the unaided schools which do not aspire to send candidates to the Matriculation examination, and also that they do not directly affect middle schools. The latter point is touched upon by the Director in Madras, who reports:—

“As the rules freely allowed transfers from unrecognised to recognised schools, there was a danger that a class of schools would spring up outside departmental supervision and control, and bound by no conditions with respect to fees, staff, equipment, and accommodation, which, at the same time, would be able to draft their pupils freely into recognised high schools. Such schools would not of course be aided, but there were signs that even without aid they might compete unfairly with recognised schools. Accordingly in 1905 a rule was made, the effect of which was practically to refuse recognition to the transfer certificates of unrecognised schools, and this rule was incorporated in the educational rules of 1906. The rule was quite effective for its purpose; it closed to the pupils of the unrecognised school admission to a recognised school and consequently to the Matriculation and Upper Secondary examinations, and under present conditions no secondary school which does not lead to one or other of these examinations can hope to succeed.”

Curricula.

191. The courses of studies in secondary schools are for the most part determined by the Matriculation examinations of the Universities. These have undergone revision during the quinquennium, and none remains exactly as it was before. At the Calcutta University the scheme of the examination has been recast. Formerly it was held in four subjects, viz., English, mathematics, a second language which might be either classical or vernacular, and history and geography. Every candidate must now take English, mathematics, a classical language, and a vernacular language; and he must take two more subjects chosen from history, geography and mechanics, classics of a more advanced standard, or mathematics of a more advanced standard. At Madras, the classical language and the vernacular remain alternatives, and in addition to these the candidates must take English, mathematics, physics and chemistry, and history and geography. But physics and chemistry are no longer in one group with history and geography, so that it is no longer possible for the candidate who is below the standard of a pass in one to compensate in the other. At Bombay, the classical and vernacular languages were formerly alternatives and are now no longer so; the candidate must take English, a classical language, a vernacular language, mathematics, history and geography, and elementary chemistry and astronomy. All these subjects are compulsory for all, and there are no options except in the classical and vernacular languages. In the Punjab, there are as before three separate examinations for Matriculation in the faculties of Arts, Science and Oriental studies. Each of these examinations is held in four compulsory subjects and one elective from a list of several; and as the lists both of compulsory and of optional subjects differ for each faculty, this University offers the largest number of alternative combinations of subjects which a school boy may study for Matriculation, and thus stands at the opposite pole to Bombay, which gives him no choice at all except as between one classical language and another and as between one vernacular language and another. At the Punjab University the only alterations are that physiology and hygiene have been admitted to the list of optional subjects for all three examinations, and that drawing has been added to the list of optional subjects for Matriculation in Arts. In order to matriculate in Arts the candidate must take English, a classical language, mathematics, history and geography, and one elective subject of either language, science, or drawing. For the Science Matriculation physics and chemistry take the place of the classical language among the compulsory subjects, and the options are restricted to subjects of Science or drawing. In the Oriental Matriculation the candidate must take a vernacular and a classical language, mathematics and history and geography, and one elective subject of either language or Science.

192. At Allahabad, the name of Entrance examination was formerly monopolised by one of the alternative examinations admitting to the University, and

held in English, history and geography, mathematics, and a classical language. Another examination equally admitting to the University was styled the "school final," and it differed from the Entrance in that a vernacular language was substituted for a classical and that every candidate was also obliged to take a fifth subject, chosen from a list.

Under the new regulations the name "school final" is dropped and the Matriculation examination is held in five subjects, of which three, *viz.*, English, mathematics and history with geography, are compulsory, and two others must be chosen from a list. Book-keeping and political economy which were formerly among the elective subjects admitting to the University have now been omitted, the rest, *viz.*, drawing, elementary physics and chemistry, and agriculture with surveying, have been retained; and a classical language, a second classical language, and a modern European language are added to the list of elective subjects. Thus the University does not require the candidate to have studied either a classical or a vernacular language, but admits him with neither, or one, or both, and gives him the option of taking two subjects either from these or from physics and chemistry, drawing, or agriculture with surveying.

Subjects for
the Matricu-
lation exa-
mination.

193. The places which the subjects hold in the Matriculation examination of the different Universities are shown in tabular form in volume II. Madras and Bombay admit no choice except as between one language and another, the Punjab University requires the candidate to exercise choice in respect of one of his subjects, and the Calcutta and Allahabad Universities require him to exercise choice in respect of two. English and mathematics are everywhere compulsory, and so are history and geography except at Calcutta. The place of the classical and vernacular languages and of Science in the Matriculation gives rise to the differences between the systems of the different Universities. In the two Universities which have one uniform examination for all candidates (*viz.*, Madras and Bombay) Science is required of all; in the other three Universities it is elective. A classical language is compulsory at Calcutta, Bombay and the Punjab; it is alternative with the vernacular at Madras, and it is merely elective at Allahabad. A vernacular language is compulsory only at Calcutta and Bombay; it is alternative with a classical language at Madras and is merely elective at Allahabad and the Punjab. Drawing is an elective subject for Matriculation at the two junior Universities and finds no place at the three senior. It is to be hoped that the Universities will publish statistics as to the comparative numbers of candidates taking each subject.

194. The content of the subjects prescribed for the Matriculation has undergone some change, especially at Calcutta. In English, Calcutta has ceased to prescribe text books for critical study, but "recommends" a list of 15 books. The rules for the examination show that questions may be set on passages from these books, but this is but one heading in five, and the other four relate to the interpretation of unseen passages from other books, grammar and composition, translation and essay writing. Allahabad, which continues to prescribe a text book, is to lay more stress on unseen work. Madras, on the other hand, after 15 years' experience of the abolition of prescribed text books, now reverts to their use. "It was found," writes the Director of Public Instruction, "that though the abolition of texts obviated cramming methods in one direction, it tended to make the examination, and consequently the teaching, centre upon grammatical niceties and to lead to neglect of all reading, and thus conduced to cramming of another kind. It is intended that the text books to be prescribed shall be numerous enough to ensure that the candidate has had a fair course of reading; a minute study of all of them will not be required."

In geometry Euclid now disappears from all the Universities where it remained, and is replaced by syllabuses; and more practical geometry and more training in the art of solving problems are now required.

The University of Calcutta has banished English History from the Matriculation examination, and so directs the historical studies (which are optional) of the school boys to Indian history only; at the other Universities, as before, a knowledge both of English and Indian history is a condition of Matriculation.

In history, geography and Science, the Universities now for the most part substitute syllabuses for text books.

The standard of marks required for a pass in the Matriculation examination remains the same as before at Madras, Bombay and Allahabad; it has been raised considerably at Calcutta and slightly at the Punjab University.

195. Ninety-five per cent. of the boys who pass through secondary schools follow the curricula prescribed by the Universities for the Matriculation examination. Alternative curricula exist in Madras, Bombay, Bengal and Punjab, and culminate in school final examinations which do not admit to the University. In most provinces, however, plans have been under discussion for establishing or extending the school final examinations. These plans did not, during the quinquennium, reach maturity, and consequently it is more convenient to postpone until a future Review an account of the very different educational theories which converge in them, of the evils in the present system which they are designed to meet, and of the different objects which they propose to achieve. At present the system of a departmental examination of secondary schools in Madras, alternative to the Matriculation, hardly exists except on paper. In Bombay it is more flourishing, and is attended by nearly 15 per cent. of the boys who complete their studies in a high school. This examination was taken over by the department from the University in 1904, and has been remodelled. A pass by it does not admit to the University, but it obtains such popularity as it has chiefly by the fact that the Government recognises it, and does not recognise the Matriculation examination of the University, as a qualification for the lower grades of the public service.

196. "The object of the School Final Examination," writes the Director of Public Instruction of Bombay, "is to ascertain whether an ordinary school pupil in the highest classes of a secondary school has obtained, during his school course, a fairly good education calculated to fit him for the ordinary pursuits of life and for the lower grades of the public service. The examination is not a competitive test but a test of general qualifications."

The examination is open to all candidates who have completed 16 years of age and who have attended a school duly recognised by the department. Private candidates are admitted to the examination only under very exceptional circumstances.

The following are the subjects prescribed for the examination of 1906 and subsequent years:—

<i>Compulsory.</i>	<i>Optional.</i>
(1) Arithmetic.	(1) A classical language.
(2) English.	(2) Political economy.
(3) The vernacular of the candidate.	(3) Book-keeping and commercial correspondence.
(4) History of India, and general geography of the world.	(4) Mathematics.
	(5) Physics.
	(6) Chemistry.
	(7) Botany.
	(8) Agriculture.
	(9) Drawing.
	(10) Manual training.
	(11) Shorthand and typewriting.

Candidates are required to take up one of the optional subjects and no candidate will be examined in more than one optional subject.

The examiners appointed to set and correct the papers are mostly educational officers specially selected for the purpose.

In the assessment of the results of a written examination paper the answers of a candidate are judged as a whole and "the examiner has to decide whether he has passed or failed and not to follow a niggling system of so many marks for each question."

The written examination in English and vernacular languages is supplemented by an oral examination.

197. It will be observed that the curriculum set out above is by no means confined to technical studies, but embraces the ordinary subjects of school study, while affording a variety of choice which is prohibited by the Matriculation examination. The curriculum, however, is less extensive than that of the Matriculation, and cannot coincide with it, whatever options are taken. Thus, if the candidate takes a classical language as his optional subject, his curriculum falls short of the Matriculation curriculum by the omission of geometry, algebra, elementary chemistry and astronomy. In fact as at present conducted the Bombay school

final examination is an experiment in reducing the number of subjects to be studied in the high school below that required by any Indian University, but at the same time applying the more searching test of an oral examination in English and the vernacular language.

The statistics show that all the optional subjects permitted by the examination find some adherents; and that of those which do not form part of the Matriculation curriculum the most popular are botany, political economy, and drawing. Few candidates offer themselves in book-keeping, shorthand or typewriting.

198. In BENGAL, the alternative curricula to the Matriculation are provided by what are known as B classes and C classes in high schools. B classes are simply a contrivance for permitting boys who wish to take up Engineering to begin at the high school some of the studies which they would otherwise have deferred until their entrance to the Engineering college at Sibpur, and to count the time so spent as shortening the period of training which they subsequently undergo at Sibpur. The greater number of the schools which contained these classes were in Eastern Bengal and have thus been transferred to the new province, where they continue to perform a useful function; in Bengal itself the "B class experiment has proved a failure." The C classes are supposed to prepare boys for a commercial career during the last two years of the high school course. Their curriculum comprises the following subjects:—

- (1) Mathematics.
- (2) Modern English.
- (3) History and geography.
- (4) Drawing and practical geometry.
- (5) A vernacular language.

During the quinquennium the subjects of précis writing and Science have been omitted and the vernacular language introduced. The scheme exists on paper but hardly otherwise. The number of candidates seldom reaches double figures either in Bengal or in Eastern Bengal.

Clerical and commercial classes.

199. The PUNJAB maintains in about twelve high schools clerical and commercial classes, to prepare pupils for a clerical and commercial examination held by the University. About two boys in a hundred who pass out from the high school come from these classes. The course of studies is in English, précis writing and correspondence, general and commercial geography, and book-keeping and commercial arithmetic. A committee under the presidency of Sir D. Masson, sat during the quinquennium to consider the subject of commercial education, and reported to the Punjab Government. One of their findings is important in its bearing upon the curricula of schools which desire to prepare boys for commercial careers. The committee recommend the omission of book-keeping and shorthand from the ordinary school final course, as being too technical. It is considered that these subjects would be better taught in higher classes, and that the time saved therefrom could be profitably employed in securing a more thorough grounding in English.

200. The subjects which are to be taught in the upper classes of secondary schools being determined chiefly by the University Matriculation examinations, and to a small extent by the school final or other examinations alternative to the Matriculation, the amount of discretion which is left to the department or the managers in the arrangement of the curriculum is not great. The number of classes into which the schools are to be arranged has to be determined; the subjects required for the Matriculation examination have to be introduced at appropriate points in the school; provision has perhaps to be made for drill and drawing in addition; and the chief differences in the teaching of the youngest children relate to the use of object lessons, and the beginning of English as a subject of instruction, while in the middle classes the chief differences relate to the use of English as the medium of instruction. The numbers of classes into which the schools are arranged in the different provinces are shown by a chart in volume II. The only changes during the quinquennium are an increase of one class in the Central Provinces and Berar, that is to say, the lengthening of the school course by one year, and the addition of one class at the top in Burma, compensated by the abolition of the infants' class at the bottom. On paper the longest course is that of Bengal, which divides the infants into two sections and gives eleven classes above the infants; but the apparent length of this is mitigated by rapid promotions in the lower classes. There are no infant classes in Burma and Assam, and no primary

classes in Bombay secondary schools: the length of the course, above the infant classes where such exist, from the boy's first going to school until his passing out, is as follows, upon the basis of one year being spent in each class:—

Madras	.	.	.	.	.	.	.	.	.	10
Bombay	.	.	.	.	.	.	.	.	.	11
Bengal	.	.	.	.	.	.	.	.	.	11
United Provinces	.	.	.	.	.	.	.	.	.	10
Punjab	.	.	.	.	.	.	.	.	.	9
Burma	.	.	.	.	.	.	.	.	.	10
Assam	.	.	.	.	.	.	.	.	.	10
Central Provinces	.	.	.	.	.	.	.	.	.	11

201. In all the provinces except Madras and Bengal the department prescribes uniform courses of instruction to be followed in secondary schools. In Bombay and the United Provinces alternatives may be proposed by individual schools. In Bengal, one course of vernacular studies for all Government high schools is prescribed by the department, and the course of studies in the remaining part of the school is prescribed by the inspector. In Madras, by an innovation recently made, the headmasters and staffs of secondary schools are encouraged to draw up, under the control of the inspector, well considered plans of work for the whole school, so as to co-ordinate the work of each class and each teacher and to correlate the various subjects. Departmental 'Hints and Suggestions' for the guidance of secondary school authorities in these and other matters connected with the organisation of these schools are now under preparation.

The Madras Director writes, in support of this plan of setting the schools free to construct their own courses of studies, that the fixed courses previously laid down "made no allowance for the difference in the aim of schools of various classes, they gave little scope for originality on the part of the teacher, and being strictly progressive in character practically prevented any concentric treatment of the subject."

The only province in which English is begun at the bottom of the school is Burma. The remaining provinces defer it until the child has received some instruction in the use of his own language, usually for four years. The practice in the several provinces is shown by a chart in volume II.

The use of English as a medium of instruction begins in most provinces four years after the scholar has begun the study of it, but in Bombay and the Central Provinces this period is reduced to three years and in the Punjab English is used as a medium of instruction for some subjects after only two years' study of it. The use of English as the medium of instruction is however in all schools supplemented by explanations in the vernacular.

Text Books.

202. In those provinces where vernacular text books for primary schools are produced under the supervision of Government, such books may be used also in the vernacular classes of secondary schools; but with these exceptions the text books in general use are produced by private enterprise and, before being introduced into the schools, are subject to the approval of Government which for this purpose is advised by text book committees. The Director of Public Instruction is the chairman of the text book committee in each province and its functions extend to the books proposed for use both in secondary and in primary schools. The committees contain both official and non-official members, and the general principles followed are that the text books used in State schools should be definitely prescribed, that managers of aided schools should be required to adopt only such as are included in the list authorised by the local Government, that managers of unaided but recognised schools should be required to abstain from using any book disapproved by Government and that the Government of India and the local Government in each province retain the right of prescribing a text book on any particular subject. The text-book committees which had previously been in existence were reconstituted in 1900, and have worked accordingly during the quinquennium.

Teaching.

203. Of the quality and methods of teaching in secondary schools the notices in the Directors' reports are insufficient to furnish a systematic account, except in the report of the Director in the United Provinces. In Madras, the Director remarks that the spread of secondary education in this province is not perhaps such a

pressing matter as the improvement of its quality, and he quotes with approval the saying of one of the inspectors that in the high schools signs are most encouraging and capacity for improvement under proper and constructive criticism is unlimited.

204. BOMBAY.—Mr. Selby writes of the teaching in Bombay :—" It appears to me that the greatest achievement of the last five years has been the reported improvement in the methods of teaching. If we are really succeeding in making our teaching intelligent and interesting, we shall do very well." Mr. Prior, one of the inspectors, reports as follows :—

" On the whole it may fairly be claimed that during the quinquennium under review the standard of school life has been considerably raised and broadened. Within doors curricula, at least as far as the School Final Examination is concerned, have been made more elastic, and the introduction of drawing and colour drawing, since the special fee has been knocked off and under Mr. Burns' more stimulating methods, has supplied a wholly new class of interest. But the greatest improvement of all has perhaps been the introduction of more lively and practical methods of teaching adopted by masters as a result of the impulse supplied by reading for the Teachers' Certificate Examination. With the larger output from the Secondary Training College combined with the influences already at work it is tolerably certain that by degrees vastly improved methods of instruction will become everywhere prevalent."

Of the improved scheme of drawing to which Mr. Prior here alludes, Mr. Selby writes :—

" In the year 1903-04 the rules for the examination in Drawing were altered, the chief features of the new scheme being the introduction of colour and of the principles of design and of geometry in connection with design. The subject has in consequence become immensely popular and in the Central Division alone the number of pupils has more than doubled. It was 3,480 five years ago : it is now 7,830. There are three grades. The examinations in the first and second, which are in elementary drawing, are held at appointed centres : and special examinations in the third grade and for the Drawing Teachers' Certificate are held in the School of Art for those who are not members of the school. Memory drawing and design would appear to be the subjects in which pupils do best. I am told that in design they show extraordinary ingenuity. The test for the Drawing Teachers' Certificate is said to be inadequate. This is a matter of importance. The whole character of the teaching of drawing in schools throughout the Presidency depends on the standard of this examination."

205. BENGAL.—Mr. Hornell states that there is practical unanimity in Bengal that the persons at present employed as schoolmasters are not as a general rule competent, and he lays stress upon the need for attracting better qualified men by means of higher salaries and for training them. It is clear from the general tenor of Mr. Hornell's remarks that in his opinion the quality of the teaching is very low and the methods very poor.

206. UNITED PROVINCES.—The Director gives a useful criticism upon the teaching of the main subjects of the curriculum, and the following account is a summary of his remarks :—

" The subject worst taught is English. The high schools send out many boys who if they go to the University cannot understand the lectures of the professors, and if they go into business have not a sufficient command of the language for practical purposes. One of the causes of the bad teaching is the employment of teachers who have in the majority of cases not only been badly trained themselves in English, but have also received an imperfect general education. It is by no means rare to find a boy speaking better English than the class master himself. Besides teaching faulty pronunciation and incorrect idiom, these teachers use faulty methods, teach English as if it were a dead language, lapse into the vernacular on the slightest provocation, and, if they attempt a conversational lesson, ask the class a monotonous string of questions to which replies in incomplete sentences or single words are given. In some schools where European teachers are employed, some very good work is being done in the teaching of English conversationally from the first, without the use of the vernacular in the English lessons."

Mathematics.—The report on the teaching of mathematics is hardly more favourable. Many of the teachers complacently tolerate slovenly work, some judge the pupils' work solely by the correctness of the answer without any regard to the steps by which it was arrived at, while others inculcate proper methods but do not insist on these methods being adopted by their pupils. " Not only untrained, but trained teachers also," writes an inspector, " will explain the correct method on the blackboard quite well and then allow the class to use either an inferior method or none at all."

Science.—An increasing number of pupils are electing to read Science in the high schools and it appears that the popularity of the subject is due to its being considered an easy means

of entrance to the University, especially as Persian, which was previously a favourite subject cannot now be taken alone for the Matriculation examination but has to be combined with knowledge of Arabic. Persian and Sanskrit classes have been seriously depleted, and schools have had to make arrangements as best they could for the teaching of Science. Of all teachers those of Science are usually best fitted by education to perform their task. They are nearly always graduates and are therefore quite competent to impart the modicum of knowledge and perform satisfactorily the simple experiments required. But most of the schools are too poor to provide the necessary apparatus and chemicals, and one of the inspectors remarks that in his circle there is not a single school which can boast of a properly equipped laboratory, and that practical work even of the most elementary kind is an impossibility under these conditions.

Classical Languages.—The Director fears that the study of classical languages has always been superficial and perfunctory. The conviction has become general that if classical learning is to be saved from complete decay in schools and colleges there must be root and branch reform in the courses and the methods of study, and a training in method to Pundits and Moulvies is suggested.

Geography.—Although the old-fashioned unsatisfactory methods die hard, yet the various efforts which have been made of late years to render the study of Geography at once more intelligent and more real and interesting have not been unfruitful. Better appliances and better maps and models are to be found in the schools and it is hoped that the abolition of a special text-book in the junior courses will remove one cause of unintelligent teaching. " The new methods are finding their way into most district schools where trained teachers are employed, but in aided schools where trained teachers are scarce mere monotonous and mechanical map-pointing has taken the place of learning names by rote."

History.—History is reported to be, next to English, the worst taught subject in the schools. Few teachers are found with any genuine interest in it and most teachers are so dependent upon the text-book as never to be able to dispense with its help in the class. Although here and there when a trained teacher is available proper notes of history lessons are prepared and an attempt is made to render the subject interesting, still the teaching is in the majority of cases pure cram work.

Another criticism upon the teaching is that it is dissociated from the teaching of Geography and from the use of the map.

Drawing.—In a few schools where competent and energetic masters are employed excellent work is done and the boys show special aptitude for it, but when it is taught by a man who knows little of the subject or a class teacher who has no qualifications for it, the result is such that it is hardly worth attempting to teach the subject.

Object Lessons.—Object lessons are taught in the preparatory and primary stages with a view to stimulate the curiosity and powers of observation of the child. No regular course is prescribed for all schools, but each headmaster selects annually a number of subjects which he considers suitable for the various classes. Such teaching is, comparatively speaking, a novelty in this part of India, and involves a considerable departure from the traditional worship of the text-book. One or two inspectors speak well of the teaching, but my own observation does not lead me to endorse their view. Much cannot of course be expected at first. In the hands of an untrained teacher an object lesson is apt to degenerate into a farce, and even trained teachers often enough content themselves with a copiously illustrated lesson on the obvious. The training college and the normal schools will in time no doubt turn out men who will understand and appreciate what is meant by object-lesson teaching. But so far the results are, as far as my experience goes, distinctly disappointing ; there is too much method and too little matter of the right kind. A determined effort will be made to improve object-lesson teaching ; for it can be made of the highest value, and is the only means we have at present by which a distinction can be made in the matter of instruction between town and village schools."

207. BURMA.—The Director reports :—

" The effect of the changes now proposed will be manifested in the current quinquennium. So far as the Anglo-Vernacular course goes, it is hoped that the changes will obviate some of the defects noticed by the inspectors. Thus the Inspector of Schools, Central Circle, writes :—

" In English far too much time is devoted to the learning of Grammar (Parsing, Analysis, abstract rules and terms, etc.) which when treated, as it usually is, in a mechanical style imposes little mental strain on the teacher and brings no profit to the pupil."

The Inspector of Schools, Western Circle, points out that at present even after matriculating " a Burman has seldom enough command of English to take up the literary course of the College ; and that in order to pass the University examinations he has recourse to ' keys ' published in Calcutta, a practice which however obtains also in high and middle schools. ' This cramming of English,' he adds, ' may be said to be the root of the evil.' He confirms the Inspector of Schools, Central Circle, in his view that too much attention is given to grammar, ' the result of which is that a boy has a store of rules which he can reproduce but not apply.' Both inspectors agree that in mathematics and history the teaching is almost equally mechanical and unreal. In the early standards excessive attention is attached to the linguistic side of

so-called object-lessons, which are usually given in English. Moreover, the comparatively moderate qualifications of the teachers and the inadequacy of the training system have tended to nullify the many good points that the curriculum undoubtedly possessed."

208. CENTRAL PROVINCES.—The Director reports :—

"As regards the various parts of the curriculum, the feature most severely criticised has been the teaching of English. Results indicate the need of a root and branch reform in the methods of teaching English. It is true that this is one of the worst taught subjects in our middle schools, the masters being frequently ignorant of it themselves, but where the conversational method has been introduced, very great improvement is already visible. If this method does not take root in these provinces, I fear it will be necessary to revert to the vernacular as the medium for all subjects except English."

Examinations.

209. During the quinquennium the number of examinations held by the Education department for secondary schools has been reduced. Formerly it was customary for the department to examine a boy for promotion from the primary section of the school to the middle, *i.e.*, about four years after his first entrance into the school, and then again to examine him about three years later for his promotion from the middle section of the school to the high section. Of these two examinations the first was usually held *in situ* and was not a collective examination for the pupils of several schools. But the second examination, styled the middle English examination, was usually a collective examination, at which identical papers were set throughout the inspector's circle or even throughout the province. The object of this second examination was threefold :—(a) to serve as a leaving examination for the boys who were not intending to proceed further with their studies, (b) to serve as a promotion examination, (c) to award scholarships. The last named of these purposes carried the necessary consequence that the examination was competitive. Thus in every secondary school a boy was first of all examined at school for promotion at the age of about 10, and then was obliged to go in for a public competitive examination at the age of about 13, and then on completing his secondary school course went in for the Matriculation examination. This system of examination has been altered by the total abolition throughout India of the second examination, styled the middle English examination, to which the boy was formerly submitted at the age of about 13. The examination system in secondary schools as it exists to-day consists merely (a) of an examination of the boy at the end of the primary stage, *i.e.*, when he has been at school about four years, this examination not being a collective examination but being held at each school separately, and the object of it being to decide as to the promotion of the boy, and (b) the final examination at the end of the secondary school course, either the Matriculation examination or one of its alternatives described above. The evils introduced by the middle English examination and the reasons for abolishing it were that it kept the mind of the teachers and pupils too constantly fixed upon preparing for examinations instead of upon study, and also that it interfered greatly with the free development of varieties between one school and another either in the arrangement of the curriculum or in the method of teaching.

Results of the abolition of the middle English examination. 210. There can be no doubt that the abolition of the examination sets the schools free for better teaching, but the abolition of examinations alone is not able to effect improvement until the teachers themselves are able to realise the freedom conferred upon them and to make good use of it. Meantime the evil that the examination did lives after it. An inspector in the Madras presidency writes :—

"Many of the faults have lingered on from the time of the lower secondary examination. Teachers do not seem to get out of the rut imposed by that examination, and do not see that history, geography, etc., may now be treated with the continuity and gradual development which is natural to them and which they deserve. They still have the old idea that their classes are to be examined on so much of certain text-books at the end of Form III. If a class has finished a text-book and knows it almost by heart at the end of the first term the idea of going on does not suggest itself to any one; they go back over the same book again;" and the Director adds, "it is hoped that under the new system such unintelligent methods will soon become things of the past. Every secondary school will have the benefit of the supervision of a trained graduate who will be qualified to frame under the guidance of the department a suitable scheme of work for the school."

211. Some dissentient voices are heard amongst the comments on the abolition of the middle English examination. They represent that it is a disadvantage to the boys who leave at that stage not to be furnished with a certificate of having pursued studies up to it; also that the removal of the examination throws upon the headmasters a greater burden of responsibility for resisting the pressure to which they are always subjected by parents for promotion of boys in the school; and some think that the examination used to serve as a useful stimulus to the teachers. Upon these criticisms generally the verdict of the Punjab Government may be quoted :—"The weight of opinion is unquestionably in favour of the abolition of the examination and the criticisms reported appear to deserve little consideration."

The leaving certificates which are issued now to boys who leave school at the conclusion of the middle stage of the Anglo-Vernacular high school course are not based upon any departmental examination and are merely the certificates of the schoolmasters, endorsed in some provinces by the inspectors.

212. It has of course been necessary to retain some examination for the award of scholarships at various stages in the school career, but steps have been taken to prevent these scholarship examinations from being the continuance of the old collective examinations under another name; that is to say, it is not permitted to schools to send in the boys *en masse* for the scholarship examination nor to regulate promotion by the results of it, nor are certificates furnished to those who fail to obtain scholarships. In Madras a considerable proportion of the scholarships are reserved for female pupils or for members of backward classes. Those which are thrown open for the pupils at large are all accompanied by poverty tests, and are assigned at the rate of so many to a district (four to a district in the case of those tenable in standards V to VII), and are awarded by the inspectors after such examinations as they think proper. In Bombay the scholarships are allotted to districts and adjudged by the inspectors after examinations held at centres, and these competitions are held at the end of the primary and at the end of the middle stage. In Bengal the scholarships are awarded at three stages, half way through the primary, at the end of the primary, and at the end of the middle stage. Scholarships are assigned for these purposes to different areas, *viz.*, the thana, the sub-division, and the district respectively. Within these areas they are awarded by limited competition at centres; one or two candidates being allowed to appear from each school. The lowest scholarships are adjudged by the sub-inspector, the next by the deputy and the highest by the inspector. The lowest scholarship examination is mainly oral. Other details concerning these and the remaining provinces will be found in tables 96 and 97 in volume II.

Discipline and Moral Training.

213. Discipline in secondary schools has in several provinces been disturbed by political agitators, and the Government of India found it necessary to issue general orders on this subject shortly after the close of the quinquennium. The disturbances due to this cause were worst in the province of Eastern Bengal and Assam, and for a time discipline in some of the schools was destroyed by them.

"In some cases," writes the Director, "the boys attended political meetings and took part in political demonstrations in defiance of the orders of the authorities, and, when expelled in consequence of their refusal to pay the fines inflicted, joined, more or less with the approval of their parents and guardians, the newly established National Schools. Occasionally, other pupils absented themselves from school in sympathy with the offenders. In some, they assaulted or insulted those who happened to disagree with the political leaders as to the expediency of partition; while, in others, they organised themselves into *Swadeshi* gangs and picketted the bazars to prevent the sale of foreign goods. Disturbances of one or other of these kinds broke out in 1905-06 and in 1906-07 in the State College at Dacca and in the schools at Rangpur, Madaripur, Palong (Faridpur), Banaripara (Bakarganj), Mymensingh, Brahmanbaria (Tippera), Bala (Mymensingh), Serajganj, Chanchal (Maldia), Khankhanapur (Faridpur) and at Muktagacha (Mymensingh). A large number of departmental punishments were necessitated, and a few cases came into the Courts. Such outbreaks were happily absent in Assam, but others, equally serious, showed how lax the discipline is in that portion of the province also."

Mr. Sharp remarks, however, with satisfaction that some of the headmasters in places where feeling ran high enforced order at the risk of social disabilities and personal violence.

214. The attempt to cause school boys to join in political demonstrations at school was in some instances unsuccessful. At the Central Hindu College, Benares, a number of Bengali boys who presented themselves in mourning were shut out; and the President of the College (Mrs. Besant) made the following remarks upon the incident:—

“If we are to allow every different part of India to send orders to our boys to take part in political demonstrations, then one day we may get an order from Calcutta, another day from Madras, Bombay, or Lahore, bidding our students protest against, or demonstrate for, some party measure. All discipline would vanish, and our institution would become a whirlpool of undigested politics instead of a sober educational training-ground for India's sons. We surround them with an atmosphere of love of country, of duty to their motherland; we encourage discussion and debates; we foster initiative and self-dependence; but we avoid all sectarian controversies. If we did otherwise, we should get animosity and party feeling, instead of harmony and steadiness of growth. Just because we love India truly, we dare to oppose our brothers when they want us to do that which is unwise. I say definitely and clearly that the duty of boys is to learn and not to make political protests. It is not their business to protest; that is the business of men. Men rightly take part in the politics of their country. The boys have to learn; they must be educated, they must be disciplined. Studentship is the time of obedience. It is against the Hindu Shastras that a student should interfere in the affairs of his country. Moreover, it is not right that the boys' warm hearts should be used by elder people to foment public discontent and to harass Governments.”

215. Mr. Selby makes the following remarks upon the evils done to school discipline by political agitators in Bombay:—

“The efforts of teachers, especially of native teachers, to bring up children in the habit of reverence for age and respect for authority have, unfortunately, been greatly hampered by the acts, the speeches and the writings of foolish and irresponsible political agitators. Anxious for a following of some kind, careless whether it be composed of thoughtful men or silly children, these persons do all they can to pack with school boys meetings called for the purpose of abusing constituted authority. The evil will probably work its own cure. Parents are now realising that they can command neither the obedience nor the respect of their children and the natural leaders of the people are becoming disgusted and enraged by the rudeness and disrespect to which they are subjected from undisciplined youths. Hitherto they have shrunk from the vulgar abuse to which opposition to a noisy minority exposes them, but they will soon in self-defence rally to the side of authority and reason.”

Apart from this special disturbing cause, the tendencies which make for improved discipline in schools are being reinforced by the growth of the residential system and also by the bringing of unaided schools within the control of the authorities responsible for the recognition of schools.

216. In 1905 a number of inhabitants of Bengal, being teachers and merchants and professional men of many kinds, presented a memorial to the Viceroy praying that the Government would adopt measures for the compulsory introduction of moral teaching into all educational institutions in India. Their detailed suggestions were as follows:—

- (1) moral teaching by means of simple stories for one hour a day in the lower classes of schools,
- (2) study of biographies in the higher classes,
- (3) prizes for essays on moral subjects,
- (4) teachers and guardians to encourage boys to do good works,
- (5) character-tests for teachers,
- (6) school teaching to be free of offence to social and religious ideas,
- (7) teachers to be responsible for the conduct of boys out of school,
- (8) encouragement to teachers to promote sound moral training,
- (9) parents to keep teachers informed of the conduct and moral training of their children while at home,
- (10) surroundings of schools to be kept moral and respectable,
- (11) increase in hostel accommodation,
- (12) social gatherings to be held at schools so that boys may come within the wholesome influence of esteemed characters.

To this memorial the Government of India returned a sympathetic reply, concurring in the desire that the ethical side of the instruction imparted in schools and colleges should be emphasized, and invoking the support of a vigorous public opinion in Indian society. The Government remarked that there were four principal agencies by which morality could best be taught to the rising generation:—the influence of home life, the influence of teachers by their character and example,

the influence of teaching, viz., suitable text-books and course of study, and the provision of proper and well supervised boarding house accommodation.

217. The following extracts will show the views taken by the Directors of Public Instruction upon the present state of discipline and moral training in their provinces:—

MADRAS.—“Modes of life are so different in this country from those which prevail in Europe that it is difficult to test the discipline of schools by the European standards. The boys are in general submissive and easy to manage in the schools, and few cases have occurred of resistance to authority, but it is doubtful whether this submissiveness proceeds from a cheerful recognition of the value of discipline. In matters such as punctuality and regularity in attendance, orderly moving of classes at the change of period, neatness of dress, orderly keeping of books, the schools leave much to be desired. A more serious matter is the neglect of attempt at character-building as a part of the school education. Opportunities for this are not, of course, so plentiful as in England where so many secondary schools are boarding schools, but it is feared that little advantage is taken of such as do exist. The teacher too often considers his work completely at an end when the school bell rings; moreover owing to the fact that the schools depend so largely upon fee income he is to a great extent at the mercy of parents, and their influence on school discipline is almost uniformly detrimental.”

218. BOMBAY.—The passage quoted above relating to political agitation is continued as follows:—

“Meanwhile it is the duty of all who are engaged in the work of education, by moral suasion and influence, where possible, and by stern punishment, where necessary, to counteract the evil influences at work. Contact with strong and good teachers, the wholesome and restrained life of the hostel, and the attraction of games on the playing field will all in time have their influence on susceptible youths. If we do our best and consult our natural friends and advisers in the Indian community we shall not want for help. They will be on our side in the effort to rid the moral atmosphere of the poison which now pervades it just as they are helping us in our efforts to stamp out the plague. To teach boys to honour their fathers and mothers, to fear God and honour the King, will soon be recognised by all really educated persons to be a duty and an obligation which is just as imperative as the encouragement of inoculation and the killing of rats.”

219. BENGAL.—The following remarks by the inspector of the Bhagalpur division are said to be of general application:—

“The state of discipline in the aided schools of this division leaves much to be desired, and has indeed shown a tendency to deteriorate during the latter part of the period under review. Discipline in the sense that it is understood in English schools is, of course, unknown as yet in the privately managed schools of this province, chiefly because the headmaster is possessed of little or no authority. His tenure of office depends, as he is well aware, entirely on the good-will of the managing committee, and if he wishes to retain his position and to live in peace, he has at all costs to keep on good terms with the members, as well as generally with the parents of the boys. As Indian parents have, unfortunately, not yet learnt the value of school discipline, and for the most part resent any punishment inflicted on their boys, it is obvious that a headmaster who is at the same time a disciplinarian occupies an almost impossible position. The schoolboys, too, are fully aware of the limited nature of the headmaster's powers, as on the rare occasions when he ventures to exercise his authority in the interests of discipline, his decisions are generally reversed by the managing committee. And yet the great majority of schoolboys in this province are by nature so gentle, obedient, and tractable that till within recent times the general standard of behaviour has been fairly good, and such breaches of discipline as have occurred have been of an isolated character. The prominence, however, into which the school-boy class has of late been brought by the flattering appeals made to it for assistance in semi-political movements has given the boys an exaggerated sense of their own importance, and has, in the absence of the restraining force of discipline noted above, led them, in some cases, into excesses which are at variance with their true character.”

Mr. Hornell continues:—“In 1904 an order was issued that all reading books both in the vernacular and in English should contain ‘suitable biographical selections such as would inculcate in the pupils habits of order, diligence and truthfulness combined with submission to authority and reverence to their elders.’ The order added that ‘these lessons should be drawn from the lives of Hindu, Muhammadan and Christian worthies, instead of being confined to one section of individuals.’ It is doubtful whether the text-books which have been written in compliance with this order are of much ethical value. It is not an easy matter to write a biography which will appeal to what is best in the youthful mind. Text-books generally have not been of a high order, and it is a question whether some of the moral stories which are now read by school children do not tend to make moral instruction ridiculous.”

220. UNITED PROVINCES.—“The complaint is often made that the education given in our schools leaves a good deal to be desired on the moral side; and thoughtful and observant men express uneasiness at the decay of good manners and the deterioration of conduct. A variety of suggestions and some attempts have been made to remedy the defects by more or less direct

methods of moral instruction. In State schools, where as elsewhere it is the settled policy of Government to observe strict religious neutrality, the familiar method of imparting moral instruction through religious lessons cannot be incorporated in the curriculum. Though for this reason we are happily free from the religious differences which tend to embitter public life in countries in which education is not strictly secular, yet the absence of any religious teaching whatever in State schools of all degrees makes the problem of imparting moral instruction peculiarly difficult.

The permission given to the different creeds and denominations to make their own arrangements, out of school hours but in the school building separately, for the religious instruction of scholars has not anywhere been taken advantage of, though granted in response to the request of influential persons.

But in the vast majority of schools moral training must be given either directly through moral text-books—a means that has never by itself proved of much value—or indirectly through school discipline, the personal influence of teachers, well-managed hostels and the moral effect of games and physical exercises.

The hostel system, which is becoming more and more an integral feature of University and secondary education, contains many possibilities for good. It has grown remarkably of late, and hostel management is steadily improving. As a safeguard against external evil influences and as a stimulus to regular habits, common action and *esprit de corps*, its value is inestimable; but it is proving useful in a way which was not foreseen. In recent years several denominational hostels have been attached both to aided and Government institutions, and in them it is possible to give that combined moral and religious instruction which cannot be given in either school or college. But there is another side to the picture. I fear that in several of our hostels, especially some of those maintained by private persons or bodies, the state of discipline has for some time been far from satisfactory, chiefly through want of proper supervision."

221. PUNJAB.—"The improvement in the tone and discipline of the schools and the behaviour of pupils has on the whole kept pace with the advance made in physical training. The more extended employment of trained teachers; the stricter application of the inter-school rules introduced at the commencement of the period under review, and the consequent weeding out of inefficient schools; the recent strengthening of the inspecting staff; the organisation of teachers' associations and students' clubs; the gradual extension of the hostel system; singing and the recitation of moral pieces of poetry—all these have had an elevating influence on the manners and morals of the pupils and the general tone of the schools."

222. BURMA.—"The inspectors unite in emphasizing the potent influence that the *kyauing* exercises upon Burman character and manners, wherein they are supported by the authority of Sir George Scott. As things stand at present the Government school deliberately excludes these influences, while the aided non-monastic schools are in the hands of either missionaries or careless lay managers belonging to the Buddhist faith. The missionaries endeavour to replace one religious influence by another, not always effectively, but in too many cases they care little for the ancient manners or forms of courtesy. The lay manager on the other hand is not seldom indifferent both to manners and to religion. So long as sectarian jealousies exist, the State may not favour any dogmatic form of faith in its schools. But this need not hinder the encouragement of monastic schools or the teaching of Buddhist precepts to Buddhist children, better provision for which, especially in lay schools, would seem to be the duty of the Buddhist hierarchy and community rather than of the department. There are signs that the Burman population is awaking to its responsibilities."

223. EASTERN BENGAL AND ASSAM.—"Want of a systematic organisation for the moral training of boys is a general drawback in all classes of schools in the province. Some institutions have societies intended for social or moral improvement attached to them, but, generally speaking, apart from the influence which the lessons of the prescribed Readers may be expected to inculcate, there is no regular system for imparting moral instruction to our schoolboys. In mission schools, indeed, religious instruction is given; but in secular schools this is not of course possible. A strong and energetic master, with definite ideas, has, however, ample opportunities of impressing them upon his pupils and moulding their character aright."

(After a reference to disturbances due to political excitement,)

"These outbreaks display in mournful fashion the spirit of indiscipline which is the marked characteristic of many of the schools and the slender props by which authority is maintained. The remedy lies no doubt largely in the wide diffusion of healthy home-influence; but a great deal can also be done by the extension of the hostel or boarding house system and by the formation of a contented and conscientious body of high school teachers, who realise the true meaning of education and regard their calling with pride, instead of, as is now so often the case, looking upon it as a refuge for the lazy and incompetent or as a halting-place on a journey towards something better."

224. CENTRAL PROVINCES.—"On the whole, I am inclined to think that the behaviour of the boys and the students in the Central Provinces is, with a few exceptions, decidedly good. It appears, then, that the success of all the existing aids to discipline and moral training is very incomplete. Nor can much be expected from the study of moral text-books of the type of *Æsop's Fables*, or even from biographies. There is always wanting the

inspiring influence of a definite spirit. I firmly believe that so long as our teaching of morality and discipline in Indian schools has no basis in religion we may go on talking about school discipline, but we shall never have it."

Qualifications and Pay of Teachers.

225. Our statistical tables contain no information about the number of teachers employed in secondary schools nor their qualifications nor their pay. In the absence of systematic record we are obliged to have recourse to such information as may be afforded by special enquiries made from time to time or by incidental and incomplete figures given in other connections. Speaking generally, it may be said that the qualifications and the pay of the teachers in secondary schools are below any standard that could be thought reasonable; and that the inquiries which are now being made into the subject have revealed a state of things that is scandalous in Bengal and Eastern Bengal, and is unsatisfactory in every province. It is least unsatisfactory in Bombay, but there the Director of Public Instruction reports "our chief wants are . . . some improvements in the scale of the masters' pay."

226. This state of affairs, however, is no new thing, and probably, if complete and precise statistics were available, it would be found that the schools reached their lowest depths a few years ago, and are at the present time undergoing a slight improvement. The improvement, however, is so small in comparison with what is required in order to bring the schools to a reasonable standard of efficiency that it is almost premature to record it as having set in. In the absence of proper statistics we may begin by noting that there is no province in which the employment of teachers in secondary schools is as yet restricted by the rules to graduates. Bombay is probably approaching the point at which it will in practice be so restricted in Government schools, and this fact may be connected with two circumstances, (1) that Bombay spends proportionately more from public funds on education than any other province and (2) that the secondary schools in Bombay contain only the six higher classes. Men who have no higher educational qualifications than having passed the Intermediate examination of the University are admitted in large numbers to posts of assistant masters in secondary schools, and men are even admitted to the lower posts in the secondary schools with no higher qualification than that of the Matriculation.

227. Next, as to the admission of teachers to training, there are as yet no institutions for training secondary teachers in Bengal or Eastern Bengal and Assam. In the other provinces men are still admitted for training who have not graduated but have only reached the standard of the Intermediate examination and sometimes only that of the Matriculation. In Bombay alone the admission of students for training is limited to graduates, although the training college also contains a proportion of existing teachers from the schools who have only passed the Intermediate examination.

228. In MADRAS it is unusual to find a headmaster of a secondary school drawing so much as Rs. 200 a month pay and it is not infrequent to find him drawing less than Rs. 150 a month, while some even in board and municipal schools draw less than Rs. 100. The first assistant in a high school in Madras seldom draws so much as Rs. 100 a month and the second assistant seldom so much as Rs. 75, while the remainder draw salaries at lower rates. Men with the qualification of the Intermediate examination are still occasionally found among the headmasters, but as a rule the headmasters and the first two or three assistants are now graduates, many of them trained, and men with lower qualifications are found beneath these.

229. In BOMBAY Government high schools, the headmasters are paid from Rs. 200 a month up to Rs. 400 and even in one case up to Rs. 500, and the assistants are paid from Rs. 30 a month up to about Rs. 150. But information is not available as to the salaries paid in schools under private management.

230. In BENGAL the local Government has reported:—

"There is unanimity of opinion that the chief defect in both Government and private schools is the inadequate pay and inferior qualifications of the staff. Generally speaking, only men of poor attainments adopt the profession of teaching; the few young men of good qualifications, who take up posts in schools, merely doing so for the purpose of using them as a stepping stone to some more remunerative career. The rates of pay offered are so low that Muhammadans

and residents of Bihar are with great difficulty secured as teachers ; while such as are recruited are, generally speaking, men of an inferior stamp The improvement of the pay and prospects of teachers is, therefore, the essential condition of raising the prevailing low standard of secondary education."

In the subordinate service the maximum pay of a headmaster is Rs. 250 and the average pay is Rs. 186 a month. The higher assistant teachers are classed in the subordinate service and receive an average pay of Rs. 70 a month, but the remainder of the teachers in the Government secondary schools, constituting almost three-fourths of the entire staff, receive an average pay of only Rs. 27 a month. Some teachers of English are employed in Bengal Government schools at an initial pay of Rs. 15 a month. With respect to the secondary schools under private management in Bengal, of which there are 953 with 110,684 scholars,—no inconsiderable proportion of the system of secondary education in India as a whole—Mr. Hornell states in his report that the average pay of an assistant master in an aided high school is 23·2 rupees a month and adds "many Indians of position have reported that masters in private schools are not infrequently paid most irregularly and that they are sometimes even compelled to sign receipts for sums which they have not received." (The system of grants-in-aid in Bengal is based upon an understanding between the Government and the managers as to the salaries which will be paid.)

231. Some partial returns which are available from the inspection of high schools by the Calcutta University show that out of 3,054 teachers in certain private high schools, over 2,100 receive salaries of less than Rs. 30 a month and nearly 2,700 teachers receive less than Rs. 50 a month. In the Government high schools there are 82 English teachers who have only passed the Matriculation examination and 57 who have not even that qualification. The teachers of the classical languages also are in general incompetent to teach the new Matriculation course, which requires a fair knowledge of English on the part of the instructors. Some partial returns of qualifications of teachers in privately managed secondary schools in Bengal show that out of 2,176 teachers of English 864 have not even passed the Intermediate examination, and that many pandits and maulvis have no recognised qualifications, the great majority of them also being without a knowledge of English. The graduates and men who have passed the Intermediate examination are in general among the inferior of their class or else they take up the profession of teaching merely as a stop-gap and leave the schools directly they can find better paid employment.

232. In the UNITED PROVINCES some improvements have been made in the pay of teachers during the quinquennium, but the minimum pay of a teacher of English is at present only Rs. 25 a month, to which level it was raised in the year 1905. No statistics are available as to their qualification and pay in these provinces, but it may be said generally that it is a system in which a large portion of the teachers are not University graduates, and in which the salaries are insufficient to attract properly qualified men. A strong committee which reported to the local Government at the close of the quinquennium observed that other careers in which the prospects are clearly defined attract the attention of graduates in the first instance, and teaching is taken up in most cases in the last resort.

233. In EASTERN BENGAL the state of affairs is the same as that in Bengal, and the views of the local Government upon the inadequacy of the pay and qualifications of the teachers are equally decided. The headmaster of a Government district school cannot rise above Rs. 250 a month, while three-quarters of the teachers belong to the badly paid lower subordinate service in which the salary begins at Rs. 15 a month and rises only to Rs. 45. Fifty-eight of these teachers have passed only the Matriculation examination, and eight have not even proceeded so far. From the enquiries made by the Calcutta University it appears that in these provinces out of 1,676 teachers employed in privately managed high schools 1,200 receive less than Rs. 30 a month and 1,500 receive less than Rs. 50 a month, and that out of 1,052 English teachers 453 have not even passed the Intermediate examination. In Assam the scale of salary is only slightly better than that of Eastern Bengal.

234. In the CENTRAL PROVINCES, the Director writes :—" With a starting pay of Rs. 15 and with little chance of rising above Rs. 100 ordinary men will not take up teaching if they can help it. In Berar the pay of the higher posts has been steadily cut down during the quinquennium. In order to meet the demand, the first necessity is to raise the scale of pay."

Buildings and Equipment.

235. The condition of the buildings and equipment of secondary schools generally cannot be brought at any one time to such an exact test as to enable a judgment to be formed whether it shows improvement or the reverse. There are no statistics of the amount spent on school buildings and repairs. There has not been, as in the case of colleges, any concerted action for inspection and report upon the buildings, with a view to the issue of warnings, backed with grants of money, to the managers to make good the defects ; nor has there been, as in the case of colleges, any special grant of money for the purpose. School buildings are of course subject to regular inspection and grants of money are made for buildings and repairs, and the rules of aid or recognition require that schools should come up to a certain standard. In one respect, that of the provision of boarding houses, it is possible to measure the progress made, and that subject is separately mentioned below. Otherwise all that is possible by way of indicating progress or the reverse is to give some selections from the reports of the Directors describing the present condition of affairs. Upon the whole they are much the same in character as five years ago. It is evident that in Bengal and Eastern Bengal there is a great deal to be done before the school buildings can be regarded as up to a satisfactory standard ; and that in the United Provinces and the Punjab the want of funds on the part of local bodies has prevented the schools under public management from being kept so well housed as in the provinces where such charges fall on provincial funds :—

236. MADRAS. *Accommodation*.—" Accommodation is generally very fair. The chief defect is over-crowding, but the operation of a new rule restricting the size of each class or section to forty is leading to improved accommodation."

Furniture.—" The furniture of many schools, especially of the old lower secondary schools, is far from satisfactory in type and is also insufficient. The favourite pattern of bench is the 'reversible' which, though better than the old bench without backs or the high-backed bench, has grave defects. The supply of copy-writing desks is often inadequate and pupils have often to squat on the floor and write with one of their knees cocked up. Efforts are being made to improve the furniture; the inspectors advise managers as to the best type of benches and desks to get; the department has drawn up type-designs of hygienic dual desks and seats combined; and Mr. Yates, with the aid of the technical department of one of the colleges in his circle, is making experiments with the view of producing a relatively cheap single combined desk and seat which will satisfy hygienic requirements."

"As regards Science apparatus, the high schools, if not abundantly equipped, satisfy in general the minimum requirements of the department."

As regards other educational appliances, one of the Inspectors of Madras reports thus :—

"Beyond 'political' wall maps and a globe there is no provision for geography teaching. The importance of pictures, etc., for history and geography is not realised. A few schools have magic lanterns, but the stock of slides is very inadequate."

Libraries.—"The possession of a library has always been a condition of recognition for secondary schools, and all these schools have a library of some kind. In the high schools the collection of books suitable for pupils is generally adequate, but often insufficient use is made of them, and the teachers do not do enough to interest the boys in reading and guide them in the choice of books. In the lower secondary schools the libraries are generally defective."

237. BOMBAY.—"Of the six high schools in the Northern Division that at Thana alone is in what was originally a native house. The other five have handsome buildings specially constructed. The total cost of these was Rs. 3,09,663, of which a lakh and a half was given by private individuals and municipalities. The finest of all is that at Ahmedabad. It cost a lakh of rupees, of which Sheth Chinubhai Madhavlal, C.I.E., gave Rs. 41,000. The buildings are generally constructed with a central hall with the class rooms stretching away in a single line on either side and flanked by a wide pillared verandah, with a plinth of from two to four feet. Besides a separate class room for each class, the schools generally have a laboratory, a room for the staff, and one for the headmaster. All the high schools and almost all the Anglo-Vernacular schools in Native States have also handsome specially constructed buildings. The same is true of two or three of the aided high schools, notably the Bai Avabai High School at Bulsar and the I. P. Mission High School at Ahmedabad. The Government high schools are fortunate also in that all have compounds of from two to four acres in extent. In the Central Division the buildings of the Government high schools in Bombay and at Sholapur and Dhulia are good. The rest are in *wadas* or houses adapted to school purposes. The worst buildings are those of the high school at Nasik and the Camp School in Poona. Municipal Anglo-Vernacular schools are, as a rule, fairly well-housed. The buildings of the middle schools in Bombay are not generally suitable for school purposes. The Anglo-Vernacular schools in Native States have all fine buildings. The schools of missionary bodies too, built mostly by aid of Government, are good. The buildings of

unaided schools are generally inferior and overcrowded. The Poona and Dhulia High Schools, in particular, badly want play grounds. Many of the school buildings in the Southern Division are in need of extensions and alterations, and some of them too are without playing fields. In Sind a school, which is to cost a lakh and a half, is being built for the Nava Vidyalaya High School at Hyderabad."

Equipment.—The following remarks by an Inspector of schools are quoted by the Director on the subject of furniture in secondary schools:—

"In the majority of schools, Government, aided and unaided, most of the furniture is of an old and faulty pattern. Boys are made to sit for hours on benches without backs and of uniform height, so that the feet of smaller boys cannot even reach the ground: Moreover, perched thus, they are made or encouraged to scribble down innumerable 'notes' in pencil, thus doing their best to injure at once their eyes, their spines and their lungs. . . . It is unsatisfactory too to find that much of the new furniture supplied is of as bad a pattern as the old."

238. BENGAL.—In the Bhagalpur Division of Bengal a considerable amount of money has been spent in the erection of new buildings for aided high schools, but the designs of these schools are, in almost all cases, faulty. In the Chota Nagpur Division, the middle English schools are "miserably housed." In the Orissa Division the aided schools are held in buildings "which are in many cases neither suitable nor commodious." During the quinquennium under review building grants to the amount of Rs. 70,000 were allotted to secondary schools.

Equipment.—"As regards equipment the general verdict is that schools under public management are considerably better off in this respect than those under private management, but that the condition even of schools of the former class is, in this matter, still very far from satisfactory."

"Middle schools in rural areas are reported to be in many cases without any apparatus of any kind, and even those in urban areas are said to be mostly wanting in any sort of apparatus for the teaching of Science, a subject which is compulsory."

Libraries.—"It appears that most aided schools and those under private management possess some sort of a library, but that the condition of middle schools is in this respect generally unsatisfactory. It is reported that school libraries are not generally made use of by pupils, and that practically no attempt to remedy this defect is made by the teachers."

239. UNITED PROVINCES. *English schools.*—A great deal of building activity has taken place during the quinquennium, in the case of English schools, both State and aided, and new buildings, additions and alterations, are mentioned in connection with some twenty schools. "Nevertheless," says the Director, "in spite of all that has been done to make up for previous deficiencies and growing needs the increase of accommodation has not kept pace with the demand, and has been constantly retarded by the lack of funds at the disposal of the District Boards."

The Director mentions the case of one District High School, which is held in an old barrack converted into a schoolhouse, consisting of a single hall in which 8 classes with their sections are taught. Another aided high school, having a total area of 4,893 square feet (including the verandahs), accommodates 617 boys, and this is less than half the minimum prescribed area for the number.

Aided schools are worse off in respect of buildings than State schools, being more hampered than District Boards for want of funds. In their case overcrowding is almost the rule, for depending as they do so largely on the fee income they are loth to turn back scholars on the ground of want of accommodation. The managers have done what they can in the way of improving and increasing class room accommodation, with the resources at their disposal, but "dingy, ill-ventilated and overcrowded class rooms are still far too common."

240. PUNJAB.—The Delhi Inspector reports:—"The school and boarding house buildings of the secondary schools in the circle are in a better condition than five years ago, but this is not saying much, as most of the buildings even now are extremely insufficient in the matter of accommodation and are sadly lacking in such important points as lighting and ventilation."

The Jullundur Inspector reports:—"In all the four districts of the circle the school buildings and the boarding houses in connection with most Government and Board secondary schools, both Anglo-Vernacular and Vernacular, are overcrowded and inadequate."

"The buildings of the secondary schools in Amritsar circle have undergone little change during the quinquennium. Those of many of the Board middle schools have long ceased to be able to accommodate the increasing numbers, with regard to light and ventilation."

In the Lahore circle, "though few new buildings have been erected, considerable improvements were made to the existing schools; while play grounds have been enlarged and the surroundings generally improved and rendered more sanitary."

In the Rawalpindi circle, "some new school buildings have been erected and some additions and alterations have been effected, during the last five years, in the majority of the houses in every district, but owing to increased attendance, the accommodation especially in vernacular middle schools has been cramped."

Equipment.—In the Lahore circle, "Science has been introduced in all schools and the laboratories are well equipped in Government schools and fairly so in the others."

Hygienic desks with movable seats are rapidly replacing the old-fashioned desks, good pictures and clay and wooden models are becoming common in our schools, while some of the schools are trying to form School Museums."

In the Amritsar circle "Science appliances and maps are generally sufficient. The furniture in most of the secondary schools needs renewal or completion. The common practice is to supply desks only for writing lessons; at other times the pupils are seated on benches and stoop over their knees while writing."

In the Jullundur circle, "the supply of furniture and appliances and the provision of library books in all except Government schools is meagre."

In the Delhi circle furniture and appliances of a modern and approved type have been supplied to the Government high schools at a considerable cost, but other secondary English schools stand in need of them. The worst equipped secondary schools in the circle are the vernacular middle schools, and the furniture and appliances which they have are generally "old, rickety and inadequate."

Libraries.—In the Lahore circle, "there are libraries attached almost to every school, and they are growing slowly but steadily in value. They are more frequently used by boys and teachers."

"The question of the extension and the improvement," says the Director of Public Instruction, "of the buildings of almost all the secondary schools is under consideration, and plans and estimates for the work are being prepared by the Public Works Department in consultation with the Education Department."

241. BURMA.—"The buildings of aided secondary schools remain much as they are described in the last quinquennial review of the Government of India. Considerable sums have been expended in grants-in-aid towards the erection of new buildings, of which forty have been put up during the quinquennium at a total cost to Government of Rs. 2,93,605."

"Three State-owned secondary schools have also been erected during the period at a cost of Rs. 1,54,026."

Equipment.—"Considerable improvement has also been effected in equipment, especially as regards the desks (in which American and European patterns are tending to supersede the old and cumbersome jail types), pictures, charts, slöjd tools and kindergarten paraphernalia; scientific apparatus and object lesson specimens, however, are very defective; practically no school possesses a genuine school museum and very few have reasonably good libraries either for teachers or pupils."

242. EASTERN BENGAL AND ASSAM.—"In Eastern Bengal, all the State schools with one exception have pucca buildings of their own."

"They are as a rule one storied and provided with compounds. In Dacca and Rajshahi they are suitable for the purposes for which they are used. In Chittagong, however, they have been built without due regard to the special requirements of schools, most of them being old houses with subsequent additions made as necessity occurred. In some cases the rooms are insufficiently lighted, in some no attention has been paid to ventilation, while in others no separate room has been fitted up for teaching science or provided for office or library. The usual plan in this division is a square block with or without verandah."

"In Assam there is no fixed type of building but, though not generally distinguished for architectural beauty, the school houses are on the whole sufficiently spacious and dignified. In several cases, an annexe has been erected where accommodation in the main building has proved inadequate."

"Almost all the aided and unaided schools in the province are held in buildings belonging to the school. They are, in Eastern Bengal, mostly of mat walls with corrugated iron roofs; some, however, are constructed of masonry. In the Dacca Division the accommodation in both these classes of schools is reported to be generally insufficient. In the Rajshahi Division the school houses are said to have been constructed with due consideration for light, ventilation and class arrangement."

"In the Chittagong Division, while the aided schools have as a rule suitable buildings, unaided institutions are, in some cases inadequately housed and in some have no houses of their own. In the Assam and Surma Valleys the buildings of most of the aided schools are generally unsatisfactory. They partake, as the Inspector of the Assam Valley observes, in most cases of the nature of 'barns' rather than of anything else."

"A large majority of the middle schools in both portions of the province are located in buildings belonging to the school. In Dacca they are generally corrugated iron roofed houses. In Chittagong the typical middle school has a mat walled house with roofs of thatch or bamboo shingles, and, in exceptional cases, corrugated iron. It is rectangular in shape and generally without partitions separating classes."

"In Assam standard plans of varying sizes have recently been devised, and it is intended that at least Government schools of the middle and upper primary grades should in future conform to this type. A fair number already do so, and save in one detail, viz., the construction of walls with whole bamboos, which afford most inadequate protection against wind and rain, the buildings are of neat appearance and serve their purpose well. The older schools are mostly built of *Ekra* with thatched roof and mud plinths."

Equipment.—"In both portions of the province the equipment of Government high schools is on the whole adequate. It includes furniture (benches, tables, chairs, black-

boards, clocks and minor articles), ordinary apparatus such as maps, globes, relief maps, charts, kindergarten apparatus, etc., scientific apparatus for object lessons, gymnastic apparatus and books.

"In Assam special attention has been paid to the adequate supply of maps, and the walls in each school have been adorned with a selection of pictures illustrating various natural phenomena, animals, crops, etc.

"The aided and unaided high schools are in most cases poorly equipped. Furniture and appliances are scanty, apparatus is wanting, and the supply of books and maps very meagre. Their libraries usually contain a few books suitable for the pupils.

"In Eastern Bengal, middle schools are as a rule poorly supplied with furniture and appliances, although the State and Board schools are better off in this respect than the aided and unaided institutions. An average middle English or middle vernacular school has two or three chairs, as many tables and blackboards, four wall maps and two object lesson charts.

"In Assam middle schools are well furnished, grants having been made during the quinquennium by Government to State and aided schools of this and other grades for the purpose."

243. CENTRAL PROVINCES.—Most of the Anglo-vernacular schools are housed in fairly good buildings. But the fact, mentioned above, that the number of scholars has increased so much faster than that of schools, naturally results in a great number of these schools being overcrowded, especially in those cases where middle schools have been raised to high schools.

Boarding Houses.

244. The boarding house accommodation attached to secondary schools has increased slightly, but is still in most provinces quite inadequate. The number of boarders has increased from 24,592, or 4·5 per cent. of the total number of pupils, to 35,575, or 5·3 per cent. of the total number. It is generally conceded that boarding house accommodation ought to be provided, under proper supervision, for every scholar not residing with his parent or guardian. The proportion of such scholars would doubtless differ from one province to another and from one school to another; but at present the differences between provinces in respect of the accommodation supplied are an index not of their different needs but of the different degrees in which they have been able to find money for the purpose. The figures for the several provinces will be found at table 76 in volume II. The Punjab, as heretofore, has the largest proportion of scholars in boarding houses, and Eastern Bengal and Assam the least. The greatest addition to the numbers provided for in boarding houses has been made in the United Provinces, and the next greatest in the Punjab, where the increases are of 4,800 and 1,800 pupils so accommodated.

245. The following extract from Mr. Hornell's report for Bengal will show the importance of this subject and also its difficulty:—

"In last year's report allusion was made to 'the squalid dens' in which schoolboys had been found residing, and to the evil which they were likely to acquire as a result of living under such conditions. The problem is a vital one. If schools are to have a wholesome influence in developing the character of the community, a system which allows boys to be attracted to schools in towns and then permits them, and perhaps even compels them, to live under conditions calculated to ruin their sense of decency and self-respect cannot be condemned too emphatically. Nor is it any use blinking the difficulties of the situation. The ordinary high school cannot do much more than exist in a condition of inefficiency, and the University is now demanding a considerably higher standard of efficiency as a condition of recognition. Such a school has ordinarily no funds whatever which it could devote to the construction of a hostel, and subscriptions are not easily raised. Not only in Calcutta, but in many towns in Bengal, decent houses are hard to obtain even at comparatively high rents. The pupils who require accommodation in hostels or messes are frequently those whose allowances from their parents do not amount to more than the school fee plus the barest possible margin necessary for their subsistence."

The question is largely a financial one, but it is surely not reasonable to look entirely to the public funds. Government has always shown itself ready to co-operate in any scheme for improving the conditions of student-life. Is it too much to hope that the Indian community will on their part make an effort to improve the conditions under which schoolboys live?"

Systems of Grants-in-Aid.

246. In secondary schools under the management of provincial Governments or of municipal or district boards, all the expenses, after the fees have been accounted for, are met from public funds, provincial or local, as the case may be. Of the privately managed schools, some receive grants-in-aid from the Education department and others receive no help, either because they are unable to qualify for it or because they do not wish to apply for it. The numbers of schools falling

into these three categories at the beginning and at the end of the quinquennium are shown in table 66 in volume II.

It will be observed that the proportion of schools under public management is now, as at the beginning of the quinquennium, 19 per cent., but that the privately managed schools which make up the remaining 81 per cent. now consist of a larger number of schools in receipt of aid and a smaller number of unaided schools than five years ago. Formerly the aided schools were 53 per cent. of the whole and the unaided 28 per cent.; now these numbers stand at 56 per cent. and 25 per cent. respectively.

The province in which the proportion of secondary schools not receiving aid is smallest is Burma, where there are none at all; and it is largest in Eastern Bengal and Assam and Bengal, where it stands at 36 and 26·5 per cent. respectively. The province in which there is the greatest change in the comparative number of aided and unaided schools is the Punjab, where the unaided schools have been reduced from 41 per cent. of the whole to 14 per cent.

247. A further diminution in the number of unaided schools and a corresponding increase in the number of aided schools may now be expected, and this for two reasons:—

- (a) that the schools will have to meet a higher standard of requirements than heretofore, if they are to survive, and some will consequently be obliged to apply for help which have hitherto dispensed with it;
- (b) that all schools, whether aided or unaided, are required as a condition of recognition to be generally efficient without any distinction of standard. Thus no logical basis will remain for what has up to the present been tacitly permitted to grow up, *viz.*, one standard of efficiency entitling the school to receive a grant-in-aid and a lower standard of efficiency entitling it to recognition.

248. The annual sums given by way of aid to secondary schools at the beginning and at the end of the quinquennium in the several provinces, and also the average amount for each aided school, may be seen in tables 81 and 82. Table 82, from which European schools are excluded, shows that the average rate of aid given to a school—and for the purpose of this calculation only those schools which receive aid are counted—amounts to Rs. 688 annually, as compared with Rs. 609 five years ago. The rate of aid has increased in every province, the apparent exception of a diminution in Eastern Bengal and Assam being due only to the alteration of the boundaries of the province. But the figures are chiefly remarkable for the differences which they reveal in the financial policy of the several provinces towards secondary education. In Burma, where every secondary school that is not managed by Government is in receipt of aid, the average grant to a school is nearly Rs. 300 a month. In Eastern Bengal and Assam, three-sevenths of the schools under private management go without aid, and the remainder which receive it enjoy an average grant of Rs. 22 a month. These are the two extremes, but Bengal closely resembles Eastern Bengal and Assam in this respect. It gives aid to three-quarters of the schools under private management, and gives them an average of a little more than Rs. 24 a month each. Thus we have in the two provinces of Bengal and Eastern Bengal and Assam—

- (1) a greater proportion of the population attending secondary schools than in any other province,
- (2) a smaller proportion of publicly managed schools than in any other province,
- (3) a larger proportion of privately managed schools left unaided than in any other province,
- (4) the amount of aid given to aided schools reduced to a lower rate than in any other province.

Lest this pre-eminence in economy should excite emulation, it is pertinent to add that the local Governments of both these provinces were, at the close of the quinquennium, making a survey of the condition of secondary education, and having completed it have recorded their opinion that the state of affairs is deplorable.

249. These two provinces contain half the secondary schools of India. The average rate of aid given to aided schools in the other provinces amounts to

Rs. 1,414 annually, or Rs. 118 per mensem; and the province in which, next to the two Bengals, the rate of aid is lowest, is that of Madras, where the aid averages Rs. 691 per annum for each aided school.

Changes in
the method
of assess-
ment.

250. The system upon which the grants are assessed has undergone a change during the quinquennium in all provinces. The chief feature of these changes is the universal disappearance of the system of assessing the grant-in-aid to a school upon the number of children passing an examination. This system previously existed in most, though not in all, provinces and was the means either of assessing the grants to certain kinds of secondary schools or of assessing part of the grant to all secondary schools. The system was amply condemned by experience and was abolished by the orders of the Government of India, based on general consent. The methods which have now been introduced are as follows:—

In MADRAS the grant is fixed for a term of three years at an amount approximately equal to the income guaranteed to be annually provided from endowments, subscriptions, donations and other private sources over and above any expenditure incurred by the management for scholarships or in defraying any difference between the fees calculated at standard rates and those actually collected. In calculating the amount derived from private sources the Education department does not include the scholars' fees; thus the amount of the grant rests solely upon the support obtained for the school from private benevolence, and is proportioned to the amount so obtained, and the managers are incited to collect fees up to the prescribed rates by the prospect of their grant being reduced in the event of their failure to do so.

251. In BOMBAY, it is laid down that the Government grants shall in no case exceed one-third of the total expenditure or one-half of the local assets for the previous year; this is the maximum grant, and this limit can never be exceeded. In assessing the grant the following six points are taken into consideration:—

- (1) Buildings and equipment.
- (2) Attendance, including regularity of attendance.
- (3) Adequacy and qualifications of teaching staff.
- (4) Range and quality of education given.
- (5) Discipline and conduct of students.
- (6) Provision for recreation and physical exercise.

Failure to satisfy the inspector in any of these heads entails a proportionate reduction of the maximum grant, due regard being paid to the special circumstances of each school and locality.

This system of assessment was introduced in the year 1903-04, the previous system having been one of capitation grants based on results.

On the principle that the efficiency of a school is usually in proportion to its expenditure, where grants have been assessed or re-assessed since the introduction of the new system, the grants awarded have as a rule approximated to the maximum limit, unless a marked deficiency under any of the six heads detailed above necessitated a reduction. Thus, generally speaking, any school, the general efficiency of which could be classed as fair or better, has earned the maximum grant.

252. In BENGAL, the inspector in assessing the grant has regard to a large number of questions as to the efficiency of the school, but the way in which the amount of the grant is arrived at is not prescribed in the rules nor explained by Mr. Hornell. The maximum limit is fixed by the rule that the grants to high schools shall not exceed one-half of the income guaranteed from private sources, except in backward parts where the grants may equal two-thirds of the amount so guaranteed. For middle schools the grants are not ordinarily to exceed two-thirds of the whole of the income guaranteed from private sources, except in backward parts. The term 'private sources' as used here includes fees.

253. In the UNITED PROVINCES, there are tariff rates of fixed grants for each section of the school, ranging from Rs. 150 per annum for the upper primary section to Rs. 750 for the high section, irrespective of the number of pupils in the school. In addition to these grants, there are grants paid upon the scholars in average attendance, at rates ranging from Rs. 1-8-0 per head per annum for the lower primary section to Rs. 3 in the high section; these grants being contingent upon the teaching and discipline being found by the inspector to be satisfactory and being granted for each class separately upon the fulfilment of these conditions. The total amount is limited by the rule that (a) it shall not exceed the income of a school from fees and private sources, or (b) one half of the annual tuitional expenditure, or (c) the difference between the annual expenditure and the income from fees and private sources.

254. In the PUNJAB, a grant is paid separately to each department in a school and is based upon the average attendance in those departments and upon the classification of them by the inspector as excellent, good or fair. The rates of grants so payable range from 9½, 13 and 16 annas in the infant class to Rs. 18, Rs. 25 and Rs. 31 in the high department. In addition to these grants the department pays staff grants for certificated teachers at the rate of one-fifth of the salary paid to them.

The total grant to a school must not exceed one-half of the expenditure on tuition or two-thirds of the excess of that expenditure over the income from tuition fees.

255. The system in BURMA has not been revised during the quinquennium and remains most complicated and peculiar. Some specific grants are made for the employment of certificated teachers and for the encouragement of so-called technical subjects, a term which includes drill and drawing, and the remainder of the grant is arrived at by making up the difference between the income and the expenditure of the school. The income and expenditure of the school, however, are arrived at not upon the basis of actuals, but upon imputed items of fees at standard rates, cost of supervision at a standard rate and so forth. The grant is limited not only by the difference between the income and expenditure, but also by the total amount of the income from private sources. This complicated system is, however, being replaced by a system of fixed grants which are given to schools whose permanent character is established. These grants are calculated upon the average grant made during the previous three years.

256. In the CENTRAL PROVINCES, schools receive fixed grants, for the assessment of which no principle is laid down except that they are not to exceed the difference between the receipts and the expenditure.

In ASSAM, a middle English school is required to provide by endowments or subscriptions not less than Rs. 10 a month and a high school not less than Rs. 20 a month. No principle is laid down for calculating the grant-in-aid, but it is not to exceed five times the amount of income from private sources and in places where education is in demand this maximum is reduced to twice the amount provided by endowment or private subscriptions at middle English schools and three times at high schools.

257. The Directors as a rule do not comment upon the working of the new systems of grant-in-aid. The Bombay Director quotes the following remarks by one of his inspectors, Mr. Lory:—

"The system introduced three years ago has in practice worked most successfully. The inspectors are glad to be rid of a mechanical system based on results, and, though a certain number of managers would perhaps prefer a full examination class by class, the new system is a more rational one and affords a better means of adequately gauging the efficiency of a school, and is calculated to offer less encouragement to cramming. It was, I believe, anticipated in some quarters that the difficulty of accurately checking the accounts of schools would prove an obstacle to the successful operation of the new method, but, although a more careful scrutiny of the returns of expenditure is now no doubt required, no difficulty has actually been experienced."

258. In MADRAS, under the new educational rules, grants-in-aid to secondary schools are made payable only from provincial funds. In the Central Provinces, the departments above the lower secondary receive grants from provincial funds, but grants to lower secondary departments are payable from provincial or local funds.

259. In BENGAL, under the Local Self-Government Act of 1885, District Boards are not empowered to make any grants to high schools, except under special circumstances. Municipalities may grant aid to secondary schools within municipal limits after spending a certain percentage of their income (3·2 per cent.) on the encouragement of primary education. Middle schools are aided from provincial funds in non-Board districts and from local funds in Board districts.

In other provinces no definite rules exist regarding the payment of grants from any particular funds, and secondary schools are aided either from provincial or local or municipal funds.

Income and Expenditure.

260. The total expenditure of the secondary schools is returned as 117 lakhs annually, being an increase of nearly 19 lakhs since five years ago. The particulars for the several provinces and also the average expenditure for each pupil are shown in tables 79 and 90 in volume II. In Madras and Bombay the expenditure has not kept pace with the increase in the number of pupils, but in the other provinces the average expenditure per scholar shows an increase. The average over India is Rs. 25·5 annually for each scholar, an extraordinarily small sum, and one which even if entirely devoted to the payment of salaries is inconsistent with a proper average standard of remuneration to teachers on any reasonable computation of the proportion of teachers to scholars. The average cost ten years ago was Rs. 25·5, and five years ago Rs. 24·1. It ranges from Rs. 15·5 in Eastern Bengal and Assam to Rs. 49·9 in Burma.

261. This expenditure is for maintenance, not for the erection of new buildings: our statistical tables do not show the amounts spent on buildings, except in the aggregate for all educational institutions. The statistics also do not show what are the heads of expenditure on maintenance. The annual income of the schools is, for the purpose of the statistics, assumed to be equal to the expenditure; and the sources from which it is derived are classified under five main heads, *viz.*, provincial revenues, local funds, municipal funds, fees and all other sources. The last of these headings is sub-divided into private and public; and "all other sources, public" includes expenditure from Imperial revenues upon some military orphanages, expenditure from Native State revenues in those States whose returns are found in our statistics, and some other unclassified items. We may group together as public funds the income which the schools receive from provincial revenues, local funds, municipal funds and "all other sources, public" and we may thus arrange the income of the secondary schools under the three headings of (a) public funds, (b) fees, and (c) private sources. The amounts received from these three sources in 1902 and 1907 were as follows:—

	1902 (in thousands of Rs.)	1907 (in thousands of Rs.)
Public funds	24,78	34,53
Fees	52,63	62,17
Private sources	21,12	20,36

and these figures may be thus expressed in terms of percentage to the total expenditure on secondary schools:—

	1902 Per cent.	1907 Per cent.
Public funds	25	29
Fees	53	53
Private sources	22	18

262. The same figures are given in greater detail for the several provinces in tables 84 and 85. The returns of the receipts of the schools from public funds are, or should be, accurate, the returns of the fees are less accurate but may be approximately correct, and the returns of the income from private sources must be accepted with a great deal of reserve. The basis upon which the statistical tables are framed, with the assumption that the income exactly squares with the expenditure, involves crediting "other sources, private" with the difference between the expenditure of the school and its income from public money and fees, and many items find their way into this column which are mere book entries. The total of the receipts from "other sources, private" was in 1902 Rs. 21,11,730 and in 1907 Rs. 20,35,665; but it is not even safe to conclude from this that there has been any diminution at all, for Dr. Bourne writes in reference to an apparent diminution of Rs. 65,000 in Madras received from private sources that "this fall is more apparent than real as it appertains chiefly to miscellaneous receipts in the Lawrence Asylum which is treated as an institution managed by the Government," and that there has been an increase of Rs. 13,000 in the receipts from private sources in schools under private management. This instance is sufficient to show that it is unsafe to attach any value to the apparent fluctuations in the figures of the receipts from private sources. The total expenditure in 1902 from public funds was Rs. 24,77,935 and in 1907 was Rs. 34,52,935, and it will be observed from the tables that there is an actual increase in the amount of public funds devoted to secondary education in every province during the quinquennium. The aggregate of the fees has risen from Rs. 52,63,000 to Rs. 62,17,000, and this increase also is distributed over all the provinces with the exception of the Central Provinces and Berar, where there is a slight decrease. The two provinces of Bengal and Eastern Bengal and Assam must of course be taken together for the purpose of this comparison, as their boundaries have been altered during the period under review.

263. The actual and percentage increase in the expenditure from public funds on secondary schools and the fees collected in secondary schools, and in the receipts from private sources in secondary schools and in the total expenditure of secondary schools was as follows:—

	Actual increase or decrease, in thousands of rupees.	Percentage of increase or decrease.
Public funds	+9,75	+39
Fees	+9,54	+18
Private sources	—76	—4
Total	18,53	+18·8

The particulars for the several provinces will be found in tables 86 to 88 in volume II.

264. The proportion of the expenditure on secondary education which is met from private sources does not differ greatly in the several provinces, and, as explained above, the statistical basis of the returns is not sufficiently firm to support any comment upon such apparent differences as there may be. But there are considerable differences between the provinces in respect of the proportion of the burden borne by public funds and fees, as will be seen from table 85.

In Madras only 16 per cent. of the total expenditure is met from public funds and 66 per cent. from fees, and in Eastern Bengal and Assam the figures are closely similar, *viz.*, 17 per cent. and 65 per cent. At the other end of the scale stand the Central Provinces and Berar where 57 per cent. of the expenditure is met from public funds and 27 per cent. from fees. Next to the Central Provinces in respect of the proportion borne by public funds, the provinces come in the following order:—

Burma, North-West Frontier Province, United Provinces, Punjab, Bombay, Bengal, Eastern Bengal and Assam and Madras.

265. The proportion of the expenditure of the secondary schools in India that is borne by fees is the same at the end of the quinquennium as at the beginning, *viz.*, 53 per cent.; and the proportion borne by public funds is increased from 25 to 29 per cent., while the proportion borne by receipts from private sources has fallen from 22 per cent. to 18 per cent. of the total expenditure. This shifting of the burden has taken place in every province.

266. The item of public funds dealt with in the foregoing analysis consists, as explained above, of provincial revenues, district funds, municipal funds, and other public sources. By far the greater part of the increased expenditure from public funds is from provincial revenues; a small part is from district funds, and almost none from municipal funds. The figures are as follows:—

	1902. Thousands of rupees	1907.
Provincial	13,46	21,47
District	4,06	5,62
Municipal	4,17	4,21
Other sources (public)	3,09	3,23
Total	24,78	34,53

Fees.

267. The sum returned as received from fees in secondary English schools—or rather as expended from fees, but for practical purposes the expressions must be regarded as the same—is Rs. 62,17,121. Five years ago the amount received from this source was Rs. 52,63,020. This increase in the total amount of fees collected in secondary schools is more than proportionate to the increase in the number of pupils in the schools. The average rate of fees per scholar is Rs. 13·2

annually, as compared with Rs. 12·9 in 1902. These totals include European schools, where the fees levied are rather higher than in schools for Indians. If the European schools are excluded from the reckoning the average fee collected in secondary schools is Rs. 12·7 annually per scholar. It is lowest in the Central Provinces and Berar, Rs. 7·5, and highest in Burma, Rs. 21·2. The particulars for the different provinces are given in table 92 in volume II.

These figures of average fee include the fees collected in the primary and middle departments as well as in the high department of secondary schools, and they include the fees collected in schools under all classes of management, viz., Government, Board and private.

268. The rules under which fees are collected have undergone no change during the period under review, but it may be convenient to recapitulate them here.

The common features of the systems prevailing in the several provinces are that fees in Government schools are fixed by the Education department either for the province as a whole or for schools or circles separately, and that schools under private management which do not receive aid are free to collect fees at whatever rates they please, subject only to the condition that in order to obtain and keep the privilege of recognition they must abstain from injurious competition. Board schools, whether under district boards or municipalities, are expected as a rule to conform to the fee rates laid down for Government schools, and schools under private management which are in receipt of aid are usually required as a condition of aid to levy fees at some minimum rates proportionate to the rates laid down for Government schools.

The common practice throughout India is for the fee to rise as the pupil proceeds through the school. The steepest gradient is in Madras where in Government schools the fee in the highest class is Rs. 38 a year and in the lowest class Rs. 2·4·0 a year. Usually the fee at the top of the school is about six times as great as at the bottom. A range of 8 annas a month in the lowest class to Rs. 3 a month in the class preparing for the Matriculation examination—these are the prescribed rates in the Board schools in the United Provinces—is an ordinary example of fee rates charged in Government schools; and the highest rate of fee recorded as charged in a secondary school is Rs. 5 a month in the top classes of the Calcutta Government schools. These monthly fees are charged as a rule for twelve months in the year.

269. The facts summarised above may be thus stated in rather greater detail :—

MADRAS.—One scale is laid down for all secondary schools under public management. The rates are as follows :—

		Rs. A. P.	
High	6th Form	19 0 0	per term of 6 months.
	5th „	17 0 0	„ „
	4th „	15 0 0	„ „
Middle	3rd Form	11 0 0	„ „
	2nd „	9 0 0	„ „
	1st „	7 0 0	„ „
Upper Primary	4th Class	4 8 0	„ „
	3rd Class	3 6 0	„ „
Lower Primary	2nd „	2 4 0	„ „
	1st „	1 8 0	„ „
	Infant Class	1 2 0	„ „

Fees at half the standard rates are claimed from Muhammadans, from girls and from backward classes and castes.

In schools under private management the managers are left free to fix the fee rates at their discretion, subject to rules prohibiting them from improper competition. In those schools which are in receipt of grants from public funds the department estimates the fee income as if the fees were levied at the same rates as in schools under public management. If the managers do not actually raise fees at this rate, they have to make up the deficiency from some source other than the grant.

270. BOMBAY.—The fee rates in Government high schools are not uniform but are determined for each school by the Education department. In aided schools the inspecting officers must be satisfied that the fees charged are reasonable. A proportion of the pupils, not exceeding 15 per cent. of the whole (except with the sanction of the Director), may be admitted without payment of fees. But in addition depressed and backward classes everywhere, and in some places Muhammadans also, are admitted free.

271. BENGAL.—The rules for fixing the fees are the same as in Bombay. Five per cent. of the pupils may be admitted to a Government or aided high school without fees, and in addition eight per cent. of Muhammadans, up to a limit of twelve per cent. of free scholars.

Teachers on pay of not more than Rs. 50 may have one son educated free, and a second son on payment of half fees, in schools in which they teach.

Government pensioners whose pensions do not exceed Rs. 25 may be allowed similar privileges. Scholarship holders are admitted without payment of fees.

272. UNITED PROVINCES.—A uniform scale of fees is laid down for all secondary schools under public management as follows :—

		Rs. A. P.
High Section	Class X	3 0 0
	Class IX	2 8 0
Upper Middle	Class VIII	2 0 0
	Class VII	1 12 0
Lower Middle	Class VI	1 8 0
	Class V	1 0 0
Upper Primary	Class IV	0 12 0
	Class III	0 8 0

Schools in receipt of aid from public funds must levy fees at 75 per cent. of these rates. Five per cent. may be admitted free and 5 per cent. half free. This rule applies both to State and aided schools.

273. PUNJAB.—Uniform fee rates are laid down for all secondary schools under public management. The fees charged are in three scales, dependent upon the income of the parents, the lowest fees being charged to those boys whose parents' income does not exceed Rs. 100 a month; the second scale for incomes from Rs. 100 to Rs. 200, and the highest scale for incomes above Rs. 200 a month. The fee rates are as follows :—

		III Grade. Rs. A. P.	II Grade. Rs. A. P.	I Grade. Rs. A. P.
High Department	5th Class	3 0 0	6 0 0	8 0 0
	4th Class	2 8 0	5 0 0	7 0 0
Middle Department	3rd Class	2 0 0	4 0 0	6 0 0
	2nd Class	1 12 0	3 8 0	5 4 0
	1st Class	1 8 0	3 0 0	4 8 0
Upper Primary Department	Class V	1 0 0	2 0 0	3 0 0
	Class IV	0 12 0	1 8 0	2 4 0

In aided schools the fees must be 75 per cent. of these rates.

In State and aided schools 5 per cent. may be admitted free on the score of poverty in secondary departments (high and middle), and 10 per cent. in the middle departments and 5 per cent. in the high departments at half rates.

Scholarship holders have to pay fees as a general rule. In very exceptional cases only they are charged no fees at all.

274. BURMA.—One minimum scale of fees is prescribed in Government, Municipal, and aided schools. The rates are as follows :—

High	Standard IX	Rs. 4 a month.
	Standard VIII	
Middle	Standard VII	Rs. 3 a month.
	Standard VI	
	Standard V	
Upper Primary	Standard IV	Rs. 2 a month.
	Standard III	

There are no rules about remission of fees in State schools, but in aided schools (other than indigenous) managers are at liberty to remit or reduce fees leviable from orphans or from children of poor parents, to the extent of 10 per cent. of the average daily attendance.

275. CENTRAL PROVINCES.—Differential rates varying according to the income of the parents were formerly in force, but these have been abolished during the quinquennium, this being the sole change recorded in the rules in any province regarding the incidence of fees. The rules now in the Central Provinces are that in schools under public management a fee of Rs. 2 a month is levied in the three higher classes, and of eight annas a month in the next four classes and that aided schools must charge fees at least at these rates, but may charge higher rates.

In high and middle departments of schools not more than 10 per cent. of the students are allowed to read free or partially free.

Aided schools are also expected to observe the above rules.

Average
rates of fee
per scholar.

276. Tables 92 to 94 in volume II show the average amount of fees collected per scholar in (a) the high schools, (b) the middle schools, and (c) the secondary schools as a whole, of each province; and in the making up of these tables the fees collected in European schools have been omitted. It should be remembered in referring to these tables that Bombay secondary schools contain no primary classes, whereas the high schools in other provinces do contain such classes, and that therefore the higher average rate of fee in Bombay as compared with some other provinces does not necessarily represent the collection of fees at higher rates, but only the omission from the reckoning of a large number of scholars who pay lower rates. It will be observed that in India as a whole the average fee in Government schools exceeds that in Board schools, and that the fee in Board schools exceeds that in schools under private management, the figures being as follows:—

Government schools . . .	Rs. 19·2	per annum	per scholar.
Board schools . . .	Rs. 13·5	"	"
Aided schools . . .	Rs. 11·8	"	"
Unaided schools . . .	Rs. 13	"	"
General average . . .	Rs. 12·7		

Analysis of
receipts from
private
sources.

277. Private sources are sub-divided into (a) subscriptions and (b) endowments and other sources.

The figures are:—

	1902. (Thousands of Rs.)	1907. (Thousands of Rs.)
Subscriptions . . .	7,05	7,39
Endowments and other sources	14,07	12,96
Total . . .	21,12	20,35

If these figures are compared with the statement contained in general table IV, it will appear that there is a slight discrepancy between them in respect of the item "endowments and other sources"; but the explanation is that that item as given in the tables contains in some cases certain public monies which have here been deducted from the private sources and classified among the public. The figures for the several provinces will be found in table 88.

CHAPTER IV. PRIMARY SCHOOLS.

Number and Classification.

278. PRIMARY education being defined as the education of the masses through the vernacular, the schools classed in the statistics as primary schools are for the most part distinct from the secondary school system which leads up to the University; but owing to the diversities of system and also of statistical practice this general statement requires a few qualifications.

279. In Bombay the secondary schools do not receive infants or children in the four lowest standards, but are fed from the common vernacular schools and receive children who have passed through the first four standards of those schools. Consequently, in Bombay there is no distinction between primary schools and primary departments of secondary schools, since such primary departments do not exist. In all other provinces the statistics of primary schools exclude the children who are in the primary departments of secondary schools, such children being reckoned as following secondary education. Sometimes the primary departments of secondary schools exist separately in distinct buildings, but they are still classed as secondary schools, being feeders to secondary schools and not part of the common system of vernacular education of the masses. But here again there is one exception to be made, for in Burma, although the primary departments of secondary schools are ranked as part of the secondary school system, such primary departments when they are conducted as separate schools in separate buildings, although they are feeders to the secondary schools, are styled Anglo-vernacular primary schools and are included in the statistics of primary schools. Consequently, "primary schools," as the term is used in our statistics and in this chapter, are nearly, but not quite, distinguished from schools or departments belonging to the system of secondary education.

280. Another qualification which has to be made before primary schools can be identified with the system of educating the masses through the vernacular is that the superior primary schools having seven or eight standards above the infants' class are in most provinces, though not in Madras or Bombay, known as middle vernacular schools, and such schools with all their scholars from the infants upwards are classed in our statistics as secondary schools. To this extent therefore the statistics of primary schools fall short of showing the whole system of the vernacular education of the masses.

281. Naturally the passage is kept open in all provinces from the vernacular system of primary schools to the schools which belong to the system of secondary education. In all provinces a child may begin in the vernacular primary school and pass, at a certain point, from the vernacular primary school to the secondary school. In Bombay, as has been already explained, all children must begin in the vernacular schools before proceeding to the secondary schools; in other provinces children may do so. The point at which the teaching of English is begun in the secondary school is usually the highest point in the secondary school to which children from vernacular schools can be drafted; but in the United Provinces and the Punjab there are special arrangements made to facilitate the transition from the vernacular school system to the secondary school system of children who have pursued the vernacular school course to a higher point than this. In these provinces special English classes are arranged in the secondary schools (or in selected secondary schools) for boys who have completed the course of middle vernacular schools and are then transferred to secondary schools: and in Bengal also some special arrangements are made for teaching boys who are so transferred, although these arrangements do not yet amount to the establishment of special classes.

Changes in the classification of primary schools in Madras.

282. No alterations have been made during the period under review in the classification of primary schools, as described above, except in Madras. In Madras up till the year 1906 the rules relating to the qualifications of teachers, the courses of studies, and the transfer of pupils, were the same for the primary schools as for the primary departments of secondary schools, and there was no clear distinction between those schools which were intended as feeders of secondary schools and those which were part of the system of vernacular education proper. The rules made in 1906 established this distinction, and primary schools were called upon to declare whether they belonged to the system of vernacular primary or of secondary education. Schools containing about four thousand pupils thereupon severed themselves from the primary school system in which they had previously been ranked, and declared their adhesion to the secondary school system. Concurrently with this change Madras has adopted the expression "Elementary Schools" in lieu of primary schools, to signify the schools in which instruction is given to the masses through the vernacular. Primary schools, as spoken of in this chapter and in the statistics, include, of course, the schools which Madras now prefers to term "Elementary."

Subdivision into lower primary and upper primary schools.

283. Primary schools are subdivided in the statistics into lower primary schools and upper primary schools. This is a difference merely of grade: the lower primary schools are those which contain only three or four classes, and upper primary schools are those which contain one or two classes more advanced. The numbers of classes contained in lower primary and in upper primary schools differ in the different provinces, and there are also some differences in the classification of infants, who are sometimes classed in the standards and sometimes below the standards, and are sometimes subdivided into infants, A, B, and C, or preparatory class A and preparatory class B, and are sometimes merely classed as infants. The figures given in the statistics of pupils in upper primary schools include all the pupils of those schools from the infant classes to the top.

A chart will be found in table 98 of Vol. II which shows the number and nomenclature of classes in the primary schools, the points at which the distinction between lower primary and upper primary is made, and the points at which children are transferable from the vernacular to the secondary school system.

Number.

284. By the ordinary methods of reckoning there are in India more than eighteen million boys of an age to attend primary schools; and in the year 1907 the number of pupils in attendance at boys' primary schools was 3,630,668, or about one-fifth of the whole. As compared with the year 1902 this shows an increase of 621,539 pupils, which is the largest increase that is yet recorded to have taken place in any period of five years since 1882. This increase is the more satisfactory since in the five years ending 1902 there had been an actual decrease. The figures at the quinquennial periods have been in round numbers as follows:—

1882	2,061,000
1887	2,381,000
1892	2,680,000
1897	3,028,000
1902	3,009,000
1907	3,631,000

But the rate of increase, whether for the last twenty-five years or for the last five, is very slow when compared with the distance that has to be travelled before primary education can be universally diffused. If the number of boys at school continued to increase even at the rate of increase that has taken place in the last five years, and there were no increase in population, several generations would still elapse before all the boys of school age were in school. The increase in the numbers of boys in the primary schools during the past five years is due to the concerted policy of Government to encourage the spread of primary education—a policy that is itself old, but

received a fresh stimulus from the orders issued by the Government of India in 1901 and the Imperial grants made in 1902 and 1905. The attempts made to improve the quality of the teaching and to adapt it more closely to the needs of the people, and the mild pressure to send children to school which results from its being made known that Government desires them to attend, count for something in raising the numbers; but by far the most potent factor has been the increase in the expenditure of public funds upon the provision and maintenance of schools. An Imperial grant of 40 lakhs of rupees annually was divided amongst the provinces in 1902. This was available for all purposes of education, and a large part of it was devoted to primary education. Another grant followed in 1905 of thirty-five lakhs annually, and this was to be exclusively devoted to primary education. This money has not been applied solely to the expansion of education, since the existing schools and training institutions and inspecting staff had large claims to make upon it, but it has enabled larger sums than ever before to be set aside for opening new schools and enlarging existing schools.

285. The number and increase of pupils in boys' primary schools was as follows:—

	1901-02.	1906-07.	Increase.
Madras	588,626	692,409	103,783
Bombay	463,452	516,719	53,267
Bengal	1,212,356	954,027	219,168
Eastern Bengal and Assam	83,214	560,711	
United Provinces	279,578	418,480	138,902
Punjab	100,715	141,559	40,844
Burma	116,839	155,884	39,045
Central Provinces and Berar	153,406	177,347	23,941
Coorg	3,578	3,604	26
North-West Frontier Province	7,365	9,928	2,563
TOTAL	3,009,129	3,630,668	621,539

286. The proportion borne by the pupils attending boys' primary schools to the estimated number of the boys of school age is thus shown—

	1902. Percentage.	1907. Percentage.
Madras	20.8	24.5
Bombay	23.5	26.3
Bengal	21.7	24.3
United Provinces	7.6	11.3
Punjab	6.1	8.6
Burma	15.1	19.5
Eastern Bengal and Assam	18.4	23.8
Central Provinces and Berar	14	18.0

287. The full effect of the increased grants in raising the number of children at school has not yet become visible, for in several provinces a certain proportion of the increased grant has been set aside for the annual erection of new schools, and this process can go on until the cost of maintaining the new schools absorbs the whole of the available funds.

288. The number of schools has increased during the quinquennium from 92,226 to 102,947. This also is a greater increase than has previously been recorded as having taken place in a similar period, and compares with an actual decrease in the previous quinquennium. The increase in the number of pupils is, however, greater than that in the number of schools; on an average there are 36 pupils to a school now, as compared with 33 five years ago. This means that the spread of primary education has taken effect not only by the provision of new schools, but also by the enlargement of existing schools, or by improved attendance at them; and it tends also to show that the demand for new schools is equal to the supply, for otherwise the opening

of new schools which remained unfilled would tend to reduce the average number of pupils to a school. The following table shows the number of primary schools at the beginning and end of the quinquennium, with the actual and percentage increase or decrease, for the several provinces :—

Province.	1901-02.	1906-07.	Actual increase or decrease.	Percentage of increase or decrease.
Madras	19,093	21,379	+ 2,286	+ 12·0
Bombay	8,219	9,485	+ 1,266	+ 15·4
Bengal	45,922	33,962	} + 2,795	+ 5·7
Eastern Bengal and Assam	2,776	17,531		
United Provinces	6,773	9,545	+ 2,772	+ 40·9
Punjab	2,257	3,151	+ 894	+ 39·6
Burma	3,927	4,950	+ 1,023	+ 26·1
Central Provinces and Berar	3,035	2,615	-- 390	-- 12·8
Coorg	70	82	+ 12	+ 15·7
North-West Frontier Province	154	217	+ 63	+ 40·9
TOTAL	92,226	102,947	+ 10,721	+ 11·6

289. Thus all the provinces show an increase in the number of pupils, and all except the Central Provinces show an increase in the number of schools; and Bombay is the only province in which the increase in schools is proportionately greater than the increase in pupils. In that presidency the average number of pupils to a school stood highest in 1902, viz., at 56, and this figure is now reduced to 54. The provinces differ greatly in the relation which the number of schools bears to the area of the province, and, as might be expected, the average number of pupils to a school is least where the schools occur most frequently and highest where the schools are few and far between. The following table gives the figures for this comparison. The first column gives the number of square miles of the area of a province, divided by the number of schools. The second column gives the number of pupils, divided by the number of schools.

Province.	Square miles to a school.	Pupils to a school.
Bengal	3·7	28
Eastern Bengal and Assam	5·8	32
Madras	6·6	32
United Provinces	11·2	44
Bombay	19·9	54
Punjab	30·9	45
Burma	44·4	31
Central Provinces and Berar	45·4	67

290. So far as mere number is concerned, the proportion of schools to area is sufficient in Madras, Bengal and Eastern Bengal to bring a school within reach of every child, if the schools were evenly distributed. Naturally, the distribution is uneven, and from this it results that while some parts are insufficiently supplied, other parts, at any rate in Bengal and Eastern Bengal, have an excessive number of schools, so that the suppression of some and the concentration of the pupils in fewer but better schools raises not only the quality of the instruction but also the total numbers in attendance. This has even been found to be the case in the United Provinces, where there has upon the whole been a great increase in the number of schools, but where nevertheless the Director reports that the suppression of some superfluous schools in Jaunpur, accompanied by the improvement of the remainder, has

been followed by an increase in the number of pupils. In short, the effect of encouraging all agencies willing to provide primary education has been an unsuitable distribution of schools. In some parts more schools are urgently required; in other parts there is an excess, which acts as a positive hindrance to the spread of education. It is remarkable that in the Central Provinces, where the schools are few in proportion to the area, a reduction in the number of schools, consequent upon the transfer of the Sambalpur district and upon the omission from the returns of small indigenous schools formerly included therein, has been accompanied by a rise in the number of pupils.

291. Two factors enter into increased school attendance, viz., increased provision of school accommodation, and willingness of the population to send their children to school. The strength of this latter factor remains to some extent conjectural while the schools are insufficient to accommodate all who are willing to attend. The apathy of the populace towards primary education is often mentioned, and does undoubtedly operate, as a cause which keeps school attendance low; that is to say, it is very certain at present that if there were a school place available for every child there would not be found 100 per cent. of the children at school. It is however a practical question how many more children might in existing circumstances come to school if schools were available for them. In the Bombay presidency it is roughly estimated that there are 100,000 children whose parents would willingly send them to school, but who are debarred by the absence of village schools from participating in the benefits of education. There are at present 517 thousand pupils in boys' primary schools in that presidency, and if this number were increased by 100,000 the proportion of children in school would be 31·4 per cent. of the male population of school age, instead of 26·3 per cent.

292. The basis upon which the number of children of school age is computed is 15 per cent. of the population. The ratio borne by the number of children found in school to the population, or any proportion of the population, is not a certain means of representing the proportion of the population touched by the school system, because, *ceteris paribus*, the number of children found in school is greatest where children remain at school longest and least when they cut short their school career to a minimum. As in other institutions, so in schools, the numbers present in them depend both upon the numbers admitted and upon the duration of their stay. It is quite possible that one province may show a large number of children at school, in proportion to its population, than another, and that this difference may be due to the prolongation of school life, not to the extension of education among a larger proportion of the population. One guide to the comparative length of school life in the different provinces is the proportion of boys found in the upper primary stage. In boys' primary schools the proportions of boys in that stage were :—

	1902.	1907.
Madras	7·2	5·8
Bombay	32·2	33·4
Bengal	2·7	2·6
United Provinces	13·8	8·9
Punjab	16·8	12·9
Burma	7·9	11·6
Eastern Bengal and Assam	1·4	3·2
Central Provinces and Berar	17·1	14·2
Coorg	20·8	17·9
North-West Frontier Province	14·8	17·2
TOTAL	10·6	9·9

293. The fall in the proportion found in the upper standards is due to the large number of new pupils admitted. The following table showing the number of pupils per mille of male population who are found in the infants' and lower primary stage of boys' primary schools, may serve as some test of the extension of primary education; but in comparing one province with another it is necessary to remember that the lower primary stage contains two classes above the infant in Bombay, Bengal, United Provinces, Burma and the Punjab

Ratio of schools to area.

Factors governing school attendance.



T. 2 101

and three classes above the infants in Madras and the Central Provinces. The figures are as follows :—

Province.	1901-02.	1906-07.
Madras	26.1	30.9
Bombay	22.5	24.9
Bengal	29.8	33.8
United Provinces	11.3*	15.2
Punjab	7.6	11.2
Burma	18.2	19.7
Eastern Bengal and Assam	25.7	33.4
Central Provinces and Berar	16.8	22.3
Coorg	22.5	23.4
North-West Frontier Province	5.4	7.0
TOTAL	21.2	25.1

* In 1901-02 the primary departments of secondary schools in the United Provinces were shown as separate primary schools.

Private institutions.

294. Outside the pale of "public institutions", which includes all schools that follow the departmental curriculum, whether or not they are under public management, and whether or not they are in receipt of grant, there are "private institutions" consisting of indigenous schools not under inspection and not conforming to departmental standards. The figures in this chapter relate to "public institutions."

Distribution of pupils in private institutions.

295. The pupils in those private institutions for boys which are of an elementary character are distributed thus among the provinces :—

Madras	121,718
Bombay	64,615
Bengal	36,061
United Provinces	49,817
Punjab	49,617
Burma	170,098
Eastern Bengal and Assam	51,485
Central Provinces and Berar	159
North-West Frontier Province	8,027
Coorg	510
TOTAL	552,107

The effect which their inclusion would have upon the percentage of school attendance is shown thus :—

Province.	Percentage of scholars in public primary schools for boys, 1906-07, to the male population of school age.	Percentage of scholars in all primary and private elementary schools for boys, 1906-07, to the male population of school age.
Madras	24.5	28.8
Bombay	26.3	29.6
Bengal	24.3	25.3
United Provinces	11.3	12.7
Punjab	8.6	11.6
Burma	19.5	40.7
Eastern Bengal and Assam	23.8	26.0
Central Provinces and Berar	18.0	18.1
TOTAL	19.1	22.6

296. The two provinces in which the fringe of private institutions is greatest in proportion to the number of public institutions are Burma and the Punjab. In both, they consist chiefly of schools of a religious character which remain outside departmental influence: in Burma, monastic schools, and in the Punjab, "rote" schools, teaching the texts of the Muhammadan and Sikh sacred writings.

Management.

297. About a quarter of the schools are under public management and about three-quarters under private management. The figures stand thus :—

	1902.	1907.
Public management	19,068	24,715
Private management	73,158	78,232
TOTAL	92,226	102,947

Further particulars for the several provinces are shown in table 103. The bulk of the primary schools under public management are maintained by district and municipal boards; the few schools classed as "Government" schools chiefly consist of those maintained by the provincial Governments in places where no district boards exist; and the remaining schools under public management are those maintained by the Native States whose figures are included in the provincial statistics.

298. The schools under private management consist principally of venture schools, in which the schoolmaster lives on the fees and presents which he can collect, supplemented in most cases by a grant-in-aid from a Board; and the minority of the schools under private management consist, except in Burma, where they are attached to monasteries, of schools managed and financed by persons independent of the schoolmasters whom they employ, such persons being for the most part either public-spirited men of local importance, or missionary bodies. The percentage of primary schools under public and private management respectively during the past twenty years has moved as follows :—

	1887.	1892.	1897.	1902.	1907.
Public	19.8	19.6	19.5	20.7	24.0
Private	80.2	80.4	80.5	79.3	76.0

During the period under review the increase of schools under public management has been much greater proportionately than that under private management.

299. In the Central Provinces the greater number of aided schools have during the quinquennium come under local board management, and in Assam a similar transfer has been made. In the Punjab all the new rural schools that have been started have been board schools. In other provinces also there are signs that opinion is setting towards a reconsideration of the position of local authorities towards private venture schools. It is pointed out that the present treatment of these schools as under private management in the sense required by the despatch of 1854 is a fiction. The words of the despatch (paragraph 53) are—

"Aid will be given (so far as the requirements of each particular district, as compared with others, and the funds at the disposal of Government, may render it possible) to all schools which impart a good secular education, provided that they are under adequate local management (by the term "local management" we understand one or more persons, such as private patrons, voluntary subscribers, or the trustees of endowments, who will undertake the general superintendence of the school, and be answerable for its permanence for some given time); and provided also that their managers consent that the schools shall be subject to Government inspection, and agree to any conditions which may be laid down for the regulation of such grants."

300. In those provinces where aided schools are most numerous the majority of them are not under "adequate local management" in this sense, and have neither endowments nor subscriptions, unless the presents of the parents can be so counted; and there is now a tendency to distinguish the schools

which are the mere venture of the schoolmaster from those which represent *bonâ fide* independent effort. In MADRAS the Director writes:—"Of the schools under private management, a little over one-fifth, or about eighteen per cent. of the total number of schools, are managed by missionary agencies; the remaining four-fifths, forming sixty-six per cent. of the total, are under other private agencies. This means for the great mass of them that they are under no form of corporate management and depend entirely upon fees and grants."

301. In a circular issued in 1905 Dr. Bourne remarked with respect to these schools:—

"They are not strictly speaking *aided* schools. It is curious that the grant-in-aid system which was instituted with the idea of granting public funds in aid of private funds devoted to education has come to be applied to these schools in which the fees and the grant form the only source of income. The majority of them are actually maintained by public funds while remaining under private management, the teacher himself being in most cases the manager. There are probably about 7,000 such schools now in existence.

"An attempt will now be made to place these schools upon a basis perfectly distinct from that of schools which are really *aided* schools.

"It is probable that they will come under a simple form of local board management. In that case a teacher who would previously have opened a result school would apply to the local board and be permitted to open a school if one were considered necessary in the locality chosen. The Director would like to see a salary paid monthly, to which a capitation fee might be added and the teacher allowed to take in addition any school-fees that might be paid."

302. The following excerpts from Mr. de la Fosse's quinquennial report on education in the UNITED PROVINCES also bear upon the point:—

"The policy of aiding private enterprise rather than starting large numbers of board schools has been vigorously pursued during the quinquennium. In many districts it was not deliberately adopted from the first, but boards for want of funds have drifted into it as the cheapest way of multiplying facilities for education. No educational officer, with the experience gained since the system was introduced, would now hold that in point of efficiency aided schools can compare with board schools or that they are more popular with the people. Only the Lucknow board has the hardihood to assert that the masses prefer aided schools; though other boards also are steadily converting board schools into aided schools, notably Budaun. . . . Speaking of aided schools one inspector says: 'They cannot be regarded as a success from the point of view of educational efficiency, which is marred not only by the unsuitable character of the building in which the school is held—very often it is only one badly lighted and ill-ventilated room in which all the classes are crowded in—but the poverty of school appliances like blackboards and maps makes the work of successful teaching very difficult.' He adds that owing to the lower rate of pay they are nearly always staffed with inferior teachers, who are mostly uncertificated or have only passed the upper primary examination. One assistant Inspector writes of them as follows: 'The manager is generally incompetent or unwilling, the schoolmaster is almost always an incapable man, the school building is generally of a most disgraceful kind, and the attendance therein is mostly nominal.' Many passages could be culled from district board reports in illustration of the general inferiority and inadequacy of aided schools. But, however unsatisfactory, they serve, temporarily at least, some purpose. The chairman of one district board states the case with perfect candour, when he remarks: 'These schools to my mind serve two purposes: (1) they enable the board to get round the order requiring all teachers to be paid a minimum of Rs. 8 per mensem. I do not say whether or no this is desirable, I merely note the fact; and (2) they are useful as a cheap way of putting a trial school in any village which asks for a school, to test whether one is really needed.' The pity is that boards must resort to such shifts.

"It would be a mistake to suppose that the manager of an aided school is usually a public spirited individual anxious at personal sacrifice to promote education in his neighbourhood. He is, as a rule, so far as the school which he is credited with founding is concerned, a *nomini umbra* used by the teacher to secure a grant from the board for his private venture. There are exceptions of course, men of means and influence who supply accommodation and in part support the teacher; but they are comparatively rare. The commonest type of aided school is the one started by the teacher himself without any local support, in the hope of receiving a grant. The teacher's stock-in-trade is the least required for such a purpose; some obliging well-to-do villager gives his school shelter in a verandah, or the village *chaupal* is put at his service; and he subsists upon the grant and by collecting such fees as he can, whether in cash or in kind, from his pupils."

303. Other quotations might be given to show that elsewhere also there is a tendency to face the position more clearly than heretofore, to distin-

guish private venture schools from schools under adequate local management, to assign the true reasons why venture schools are maintained on their present basis, and to discuss their adequacy for meeting the present demand both for expansion and improvement of primary education.

304. The schools managed by district and municipal boards have increased in number thus:—

	1902.	1907.
District boards	14,694	20,245
Municipal boards	1,195	1,380
TOTAL	15,889	21,625

Schools managed by local boards.

Thus it will be observed that district boards have been the chief agency for extending the supply of schools during the period under review. The number of pupils in them has increased from 628,710 to 1,007,058. The figures for the several provinces will be found in table 104.

305. Burma is without district board schools, having no district boards. Bengal, as heretofore, leaves almost unexercised the powers which the Act of 1885 gives to district boards to maintain and manage primary schools, but in Eastern Bengal since the formation of the new province a beginning has been made.

306. The progress made by municipalities in the provision of schools is much less in proportion than by district boards. Bombay is still, as formerly, far ahead of all other provinces in respect of the activity of its municipalities in this direction. The municipal schools of the Bombay presidency contain nearly 76,000 children; Madras stands next with 18,500 and the Central Provinces third with 14,000 children.

307. The contrast between the municipalities of Bombay and Calcutta in respect of the provision of school accommodation is most striking.

The management and inspection of schools in the city of Bombay are entrusted to the joint schools committee. The committee administers its own schools and supervises and pays grants to aided primary schools. Under section 61 (q) of the City of Bombay Municipal Act, 1888, it is incumbent on the Corporation to provide suitable accommodation for primary schools. The Corporation raised a loan of 10 lakhs during the quinquennium to provide for new buildings for primary schools in the city of Bombay, and was at the end of the year engaged in drawing up a programme for the construction of these buildings. The total amount spent by the Bombay municipality on primary schools in 1906-07 was Rs. 1,34,904. The number of primary schools maintained by the municipality was 93 and the number aided was 104.

The general progress of primary education in the Bombay city is thus described in the Report for 1906-07:—

"In consequence of additional grants sanctioned by the Government and the Corporation, the Committee have been able to make a steady progress in the development and improvement of primary education. They have opened within the last three years eleven new schools, and will be glad to open more in localities where they may be wanted. The schools have been better equipped with Kindergarten and other appliances; the teaching staff has been strengthened, and better accommodation has been provided."

308. The Calcutta municipality is, under Act II of 1888, authorised to promote primary and technical education in the city. It maintains no schools of its own, and the amount contributed by it in 1906-07 towards the aid of primary and technical schools was Rs. 19,485. "The grants are made irrespective of Government assistance to the same institutions, and no expert establishment is employed by the Corporation to inspect the institutions aided from municipal funds."

In a meeting of the Legislative Council held on the 6th April 1907 Sir C. Allen, the Chairman of the Calcutta Corporation, said that under existing conditions the Corporation was debarred from undertaking any work of a useful nature, and he expressed the opinion "that the Corporation should assume responsibility for primary education of a literary and vocational

Schools in Calcutta.

character throughout the city, receiving from the Government an annual grant of expanding revenue, sufficient, when added to the present allotments, to pay for primary education, which should probably be free and compulsory."

School
committees.

309. School committees, that is to say, committees of inhabitants appointed to manage or supervise single schools, are found at *bonâ fide* privately managed schools and also and probably most effectively at district board schools. At private venture schools they may occasionally exist, but are very rarely met with. They appear to be most flourishing in the Central Provinces in connection with board schools, and the reason for this seems to be that in the Central Provinces they are entrusted with the collection and expenditure of the fees. Some attempts have been made to extend the system of school committees. Mr. de la Fosse writes of these attempts in the United Provinces:—

"The institution of village committees has produced rather poor and dubious results so far. In Meerut 'special instructions have been issued to all officers with a view to make them useful, and it is hoped to utilise the assistance of local zamindars in carrying out petty repairs at present executed by contractors.' The Chairman of Gonda says: 'They have worked fairly on the whole, and have somewhat promoted the popularity of schools.' But in Bulandshahr 'very little success' is reported and the inspector of the first circle remarks: 'Personally I am inclined to doubt whether village committees are more calculated to help than embarrass inspecting officers.' Having met and talked with a few of these committees in the course of my cold weather tour, I am inclined to be hopeful that they may grow into useful bodies. At present they are more concerned with the teacher and his defects as a man and a neighbour than with his work in the school; but with experience they should learn to take a wider view, and may in time prove helpful in promoting education."

310. The Directors also state that school committees have been established in almost all districts of the Punjab and in Upper Burma. In Eastern Bengal, committees for upper primary schools have been established, but are reported to be merely nominal. The account given of them in the past quinquennium in the Central Provinces is as follows:—

"Committees of urban schools, according to one inspector, 'practically without exception, prove useless, except by providing an occasional member of personal industry or wealth.' This indictment is rather too sweeping, but it is true that their value is less in schools under efficient head masters. Rural school committees largely depend upon the type of village where the school is found. Occasionally the members are illiterate or indifferent. But fortunately this is seldom the case. They are described by some deputy inspectors as 'most useful' and 'yearly improving.' This is the more important as they are the only people who are constantly in touch with the village schoolmaster and the parents of the pupils. Their chief duties lie in securing regular attendance and utilising the fee-collections in necessary petty expenses. My personal impression is that when the committees find the departmental officers sympathetic their interest in school work rapidly increases."

Buildings.

311. The changes made in buildings and equipment do not easily lend themselves to statistical statement, and the figures in our returns do not show the total amount expended upon the buildings of primary schools within the period under review, but only the gross aggregate expended on the buildings of all educational institutions. It may however be safely asserted that the progress made since 1902 in providing primary schools with improved accommodation has been on a larger scale than has ever previously been attempted, and this progress is due to the sums of money which were placed at the disposal of the provincial Governments, and by them at the disposal of district boards. In the last two years of the quinquennium, for instance, the Madras Government distributed more than nine lakhs of rupees for the purpose of primary school buildings, the Bombay Government four lakhs, and the Bengal Government more than five lakhs.

312. There is no difficulty in expending money upon the buildings of publicly managed schools or upon those under *bonâ fide* private management; but to improve the buildings in which private venture schools are held is not so simple a matter. It has been the custom for the venture schools to be held in verandahs lent for the purpose, or in the master's own dwelling-

house, or in any other place that could be obtained for the purpose, but not, except in Burma, in buildings erected for school purposes. The schoolmaster has no capital sufficient to enable him to provide the buildings, and it is useless to offer him grants in aid of buildings upon conditions involving any expenditure on his part, and impossible to endow him with a building provided at public expense. Consequently, in those provinces where primary education is chiefly carried on by venture schools, the Governments have expended money in erecting schools which are to be the property not of the schoolmaster or his supposed committee of management, but of the village; and the district board or other authority lends the building for school purposes, thus taking one by no means unimportant step towards changing the status of the venture school master into that of a servant of the local authority.

313. In BENGAL, the distribution of public money for the purpose of erecting schools was accompanied by the condition that the locality should also assist; and in other provinces such assistance was rendered without being specially stipulated for. In Bengal, Burma, Eastern Bengal and Assam and the Central Provinces, the new schools have chiefly been built according to type plans prepared by Government.

314. MADRAS.—"There has been some progress during the period in the matter of school accommodation; while the schools held in *chavadis*, temples, managers' dwelling-houses, etc., have slightly declined in number, those held in their own or in rented buildings have increased by more than 25 per cent. in each case. It is doubtful, however, whether there has been much improvement in the quality of the accommodation afforded by the school buildings or rented houses. Most of the inspectors report that the buildings in which primary schools are located are in general not well adapted for school purposes, being ill-lighted, ill-ventilated and often situated amid insanitary surroundings. The schools under public management are usually better than the rest and a few of the mission schools are moderately well housed."

315. "In several cases the assistance of the villagers was enlisted in the building operations. Some villages provided sites, others materials, labour or money. Wherever possible, provision was made for a school garden, and where a supply of water was not easily procurable, a well was sunk."

Mr. Yates remarks as follows on the subject of these buildings:—

"The money provided from the special allotment has, on the whole, been well spent: it has provided buildings in wholesome surroundings for a certain number of villages, very small in proportion to the whole: it has called forth in many villages the generosity of wealthy villagers and has set an example of buildings to other villages. Fences and walls and wells have been provided for all the schools erected in 1905-06—101 in all—in the Vizagapatam district; the same has been done in other districts as far as possible. The villagers have helped in some places. They have been interested in the growth of school gardens."

316. BOMBAY.—Mr. Selby reports that in the Central division out of 1,717 local board boys' schools only 619 were in buildings of their own, 72 out of 272 municipal schools, and 72 out of 128 in Native States.

"But large grants for building, amounting in all to over four lakhs, have been made during the five years, a grant, in the case of primary schools, amounting to one-half of the total expenditure. In the case of local board schools a free site, in addition, is very often given. It is for consideration whether, at any rate in dry climates, some more simple, less substantial, and less expensive type of building would not serve. Perhaps too a more general employment of local contractors might be more economical. It is at any rate to be desired that more schools had convenient buildings of their own."

317. BENGAL.—In Bengal the local Government addressed to the Commissioners a circular in which it was stated:—

"Sir Andrew Fraser has been much struck during his tours of inspection with the miserable character of these buildings. The rooms are cramped and dark, ill-ventilated and cheerless. The little boys are often crowded into verandahs opening on to the village street; and where this is the case, they are exposed to the gaze of passers-by, the dust from the road, and the exhalations from the neighbouring drain. During the stress of the monsoon these verandahs are often enclosed for the purpose of protection from the wind and rain: and at such times they are dark and the atmosphere pervading them is fetid. There is a prevailing belief that bad sight and phthisical disease are on the increase in Bengal, and that this is due in part at least to the

wretched buildings in which the young people are educated. It has been found impossible to obtain trustworthy statistics on these points; but it is accepted now by experts everywhere that bad school buildings are disastrous in their effects. On the above grounds improvement is urgently required; but there are other considerations which are scarcely less important. A decent building must tend to enhance a boy's respect for his school-life, his teachers and himself. Moreover, the improvement of school buildings will not only have an important educational influence on the pupils, but will also tend to stimulate interest generally in education and foster a desire among the people at large that the village school-house shall be worthy of the work to be done in the school."

The circular then proceeded to offer assistance to district boards in constructing village schools at an average estimated cost of Rs. 600, inclusive of equipment, for a lower primary school; and the Government subsequently circulated type plans of buildings, the cost of which however exceeded the previous estimate. The district boards were to be invited to subscribe one-third of the cost, Government providing the remaining two-thirds. The type plan of the lower primary school which was subsequently circulated consisted of one room 24 × 18 feet with a verandah five feet wide, kutchha-pucca walls, roof thatching over galvanised iron sheeting, walls interior mud-plastered, exterior lime-plastered, plinth two feet above flood level, plinth area 676 square feet. This was estimated to cost Rs. 423 to Rs. 845. The type plan for an upper primary school included a second room 18 × 12 feet, and was estimated to cost from Rs. 620 to Rs. 1,250. The condition attached to these grants that the districts should contribute a third (reduced in some cases to a quarter) of the cost appears to have greatly impaired the utility of the scheme by rendering it unacceptable, and in addition it is reported that the buildings could not be erected even within the ample margins of the estimates. Up to the present, therefore, the plan has proved a disappointment.

318. UNITED PROVINCES.—In the United Provinces, Mr. de la Fosse reports that the insufficiency of accommodation is one of the greatest obstacles to the spread of primary education; and states that the district board reports, while supplying evidence that much is being done, are full of complaints that boards are quite unable to cope with demands for more and better buildings with the limited funds at their disposal, and also that when they have been provided there are great difficulties in keeping school buildings in repair.

"Model plans have been drawn up in Basti, where it is estimated that the cost of a lower primary school is Rs. 396 and an upper primary school Rs. 482; but a good deal depends upon the local price of material and labour, and in Basti both would seem to be unusually cheap. Corrugated iron roofs, such as are used in Dehra Dun and Fatehpur, are economical from the point of view of repairs, but suffer from the great defect of being terribly hot in the summer and noisy in the rains. The Commissioner of Lucknow has put his finger on a weak spot in the planning of buildings for village schools in the following quotation from his interesting remarks on the subject:—

"Some of the reports refer to school buildings as a strain on the district resources and as limiting the number of scholars. This is to some extent inevitable; but I think the ordinary primary school building is quite unsuited to its object. This is because masters use them as dwelling houses and get them built for that purpose. That is, they have thick mud walls, few and small windows and a high enclosure wall. Such buildings are in the first place unnecessarily expensive. They are, secondly, unhealthy. The ventilation is wholly inadequate and the atmosphere on a hot day is hardly bearable, especially for boys used to living almost entirely in the open air. Except for stuffiness they are very cold in winter. The lighting is so defective as to harm the boys' eyesight. On a cloudy day or with the sun low in winter it is pitiful to see the boys straining their eyes at their work. Finally, such buildings are not easily enlarged and hence numbers attending are constantly restricted. I think it is urgently necessary to have a standard design for a primary school house, and that the main idea should be a large, light roomy shed, such as we use for famine kitchens in some parts."

319. PUNJAB.—"The liberal Government grants, both Imperial and Provincial, have been utilised in opening and equipping new schools and providing new school-houses. . . . Houses and equipment are still below the standard in too many cases. Lack of funds is the chief reason for this, but at the same time it should be stated that it is difficult, if not impossible, to keep pace with the number of schools, and that for the present it is practically necessary to house new schools in rented buildings, which are often wholly unsuited to the needs of a school, and in some cases in insanitary surroundings."

320. BURMA.—"The majority of lay vernacular schools are conducted in ordinary Burman houses; on the whole, these being lighter and airier than corresponding

dwelling in India and generally raised well above the ground, such accommodation is not unsuitable. A special form of vernacular primary school house, modelled on these lines, has recently been evolved. It is raised on posts some 8 or 10 feet high, and contains one large room for the pupils and another for the head teacher. The materials are wood, bamboo and mat, and the total cost is Rs. 500. Two hundred of these schools have been set up in the last two or three years, the cost being borne in each case either entirely by Government or by Government and the villagers."

321. EASTERN BENGAL AND ASSAM.—In Assam there have been two steps taken by the local Government during the period under review for the improvement of school buildings. In the year 1903 a small grant of Rs. 24,000 was distributed among the local boards in order that small sums might be paid to assist the villagers in providing lower primary school buildings. In many cases the effect of this was that a site was given by a land-owner, that the donation from public funds was expended in timber, and that the villagers contributed the matting for the walls and the labour of erection. In starting this scheme the local Government remarked:—

"The buildings in which lower primary schools are accommodated have almost all been constructed by the people of the village, the schoolmaster himself not infrequently contributing, and they have hitherto been no charge upon public funds. As is to be expected under these circumstances, they are merely light sheds of bamboo and grass; but it would be a mistake to condemn them as altogether unsuitable or to abandon a system which at all events illustrates the benefits of self-help."

In 1904 the Chief Commissioner followed this up by making substantial allotments to local boards for the construction of school houses according to standard plans. These were for upper primary and middle vernacular schools, and were much more expensive than the type of lower primary schools assisted by the former grant. The smallest type plan is for an upper primary school of 75 boys, and consists of two rooms measuring 22 × 20 feet and 16 × 10 feet respectively. In the first instance the plinth and floor were to be earthen and the cost was estimated at Rs. 848 for such a school, but the Chief Commissioner in reply to strong recommendations revised the plans so as to provide for pucca plinths of brick masonry with terraced floor, and the revised estimate showed a cost of Rs. 1,152. The specifications are for framing of steel joists, walls of whole bamboo, roof thatch on timber trusses. Mr. Sharp reports that the result of this expenditure has been highly satisfactory.

In Eastern Bengal suitable buildings are being erected from approved plans at a cost varying from Rs. 500 to Rs. 800, but the progress made is not so great as in Assam.

322. CENTRAL PROVINCES.—Standard plans were adopted in 1905, and part of the Imperial grant was devoted to new buildings. Mr. Hill writes:—

"Not only are new buildings required, but very nearly half our primary schools in the growing districts need enlargement. Wherever possible, new buildings and extensions should aim at stability, for the present bill for repairs (especially to roofs) is unduly large. A very important point in connection with rural school buildings is the question of contract. Tahsildars like to reserve the right of giving contracts, but from all quarters comes the unanimous opinion that contract-built schools are both costly and bad; and probably the soundest policy is to leave the erection of buildings to school committees, under the expert advice, either of Public Works Department officers, or of District Engineers.

"School gardens vary considerably according to local circumstances. Want of an adequate water-supply frequently tells against their success. The supply of seeds by the Agricultural Department and the award of prizes to masters for good gardens have been among the means adopted for their improvement. These gardens are meant to be practically useful as well as ornamental, but unfortunately only a few of the masters achieve both objects."

Equipment.

323. The enlargement of the curriculum and the demand for realistic teaching bring new demand for improved equipment, and part of the increased supply of public money which has been available for the improvement of primary schools has found its way into better equipment. Generally speaking, the district board schools, and in Bombay municipal schools, appear to have reached the highest standard; the schools under *bonâ fide* private management come next, and the venture schools, which are the majority,

lag a long way behind. The following quotations will be sufficient to illustrate the condition of affairs :—

324. MADRAS.—The furniture found in most of the schools is of the most elementary description; in many cases, where the teacher is himself the manager, it consists of little more than a blackboard, and that often quite unsuitable. In the schools which aspire to benches and desks, the former are generally unsuitable.

The department does not insist upon the schools having elaborate benches and desks of the European pattern; it recommends for the pupils in village schools a low seat and a low table, of a pattern to which the people are accustomed in every-day life, but the provision of even these is not regarded as indispensable. The new schools established with the aid of the recurring grant of six lakhs were generally provided with simple furniture of this description, together with a really good blackboard. An interesting point in connection with school furniture is noticed by Mr. Mayhew, who reports :—

“It is curious how opposed parents are to school arrangements being similar to those in their houses. Chairs and benches to them are symbolic of a school.”

Apparatus and appliances for teaching are generally wanting; in many cases a ball frame, a few ‘object lesson pictures,’ and a map or two comprise the whole stock of appliances.

Efforts were being made by the inspecting officers at the end of the quinquennium to introduce into the schools objects of a simple character which are really illustrative of and aids to the lessons. As an example of what is being done, Mr. Yates may be quoted :—

“In the course of the year simple apparatus for arithmetic teaching has been introduced into all schools, tamarind seeds, cowries; coloured balls; in board and some private schools actual or imitation weights and measures (of length and capacity), scales, and imitation coins. Ground maps of the district and the presidency and India, often in some attempt at relief, are common; the Telugu maps are shockingly bad, but none others are at present available. In a few schools, where the teachers are intelligent and the villagers co-operate, museums of objects to illustrate the readers have been made. . . . Much of this illustrative material costs nothing except the labour of the teacher. For school gardens in the Vizagapatam district and in several taluks of other districts, complete sets of garden tools have been supplied out of the recurring grant. The seeds and produce are kept as specimens in bags in all schools where gardening has begun. For clay modelling local clay is used; some schools have Froebel’s gifts supplied to them; I consider this waste of money, since the resultant teaching is lifeless and unrealistic.”

325.—BOMBAY.—One of the inspectors reports with respect to the equipment of schools in his division :—

“It has not been possible to furnish all local board schools with the kit for object lessons, and so during the quinquennium under report central schools—one or two in each taluka—have been organized, to which the new apparatus has been supplied, and circulars were issued to the surrounding masters to go to these schools and observe the use of the apparatus. This arrangement has met with some success in stimulating the interest of the teachers concerned, some of whom show considerable ingenuity in making rough apparatus for themselves.

Many of the municipalities during the quinquennium under report furnished their schools with new furniture and the kit required for the teaching of the revised standards, from the enhanced grants received from Government. Substantial progress has been made at least in the case of the bigger municipalities. Some have been so liberal that they are asking, not unreasonably, for a further increase to their present grants.

Native State schools are also making efforts to bring their schools up to date, but progress is slow. Where the revised standards have been introduced, the schools are in some cases being equipped with good furniture and apparatus.

The aided and unaided schools under mission management never lose sight of the question of equipment, and in some places are really well provided. In aided schools under Native societies the furniture and apparatus are generally tolerable, but in private venture primary schools the furniture seldom goes beyond a table and a chair for the master, and pieces of gunny for the boys to sit on! Speaking generally, the revision of the Code, combined in the case of Board schools with the happy coincidence of the provision of additional funds which helped to make its provisions practicable, has led to a great advance in the equipment of Primary Schools.”

326. EASTERN BENGAL AND ASSAM.—In Eastern Bengal the interior of a school-house is as disappointing as the outside. As has been remarked by the Inspector of Chittagong :—

“A rickety table and an old chair suffice for the teachers. For the pupils, improvised benches with bamboo legs stuck in the ground, with timber planks or more frequently split bamboo spread on the top, serve for seats. Sometimes old disused boxes take the place of benches. Often not even so much is to be found in the inferior classes

of lower primary schools, where the children sit on mats. In the better class of schools, benches and occasionally a blackboard are sometimes met with. In the schools that receive stipends from the district funds, a map or two, a Kindergarten box, or sometimes an object lesson chart are occasionally found; but in the mass of lower primary schools the whole of the appliances consist of the pupils’ books and their slates. In the schools within Municipal areas the general state of things is somewhat better, and they are better equipped and furnished than the village schools.”

In Assam the equipment is better. The main articles of furniture consist of a table and a chair for the pandit, benches for the boys, a blackboard, a map of the district, and a set of text-books including a Bengali dictionary. Maps of the province also are now being supplied. In addition every school is supposed to possess a village map, and a collection of manuscripts, forms, pictures, etc.

Teachers.

327. The statistics do not show the number of teachers employed, nor their qualifications or pay. Five years ago some statistics upon these points were specially obtained, and it was found that there were in primary schools for boys 106,000 teachers, or at the rate of one teacher to 26 pupils. The proportion of teachers to pupils has probably increased slightly throughout India since 1902; but taking it at one teacher to 26 pupils, there would now be nearly 140,000 teachers in primary schools. As the total expenditure of boys’ primary schools is returned at 137 lakhs it follows that even if the whole expenditure of the schools were devoted to paying the teachers’ salaries, the teachers would receive on an average less than Rs. 100 a year, or say Rs. 8 a month. This is an inadequate wage, and the reports are unanimous that, although some improvement has taken place during the period under review, there is urgent need for improved pay among the primary school masters, both in order to keep up the supply and to attract to the profession a properly qualified set of men. So great, however, is the number of teachers that any general improvement in their pay would necessarily be costly. Thus an increase in the pay of primary school teachers of one rupee a month all round would cost 17 lakhs a year on the present number of teachers.

328. Dr. Bourne’s report contains a clear and comprehensive account of the number, qualifications, and pay and prospects of teachers in MADRAS, and it will be convenient to summarise his remarks here and then to supplement them by extracts from the more fragmentary accounts given of the state of affairs in other provinces. For the 21,379 primary schools for boys, containing 692,409 pupils, in Madras there are nearly 30,000 teachers employed, viz., at the rate of one teacher to 23 pupils, as compared with one teacher to 25 pupils in 1902. As the village schools are small, containing on an average 32 pupils, each teacher as a rule has to teach about three classes. About 25,000 teachers hold some kind of departmental certificate and 5,000 hold none. Of those who are certificated, 11,605 hold certificates testifying only to the general education which they have received, 4,448 hold certificates of approved service, a kind of certificate which is no longer granted but testifies to five years’ service in the teaching profession; 7,849 are trained teachers; and 1,026 are untrained, but hold certificates, of a kind now discontinued, of having passed an examination in the theory of teaching. The general education of most of the teachers employed has not extended beyond the fourth standard. The pay of teachers employed under Taluk boards averages Rs. 8½ a month, and ranges between a minimum of Rs. 5 and a maximum of Rs. 35 a month, and the majority of the teachers draw seven or eight rupees a month. The emoluments of the teachers in schools under private management are almost certainly less than those in schools under public management, but it would be hazardous to say by how much.

329. During the quinquennium salaries have been improved in schools under public management. The schools are graded according to the number of teachers employed; the least pay given is Rs. 8, and the grades above this are Rs. 10, 12, 15, 20, 25, 30, and 40. Thus in a school with three teachers one receives Rs. 12, the second Rs. 10 and the third Rs. 8. In the smaller schools, where this system which offers prospects of promotion cannot be adopted, a sum has been set apart to be shared out amongst the trained teachers, and will give about Rs. 2 a month extra to each of them. This

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system is adopted both by local boards and municipalities, and will do something to attract a better class of teachers to the profession.

The only other provinces which record the numbers of teachers employed are Bengal and Eastern Bengal and Assam; in Bengal it is 39,526; in Eastern Bengal and Assam, excluding only the Assam valley, it is 17,990.

Qualifications
of teachers.

330. With respect to the qualifications of the teachers or the proportion of them who are trained, the following information is given :—

BOMBAY.—Northern Division :—There is a slight fall in the number of trained teachers, and a slight increase in the number of untrained, and a rise from 471 to 881 in the number of teachers with no qualifications at all. These changes are attributed to more men being wanted for new schools, to vacancies due to death from plague, and to the age limit for the examination testifying to general education having until recently been maintained at a minimum of 17 years.

Southern Division :—There is an increase in trained masters from 1,390 to 1,441; 65 per cent. of the board schools are now under trained headmasters, and no assistant is appointed unless he has passed the vernacular final examination. In the Native States in this division 75 per cent. of the schools are under untrained head masters. In order to be admitted to training in Bombay or to employment in schools as untrained teachers, youths must pass the 7th standard of the primary course, the minimum age limit for which has recently been lowered to 15.

331. In BENGAL 2,201 are trained, 25,001 have certificates testifying to general education, and 12,324 have not even these qualifications. About 60 per cent. of the teachers employed have no other qualification than that of having passed through the lower primary schools.

332. UNITED PROVINCES.—A dearth of teachers is reported, which in some districts results in the employment as teachers of men who have passed only the upper primary examination. In the Meerut division, 270 teachers are trained; 492 have passed through the full vernacular school course; only 25 have passed no higher standard than the upper primary; and 13 are uncertificated.

333. EASTERN BENGAL AND ASSAM.—In Eastern Bengal and Assam only 840 teachers out of 17,990 are trained; the qualifications of the remainder are not stated.

Pay of
teachers.

334. The following facts are mentioned with respect to the pay of teachers, its sufficiency to attract recruits, and its improvement during the quinquennium :—

BOMBAY.—Northern Division :—The average pay of a trained master in local board schools has risen from Rs. 18-11-4 to Rs. 19-12-9 a month. The average pay of untrained but qualified teachers is Rs. 7-7-6 under district boards and Rs. 7-9-6 under municipalities. These teachers begin on Rs. 7 and draw a maximum of Rs. 12 as head masters.

Southern Division :—No head master gets less than Rs. 10 and no assistant less than Rs. 7. Mr. Selby writes :—“The pay is not sufficient to attract men.

One-fourth of the masters in the presidency draw only seven rupees a month, which is less than the wages of a peon or even a common cooly. The maximum pay of a trained teacher is Rs. 60, but in the Southern Division there is only one man who draws this salary. The difficulty of getting teachers on the pay offered is felt most acutely in the Northern Division.

The necessity for an increase in the pay of untrained men is urgent. At present discontent is wide-spread. No untrained teacher should, I think, draw less than Rs. 9, and Rs. 12 should be the minimum pay for a trained man. The cost will be heavy, but it must be faced. All officers in the Education Department are agreed as to this. The following remark by the Collector of Surat fairly expresses the opinion of the Civil Service: “The minimum pay of an untrained teacher is Rs. 7 a month, exactly one rupee a month less than a peon. Moreover, there is, as a rule, very little prospect of an increase for several years. Under these circumstances it is not surprising that service in the Educational Department is becoming increasingly unpopular. As Sub-Divisional Officer I was inundated with applications from men on Rs. 7 in the Educational Department for appointments as Talátiés in the Revenue Department, the reasons usually given being inability to live on their present pay, and the extremely poor prospects of promotion. This shows how unpopular Educational Service is, and, unless

something can be done to improve the pay and prospects of teachers, there can be no great advance in primary education.”

335. BENGAL.—The monthly pay of teachers in schools under public management (which are very few) is stated to range between Rs. 4 and Rs. 18, and in schools under private management (which are very numerous) between Rs. 3 and Rs. 50. Figures such as this, however, convey no information at all. If the whole of the recorded expenditure of the Bengal schools were equally divided among the teachers in the form of salary, nothing being reserved for any purpose of school maintenance, the average pay of a school-master would be Rs. 6 a month.

The number of primary school teachers employed at the beginning of the year 1906 was 35,015. They were qualified as follows :—

4,550	had passed the	Middle vernacular standard.
4,367	”	”
10,912	”	Upper primary standard.
2,065	”	Lower primary standard.
13,121	”	some other standard.
	”	no standard at all.

336. The following quotation from a letter describing the conditions of affairs in EASTERN BENGAL is also applicable to Bengal :—

“The village guru settles in any place where he thinks he can eke out a livelihood; he is lent, or obtains as best he can, a hut, a verandah, or the shade of a tree; he collects around him a few children, whose parents pay him a small money-fee and occasional presents in kind; and he finally receives a dole, which may amount to only one or two rupees a month, from the public funds, granted to him in the hope that he will improve his methods and follow a course of instruction laid down by the Education Department. His average earnings are such as would hardly attract a coolie, and cannot be termed a ‘living wage.’”

337. UNITED PROVINCES.—“But though so much remains to be done, it is certain that a great improvement has taken place in primary education, not only in quantity but quality. The special grants made by the Government of India have made it possible to raise the pay of the teachers; and this while it has according to one inspector ‘put heart and life in the work of the village schoolmaster,’ has also been the means of attracting a better class of men to the profession. The minimum salary—not always granted, as previous quotations from reports have shown—is now fixed by Government at Rs. 8 per mensem, and a provident fund has been established for teachers drawing Rs. 10 and upwards. The connection between better pay and better work is illustrated by the report of the Chairman of Bijnor who writes: ‘There has been considerable improvement in the character of the instruction. A very real advance has been made by the increase in the pay of the teachers. No village teacher now gets less than Rs. 10.’”

338. BURMA.—About three-eighths of the vernacular primary schools are conducted by monks, who receive no salary whatever, but are supported by the offerings of the public.

339. CENTRAL PROVINCES.—“The demand for qualified men very considerably exceeds the supply. The salary of certificated masters has twice been raised by Government, and now stands at a minimum, not high, certainly, but still a fixed minimum of Rs. 10. But a large number of unqualified men remain, and it is a serious matter when a report comes, from a thriving district like Wardha, that ‘the average pay of masters is Rs. 8,’ and ‘there are still 91 monitors mostly on Rs. 4,’ and that a large proportion of children leaving school are from the lower classes where they cannot get proper instruction.

“While the quinquennium shows a decided improvement in the character of our masters, one has to remember that as men are better educated they naturally feel that they deserve higher salaries, and this feeling is accentuated in the Central Provinces by the rapidly increasing remuneration of unskilled labour of all kinds. This makes it every day more difficult to keep our village teachers satisfied, whilst naturally every increase of their salaries cripples those resources which we wish to devote to the expansion of education.”

340. In most provinces the teachers have the opportunity of adding to their income by undertaking postal work, and the general opinion is that the arrangement is mutually convenient and interferes less than might be expected with the performance of the duties of teaching. The number of post offices, however, is not sufficient to make any serious addition to the means of support of the schools. In Eastern Bengal and Assam, for instance, where there are 17,500 primary schools for boys, the number of post offices attached to schools is 472. The remuneration for the work in these provinces ranges from Rs. 3 to Rs. 10 a month.

Curricula.

341. The changes which have been made during the period under review in the curricula of primary schools are as follows:—

Old.	New.
MADRAS—	
<i>Compulsory—</i>	<i>Compulsory—</i>
(1) Reading.	(1) Vernacular—
(2) Writing.	(a) Reading.
(3) Arithmetic.	(b) Composition.
<i>Optional—</i>	(c) Writing and spelling.
(1) Kindergarten occupations.	(2) Space & number work, <i>vis.</i> , arithmetic, simple geometry and simple mensuration.
(2) Object lessons.	(3) General knowledge: this includes a variety of topics such as the plants and animals of the locality, its climate, chief products of local agriculture or industry, work of the local officials, simple rules of health, knowledge of the local Survey map, calculation of Kist.
(3) Second language.	(4) Drawing.
(4) Drawing.	(5) Recitation or singing.
(5) Needle work (for girls).	(6) Physical exercises.
(6) Geography.	<i>Optional—</i>
(7) Singing.	(1) English.
(8) Hygiene and elementary sanitary science.	(2) Geography.
(9) History of India.	(3) Civics and Indian history.
(10) Agriculture.	(4) Nature study & elementary science.
(11) Mensuration.	
BOMBAY	 NO CHANGE.
BENGAL	 NO CHANGE.
UNITED PROVINCES	 NO CHANGE.
PUNJAB (1) town schools	 NO CHANGE.
(2) Rural schools—	
Reading.	(1) Urdu, Hindi or Punjabi.
Writing.	(2) Arithmetic (including native arithmetic).
Arithmetic.	(3) Geography.
	(4) Mensuration.
	(5) Object lessons.
	(6) Drill.
BURMA—	
<i>Compulsory—</i>	<i>Compulsory—</i>
(a) Vernacular.	(a) Vernacular.
(b) Arithmetic.	(b) Arithmetic.
(c) Kindergarten (Infant standard only).	(c) Kindergarten and object lessons. (Infant standards A and B).
(d) Object lessons (Infant, I and II only).	(d) Elementary science and object lessons or geography and Pali. (Monastic schools.)
(e) Geography or elementary science (from III upwards).	(e) Elementary science and object lessons and geography. (Lay schools.)
<i>Optional—</i>	<i>Optional—</i>
(a) Pali (for standard II).	(a) Pali (from standard II).
Euclid (from standard V).	(b) Sgau-Karen (from standard I).
Above the primary stage. { Algebra (from standard V).	(c) Manual training (do).
History of Burma (V & VI).	(d) Needle work (girls) (do).
History of India (from V).	(e) Drawing.
History of England (from V).	(f) Gymnastics (boys).
(b) Hygiene & physiology (boys) (from 2nd standard).	(g) Calisthenics (girls).
(c) Hygiene & domestic economy (girls) (from 2nd standard).	
(d) Needle work (girls) (from 1st standard).	
(e) Elementary science.	
(f) Sgau-Karen (from 1st standard).	
(g) Drawing.	
(h) Gymnastics (boys).	
(i) Calisthenics (girls).	

EASTERN BENGAL NO CHANGE.

Old.	New.
ASSAM—	
<i>Compulsory—</i>	<i>Compulsory—</i>
(1) (a) Language.	(1) (a) Reading & explanations.
(b) Grammar and composition.	(b) Writing.
(2) Geography (general knowledge of the four quarters of the globe).	(c) Grammar.
(3) History (Bengal or Assam).	(2) Geography (general knowledge of the four quarters of the globe, with a few lessons on physical geography).
(4) Arithmetic.	(3) History (Assam).
(a) Zamindari & Mahajani accounts.	(4) Arithmetic.
(b) Mental arithmetic.	(5) Mensuration.
(5) Euclid, Book I (1-16), with mensuration.	(6) Euclid, Book I (1-16).
(6) Sanitary Primer.	(7) Desi Kasrat.
	<i>Optional—</i>
	(1) English (in the top class).
	Urban Schools.
CENTRAL PROVINCES—	
<i>Compulsory—</i>	<i>Compulsory—</i>
(1) Reading.	(1) Reading
(2) Writing.	(2) Writing.
(3) Arithmetic.	(3) Arithmetic.
(4) Geography (III and IV).	(4) Geography (III and IV).
(5) Object lessons.	(5) Agriculture or history.
(6) Agriculture (class IV).	(6) Drawing (geometrical, forms I and II).
(7) Drill and Desi Kasrat.	(7) Drill and Desi Kasrat.
<i>Optional—</i>	<i>Optional—</i>
(1) Kindergarten and manual training.	(1) Drawing (free-hand).
(2) Drawing.	(2) Kindergarten & manual training.
(3) Grammar.	(3) Object lessons.
(4) History.	(4) Grammar.
(5) Mercantile arithmetic.	(5) History (compulsory when agriculture is not taken).

Not more than two optional subjects to be taken.

Rural Schools.

<i>Compulsory—</i>	<i>Compulsory—</i>
(1) Reading.	(1) Reading.
(2) Writing and spelling.	(2) Writing and spelling.
(3) Arithmetic.	(3) Arithmetic.
(4) Geography (III and IV).	(4) Geography (III and IV).
(5) Kindergarten drawing (classes I & II).	(5) Agriculture (compulsory for half-timers).
(6) Drill and Desi Kasrat.	(6) History (compulsory for full-timers who do not take up agriculture).
<i>Optional—</i>	(7) Drawing (geometrical).
(1) Drawing (III and IV).	(8) Drill and Desi Kasrat.
(2) Grammar (III and IV).	
(3) Agriculture (III and IV).	<i>Optional—</i>
(4) History (III and IV).	(1) History
	(2) Drawing (free-hand).
	(3) Grammar.

N. B.—Half-timers can take no optional subjects. Full-timers may not take up more than one optional subject.

342. An attempt is made in the following table to show of what subjects the curriculum of primary schools is composed in each province. The drawing up of this table is, however, not unattended with difficulties. Some provinces, for instance, enter Kindergarten occupations as a subject; others, without entering them as a subject for separate lessons, prescribe the use of Kindergarten methods; others, again, refrain from prescribing the use of

Kindergarten methods, but expect those teachers who have been trained to use them successfully to do so. A similar difficulty arises with respect to object lessons; and there is also a difference of nomenclature in describing them which indicates a corresponding difference of opinion as to their aim and the methods proper for them. Next, it is sometimes not easy to give an answer, yes or no, to the question whether a subject is included in the curriculum. If, for instance, the rules prescribe that Science shall be taught and taught by means of object lessons, Science naturally appears in the table as a subject of instruction in such schools. But in another province, where Science does not appear in the curriculum, almost exactly the same instruction in Science may be given under the rules which require that object lessons

Reading
Writing
Arithmetic } Universally taught.

SUBJECTS.	Madras.	Bombay.	Bengal and Eastern Bengal.	† United Provinces.
Kindergarten .	Kindergarten methods to be used in all subjects.	Compulsory (Infants and Standard I).	Compulsory (Infants Classes).	Not prescribed
Drawing . . .	Compulsory	Compulsory	Compulsory	Not prescribed
* Object lessons .	Optional	Compulsory	Compulsory	Not prescribed
Geography . . .	Optional	Compulsory	Compulsory	Compulsory
History	Optional	Compulsory	Compulsory	Not taught separately.
Singing and recitation.	Compulsory	Compulsory (Infants and Standard I).	Not taught	Not taught
Hygiene	Optional	Compulsory	Compulsory	Not taught separately.
Agriculture . . .	Optional	Included in object lessons.	Included in Readers; elective, alternative to Physics and Chemistry.	Compulsory
Science	Optional	Not taught, except in object lessons.	Compulsory	Not taught separately.
Second language .	English, Optional	Not taught	Not taught	Not taught
Mensuration . .	Compulsory	Optional	Compulsory	Not taught
Physical exercises .	Compulsory	Compulsory	Compulsory	Compulsory
Manual work for older scholars (distinct from Kindergarten occupations for infants).	Recommended as an adjunct to all subjects.	Optional, as alternative to object lessons in Science.	Optional	Not taught

* In Madras the curriculum includes, as an optional subject: Nature study and elementary science which topics arising in the reading and geography lessons. In Eastern Bengal and Assam lessons on agriculture and no other provision for object lessons.

† In the United Provinces, Kindergarten methods, drawing and object lessons are not prescribed; but they not taught as separate subjects, but the readers contain lessons upon them.

‡ Persian is not taught in rural schools. Boys going to middle vernacular schools from rural schools may

shall form part of the course of study. Lastly, if there are lessons about a certain topic scattered through the reading book, is it any the less a subject of instruction than if those lessons were stitched together in one section or in one separate book? This point may be illustrated by the omission of moral instruction from the table showing the subjects taught. Moral instruction is not mentioned in any of the codes as a subject prescribed for teaching. But the text books in use nearly always begin with a reading lesson in praise of God, and continue with one on duty to parents; and lessons on other virtues such as temperance, kindness to animals, cleanliness, obedience, are scattered through the text books. Subject to these preliminary remarks the table stands thus:—

Punjab.	Burma.	Assam.	C. P. & Berar.
Not prescribed	Compulsory	Not taught	Optional.
Not taught	Optional	Not taught	Compulsory.
Compulsory	Compulsory	Compulsory	{ Urban—Optional. Rural—Not taught.
Compulsory	{ Lay schools—Compulsory. Monastic schools—Optional.	Compulsory	Compulsory.
Not taught	Not taught	Compulsory	Alternative to agriculture.
Not taught	Not taught	Not taught	Not taught.
Compulsory in 5th standard.	Included in Science	Not taught	Not taught.
Included in object lessons and special books.	Included in Science Reader. Compulsory.	Included in the Reader. Compulsory.	Urban—alternative to History. Rural—Compulsory.
Not taught, except in object lessons.	Lay schools—Compulsory. Monastic schools—Optional.	Some lessons in Readers, illustrated by object lessons.	Not taught, except in object lessons which are optional.
Persian†, in town Schools only.	Pali, elective	Not taught	Not taught.
Compulsory	Not taught	Compulsory with geometry in upper classes.	Not taught.
Compulsory	Optional	Compulsory	Compulsory.
Not taught	Optional	Not taught	{ Urban—Optional. Rural—Not taught.

must be taught by study of the actual object. Object lessons are also recommended for use in illustration of scientific subjects which appear in reading books are to be illustrated by object lessons, but the curriculum makes

are being steadily introduced, especially where trained teachers are employed. History, hygiene and science are take agriculture, which is alternative to Persian in those schools.

The table given on pages 116 and 117 has reference to the curricula of lower primary or upper primary schools, and not to the primary departments of secondary schools, nor to what are known as the middle standards of middle vernacular schools.

Changes in the Curriculum.

343. The changes which are being introduced into the curriculum of primary schools, and the ideas underlying those changes, are of great interest and importance.

The indigenous schools from which our primary school system has grown taught reading, writing and arithmetic. The vernacular schools often taught reading and writing without books; the Persian schools used books, which were for the most part either poetical works, or guides to polite or official letter writing. One of the first duties of the Education Department at its formation in each province was to introduce reading books in those schools in which there were none, and to improve those which were already in use. This was the first step taken in broadening the curriculum, and indeed it remains the most important step which has been taken in that direction up to the present time; for the text-books contain selected readings in poetry, history, geography, fable and myth, descriptions of plants, animals, trades and industries, and the elements of natural and physical science. These present ideas and information which, if we liked to call them so, are the rudiments of many separate branches of study; and considering the informal methods by which such subjects could be taught at a primary school, it amounts to something less than a difference in principle whether the lessons upon each of them are gathered into a book by themselves, and a period for their study assigned in the time table, or whether they are taken as they come in the reading book. The improvement of the reading books used in primary schools still continues, and the progress which has been made in this respect during the quinquennium is separately noticed in this chapter. The stage next reached is that those who are responsible for primary education are not satisfied with the conception of primary schools as institutions of which the chief object is to impart to children the ability to read, write and do sums; but lay down a wider definition of their purpose, and regard school lessons and school discipline as means to this end. "The purpose of the public elementary school," according to the current edition of the regulations of the English Education Department, "is to form and strengthen the character and to develop the intelligence of the children entrusted to it, and to make the best use of the school years available, in assisting both girls and boys, according to their different needs, to fit themselves, practically as well as intellectually, for the work of life." The document quoted then proceeds to enumerate, among the aims of the school, to train the children carefully in habits of observation and clear reasoning, so that they may gain an intelligent acquaintance with some of the facts and laws of nature, to arouse in them a living interest in the ideals and achievements of mankind, to give them some power over language as an instrument of thought and expression, to develop in them a taste for good reading, to encourage their natural activities of hand and eye by suitable forms of practical work and manual instruction, to train them in appropriate physical exercises, to encourage them in organized games, to instruct them in the simpler laws of health, to discover and advance individual children of exceptional capacity, to lay the foundations of good conduct, and to enable the children not merely to reach their full development as individuals, but also to become upright and useful members of the community in which they live.

344. The laying down of principles such as these involves both a wider curriculum than that of schools governed by earlier conceptions, and also great changes in the methods of teaching the old subjects. The list of subjects prescribed for elementary schools in England is, for infants, physical exercises in the form of games involving free movements, singing and breathing exercises, suitable free occupations, conversation with the teacher and the telling of stories; supplemented for older infants by short lessons in language, observation, manual occupation, drawing, reading and writing, number, singing, and

sewing and knitting. For older scholars the teaching arranges itself under ten subject headings, *viz.*, (1) English language, (2) hand-writing, (3) arithmetic, (4) drawing, (5) observation lessons and nature study, (6) geography, (7) history, (8) music, (9) hygiene and physical training, (10) (for girls only) domestic subjects; and it is added that moral instruction should form an important part of the curriculum and may be either incidental or systematic. Provision is also made for the teaching of handicraft or gardening for older boys.

345. Some such definition as this of the purpose of a school would probably be accepted by any of the Indian Education departments as a description of what they are aiming at, and of what underlies contemporary changes both in the curricula of Indian primary schools and in the methods which teachers are exhorted to follow. But the extent to which such ideals can be translated into practice depends upon the quality of the teachers available; and the provinces differ from one another chiefly in the degree to which they choose the risks of failure in aims which may prove too high for the ability of the performers. Physical exercises are now almost universal, and during the period under review a system of such exercises based on indigenous practice, and known as *Desi Kasrat*, has spread considerably. The United Provinces, Punjab and Eastern Bengal and Assam have preferred at present not to prescribe, as all the other provinces have done, the use of Kindergarten methods or occupations, or lessons in drawing. But in the United Provinces Kindergarten methods are being steadily introduced, wherever the teachers are competent, and the same remark applies to lessons in drawing. Object lessons are prescribed everywhere except in the United Provinces; but here too they are widely used, special attention being paid to this form of instruction in the training schools. In the Punjab also Kindergarten methods, though not prescribed, are used by competent teachers. Manual occupations for older boys are nowhere part of the prescribed curriculum, and have at present but little popularity as optional additions to it. Singing is often taught to younger children, but appears only in Madras as a recognised subject of instruction for older children. It is, however, taught in the training schools of Bombay and the Punjab.

346. The change which primary schools are undergoing, both in respect of their curriculum and also in respect of the aims of the teaching, may be illustrated from the three provinces of Bombay, Bengal and Madras. Bombay during the period under review has made no change in the list of subjects included in the curriculum, having already previously extended it by the introduction of Kindergarten occupations, drawing, object lessons, geography, history, hygiene and physical exercises, with manual work as an optional subject; but the schedules of instruction in the several subjects have been revised during the period under review, and the object of this revision was to make the instruction brighter and more realistic. Bengal has made no change in the curriculum during the quinquennium, having already previously introduced an ambitious but one sided system of instruction intended to "train and not teach . . . to develop intelligence and initiative . . . to lead children to see that eyes, ears and hands all help in the acquiring of knowledge." The result is recorded as a great failure, and the amendment of the system has been under discussion during the whole period. Madras has during the period under review revised its curriculum and published a scheme of studies, in which there is a change both in the subjects taught and in methods recommended for teaching them. Thus these provinces are in three different stages. Bombay has established its scheme and sees no reason to go back upon its steps, Bengal admits failure, Madras has recently entered upon its attempt. It may therefore be of interest to describe in some detail the measure of success achieved in Bombay, the reasons ascribed for the failure in Bengal, and the nature of the changes promulgated in Madras.

347. BOMBAY :—The position may be clearly seen in the following quotations from the Director's report :—

"The general aim of the revised system was to develop children's power of observing and reasoning, instead of merely forcing their memories. What measure of success has attended it? Mr. Prior says: 'the realisation of the ideal is being very slowly brought about in the best schools. For instance the "short stories," which are supposed

to develop the child's nascent power of composition, are very generally learnt by heart: the "object lessons," which are intended to cultivate the powers of observation, are often violently crammed in the month or two preceding inspection, and sometimes without the presence of the object at all. It is too early to criticise the introduction of the agricultural readers which, I fear, in the hands of the older teachers, who have had no practical training in the subject, will also develop cram of the most indigestible kind. On the other hand some inspecting officers in their enthusiasm for the "new" subjects are disposed to ignore genuine good work if produced on somewhat old fashioned lines. The Inspectors in Sind and the Southern Division give the brighter side of the picture. Mr. Wren says:—"One convincing proof of the reality of the local board master's appreciation of his professional duty exists in the excellence of the object-lessons, museums, and collections of specimens for illustration in teaching. It is exceedingly rare now-a-days to find in these schools samples of the class of teachers whose object-lessons consist of repetition of salient facts concerning the object, or the writing down of a brief description of it to be learnt by heart. In the very great majority of cases this most valuable of all lessons is what it should be, an exercise first of the power of observation, and then of that of deduction, and is doing much in the hands of these well-trained men to counteract the essentially Indian tendency to make education a thing, not of the reasoning powers, but of the memory alone, and a dogged assimilation of utterly useless facts."

"Mr. Karandikar says:—"The teachers have now a fair grasp of the spirit of the new method, and the children have under their guidance become more observant and accurate. Training of the senses and cultivation of the reasoning faculties have been slowly superseding the cultivation of memory and cram. At Vergurla lively and interesting object-lessons were given in my presence in Standards IV and V, and I was very much gratified to see a teacher explain the construction of a wind instrument of his own making in a simple and systematic way. Mr. Pathan tells me how a teacher under instruction from him was able to make out an interesting lesson in history from the current Indian coins." But I think that Mr. Lory writes most instructively on the matter. "The Indian child in his early years is wonderfully receptive of new ideas, and, were it possible to fully put in practice the methods laid down, there is reason to believe that the fulfilment of their purpose might be approached, if not attained. It is, however, the teachers, the machinery by means of which the work is carried out, that present the chief obstacle to their fulfilment. The defects commonly exhibited by the teachers can be most concisely expressed by saying that they mistake the spirit for the letter, the means for the end. To the average teacher Kindergarten is not a system of teaching, but a subject of knowledge. When asked what his children know, he will reply "reading, writing, arithmetic, and Kindergarten," or, rather, he will place Kindergarten first as the subject to which he thinks that most attention is to be paid. It is thus not surprising that the new methods were at first viewed with suspicion by the people, and the complaint has not been uncommon that the children are being taught to become potters and basket-makers instead of to read and write. Such a complaint has been in part justified. The teachers regarded Kindergarten as a paying subject, and to a certain extent neglected the old subjects. The inspecting staff were no doubt partly responsible for this tendency; some of the deputy inspectors, and many of the assistant deputy inspectors, were led away by the prominence attached to Kindergarten in the new standards, and themselves fell into the error of regarding as a subject of knowledge that which was only intended to be a method. But this tendency is now far less in evidence, both with the teachers and the inspecting staff. It has been continually explained to the latter that the old subjects are not to be neglected in favour of what they choose to regard as new subjects, and that the latter are a means and not an end. By degrees they have come to acquire a more intelligent perception of the object of the new standards and of the spirit underlying them. I would not have it thought that the tendency to which I have referred was universal, or that the work of the schools has been altogether misdirected; far from it, from the very introduction of the new standards, there was a large proportion of masters who fully grasped and appreciated their meaning and spirit, and who proceeded to put them into practice in a singularly intelligent manner. They may have devoted unnecessary prominence to Kindergarten occupations, the novelty of which was bound to win for them special attention. But they also made attempts to carry the spirit of the new methods into all their work, and in this many of them succeeded to a remarkable degree. I have seen teachers, particularly in the schools of the Ahmedabad District, which in point of efficiency are superior to those of any other district in this Division, whose teaching of all subjects was marked by supreme intelligence, and who showed by their methods that they really understood that the object of teaching is to bring out the latent knowledge in the children's mind, rather than to force knowledge into them from without."

"That goes to the root of the matter. If the new system has failed at all, it is because the teachers have mistaken a method for a subject of instruction. It is impossible to inspire men with a new spirit and new principles all at once: and reasonable men will not expect to see any immediate or perfect change for the better in the process of transition from old to new. There is no doubt that the new methods are unpopular in out of the way districts. People complain that the school room is being turned into a play

room. Kindergarten proper, as distinguished from object lessons, is confined to the Infant class and the First Standard, and there have been instances of persons engaging private teachers for their children, or even establishing a school for them, rather than send them to the Board School for the stage of instruction during which the Kindergarten method is adopted. Inspectors and masters may do much to change their attitude of distrust and dislike, by explaining to them the principle of the method, and inducing them patiently to watch its results. A parent told me the other day that he had observed that his own child had learnt under the Kindergarten system at least as much as children learnt by the old method, and had learnt it more pleasantly and with less strain."

348. BENGAL.—The position is thus analysed in Mr. Hornell's report—

"More than a quinquennium has passed since the publication of the now famous Resolution of the 1st January 1901, which was to revolutionise Indian school teaching by the introduction of a system under which 'children are trained and not taught,' that is to say, trained 'to do and learn things of themselves'; encouraged to feel that 'each one possesses a certain amount of innate intelligence and initiative, the gradual development of which depends on the child himself and his personal activity'; and 'led to see that eyes, ears, and hands all help in the acquiring of knowledge.' Under this system school work was to become for children 'a developed part of their everyday life'; while habits of accuracy and obedience were to be 'inculcated by the process of stick-laying and simple physical exercises and action songs.' The difficulties of realising these high ideas were recognised, but the excellence of the system was to be a talisman powerful enough to inspire in time with the enthusiasm of Froebel even the dullest *guru*, and even during the period of transmutation a solid gain would be realised, for 'bad teaching with a good educational system will produce better results than had teaching with a bad and unsound system.' Nothing, we are told in the Resolution, could be worse than the system which then prevailed, for it was 'an entirely mechanical system of training the memory, whereby all the other faculties are dulled at the expense of monotonous parrot-like exercises.'"

"In paragraph 502 of the Fourth Quinquennial Review, the lower primary and upper primary courses under the old and new scheme are compared in detail, and it would therefore be superfluous to repeat the comparison here. Suffice it to say that in the Infant class, which was to be divided into three sections, the course of each of which was to extend over a year, the children were under the new system to be taught (a) 'Kindergarten and object lessons for training by observation or impressions obtained through senses'; (b) simple lessons about the human body and about animals; (c) lessons on number, the writing of numerals, notation and simple calculations; (d) Kindergarten occupations, such as stick-laying, seed-placing, etc.; (e) drawing and tracing; (f) the learning of the alphabet and the reading of simple printed and written language; (g) the writing of letters and simple words; (h) the learning by heart and the recitation of poetry. In the lower primary course the class reading book was abolished, and a science primer was introduced, which was to consist of a certain number of pages on (1) botany, (2) natural history, (3) agriculture, (4) physics, (5) chemistry, (6) hygiene, and (7) domestic economy. The agricultural section was to be read by boys in country schools instead of the sections on physics and chemistry. The hygiene portion was to be read by boys only, and the domestic economy portion by girls only. Object lessons on the sky and air were added; drawing was included, as also manual training, by which term the manipulation of leaves and the cutting of paper was dignified, but this pastime was left optional. The upper primary course was enlarged by the addition of a historical reader, a geographical reader and a literature book, practical geometry and mensuration being also added, and the scope of the object lessons on natural objects being enlarged. The science primer for these standards was to comprise all the subjects specified above as being included in the lower primary science reader, their scope being proportionately widened."

"Now the motives by which the framers of this new system were actuated were to a certain extent unassailable. They saw a system of elementary instruction which consisted wholly of making children commit to memory certain statements either taken from books or verbally imparted, and of mechanically instructing them in certain processes, such as writing, counting and calculating. They felt that, if elementary education in India was to do anything to revivify the masses, modern developments of infant teaching could not be wholly ignored, and that anything was better than allowing things to go on in the same old groove. The task of reform which they set themselves was, moreover, surrounded by colossal difficulties, as indeed it is now. In the primary schools in which the new system was to work there were 50,000 teachers (this number has been reduced to 39,326 as a result of the partition) whose qualifications the late Director in writing to Government in 1902 described by saying that it was almost impossible to convey to the ordinary educated Englishman or European even an idea of them. To say that the majority of these men were able to read and write and to do a little arithmetic was to rehearse the sum total of their accomplishments. How could these men be got to assimilate the principles of the Kindergarten system, and to learn to teach their pupils about things instead of confining them to a repetition of words? How indeed? There seemed to be a gulf which no earthly ingenuity could bridge, and accordingly a compromise was arrived at. The compromise was the science primer. If it was too much to

expect that children should be taught to observe the natural objects of the world around them, they might at least read about them, and the teachers could be instructed to base their teaching on the book and not confine it to it.

"Accordingly books containing the congeries of information which is outlined above were put together, and the system was quickly got into working order. Like many compromises, this arrangement has failed, and the main, if not the only, result of the change introduced has been that instead of committing the old reading book to heart the children now learn by heart and repeat by rote the new science primer. It would be superfluous to point out that the new system as it has actually been worked in the schools of Bengal is about as far removed from the principles of Froebel, or indeed those of any modern system of teaching, as was the system which it supplanted. In paragraph 110 of the last annual report on public instruction in Bengal it was pointed out that children of the age for which the lower primary course is intended 'are incapable of learning science, for generalising from facts belongs to a later stage of mental discipline, and instruction with this aim can only be given, if the power of intelligent and accurate observation has been first developed.' It is not quite clear whether the aim of the science primers was intended to be the development of the power of observation, or the imparting of scientific information. If it was the former, then, in the words of the Government Resolution which recently published the revised syllabus for standards I and II, it is difficult to see how the faculty of observation can be developed by reading scientific treatises. If the latter was the aim of those on whose recommendation science primers were introduced, then the success of their experiment can best be gauged from the following remarks made by Mr. Kuchler, in his review of the working of the new system which is included in his quinquennial report of the Bhagalpur Division:—

"The second defect (of the vernacular system) is the undue prominence given to the teaching of science. Less objection could have been taken to this feature of the scheme, if adequate provision had at the same time been made for the subject being efficiently taught, but a system which contemplated the teaching of science by means of so-called scientific readers—mere compilations in the various vernaculars, placed in the hands of ill-qualified teachers—was obviously foredoomed to failure."

"Moreover, the vernacular system aimed at a reform, quite other than that of the principles of the Kindergarten, to elementary teaching, namely, that every Indian child should under it have a chance of acquiring a proper knowledge of his own vernacular. This excellent object has also been frustrated by the introduction of the science primer, which it must be remembered is in standards I and II the only book which is read. To introduce a child to a knowledge of its own language through the medium of a science primer would probably be an unwise experiment, even if one could be sure of producing a primer which from the point of view of language and style could be considered a good book for beginners. But the science primers which have been produced have not been good, either from the point of view of science or language, and indeed as regards the latter it is very doubtful whether, Indian vernaculars being at their present stage of development, a vernacular elementary science primer could be produced which from the point of view of language and style could be considered a good book. The matter to be conveyed is largely foreign to the spirit of the language, and the scientific terms used have to be either transliterations or far-fetched reproductions."

"The working of the present arrangement is described by Mr. Kuchler as follows:—

"This subject (science) not only occupies a quite disproportionate place in the syllabus, but children are actually expected to make their first acquaintance with their own vernacular through the medium of science readers, these being the books prescribed for lessons in reading up to the end of standard II. There is a certain amount of ingenuity shown in this attempt to kill two birds with one stone, but the result is that the mark is missed in both cases. * * * Under no circumstances is it desirable to teach a child its own tongue through the medium of compilations on elementary science, but the objections to this method are doubly strong, when as in the present instance the diction of these publications is open to serious objection."

349. As a consequence of this failure, however, it is not intended to revert to the ancient curriculum and the ancient methods of the *guru*. During the whole of the period under review the subject has been discussed by one committee after another, and the decision, which was not come to until after the close of the quinquennium, was to retrace the step by which science readers were made the sole pabulum of children in the lower standards, and still to insist upon the wider purpose of the primary school in training character and habits of observation and power of expression; but to avoid the cause of error inherent in the syllabus of 1901, *viz.*, that "it led reading about objects to be substituted for the study of the objects themselves, and ignored the fact that the faculty of observation is not developed by reading scientific treatises." The same aims as previously are to be placed before the *gurus*, but the books are to be taken from their hands, and they are to be called upon to exercise their mother wit and teaching capacity in carrying out the purpose prescribed.

350. MADRAS.—The revision of studies in the Madras schools was the outcome of a circular issued by the Director in 1905, urging that an attempt should be made to institute a type of elementary school more directly adapted to the needs of the bulk of the population than the majority of the existing primary schools. The objects proposed in the circular may be shown from the following extract:—

"* * * The pupils must be taught to read and to speak correctly. Conversation should be freely encouraged, but it should be for the most part conversation about the surrounding objects, or objects with which the children are familiar. If they are able to describe accurately any common object which is put before them, they will have acquired greater powers of observation than most of them possess at present."

"They must also learn to write and to make all the calculations likely to be useful to them in their ordinary life. The methods of calculation ordinarily used in the village should be first acquired, and then any others which seem to be for practical purposes an improvement upon these. Each pupil should make his own measure from a piece of stick or bamboo, and learn how to use it."

"Some form of drill, however simple it may be, invented and elaborated by the teachers if possible, should always be practised, but vernacular words of command should always be used, and all expressions which have no meaning to the children should be avoided."

"Wherever possible, there should be a plot of ground where the children themselves could cultivate various plants, not for the sake of ornament but in order that they may observe their form and growth and such-like matters."

"Whether any more artistic drawing is attempted or not, all the children should learn to draw or make diagrams of simple objects from the object itself; drawing some objects to scale should be practised, such as diagrams of the school walls or floor, or to show the direction of the roads in the village or a part of it, or the shape of a field; but in all cases from actual observation."

"They should learn simple facts about the sun, moon and stars, day and night, the seasons, eclipses, the weather, the winds, rainfall, etc. To illustrate the measurement of time, a 'minute glass' or 'hour glass' might be made from a chatty with a hole in the bottom, after first finding out by comparison with a clock how nearly full it should be with water or sand in order to empty itself in a given time; a pendulum may be constructed with a stone and piece of string, while the pupils actually find by comparison with a clock how long the string should be to swing sixty times in a minute. Hundreds of such methods of developing the intelligence of the children may be suggested to the teacher; or, better still, he may be encouraged to invent them for himself, and credit given for any such originality."

"Something should be taught in the nature of what is frequently called civics. The arrangements of the village should be discussed, the duties of the village officers, the arrangements at the post office, why stamps are used, information about post marks, the way to address letters, how to weigh them; the older pupils may easily make a pair of scales with bits of bamboo, some thread and paper pans. A proper pair of scales with weights or coins may be borrowed, and any boy make himself a set of weights with lumps of clay or in any other available manner. Such a matter is mentioned in this connection to suggest that the civics or any other subject may be made practical and need not be treated as a thing apart, with regard to which it is only necessary to learn and remember facts. The telegraph office, the salt department, the abkari department, the railway and the railway station with its time-tables and ticket office, all lend themselves to practical lessons."

"Some of these matters may form part of a geography lesson."

"The Director has himself observed, and most inspecting officers will doubtless bear him out in saying, that the children appear more stupid inside the school than outside. The reason is probably not far to seek. The state of things is doubtless due to an almost total dislocation between the school curriculum and life outside, nay even between one subject of that curriculum and another. The children enter school and start, say, arithmetic, calculate perhaps the amount of wall paper required for a room of a certain size, whereas they have never seen a papered room; the time comes for another subject, the geography books are opened, so much geography is learnt; then comes reading, and the children are taught that this word equals that word, without having much or any conception of the meaning of either. The children then go out to play, and see and do hundreds of things they should have learnt about, in many cases have learnt about, in the school, but never think of connecting what they have learnt with what they observe. A child may know plenty of the plants it sees, know that they are used in some particular way in the house, it may know that it is likely to rain soon, it may know that the wheels of the passing bandy want greasing and how to do it, but these things have never been spoken about in the school, which is thought of only as the place to learn so much reading, writing or arithmetic against the day when the Inspector comes round. Any teacher who has tried to co-ordinate life inside the school with life outside has done much and deserves credit therefor. The results grant system, with its rigid examinations, prevented, or at

any rate put no premium upon, such efforts. This state of things should now come to an end."

351. The scheme of studies in which it is proposed to give effect to the ideals here expressed has been summarised in paragraph 341 above; and the instructions which go with the scheme of studies are designed at every point to discourage mechanical teaching, to connect the lessons with familiar objects, to arouse interest, to encourage accurate observation, intelligent thinking and natural expression. The following remarks by the Director show how the outline is filled in:—

"The scheme of studies for these schools comprises as compulsory subjects (1) the vernacular, (2) space and number work, (3) general knowledge, (4) drawing, (5) recitation with *rags* or singing, and (6) physical exercises.

"The vernacular course comprises practice in speaking correctly, reading (print and manuscript), composition (oral and written), writing and spelling. Grammar has been omitted as a separate subject; it will be taught not as an end in itself, but as subsidiary to the main aim of the vernacular instruction, i.e., ability to write and speak correctly, plainly and fluently.

"Space and number work includes arithmetic up to simple interest, elementary geometrical notions practically demonstrated, and a little mensuration. Indigenous methods of calculation and accounts are allowed, and even encouraged to be taught.

"Under general knowledge is grouped a variety of topics which connect the school curriculum with life outside, such, for example, as the knowledge of the plants, animals of the locality, its climate, chief products employed in local agriculture or industry, work of the local officials, the simple rules of health, knowledge of the local survey map, how to calculate kist, etc. These topics are not dealt with as formal subjects, but are taught in correlation with other parts of the course.

"Drawing is insisted upon as a means of cultivating in children a faculty of observing, comparing, recollecting and thinking about all sorts of objects, with a view to represent them in an intelligent and careful manner.

"Physical exercises are free exercises, and include Indian gymnastics and Indian games according to the practice of the locality.

"In addition to the above subjects the following may be taught:—geography, civics and Indian history, nature study and elementary science, and a second language. Geography includes a detailed study of India and the British Isles, a general view of the British Empire (with a detailed study of one colony), and a very general knowledge of the physical features and configuration of the great land masses of the world, and of the names and situations of the most important countries.

"The course in civics is designed to give the pupil a broad view of the Government of the country, proceeding from known details to larger generalisations, and to instruct him in the duties of a citizen towards the community and towards the Government.

"Nature study and elementary science mean courses of lessons relating to plant and animal life, the surface of the land, and the simplest physical and chemical phenomena; the aim is to lead the children to find out all they can about familiar and natural phenomena.

"The second language may be English, Hindustani, or any South Indian vernacular. In this Presidency, especially in large towns, a knowledge of English is required in several callings of life for which the secondary course would not be a suitable preparation, and its inclusion as an optional subject in the complete elementary school course is a necessity.

"In addition to these optional subjects a school may take up, with the Inspector's approval, other subjects of a more technical nature such, for instance, as agriculture, hygiene, practical geometry, shorthand, etc."

352. The Director writes thus of the reception which these changes have hitherto met:—

"The scheme of studies published by the department, besides defining the subjects of study in elementary schools, indicates the objects which the teachers should set before themselves, and suggests in broad outline methods of treatment. In particular, the adoption of the kindergarten method in the first two or three school years is strongly urged, but here the teachers and inspecting officers have a difficult task before them, as unenlightened Indian opinion is opposed to anything of the nature of play as part of the school work. On this point three of the inspectors report as follows:—

"Mr. Mayhew: 'They (the kindergarten spirit and methods) are of course unpopular with the parents who sternly criticise the frivolity of the 'Play Schools' and regard a smile in a school as a breach of discipline.'

"M. R. Ry. Williams Pillai: 'Another difficulty in the way of progress is the conservatism of ignorant parents, who are so wedded to the old methods of *pial* (indigenous) schools that they refuse to send children to schools where the kindergarten method is adopted and the hand and eye trained to manual occupations, and school life is enlivened by story telling, play, actions, etc. One sub-assistant told me that parents did

not want their children to do clay modelling, as it was the work of the despised potter and not fit for genteel hands to do.'

"Mr. Yates: 'The prejudice of villagers, often exaggerated, it is said, by the teacher for his own benefit, is antagonistic to play; more so are the ignorance and apathy of the ill-paid teacher.'

"The system outlined above was introduced only at the end of the quinquennium, and it is too early yet to gauge its effects, but the inspectors are generally hopeful of its success. The following extracts from their reports may here be quoted:—

"Mr. Mayhew: 'In arithmetic, the removal of the fetters of the old curriculum is already working wonders. In the ordinary school far more can be done than has hitherto been insisted on. Oral work is still too much subordinated to written work. If we can insist more on oral reckoning of complicated bazaar bills, etc., the schools will be more popular in many communities.'

"In geography the more able teachers are making rapid strides. I am often surprised by the excellence of the initial work. In object lessons (natural history, etc.) we can hope for no advance till we have taught the teachers more. There are many who could teach well if they had the necessary information. Singing is attended to in most mission schools and in many Tanjore schools. It requires much attention. In drawing, manual occupations and application of kindergarten principles, advance is sure and steady. Although too many sub-assistant inspectors still talk of "introducing kindergarten as an optional subject," the kindergarten spirit and methods are spreading. In drawing the work is freer, more naturalistic, and there is a good deal of genuine attempt at illustrative drawing from the real object as an accompaniment to other lessons. I look forward to the time when it will be possible to dispense with the municipal drawing masters, whose work as a rule is inferior to that of the more able recently trained teachers.....(In the vernacular) one of the most common defects is the small amount of actual reading accomplished and the large amount of mechanical repetition of a few pages of the reader. More attention is now being paid to composition, both oral and written. . . . The English teaching in many elementary schools seems to me surprisingly good—certainly far better than the teaching of French or German in many English schools.'

"Mr. Yates: 'Arithmetic has been recommended to be taught concretely and concretely; from the very beginning simple bazaar transactions are made a matter of play. Some success has been made in the matter of concrete teaching.'

"By endeavouring to insist on realistic explanation of lessons in the readers, something has been done; in many of the better schools little school museums of actual things or of models of things described or referred to in the readers have been commenced; living animals are brought into the school on occasion, not only, I believe, on the visit of the inspecting officer, for purposes of illustration. Still, however, considerable pressure must be brought to bear on the school masters before they will learn how to teach the readers not as a matter of vain repetition. The curse of the schools is words.'

"M. R. Ry. Williams Pillai: 'The results grant system, which was certainly suited to the earlier stage of education and has done a great deal of good for nearly half a century, has given place to a more elastic system. Many of the well-conducted schools under intelligent teachers and sub-assistants have profited by the new-found liberty, and have adopted more rational methods of instruction and a varied curriculum, much to the relief of the pupils overriden with the incubus of individual examination for grants.'

353. The present review is not a favourable opportunity for noticing the changes made in the BURMA curriculum. This included the wholesale borrowing of the discredited Bengal syllabus, with practically no adaptation to Burma, and the curriculum so introduced was at once found to be unsuitable, and was at the end of the quinquennium about to be superseded. The Director makes the following remarks upon the monastic schools:—

"These fall into two classes, the registered and unregistered. In the former the Departmental vernacular curriculum is for the most part adopted, though in practice certain subjects of which *Pongyi* disapprove as vain and worldly learning or as science falsely so called (e.g., geography, botany, physics, etc.) are not pressed. Thus the staple of such instruction consists of the '3 R's', with a modicum of Pali (this is sometimes, though not always, taught with Burman renderings side by side with the Pali), and, if the *Pongyi* is advanced, object lessons of a kind. The *Pongyis* employ assistants, some of whom have normal certificates, and occasionally the *Pongyi* himself may possess one. In the unregistered schools the *Pongyis* follow their own and ancient devices, the instruction consisting mainly of reading and writing and, sometimes, but not always, arithmetic. Pali is done, but some of it is learnt by rote, as the Arabic Koran is learnt in Mullahs' Maktabas in India. The Inspector of Schools, Northern Circle, also points out that in many schools Burmese is taught for the sake of Pali: hence 'the Burmese vocabulary of pupils educated for several years in such schools is so limited that though they can perhaps read a Burmese newspaper they do not understand what they read.'

"It is the fashion to laud the old monastic system of instruction, and to imply that the Education Department is rapidly subverting it and providing an inferior substitute.

If the officers and persons who admire the ancient methods of the *Pongyis* were to be left dependent upon them for the supply of subordinates, they would rapidly arrive at a better appreciation of their practical value. What is worth retaining in the monastic system is the respect for authority, the moral influence of grave and reverend monks who have forsworn the pomps and vanities of the world, and the intellectual culture consciously or unconsciously produced by the study of a dignified classical language, which is moreover the vehicle of the people's religious aspirations. But for practical life a more concrete, regular and definite education is essential. Hence the ideal would seem to be the utilization of the *Pongyi kyaung* as widely as possible, coupled with the introduction of an elastic curriculum, the staple of which should be the '3 R's', plus such subjects as the rules of monasticism (which are less narrow than is commonly supposed) would admit. A modification of the present vernacular curriculum would probably be sufficient for the purpose. The official head of the Buddhist religion, the *Thathanabaing*, has been approached on the subject."

Rural and Urban Schools.

354. Every province in which the teachers are told to base their instruction upon objects familiar to the children and are given some freedom in constructing the curriculum may be said to provide the framework for differentiating between urban and rural primary schools. Only four provinces, *viz.*, Bombay, Bengal, the Punjab and the Central Provinces, prescribe differences in the curriculum according as the school is rural or urban. There are different ways of making the distinction. Bombay provides for the rural schools a smaller range of subjects than for the urban, and easier standards; Bengal provides the same curriculum and the same standards for both kinds of school, with the sole difference that in the scientific readers used in rural schools the parts relating to physics and chemistry are replaced by parts relating to agriculture; in the Punjab there is a difference of curriculum, *viz.*, the omission of Persian, a difference of syllabus, *viz.*, the teaching of arithmetic by native methods, a difference of standard in geography and a difference in the language of the reading books, Punjabi being admissible instead of, or in addition to, Urdu. In the Central Provinces, the main difference is that the rural curriculum is for half-timers, the theory being that the children can assist in agricultural operations during the other half of the day; but there is also a difference in the subjects studied, for the rural curriculum consists of the following compulsory subjects:—reading, writing, arithmetic, geography and agriculture, besides a little drawing of geometrical forms and physical exercises. The same subjects are compulsory in the urban curriculum, but there is added thereto either history, freehand drawing or grammar. To the extent to which the two curricula coincide the standards are identical.

355. In Bombay, the schools for agriculturalists with the lower standards are distinct institutions from the schools with the higher standards. In the Punjab, all schools outside the largest cities are likely to adopt the rural curriculum. In the Central Provinces, half-timers and full-timers attend the same institutions, and the two curricula are taught in the same school.

356. In the four provinces mentioned there has been no change in respect of the special character of rural schools, except in the Punjab. There were formerly in the Punjab schools of a sternly pollarded type, called zemindari schools, which taught only reading, writing and arithmetic, and taught those subjects up to lower standards than the urban schools. The supposition on which these schools were based, that this type of school was peculiarly suitable for agricultural children, never found favour amongst those for whose benefit it was intended. This cause of their failure was not at first willingly admitted, and other reasons were sought for it; but during the period under review it has been recognised that schools of this kind neither had nor deserved any prospect of obtaining a footing of popularity, and the zemindari schools have been swept away. In the steps which have been taken to replace these zemindari schools by some form of village school, which should be simpler than those of the urban type and more fully adapted to the needs of rural children, there have been two chief difficulties:—(1) the refusal of the population to accept a rural school if the curriculum were such that the child who had passed through it could not proceed further up the educational ladder; and (2) the impossibility of providing in villages two kinds of school,

Changes in the rural school system in the Punjab.

one to suit the agriculturalists and one to suit the rest of the population. The first of these difficulties has been overcome by opening a passage from the rural school to the middle vernacular school, and permitting boys who proceed from the rural primary school to study in the middle vernacular schools without taking up Persian. The second difficulty is likely, as has already been mentioned, to be met by classing all schools outside the cities as rural.

357. Of the curriculum in use in the Central Provinces the Director writes as follows:—

"This strictly rural curriculum is a plant of recent growth, dating only from 1899, and the last quinquennial report for the province dealt with its merest beginnings. Our present system is characterised by the inclusion of subjects of immediate practical use, such as agriculture, village records, Baniyas' accounts, etc., in the curriculum, and also by the introduction of more practical methods of teaching. It is difficult to speak with any certainty as to its success. The practical elements in it are much appreciated, *e.g.*, such items as Patwari papers, but, on the other hand, there is not much doubt that, if we resorted to a plebiscite, our readers, expressly composed upon utilitarian lines, would be immediately thrown overboard in favour of religious or moral prose and poetry. The result is that, so far as the curriculum deals with matters of concern in the actual life of the villager, it has worked wonderfully well, but in all other matters it appears to have been a failure; and hence a number of Deputy Commissioners report that, however intelligent at school, the majority of boys who have gone through the primary course relapse into illiteracy. In short the curriculum, lacking as it is in interest, fails to impress. A leading feature in the rural curriculum is that it is mainly intended for half-day work. It was thought that this would get over the reluctance of parents to spare their boys from the remunerative labour possible even at an early age. It does not appear to have much effect in this direction, but, on the common sense ground of avoiding the imposition of too great a mental strain on the minds of boys hereditarily illiterate, it has much to recommend it. At the same time the introduction of the half-time system into Berar is not popular. The children in Berar are readily allowed to go to school, and the parents think that a half-time school gives only half value for their money."

Rural school curriculum in the Central Provinces.

358. With respect to the teaching of agriculture in primary schools, it should be observed that, although that subject now figures in the curriculum of every province either as an optional or as a compulsory subject, yet for the most part this does not imply a systematic teaching of agriculture to children, but rather the elements of agricultural botany illustrated by experiments, and the selection of agricultural subjects for treatment in the object lessons. In this point also opinion and practice have undergone a change. Some years ago a belief was entertained by those, however, interested in agriculture rather than in education, that the schools were a favourable field for the propaganda of agricultural reform, and that the agricultural methods of the country could be improved by the direct inculcation of improved methods upon the children through the medium of a text-book and a village school-master. Such a doctrine receives very little support now-a-days, and when people talk of making the instruction in primary schools more "practical," they no longer mean that primary schools ought to teach a calling, whether agricultural or any other.

Teaching of agriculture in Primary schools.

359. In the Resolution of 11th March 1904 the Government of India laid down that "the aim of the rural schools should be not to impart definite agricultural teaching but to give to the children a preliminary training which will make them intelligent cultivators, will train them to be observers, thinkers and experimenters in however humble a manner, and will protect them in their business relations with the landlords to whom they pay rent and the grain dealers to whom they dispose of their produce." During the quinquennium Mr. F. G. Sly, the officiating Inspector General of Agriculture in India, endorsed this view in a paper in which he advocated the extension of school gardens and made suggestions for their proper use. The policy laid down by the Government of India, as quoted above,—"received", writes Mr. Sly, "the full support of the Board of Agriculture, who considered that the future of Indian agriculture is bound up in it. . . . Now I have no vain aspiration that the rural school should aim at producing expert agriculturists, versed in the agricultural sciences; its object should be to produce cultivators with their intelligence better trained than that of their forefathers,

whose great hereditary knowledge of agriculture is based upon centuries of experience rather than upon intelligent reasons. Any attempt to teach scientific agriculture, or indeed, to teach agriculture at all as a separate subject, is bound to end in failure." This view appears to be that which is now most generally held in the provinces, but the preparation in the year 1905, in Bombay, of a set of agricultural text-books in which the children are informed in the course of the first lesson that many of the practices of their fathers are wrong, and which proceed by systematic instruction to endeavour to inculcate right agricultural practice, appears to mark in that Presidency a reversion, perhaps only temporary, to an earlier state of opinion. Mr. Selby remarks:—"It is too early to criticise the introduction of the agricultural readers which, I fear, in the hands of the older teachers, who have had no practical training in the subject, will also develop a most indigestible kind."

Text Books.

360. The text books used in primary schools may either be chosen from those placed in the market by the publishing firms, or may be specially prepared under the orders of Government. In the former case a general control is exercised by Government by means of the text book committees which have already been described in the chapter on secondary schools (paragraph 202).

unctions of
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committees.

361. In most provinces the text book committees are not concerned with the production of books, but in the Punjab the text book committee also produces some departmental manuals used in primary schools. The production of text books in Madras, Bengal, Eastern Bengal and Assam and the Central Provinces has at present not been directly undertaken by Government, and the schools use any that appear on the authorized lists. In Bombay, the United Provinces and the Punjab, Government has taken a more active part in the production of text books for primary schools, and there are signs that Bengal and Eastern Bengal and Assam are to follow suit. In such cases the procedure adopted is either to appoint a committee charged with the production of text books, or to offer rewards for their production in accordance with the principles laid down. Bombay and the Punjab have done the work by means of special committees, and the United Provinces by offering rewards for text books to be prepared in accordance with a syllabus. The action taken during the quinquennium in the several provinces has been as follows:—

MADRAS.—A consolidated list of approved text books was completed by the text book committee and approved by Government in 1904-05.

362. BOMBAY.—A new set of vernacular reading books has been prepared by a special committee appointed for that purpose by Government. The committee consisted of Mr. J. G. Covernton as President, four native gentlemen of the education department (one for each division of the presidency) and a fifth, added to represent the Mussulman interest. The committee was assisted by members attached for temporary periods to take part in special portions of the work. It completed its labours in March 1905, having been at work since October 1903.

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n's Com-
mittee.

363. The following brief account of the reasons which led to the appointment of this committee and of its achievements has been taken from an interesting monograph by the president of the committee, Mr. J. G. Covernton.

The books to be revised were those intended mainly for primary pupils, but also used in middle and high Anglo-vernacular schools and in training colleges for primary teachers. They were written in four different languages,—Marathi, Gujarati, Sindhi and Kanarese,—and consisted of five distinct graduated series. The committee's duties were not, however, limited to mere revision. To a certain extent they were also creative, not only in regard to the five series already in use, but also in the matter of providing for expressed and definite wants, such as the supply of a set of special readers for girls.

364. The vernacular series of readers which the committee were called upon to revise had their roots in the very foundation of modern education in Bombay. They were the direct successors, if not the immediate descendants,

of the scanty set of books on which the earliest framework of vernacular education was raised. Their compilation had marked the triumph of the vernacular ideal in primary instruction over that of the Anglicists, of whom the extremer section at least had cherished the hope of making English the universal language throughout India. It was in 1824 that the first attempts had been made to prepare and publish books, both for the elementary and more advanced stages of education among the natives. These works were due to the activity of the Native School-book and School Society, which came into existence in 1820 as a branch of the Bombay Education Society. The number of readers, very small at first, had grown considerably by 1845. But even at that time it was recognised that they were not ideal school books. In many cases they had been composed originally without reference to Indian needs or circumstances and by men who were not school teachers. Their translators and adapters often lacked actual experience of the practical art of teaching. The books were not graded, and their contents lent themselves to the fatal habit of memorising which had been inherited from the older indigenous system. Thus the idea of a series of suitable vernacular reading books began to be mooted. As a result, a Marathi series was prepared between 1857 and 1861, consisting of a set of six readers; it was recast in 1867 and a seventh reader, containing chiefly scientific lessons, was added in 1896. A Gujarati series was also completed by 1860: a Sindhi series followed, based upon the model of its predecessors; and finally a Kanarese series completed the set for the various languages of the presidency.

365. This series, in tone, scope, matter and general get-up, was unequalled in any other province. The books were approved, and indeed much commended, by the Committee of Revision appointed by the Government of India in 1877. There were, however, defects which experience brought by degrees to notice. The books did not all stand on the same level of excellence. The Gujarati series, prepared by Mr. T. C. Hope, was by far the best: but the subjects even in these books were not always within the pupils' comprehension, while in scientific matters the descriptive treatment tended to foster rote-work and parrot knowledge. Some of the poetry selected was very poor stuff: and there was too great a straining after obvious moral effects. Again, the sources from which material had been drawn were not always up to date even when the series was compiled; portions soon became antiquated and only served to perpetuate obsolete ideas. In short, after some thirty years of usefulness, it was decided that the time had come for a general revision and bringing up to date of the whole series: and it was with this object that the committee was appointed in 1903.

Success of the
earlier series
of readers.

366. The four series previously in use had been separately compiled by local committees, and the revisions had been similarly carried out. It was an innovation, therefore, to form a single representative committee under one head to deal with the whole question of revision. Apart from the revision of the existing series, other tasks fell to be performed, such as the compilation of a series of readers for girls, the reconstruction of a rural series, the editing and translation of a new set of agricultural readers for schools, and the scrutiny of a number of educational works which sought a place on the list of approved text-books. It was impossible for the committee to cope with the whole of this work; and they therefore organised a corps of contributors, drawn from vernacular educationalists and scholars throughout the presidency. These gentlemen supplied vernacular lessons in accordance with the list of subjects and the general directions issued by the committee. The material thus received was carefully scrutinized and edited by the committee, and if any doubt was felt the lessons were practically tested in a training college or elsewhere.

Object of
appointing
the Com-
mittee.

367. Though absolute uniformity was impossible, a uniform method of classification was adopted throughout and, subject to the exigencies of publication, a similar number of lessons was appointed for the parallel books in the four series. A general standard of length was determined for the individual lessons in each book. Also, within certain limits, the subjects of the lessons were to be similar throughout, book for book. On the other hand,

it was never insisted that the matter of the lessons in each case should be identical.

368. The aim of the committee was fivefold,—first, to select passages which sprang from and adequately represented the vernaculars of the people. Secondly, to supply matter that was of a piece with the web of which their daily lives and general experience were woven. Thirdly, not to ignore completely the great achievements and accumulated wisdom of their historic past. Fourthly, to open, in so far as the revelation might prove profitable, the doors of the treasure house of Western civilization. Lastly, to develop, if possible, the lines on which the previous series had won their most notable successes and also to supplement their more obvious deficiencies.

369. In carrying out this programme, the moral side has not been neglected. In the earlier books stories with a moral tendency predominate, while their place is gradually taken in the higher by direct moral lessons, advocating and illustrating uprightness in points of practical conduct. Particular care was exercised in the selection of legends, fairy tales and myths. Nature and nature's laws received due attention in lessons that deal with birds and beasts and flowers, as well as in others that treat of the human body and its functions and the conditions of healthy living, or of the inanimate phenomena of the earth and sky, or of the commoner objects of daily life. The method of treatment aimed at leading the scholar gradually from the study of simple, concrete phenomena to the realisation of the laws of connection, and so to lay the substratum of what may later develop into various departments of scientific knowledge.

Arrangement
of the new
series of
readers.

370. The books were arranged in sections as follows :—(1) general or miscellaneous lessons, including literary, moral, mythical, humorous, economic, hygienic and general historical subjects : (2) geographical and Indian historical matter : (3) lessons on natural objects and phenomena, animals, simple physiology, simple facts connected with light, heat, steam, electricity, domestic articles, products, manufactures, etc., or science lessons. The four entire series supply a complete course of vernacular reading for the higher varieties of primary boys' schools, and useful matter also for junior normal students in the male and female training colleges. Portions of them are also available for girls' schools, as well as for the vernacular work in Anglo-vernacular schools.

Preparation
of primers.

371. The committee also compiled primers, in which the words and sentences were carefully graduated in length and made to lead up to short stories. The primers are intended to serve a double purpose,—to be an infant reader as well as a mere alphabet book.

Readers for
girls' schools.

372. A small set of three readers for use in the three highest girls' standards and in female primary training colleges was also prepared. These readers are simpler in general treatment and narrower in the range of subjects than the boys. They contain biographies, ethical stories and lessons, poems, geographical lessons, and lessons on domestic economy and elementary physiology and hygiene.

Agricultural
readers.

373. The committee also edited and supervised the translation of a set of three Agricultural readers, which had been prepared by an officer of the Agricultural department.

374. The publication of the readers was entrusted to a firm of publishers, on the condition that as large a share as possible of the printing work, etc., should be given to Indian establishments.

375. Of the text books compiled by this committee the Bombay Director writes as follows :—“ It is too early as yet to pronounce upon the success of the new readers. It is unfortunate that something either in the style or matter of some of the lessons has offended religious susceptibilities. I have also heard a complaint that, although the cost of the whole series does not exceed that of the old series, yet the most elementary books are more expensive. This, of course, is a serious matter. The younger the child, the sooner it destroys its books : and in the infant class and the first standard a parent may have to buy two or more copies of the same book in a single year.”

376. BENGAL.—In Bengal the production of text books has been left in the past to unguided private enterprise, and the function of the text-book committee has been confined to advising the local Government as to whether the books placed before them by the Director can be approved or not. Mr. Hornell observes that there is evidence that the great majority of text books which are being used in schools are educationally speaking very unsatisfactory, and that the production of sound text books is vital to the future of education in Bengal. Although no steps towards this end were taken during the quinquennium, the matter received consideration ; and shortly after the close of the period the local Government appointed certain committees for the preparation of text books for the infants' and first two standards.

377. UNITED PROVINCES.—In the United Provinces, the reduction in the number of members of the text-book committee is said to have stimulated their interest in the work, but to have caused difficulties about securing the representation of the various bodies that have a claim to a voice in the selection of text-books. Of the 404 publications examined by the committee in the last year of the quinquennium none was thought fit to replace a text book already in use, scarcely any were approved as alternatives, and but a small number were recommended for libraries, prizes, and teachers' use. The most important feature of the quinquennium was the preparation of new vernacular readers. On this subject the Director writes as follows :—

“ An important task which has engaged the attention of the committee for a large part of the quinquennium calls for special notice. In the first year of the period it was decided that all text-books in primary classes should be written in the language of everyday life, and that the subject-matter of both Hindi and Urdu versions should be the same. The vernacular readers in use had frequently been condemned as unsatisfactory, not only in point of matter but because of the large infusion of unfamiliar, pedantic and difficult words. The marked divergence in language between the Urdu and Hindi readers caused great inconvenience in schools and accentuated a harmful tendency in modern vernacular literature. It was therefore necessary to replace the present readers by others drawn up on quite different lines. After careful consideration, a syllabus was prepared and published under the orders of Government, indicating the kind of matter that the readers should contain ; and then the preparation of the required text-books was thrown open to competition, rewards were offered, and a special committee was appointed by Government to select the most suitable of the books submitted. The first sets of readers sent in were thought to be too difficult, and fresh instructions of a more precise nature were issued and new and revised readers called for. Finally, a set of readers was approved as fulfilling satisfactorily all requirements. It consisted of a general reader for lower primary classes, and a science reader and literary reader for upper primary classes. The language used was the same in the prose pieces in both the Urdu and Hindi versions, but in the poetry selections was necessarily different. The lessons are on various subjects, hygiene, domestic economy, agriculture, and plant and animal life, and are interspersed with biographical and moral tales. This series is now in use, but it is too soon yet to say whether it gives general satisfaction. It has, however, one great advantage over its predecessors : it is profusely and well illustrated. The Government has since offered a reward of Rs. 500 for similar readers for girls' schools.”

378. PUNJAB.—Of the labours of the text-book committee in the Punjab the Director writes as follows :—

“ The English and Urdu manuals of the new geometry, syllabuses of Urdu grammar and object lessons for rural schools, Urdu, Panjabi and Hindi readers specially adapted to meet the requirements of girls, simplified vernacular versions of the departmental manuals of Kindergarten and school management, and a course of reading in Urdu for the Lahore Normal School for Women were taken in hand during the quinquennium, and are either finished or about to be finished. Owing to the more general introduction of drawing in schools, the committee had to arrange for the preparation of a graduated series of charts. The greater attention now given to the equipment of schools necessitated the production of a ‘ Hand-Book of School Furniture.’ Specimens of up-to-date furniture are being prepared, and as soon as these become available, a revised edition of the ‘ hand-book ’ will be brought out.

“ A manual of ‘ Eyesight in Schools ’ for the use of teachers and students in training institutions was compiled only last year. The importance of the book to those for whom it is intended can hardly be over-rated. The committee had also to revise carefully the lists of books, charts, pictures and diagrams for the libraries of schools. The need for suitable coloured illustrations for our vernacular readers had long been felt. The matter engaged the attention of the committee during the quinquennium, and the illustrated primer of Urdu and the pictorial alphabet, both printed in colours, are the result. Apart from these, a good many other text-books, such as the district geographical readers, and the Miftah-ul-Arṣ, have been revised and brought up to date. * * * *

"Another important event of the quinquennium was the appointment of the text-book revision committee. The committee has on its programme the preparation of about 40 school books of various kinds. Their instructions are that they should endeavour to infuse into their books something of the charm, the freshness, and variety of the reading books brought out by English publishers. From some of the specimens of their work submitted for approval, it appears that the standard indicated has been well kept in view."

The revision mentioned above was undertaken with a view to giving greater diversity of subject-matter and a more human interest to the text books; and to better the method by introducing exercises bearing on the language, grammar and subject matter, and to improve the graduation and uniformity of the lessons.

379. EASTERN BENGAL AND ASSAM.—In Eastern Bengal the text books used were those approved by the committee at Calcutta, while in Assam, where many different languages and dialects are spoken, there were three text book committees, among whom the work of selecting books,—English, Assamese and Bengali,—was distributed. In 1903 a list of text books to be used in primary schools in Assam was drawn up and published for general criticism. The list was brought into effect in 1904, when the revised curriculum for primary schools was finally introduced. In 1902 arrangements were made for classifying all the text books already in use or recommended by the Director for adoption, according as they were or were not used in Government and Local Board schools. The text books were not found to be wholly satisfactory, and in 1904 the Chief Commissioner issued a Resolution in which he reviewed the whole subject and indicated the lines on which he considered that revision should be carried out. The matter was receiving attention throughout the period, and since the close of the quinquennium a separate text book committee has been appointed for the whole province.

380. CENTRAL PROVINCES.—The Director in the Central Provinces remarks that the text books at present used in primary schools have been chosen in a more or less fortuitous way, with the result that a good deal of revision is necessary. Though nothing definite has been yet accomplished the whole question was under consideration at the end of the period.

Fees.

381. The despatch of 1854 required that fees should be levied in all schools receiving assistance from public funds. The passage in the despatch runs as follows:—

"It has been found by experience, in this and in other countries, that not only is an entirely gratuitous education valued far less by those who receive it than one for which some payment, however small, is made, but that the payment induces a more regular attendance and greater exertion on the part of the pupils; and, for this reason, as well as because school fees themselves, insignificant as they may be in each individual instance, will in the aggregate, when applied to the support of a better class of masters, become of very considerable importance, we desire that grants-in-aid shall, as a general principle, be made to such schools only (with the exception of normal schools) as require some fee, however small, from their scholars.

382. These orders have never been revoked, and most of the provincial codes of educational rules contain some provisions for giving effect to them. In all provinces except Madras, the Punjab and the Central Provinces, district boards and municipalities are free, so far as the Education department is concerned, to levy fees at any rates that they please, or to refrain from levying them altogether. But the funds at the disposal of the local bodies are so limited that there is a strong incentive to levy fees in order to make income meet expenditure. In schools under private management there is usually a rule of the Education Department requiring them to levy fees either at a prescribed rate, or at rates bearing a proportion to those charged in schools under public management.

383. Thus the practice throughout India, with few exceptions, is to levy fees in primary schools for boys, and at the same time to exercise a liberal discretion in the remission of fees to those who are unable to pay; this discretion

being in most provinces systematised and expressed in rules. Such rules make provision both for reduction and for total remission of fees in certain cases, or up to a certain proportion of the pupils in a school.

384. MADRAS divides elementary schools into two kinds for the purpose of the levy of fees, *viz.*, those which have only three standards above the infant class, and those which have more than three standards. The Educational rules require that fees shall be levied at the following rates:—

		Lower grade schools.	Higher grade schools.
Infant standard	.	$\frac{1}{2}$ anna a month	1 anna a month.
1st	"	1 anna "	2 annas "
2nd	"	2 annas "	3 " "
3rd	"	2½ " "	4 " "
4th	"	" "	6 " "
5th	"	}	8 " "
6th	"		
7th	"		

The rates given above are for boys. In the lower grade schools girls may be admitted free, and in the higher grade schools the rates for girls are, in the infant standard, $\frac{1}{2}$ anna; in standards 1 to 4, one anna; and above that two annas monthly. Muhammadan boys pay half the fees shown in the tariff of fees for boys; and Panchamas and pupils from backward castes or classes (listed as such by Government) pay no fees at all. Madras and Assam are singular in this respect, that masters of Board schools of the lower grade are permitted to retain the fees which are collected.

385. In BOMBAY, the department exercises no further control over the rates of fees charged in any school than that in aided primary schools the rates should be not less than one-half of the rates charged in schools under public management in the neighbourhood. The rates of fee charged in the local board or municipal schools rest with those bodies, subject to limitations imposed by Government. Fifteen per cent. of the pupils may be admitted free at any primary school, and in addition to this the Director has power to raise this proportion at any school for good cause. The children of cess-payers are admitted on payment of half fees.

It is stated that in the Bombay presidency there is no case on record of a very poor child seeking admission to a school and failing to obtain it, by reason of inability to pay the fee; but that in such cases fees are always remitted.

386. In BENGAL, a general rule is laid down that, except in schools for aborigines and low castes and other special schools of a similar character, fees must be levied in boys' schools, but the department does not prescribe at what rates they must be levied.

387. In the UNITED PROVINCES district boards fix the rates of fees, and have power to exempt altogether. The Education department recommends, but does not prescribe, the charge of a small fee, varying with the standard and not exceeding two annas a month in the highest class of vernacular primary schools. The deputy inspector may authorise the admission of children without payment of fees, if indigent, up to 20 per cent. of the number of children in any school.

Thus the rules of this province recommend not a minimum but a maximum rate of fees; and they also do not positively forbid the establishment of free schools.

The rates actually levied are usually well within the maximum. In the lower primary stage the fees range from one pice to one anna monthly, and they rarely exceed one anna in the upper stage. Experiments have been made by some local boards in the total remission of fees in primary schools, but except in the district of Dehra Dun this is not reported to have been accompanied by success in raising the numbers of children in attendance to a higher level than elsewhere in the province; and upon the whole the recent tendency has been to abandon these experiments. It is related that in the Budaun, Banda and Jhansi districts the imposition of a fee, where none was

previously charged, has been followed by considerable rises in the numbers of children at school.

388. In the PUNJAB, rates of fees are prescribed by the Education department for adoption in district board and municipal schools, and privately managed schools are required to levy fees at 75 per cent. of these rates. The rates differ in the town schools and the zemindari schools.

	Town schools.	Zemindari schools.
Infant	1st class, 1 anna.	1 anna.
Lower Primary	2nd „ 2 annas	2 annas.
	3rd „ 3 „	
Upper Primary	4th „ 4 „	3 annas.
	5th „ 5 „	

Sons of agriculturists, and of persons included under the term of village Kamin, are admitted without payment of fees; and apart from these, there may be free admissions to any school up to 10 per cent. of the number of its pupils, and the Director may raise this percentage in backward places.

389. In BURMA, where there are no schools under the management of local bodies, and where all primary schools are either under the management of Government or of private persons, fees are charged in all Government schools; and it is a condition of grant-in-aid to schools under private management that, except in monastic schools, fees should be charged. In monastic schools, and in many lay schools under private management and not in receipt of grant-in-aid, no fee is charged. The rates in Government vernacular primary schools are in the infants' and first two standards four annas a month; in the third and fourth standards six annas; and in the next three standards eight annas. Lay schools in receipt of grant-in-aid are so much of a commercial venture, that it is frequently difficult to ascertain what are the rates at which fees are collected. For the purpose of estimating their income under the grant-in-aid rules, the department estimates the fee-rates at two, four or eight annas a month, according to the circumstances of the school. Burma thus affords the example of free primary education on a wider scale than exists in any province in India, side by side with a system of fee-charging primary schools with higher fee-rates than are paid in any other province.

390. In EASTERN BENGAL, the rules as to fees are the same as in Bengal.

In ASSAM, lower primary schools are practically free. For upper primary schools the rules of the Education department require fees to be levied at rates beginning with one anna in the lowest class and rising by an anna in each class. The Director has discretion to approve lower scales in backward localities, or to remit fees altogether, at any rate in the lower classes.

The privilege of free tuition is extended to poor students belonging to Ahom families, (2) to poor Muhammadan and Hindu boys of the Cachar district, (3) to children of military and civil police below the rank of jamadar or sub-inspector, (4) to children of teachers in Government schools drawing salaries not exceeding Rs. 50 per mensem, and (5) to the children and orphans of retired officers of the Education department whose pensions do not exceed Rs. 25 per month.

391. In the CENTRAL PROVINCES, the Education department prescribes one rate of fees for all schools under private management, and requires such schools under public management to charge fees on at least the same scale, while permitting them to charge at higher rates if they please. Formerly the prescribed rates differed according to the income of the parent; but in the year 1906 the local Government came to the conclusion that this system imposed on the school authorities a responsibility which they should not be called upon to bear, and abolished the differences in the fee-rates. The pre-

sent rate of fee prescribed is one anna throughout the school, with the exception of the infant standard, in which no fee is charged.

Schools for aborigines and for low castes may have the fees at different rates or none. There is a provision by which every primary school, whether under public or private management, has a school committee. Except in municipal schools, the fees collected are retained by the committee, and expended by them on school gardens, furniture, improvements, books for indigent children and the like objects. The committee also has power to remit the fees of children whose parents cannot afford to pay them.

392. On turning to the figures showing the amounts of fees in primary schools, it is necessary to remark in the first place that the figures do not profess to show the total amounts of the fees collected, but the total of the fees expended. This expression, which calls for explanation in reference to all parts of this Review dealing with the sources of income of schools, was unfortunately introduced into our statistics in 1883, when instead of a classification of the sources of income of schools, the tables were made to contain a statement classifying their "sources of expenditure"; and the difference between the two is, that the returns contain entries of so much of the income of a school as is shown, on the other side of its accounts, to have been expended within the year. Any excess over this sum is struck off, and any deficiency is made up by a fictitious entry in the statistics. For practical purposes it is necessary to treat "expenditure from fees" as equivalent to the rational expression "amount of fees collected", because it is the only information given on the point. Besides having a defective statistical basis, the returns are from the nature of the case of doubtful authenticity. They are collected from over 100,000 institutions, where the methods of account-keeping are of the simplest kind. In a great majority of these schools the teachers are at liberty to retain the fees which are collected, and have to record them not for the purpose of handing them over to managers or local authorities, but merely for the purpose of showing, if challenged, that they have observed such rules as the department may have laid down as to the rates at which fees should be collected, or of furnishing statistics. A third source of inaccuracy in the figures is the difference of practice which exists as to entering under the heading of fees an estimate of the value of payments in kind, or entering them as voluntary contributions, or not entering them at all.

393. The total amount returned under the heading of fees in primary schools for boys in the year 1907 was Rs. 32,04,000; and as the total expenditure of these schools is returned as Rs. 1,36,71,000, the fees represent 23·4 per cent. of the total income of the schools.

394. The average fee for pupils in primary schools for boys was in 1907 14 annas 1 pie per annum; and this shows a drop in the average rate of fee since five years ago, when it was Rs. 1-0-4. It is right to mention that there are slight discrepancies in the basis of comparison which would tend to exaggerate the average fee in 1902, but not so as to affect the main fact that a considerable drop is recorded. The average rates of fees in primary schools for the quinquennial periods have been:—

	Rs.	a.	p.
1886-87	0	15	9
1891-92	1	0	5
1896-97	0	15	4
1901-02	1	0	4
1906-07	0	14	1

The average fee now collected of 14 annas 1 pie is composed of provincial averages ranging from two annas in the Central Provinces to over Rs. 1-6-0 in Bengal; and the figures by provinces for the years 1902 and 1907 are shown in table 127 in volume II.

395. But the force of the remarks made above as to the untrustworthiness of these figures becomes at once apparent when the surprisingly low rates

Explanation of the system of estimating the income and expenditure of schools.

Total fees in primary schools.

Average fee in primary schools.

given for Burma and the Central Provinces are examined. The Director of Public Instruction in Burma remarks that some managers keep no accounts, and that the fees collected have in other cases been estimated on a purely artificial basis, which may have no basis in fact; he estimates that the amount of fees actually paid in vernacular primary aided schools is Rs. 1,68,864. This is more than five times the amount entered in the statistics. In the Central Provinces, in district board schools, the school committees keep the fees, and they are not entered in the returns. These schools are four-fifths of the whole. It is improbable that in any province the discrepancy between the facts and the returns are so great as in these two; but where the margin of error is so wide, it is unsafe to subject the figures to detailed analysis, or to draw conclusions from their variations. The tables will be found in volume II, numbered 125 to 127.

Income from Private Sources.

396. The total sum entered in the statistics as contributed from private sources towards the upkeep of primary schools is a little over fifteen lakhs, being an increase of about a lakh since the year 1902. If these figures can be depended upon, they mean that 11·1 per cent. of the total cost of maintaining primary schools is met from private sources, as compared with 65·5 per cent. from public funds and 23·4 per cent. from fees. The figures of receipts from private sources must, however, be accepted with great reserve. The returns sub-divide them into (a) receipts from voluntary subscriptions, and (b) receipts from endowments and other sources. Receipts from subscriptions in the year 1907 are entered at Rs. 4,52,000. This leaves Rs. 10,65,000 to be accounted for as received from endowments and other sources. Voluntary subscriptions are of course received in support of primary schools, but a very large number of the schools receive no voluntary subscriptions and depend entirely upon the Government grant and fees. There are also some endowments for primary schools, but it is incredible that the endowments should contribute anything like the sum of Rs. 10,65,000. Endowed primary schools are a small class. The reports of the Directors never give particulars of such endowments, and official correspondence never brings out the existence of any endowed schools on an important scale. It is highly improbable that the endowments of primary schools bring in an income equal to that entered as received from subscriptions, and thus there is a large balance of the receipts of primary schools from private sources which is left unaccounted for except under the title 'other sources.' What these other sources may be, it is impossible from the existing information to describe. But it is frequently remarked by the Directors, when commenting upon the whole item of receipts from private sources, that fictitious entries abound. For instance, in Madras during the quinquennium a rule was passed that nominal entries of salaries not actually paid were not to be entered on the expenditure side of the account. The result was that the item of receipts from private sources—which had been credited with nominal sums to balance expenditure on nominal salaries—fell in one year from Rs. 5,98,000 to Rs. 4,54,000. Little importance can be attached to the variations of figures which rest on so uncertain a foundation, and it is sufficient here to refer to tables 116 and 123 in which the statistical returns of receipts from private sources are classified by provinces and compared with those of 1902.

397. The smaller item of voluntary contributions, which forms a part of the sum entered as received from private sources, can claim a greater authenticity than "endowments and other sources", but is itself also open to question. Missions support their schools with private subscriptions, land-owners and others support some schools as an honourable public duty and contribute private subscriptions thereto. The number of schools so supported has not been ascertained in any province, but it is certain that a majority of the schools under private management belong to neither of these categories. In reply to an enquiry which was recently made upon the subject by the Government of India it was stated that in Madras the number of aided primary schools in receipt of *bonâ fide* voluntary subscriptions was 779, and that the

number of primary schools which had no sources of income other than fees and grants was 7,707.

398. The Director in Eastern Bengal and Assam wrote in reply to this enquiry :—

"I regret that inspectors have not informed me as to the number or existence of schools in receipt of *bonâ fide* subscriptions. The failure to do so does not surprise me. Owing to the numerical insufficiency of our present inspecting staff, a notable characteristic of the educational circumstances of Eastern Bengal is the want of information regarding a great mass of the schools. Again, the whole question of subscriptions is fraught with uncertainty. In schools of the classes here dealt with, Eastern Bengal shows Rs. 1,67,764 and Assam Rs. 72,740. But these figures are regarded with suspicion, and the officiating Inspector of Schools, Surma Valley, remarks—'In most cases these local subscriptions are fictitious. Teachers in these schools sign the acquittance roll for larger sums than they actually get, and the balance is accounted for as local subscriptions.' I should not quote this opinion had I not heard it repeated on all sides during my tours."

399. These instances will be sufficient to show that the payment of voluntary contributions in cash is not a prevailing feature of the system of aided primary schools in this country, and exists only in a minority of the schools. On the other hand, it is also to be noticed that there is a widespread system by which presents in kind are made to the teachers of aided schools, sometimes in lieu of fees and sometimes in addition to fees. Estimates of the value of such presents are sometimes included in the returns as fees, sometimes as voluntary contributions, and sometimes—perhaps most frequently—they are not included at all. Occasionally also a tendency is noticed to understate the amount of voluntary contributions actually paid. Consequently, although the sums entered as voluntary contributions are in some cases fictitious, it would be unsafe to conclude that the support actually given from private sources to aided primary schools, either in cash or kind, is overstated by the amount entered in the returns as received from that source.

400. The figures entered as received from voluntary contributions, while showing in the quinquennium an increase from Rs. 3,85,000 to Rs. 4,52,000 have not kept pace with the growth in the number of children at school. The average rate entered as contributed from this source in 1902 was two annas six pies per child per annum, and in 1907 a little less than two annas per child per annum.

Grants-in-Aid.

401. During the period under review the systems of assessing grants-in-aid have undergone sweeping changes in almost every province. As the system of grants-in-aid in India was based upon English example, it is worth while to recall the history of that system in England. Beginning in 1833 with grants for building schools, the Committee of Council gradually added other grants to assist in the maintenance of schools, and these grants were, in early years, always assigned to specific objects. Such objects were the payment of stipends for pupil teachers and of rewards to school-masters for training pupil teachers; gratuities to school-masters for zeal and success in teaching; salary grants to trained teachers; books and maps for teachers and pupils; salary grants for assistant teachers. In these early years the only grant not specifically appropriated to some purpose was the grant to normal schools, which was made in aid of their general maintenance. The State also established a fund for the payment of retiring pensions to teachers, before it ever made any contributions to ordinary primary schools in the form of grants to be absorbed in their general expenses. The first grants made by the Committee of Council to primary schools, not for specific objects but in aid of general maintenance, were capitation grants introduced in the year 1853 and ranging from 3s. to 6s. annually for each scholar. In the despatch of 1854 by which the Court of Directors prescribed a system of primary education in India based upon grants-in-aid, it is written :—

"The same course should be adopted in India which has been pursued with obvious advantage by the Committee of Council here, namely, to appropriate the grants to *specific objects*, and not (except perhaps in the case

History of
the system
of grants-in-
aid in
England.

of normal schools) to apply them in the form of simple contributions in aid of the general expenses of a school."

402. The subsequent history in England has been one of gradual discontinuance of the grants for specific objects, and the consolidation into one capitation grant of all grants-in-aid, except a few which are designed to encourage certain special subjects of instruction.

403. In the year 1861 a system was introduced in England by which the greater part of the capitation grant was made to depend upon the success of individual children in examination by the inspector. This system, notorious by the name of "payment by results," is universally acknowledged to have been a failure wherever it has been introduced.

Introduction
of the
"payment
by results"
system in
India.

404. The Education Commission of 1882-3 recommended its general use for primary schools in India. At the beginning of the quinquennium it was prevalent, though not universal. We have not yet seen the last of it, for it still lingers on in Burma, where the intention is to replace it gradually by other systems; but in no other province is it now to be found.

In order to be fair to the now discarded system of payment by results it is well to remember the reasons why it was formerly maintained. These are stated in paragraph 462 of the report of the Education Commission. It was considered (1) that the system enabled the inspector to apply praise or blame with an amount of firmness and decision impossible under any system that pays less attention to the examination of individual pupils, (2) that it insured that State aid was not wasted by being given where there were no educational results, (3) that it acted as a powerful stimulus to managers and teachers, (4) that it enabled the department to get rid of many troublesome questions about the character and trustworthiness of the management, (5) that it was the only system that could fairly be applied to those indigenous schools which are religious in their character, (6) that it enabled the department readily to compare the results obtained in different schools and different districts. The Commission were, however, also alive to the disadvantages of the system, which they enumerated as follows:—(1) the uncertainty of the test, owing to the variation of standards applied by inspectors, or by accidental absence of scholars, or accidental failure to show their real form under examination, (2) that it tended to give most aid to managers who required it least and least to those who needed it most, (3) that it tended to create antagonism between managers and inspecting officers, (4) that it required for its universal application a very large inspecting agency, (5) that it crushed out variety in courses and standards of instruction, (6) that it made examinations the main object of the thoughts, alike of pupils and of teachers.

405. In one respect this summary of the disadvantages of the system does not agree with the facts. It was not the case that this system, as compared with other possible alternatives, required a much larger inspecting agency. On the contrary, it was applied by an inspectorate inadequate in numbers and attainments to work the systems which have taken its place, and these have consequently required a general strengthening of the inspecting agency. The provinces differed in the extent to which they combined inspection of primary schools *in situ* with examinations of the scholars at centres; but, except in Bombay, the usual plan for awarding the results grants was for the inspecting officer when on tour to call together the scholars and teachers of primary schools to appointed centres, and there to hold the examinations. A staff of inspecting officers too scanty to visit each school annually sufficed to examine the children thus brought before them; and the application of an almost mechanical test of the children's ability to read, write and sum, required far less skill than to go to the root of the matter by judging the conditions under which and the methods by which the schools were carried on.

With this exception, the reasons for the failure of the system of payment by results in India have been that the disadvantages foreseen by the Commission have been realised more, and the expected advantages less, than they anticipated.

406. Of the arguments adduced by the Commission in favour of the system, Nos. 1, 2, and 6 which depend upon the supposition that it is certain in

its operation were cancelled out by the contrary arguments which they brought to show its uncertainty; with regard to argument number 4, it would now be considered to be the duty of the department to deal with "troublesome questions" rather than to get rid of them, provided that such questions presented issues with which the department was concerned; and with regard to number 5, there has been no difficulty in the matter of indigenous schools which are religious in their character. If such schools apply for grants-in-aid of their secular instruction they raise no objection to its inspection.

There remains only argument number 3, that the system of payment by results would act as a powerful stimulus to managers and teachers. This was so. But the powerful stimulus was one which urged them towards bad methods of teaching.

407. At the beginning of the quinquennium the system of payment by results prevailed in every province, as a means, though not the only means, of assessing grants to aided primary schools. In Madras and Bombay the better schools were aided by means of fixed grants, but the number so aided in Madras reached only 1,500 out of 11,000. In Bengal the results grant reigned supreme. In the United Provinces, Punjab, Central Provinces and Assam, the results grant was only part of the annual grant to the school, the remainder being either fixed or dependent upon other tests. In Burma the results grant was the chief means of aiding "indigenous"—i.e., primary vernacular schools, although it was accompanied also by a pupil teacher grant. The methods of assessing grants in primary schools which have been contrived in order to replace payment by results are distinguished by a healthy variety.

408. MADRAS.—There is a grant of Rs. 36 per annum for each teacher, and also a capitation grant of 8 annas per annum for each pupil in average daily attendance.

This grant is liable to increase or deduction, according as the general condition of the school shows an improvement or the reverse at the annual inspection.

409. BOMBAY.—All primary schools are paid by fixed grants, subject to revision when required. In arriving at the amount of the grant the department takes into consideration the following six points, but does not lay down any detailed rules as to the value of each in terms of grant:—

- (1) Building and equipment.
- (2) Attendance, both number and regularity.
- (3) Adequacy and qualifications of teaching staff.
- (4) Range and quality of education given.
- (5) Discipline and conduct of students.
- (6) Provision of recreation and physical exercise.

Though the grant is fixed for a term of years, the department reserves power to reduce the grant for a year if the school falls short of the standard required in the six points mentioned above.

Each year's grant is also subject to a maximum limit. It may not exceed one half of the local assets, or one-third of the total expenditure of the institution during the previous year.

410. BENGAL.—The grant consists of two parts—

- (a) a monthly stipend for each teacher, which may not exceed Rs. 5 for a head teacher and Rs. 3 for an assistant;
- (b) a grant paid at the end of the year, and depending for its amount upon—
 - (1) the number of children in regular attendance,
 - (2) the quality of the instruction imparted,
 - (3) the general character of the school, as ascertained by local board members and inspecting officers.

Bengal differs from other provinces in that it leaves to District Boards the power to fix the rates at which grants to aided schools are to be paid; but the rules in which such rates are embodied have to be submitted to the Director of Public Instruction for approval. The principles prescribed in the rules and orders, and quoted above, are simple and general, but the actual system applied is elaborate. Acting upon the suggestions of the Education department, which framed and circulated a set of rules as an example, the District Boards have adopted a plan by which the sub-inspector estimates the condition of the school under each of the following seven heads:—

1. Number on the rolls.
2. Average percentage of attendance.
3. Qualification of the teacher.
4. Efficiency of the teaching and organisation.
5. Progress being made by the pupils on the whole.
6. Contribution from private sources, including fees.
7. State of school premises.

The condition of the school under each of these heads is estimated by the sub-inspector in the form of marks, four marks being full marks under each head, so that the total marks obtainable are 28; and the sub-inspector is provided with tabulated instructions showing the four different degrees of merit under each head, and telling him to award 4 marks for the highest degree of merit, 3 marks for the second, 2 for the third, and one for the lowest. A district is divided into circles, and in the instance from which this description is taken there are ten circles. To each circle are assigned stated numbers of upper primary school stipends at Rs. 4, 3, and 2 respectively. These are awarded by the education committee to the upper primary schools in those circles, in accordance with the marks given by the sub-inspectors. Thus in a circle containing 18 upper primary schools the seven schools at the top of the list obtain a stipend of Rs. 4 a month, the next seven obtain Rs. 3 a month, and the remaining four schools obtain Rs. 2 a month. This is, in short, a system by which grants to upper primary schools are paid in the form of stipends of Rs. 2, 3, and 4 a month, according to the size of the school and its quality as estimated by the sub-inspectors. The upper primary schools receive grants in the form of stipends alone; but the lower primary schools receive a subsistence allowance of Re. 1 a month, provided they have not less than ten pupils on the rolls, and five in average attendance. They then receive rewards at the end of the year, their claims to which are determined by the same mark-system which has been described above. The amount of the rewards is fixed from year to year, but the maximum is Rs. 30 a year. The teachers are placed in four groups, according to the proportion of full marks which they obtain, and their rewards, if given on the maximum scale, amount to Rs. 30 for the best group, Rs. 20 for the second, Rs. 10 for the third, and *nil* for the fourth. Thus the lower primary teacher obtains the equivalent of a total monthly grant ranging from Re. 1 to Rs. 3½, according to the size of the school and its quality as estimated by the sub-inspector.

411. UNITED PROVINCES.—Schools with an average attendance of 15 scholars, and a qualified master, (*i.e.*, one who has passed the upper primary examination), may receive a grant of Rs. 4 a month, and if in addition to this they observe the curriculum prescribed for district board schools and possess text-books, maps and proper appliances, they may receive Rs. 5 or Rs. 6 a month. If the average attendance exceeds 25 and there is but a single master, an additional rupee may be paid. If qualified assistant teachers are employed, a grant of Rs. 3 may be paid for each assistant. The grant is subject to annual revision by the Board, or may be withdrawn during the year, after warning, for inefficiency or poor attendance. Boards may also make building grants to lower primary schools, not exceeding the sum of Rs. 30.

The rules of March 1902 also establish a new scale of grants to a lower stratum of indigenous schools, which are unable to earn grants-in-aid on the monthly scale. Such schools, if they comply with four conditions, may receive attendance grants ranging from Rs. 6 to 10 a quarter. The four conditions are—

- (1) that the school serves some purpose of useful secular education,
- (2) that the teacher employed is capable of teaching reading, writing and arithmetic,
- (3) that an attendance register is kept and simple returns made,
- (4) that the school submits to inspection.

In all cases, both of monthly and of attendance grants, a condition of aid is that the school shall be in need of it.

412. PUNJAB.—The main grants to vernacular primary schools are called block grants, and are based upon the average attendance of the past five years. The maximum annual grant for each unit of average attendance is in the infants class 8 annas, in the lower primary department 12 annas, and in the upper primary department Rs. 3 annas 4. A school may obtain 60, 80, or 100 per cent. of these rates, according as each department of it is classed by the inspector as fair, good, or excellent. Where a certificated teacher is employed, a staff grant of one-fifth of his salary, or rather of the average salary paid in neighbouring board schools, is also paid. Building grants are also made, at not less than half the total cost. Grants are also paid to "indigenous" elementary schools, if they have an average attendance of 10 or more scholars, if the scholars are taught to read a printed book and to write, and if the schools keep returns and are open to inspection.

413. BURMA.—The change from the results grant was opposed both by the syndicate and by the Director of Public Instruction, who was of opinion that the system was exactly suited to the province and that the Burman would not work without a stimulus.

The system was as follows:—Exclusive of special building grants, there were three kinds of grant made concurrently to vernacular primary schools, *viz.*:—

- (a) results grants,
- (b) grants for pupil teachers,
- (c) salary grants.

For the results grant, every child was examined annually in every subject and his success or failure was appraised in marks; one-third of the marks in each subject constituted a pass in that subject, and each pass in all the compulsory subjects taken

together, and each pass in any of the optional subjects taken singly, brought a stated number of rupees annually to the school in the form of a grant.

Thus in the infant class, for children of seven years of age or under, there were five compulsory subjects, (1) reading and writing, (2) arithmetic, (3) Kindergarten, (4) object lessons, (5) geography. The standards of examination in these subjects were:—

1. To name the letters of the alphabet.
2. To copy an easy word or sentence from the blackboard.
To count 1 to 20; to write from dictation 1 to 20; simple addition mentally of two numbers neither of which exceeds 10.
3. Plaiting six easy patterns.
4. To answer intelligently questions on a lesson chosen by the examiner out of six lessons submitted by the manager.
5. To model in sand the principal geographical definitions, and give their names.

The mark values of these subjects were 12, 15, 15, 15, 15.

The child who passed in each of these subjects brought altogether a grant of Rs. 2 annually to the school. Thus a class of 15 infants who all passed was worth 30 rupees. In the departments above the infants the rates or result grant differed according to the qualifications of the teacher. A primary school with an uncertificated manager could obtain a grant of Rs. 4, 6, 7, and 8 for boys in the first, second, third and fourth standards respectively, for their passes in the compulsory subjects. The tariff for optional subjects differed for the different subjects and the different standards.

The optional subjects which could be taken in a primary school for boys were Pali, hygiene, elementary science, Sgau Karen, drawing, drill and gymnastic. No limit was prescribed to the number of optional subjects which might be taken. The value of a pass in hygiene was 8 annas, in drill and Karen 8 annas to a rupee, in elementary science 1 rupee, and in Pali 1 rupee to 2 rupees.

An addition of 25 per cent. to the total of the results grant awarded might be made to schools showing conspicuous merit. This was called a merit grant. The salary grant was a sum of Rs. 10, paid to a newly started school at the end of the first year, and of Rs. 8 paid at the end of the second year. After this it was expected that the results grant would suffice.

The pupil teacher grant was a stipend of Rs. 2, 4, and 6 a month, paid to a pupil teacher in the first, second and third years of his apprenticeship, and a bonus of Rs. 10 on passing his annual examination.

The proportion of children who passed, and upon whom the results grants were paid, is not recorded, except as to those who passed the examinations at the end of the lower primary and upper primary stages. About five-sevenths of those presented at these examinations passed. But pupils who had attended less than 250 times in the year might not be presented. Thus, although it would seem that the scale of results grants offered a fair prospect of obtaining about 5 rupees a head for boys in primary schools, and that the addition of salary grants and pupil teacher grants would raise the amount above this, yet the grants in aided schools only worked out to an average of Rs. 3 annually for a child. A school of 30 boys would receive an annual grant of Rs. 90.

The revised rules preserve all these grants, and assess them in the same manner, with some alteration in the compulsory and optional subjects, and with an enhancement of the rate for an infant's pass in the compulsory subjects, for a pass in drawing and needlework and for salary grants.

But as an alternative to results grants the rules now provide for fixed grants. These may be given to schools of the following classes:—

- (1) Schools in backward localities;
- (2) Schools under direct missionary management;
- (3) Schools of whose permanent character the Director is satisfied.

The continuance, enhancement, reduction, suspension, or withdrawal of these grants depends upon the condition of the school, the tests to be applied being tests of attendance, buildings, circumstances of the locality, qualification of teachers, the nature of the instruction and the outlay from other sources. Such schools may draw other grants, except results grants, on the usual conditions. It is laid down as a condition of the fixed grant that it shall not exceed the difference between the receipts and expenditure of the school. This introduction of an alternative to the results grant was the outcome of representations from the Government of India, who would have wished to see the system of payment by results entirely discontinued, but out of regard to the opinions offered in its favour in Burma were content with a tentative and gradual change.

414. EASTERN BENGAL AND ASSAM.—The majority of the lower primary aided schools in the plains of Assam were converted into board schools during the quinquennium. In the hills they are chiefly supported by missionary bodies. Whether their schools are situated in the hills or the plains, the missions now receive their grants from provincial revenues instead of from local bodies, and receive these grants in a lump. Thus for instance the Welsh Mission, which maintains schools in the Khasi and Jaintia Hills, and whose work in that respect is highly praised by the local Government, receives from provincial revenues an annual grant of Rs. 1,200 for the provision of school buildings

and apparatus, and of Rs. 6,000 for the maintenance of the schools. The local Government has recommended that this mission should adopt, in the payment of its teachers, the same principles that are laid down for the remuneration of teachers in Board schools: viz., that part of their salaries should be fixed, and that the other part should be a capitation grant, depending upon the numbers of children in the higher classes of the school. The reason for this recommendation was that, in the opinion of the local Government, the payment of fixed salaries only, without any addition for improvement in the character of the school, did not evoke from the teachers all the exertion of which they were capable; and that as a consequence the schools were for the most part full of children who remained in the lowest classes without ever rising higher.

The system of aid for upper primary schools is based on principles which exclude all venture schools. It establishes a strong departmental control over aided schools under private management, and requires a comparatively high standard from them. A substantial contribution towards the cost of the school must be provided either by the proceeds of an endowment or by private subscriptions, apart from fees. The amount to be thus provided is not to fall short of Rs. 2 a month, and the aid is not to exceed five times the amount provided from endowment and subscriptions; in places where education is in demand, this limit is reduced to two and a-half times. Building grants are made, which are rarely to exceed double the amount raised by private subscriptions; and the managing committee are to keep the building in repair and the apparatus in good condition, raising special subscriptions from time to time for this purpose, if the ordinary subscriptions do not suffice. Fees must be levied at prescribed rates, which are the same as in Government schools. The teachers must be certificated, and their pay should be not less than Rs. 15 a month for the head teacher and Rs. 7 a month for the junior teachers. In those schools where the monthly grant from public funds exceeds that from endowment or subscriptions, the appointment of teachers is subject to the previous approval of the inspector of schools, and the Director may order the dismissal of a teacher who is unfit for his duties. Grants are ordinarily sanctioned for a term of five years. The school manual does not prescribe the amounts of the grants, further than they are defined by the conditions mentioned above.

415. CENTRAL PROVINCES.—At the beginning of the quinquennium a fixed subsistence grant was given to all aided schools, representing about half of the amount of grant obtainable by them, and the remainder was a results grant. In 1902-3 this system was abolished. Rural aided schools which were not under the management of missions or other societies were converted into Board schools, and a similar conversion took place in Berar in 1903-4. The aided schools which remain receive fixed grants, paid quarterly. The schools must show an average attendance of 20 boys, and the grants may not exceed the difference between the receipts and expenditure of the school. Nothing is laid down as to the scale upon which the grants are assessed. Grants for buildings and furniture are also made.

416. The systems of grant-in-aid as they stand after the wholesale reconstruction which has taken place during the quinquennium have now been enumerated. At first sight they are almost bewildering in their manifold variety. They range from the extreme of simplicity in Madras to the extreme of complication in Bengal and Burma. Some of the grants run annually, some for a term of years; some are of an amount exactly ascertainable beforehand and prescribed in the Code, others are determined at the end of the year on fixed principles, others depend upon the discretion of the authorities after considering the circumstances of the school. In one province they are paid by the department out of provincial revenues, in others they are paid by local boards upon a scale departmentally laid down, in others the local boards may, within prescribed limits, determine the scale and its basis. Some provinces make no conditions as to the funds that shall be forthcoming from private sources to meet the grant, others make conditions under which the amount to be supplied from private sources ranges from one-sixth (Assam) to two-thirds of the expenditure (Bombay); one excludes the fees and another includes the fees, when reckoning the private sources. The bases on which the grants are assessed consist of the following, taken separately or together:—

- Number of teachers.
- Qualifications of teachers.
- Pupil teachers.
- Number of scholars in attendance.
- Regularity of attendance.
- Subjects taught.
- Efficiency of the teaching, as judged by inspection.
- “ “ “ as judged by examination.
- “ “ “ as judged by the number of children in upper classes.

School premises and apparatus.
General need and merits of the school.
Contributions from private sources.
Central managing body receiving lump grants.

417. If we would generalise about systems so diverse, there are three points which may properly call for notice:—

- (1) Are they really systems of grants-in-aid, i.e., do they really imply the existence of managers and the provision of other sources of income for the schools?
- (2) What is the amount of grant offered to a school, and how does this amount compare with that given under the old systems?
- (3) To what extent does the principle of applying a stimulus to good work, or a penalty for bad, still enter into the system upon which the grants are assessed?

418. It was upon the expectation that aided primary schools would have at their backs committees of management, not only managing the schools, but supplying funds for their erection and maintenance, that the despatch of 1854 founded the system of grants-in-aid; and the arguments used in that despatch show that it was not fees which the system was designed to encourage—these could be collected under any system—but donations, subscriptions, endowments.

419. There are but two provinces in which the grant is dependent upon the provision of funds from private sources:—Bombay and Assam. In Bombay the grant may not exceed one-third of the total expenditure, so that the other two-thirds must be found from fees and subscriptions and endowments. This is not an absolute requirement of the provision of any private funds beyond fees; but it is obvious that a grant, if it amounts to only half the fees, must be very small, and that schools could hardly be supported upon such a basis; and in fact the grants to aided primary schools for boys in Bombay amount to Rs. 1,32,000, while fees amount to Rs. 1,07,000, subscriptions to Rs. 55,000, and “endowments and other sources” to Rs. 2,07,000.

In Assam, the definite requirement is made that for an aided upper primary school for boys at least Rs. 2 monthly must be raised from private sources (exclusive of the fees); and the grant may not exceed five times, and in certain cases will not exceed two and-a-half times, the amounts raised from private sources.

420. It should, perhaps, also be mentioned that in Bengal the amount of contributions from private sources (including fees) is one of the items taken into consideration in assigning stipends to aided schools, but this is very far short of a positive requirement, and merely has the effect of allowing a certain fractional value to the principle that “to him that hath shall be given.”

421. There are in India 63,944 aided primary schools for boys; and less than 1,800 of these (viz., 1,678 in Bombay and about a hundred in Assam) are governed by rules requiring that contributions from private sources shall either exist, or shall bear some proportion to the grant.

The fact that Bombay and Assam are the provinces in which these conditions are attached to the grant requires a word of comment. Bombay is the province which depends principally upon the system of publicly managed primary schools, having 7,687 such schools for boys, as compared with 1,678 under private management, and Assam is a province which has recently carried through a large conversion of aided primary schools into Board schools, and which announces that grants-in-aids will be given to aided lower primary schools only in exceptional circumstances. No province which depends upon the aided schools for the extension of primary education has ventured to require that aided schools should show the receipt of subscriptions or endowments to meet the grant; and indeed, if such a requirement were made, the result could only be disastrous, for the total grants to aided primary schools for boys from provincial and local funds amount to 29 lakhs, while the subscriptions to such schools amount only to Rs. 3,62,000, and the receipts from “endowments and other sources” to about 9 lakhs. This last item of “endowments and other sources” is, moreover, an extremely dubious one; for into it are thrown all the sums intended to make the accounts square,

and it contains not only such genuine endowments as there may be, the mention of which never finds a place in the Directors' reports, but also book-keeping entries which are inferential. Nor, with the increase of grants, have the subscriptions any real expansive power: They were Rs. 292,000 in 1902 and Rs. 313,000 in 1905 and Rs. 362,000 in 1907; that is to say, an increase of grant from 1902 to 1907 amounting to 11 lakhs has been met by an increase in subscriptions amounting to Rs. 70,000. The grants-in-aid do not and cannot wait upon the power of private managers to find private contributions for the needed improvement and expansion of primary schools. Taken as a whole, therefore, the systems of grants-in-aid are really not based upon the assumption that aided primary schools have at their back committees of management who supply funds for their erection and maintenance. The truth is that a small proportion of the aided schools have such support, as for instance some which are maintained by missionary bodies, or by larger landlords as an honourable public duty, or by smaller landlords as a temporary measure for the education of their own children. The remainder of the aided primary schools for boys have as their constituent elements a teacher, some boys, a place in which to teach them, the boys' fees (paid in cash or kind), and the Government grant.

422. We may observe also another feature in these systems of grant-in-aid. Three provinces now rely principally upon departmental agency to provide primary education for boys: Bombay, which has always done so; the Central Provinces, and Assam, which have taken this turn during the quinquennium under review. These three provinces continue to give aid to private agency where it exists, but where private agency merely means venture schools, they prefer to bring such schools under public management rather than to swell the statistics of aided schools. In all these three provinces the rules for grant-in-aid to primary schools, so far from "appropriating the grants to specific objects, and not applying them in the form of simple contributions in aid of the general expenses of a school", have, in the re-arrangement of the grant system consequent upon the abolition of payment by results, ceased to specify a tariff of the rates at which the grants will be paid. All their grants to primary schools (excepting grants for building and furniture) are simple contributions in aid of the general expenses of the school, and they are assessed upon the merits of each case and with reference to the needs of the school, and its fulfilment of the general conditions of efficiency. The idea that by the offer of definite sums of money for definite purposes private effort would be evoked to provide the remainder of the cost, and so to "earn" the grant, seems in these provinces not to have been borne out by experience. Instead, therefore, of putting forward the grant at stated rates as a nest-egg or bait for private contributions, these provinces first inquire what prospects or promises there may be of support from private sources, and then fix the rate of grant in order to meet the needs and deserts of the school.

423. In the other provinces, where grants are made at stated tariff rates, these grants must be considered as fulfilling two purposes. They are the assistance which Government will give to private persons willing to be responsible for the maintenance of primary schools; but they are also, and more extensively, the rates of remuneration which Government offers (directly, or through the agency of boards) to teachers willing to conduct schools on certain conditions.

In a board school a teacher is considered to be in the employ of a board; in an aided school he is not; but in many cases the difference consists in this, that in the board school the board (a) provides the school premises, (b) pays the teacher a salary at a fixed monthly rate, (c) requires him to account for the fees collected; while in an aided school the board (a) does not provide school premises, (b) pays the teacher either by a fixed monthly rate or otherwise, but at a lower rate than in board schools, (c) allows the teacher to retain what fees he can collect.

424. Both the quality and the quantity of the men who are willing to take service as teachers must necessarily depend upon the remuneration attached to that form of employment, as compared with others. By far the most important feature of a grant-in-aid system, therefore, is not the mode

by which grants are assessed, but the amount obtainable by a teacher, however it may be assessed. We should therefore compare the grant-in-aid systems in respect of the amounts of grant offered by them. For this purpose our best guide is the amount of public funds expended upon these schools, divided by the total number of the schools. This gives the annual average grant received by an aided primary school for boys. In considering these amounts it must be remembered that a school may have to employ more than one teacher, and that the average size of a school differs in the different provinces. The following table gives the average grant per boy, as well as the average grant per school, both for the year 1902 and for the year 1907.

Average annual grants to aided primary schools for boys (in rupees and decimals of a rupee).

	1902.		1907.	
	Per boy.	Per school.	Per boy.	Per school.
Madras	1·1	35·5	2·0	62·5
Bombay	1·3	53·3	1·8	73·9
Bengal	·8	22·3	1·1	31·1
United Provinces	1·3	41·6	1·8	55·3
Punjab	1·7	68·5	1·8	68·5
Burma	2·4	73·1	3·1	97·4
Central Provinces and Berar	1·8	71·1	3·4	234·4
Eastern Bengal and Assam	1·9	57·5	·9	27·8
Coorg	2·5	16·0	2·2	148·6
North-West Frontier Province	1·5	99·7	1·8	94·9
General average	1·1	32·6	1·5	45·3

It should here be said that in the table given above there is a small unavoidable error, due to the form of statistical returns in use. Aided schools under private management, which are situated in Native States, are included amongst the schools; but the aid which they receive from Native State funds is not included in the aid given, because it is not shown separately in the returns. In Bombay, where the proportion of such schools is greatest, the figures of aid from Native State revenues are stated; and their inclusion raises the average rate of grant per boy in that presidency to Rs. 1·4 in 1902 and 1·9 in 1907; and the grant per school to Rs. 56·1 in 1902 and 78·7 in 1907.

425. An essential principle of the system of payment by results was that it was intended to apply a stimulus to improvement, by graduating the grant according to the merit, supposed or real, of the work done. This principle itself is not unimpeachable, for in many cases the defects of a school may be due to its poverty, and the better remedy for this is not to reduce but to increase the grant. It is of little use to apply to inferior and ignorant men a stimulus, in order to induce them to rise to a level which they are not capable of attaining. A schoolmaster whose own education is of a low standard cannot, by the most drastic and persistent reductions in his salary, be rendered capable of teaching what he does not know. The systems of grant-in-aid which have been reviewed above as having been brought into force

during the past quinquennium show a very distinct tendency to reduction in the element of stimulus in the assessment of grants-in-aid, and to increase in their stability. Grants are fixed for a term of years in Bombay, the Central Provinces and Assam; Burma has introduced this system for some of its schools. The use of the terms "stipend" and "subsistence allowance" in Bengal is also an indication of a change in the point of view, and the establishment of a definite number of stipends at different rates is a long step towards a system which resembles a graded service. The grant-in-aid rules of the United Provinces establish a system of regular stipends at different rates; and those of Madras establish stipends, although these instead of being at fixed rates, vary with the size of the school. In only three provinces does the grant-in-aid vary directly with the judgment passed each year upon the work of the school:—Bengal, the Punjab, and Burma. In Bengal the inclusion of other factors tends to lessen this variation; in Burma another system has been begun; and in the Punjab, where the variation is from 60 to 100 per cent. upon the merits of the school, there is also a stable element in the staff grant paid to a certificated teacher. In all cases the authority which makes or sanctions the grant has the right of withholding it if the important conditions are set at naught. There is no reason to believe that in any of the provinces the rules for grant-in-aid as now reconstructed provide insufficient incentive for good work, or insufficient check upon bad. The principle of stimulus had been carried to excess; the change to a greater stability in the rates of grant has been generally beneficial.

Expenditure.

426. The total expenditure upon primary schools for boys in 1902 and 1907 respectively is returned as follows in thousands of rupees:—

	1902.	1907.
Public funds	60,74	89,50
Fees	30,50	32,04
Other sources	14,21	15,17
	<u>1,05,45</u>	<u>1,36,71</u>

This shows an increase in the total expenditure of Rs. 31,26,000, and by far the greater proportion of this increase has been made by the growth in the expenditure of public funds, which amounts to Rs. 28,76,000. It may at first sight appear that this increase in expenditure from public funds is not commensurate with the Imperial assignments of 40 lakhs for the purposes of education in general made in 1902, and of a further 35 lakhs specifically assigned to primary education in 1905. But the explanation is two-fold; first that a considerable part of these assignments was devoted to buildings and to improvements in the training of primary teachers and the inspection of primary schools,—items which are classed under other headings than primary schools in the returns; and secondly that the full number of new schools capable of being established from the grant made in 1905 could not be immediately called into existence, and that therefore the figures of 1907 do not show the full effect which that grant will have upon the expansion of primary schools. The figures of total expenditure on primary schools in 1902 and 1907 respectively show that the expansive power of primary education chiefly depends upon the public funds which can be devoted to the purpose.

427. The average annual expenditure on a boys' primary school has been steadily rising for the past twenty years. It stood at Rs. 85 in 1887 and at Rs. 133 in 1907; and this average of 133 rupees is the resultant of the following figures for the several provinces:—

	Rs.		Rs.
Madras	119	Burma	111
Bombay	389	Eastern Bengal and Assam	86
Bengal	76	Central Provinces and Berar	282
United Provinces	139	Coorg	277
Punjab	203	North-West Frontier Province	209

The schools have, however, been growing larger, and therefore this increase of expenditure is not entirely due to increase in the rates of salaries. In 1887 the average annual expenditure upon each pupil educated in a primary school for boys was Rs. 3, it grew to Rs. 3·7 in 1902, and has now risen to 3·9 rupees, made up as follows:—

	Rs.		Rs.
Madras	3·8	Burma	3·5
Bombay	6·8	Eastern Bengal and Assam	2·9
Bengal	2·9	Central Provinces and Berar	4·4
United Provinces	3·4	Coorg	6·4
Punjab	4·9	North-West Frontier Province	4·7

The growth in the several provinces is shown in table 124.

428. In round numbers, the total expenditure on boys' primary schools under public management is sixty-six lakhs per annum, on aided schools sixty-four lakhs, and on unaided schools six lakhs. A publicly managed primary school costs on an average Rs. 269 per annum, an aided school Rs. 100 per annum, and an unaided school Rs. 44 per annum. The numbers for the several provinces are given in table 120. In round numbers sixty lakhs are spent from public funds upon maintaining publicly managed schools, and twenty-nine lakhs are spent from public funds upon grants-in-aid; further details of this expenditure are given in table 121. The expenditure from public funds is made up of four items, *viz.*, provincial revenues, district funds, municipal funds and other public sources (chiefly Native State revenues). The figures for 1902 and 1907 are as follows:—

	1902.	1907.
	In thousands of rupees.	
Provincial revenues	13,34	20,74
District funds	34,77	53,05
Municipal funds	6,31	8,70
Other public sources	6,32	7,01
TOTAL	<u>60,74</u>	<u>89,50</u>

Imperial assignments are of course not separately shown in these figures. They pass into the provincial revenues and thence into the funds of district boards and municipalities. The particulars for the several provinces are shown in table 116, but calculations based upon the differences between provincial and local funds devoted to primary schools are in present circumstances of little value, because increases in local funds chiefly depend upon increased assignments made from provincial revenues to the local authorities.

Middle Vernacular Schools.

429. The apex of the system of vernacular schools is the kind of schools originally known as tahsili schools and now known in most provinces as middle vernacular schools. They are vernacular schools with 7 or 8 standards, and have always been so classified in Bombay, where the term middle vernacular school has never come into use; but in other provinces, under the orders of the Government of India issued in 1883, they have been classified among secondary schools, and consequently the statistics of the pupils in them (from the infants upwards) are not included in the statistics given above of primary schools and pupils attending primary schools. In Madras, they used to be called lower secondary vernacular schools instead of middle vernacular schools, but this term has now been dropped and they are merely styled elementary schools, with seven or eight standards as the case may be; although in order to preserve continuity in statistical record the number and details are still included in the assigned places in the statistics of secondary education. They belong rightly to the system of the vernacular education of the masses, and they represent the highest point to which such education reaches. Just as there are in the smaller villages lower pri-

mary schools, *viz.*, schools with two or three standards, and in the larger villages upper primary schools, with four or five standards, so at the headquarters of tahsils or other large convenient centres there are these middle vernacular schools, with six or seven standards above the infant class. The medium of instruction in these schools is the vernacular, without exception. The teaching of English as a language finds no place in any of them, except in Madras where the teaching of English is permitted in primary schools and where having been begun in the fourth class from the bottom of the school it is continued in the fifth, sixth and seventh. With respect to the subjects of instruction, these are identical with those of upper primary schools up to the end of that stage and the same subjects are then continued with some additions. The middle vernacular schools of the United Provinces (their place of origin) may be taken as an example. Up to the fourth class, *viz.*, to the upper primary stage, the subjects taught are reading, writing, arithmetic, agricultural primer, geography, and drill. In the two classes above this, which constitute the "middle section" (for this is the name given to the top of the school), the pupil reads extracts from standard works of vernacular literature, and he adds to these a study of letter writing in current idiomatic style, and of scripts, *viz.*, Kaithi and Shikast. He studies the first two books of Euclid, and (as is proper in an agricultural country) the mensuration of plane surfaces. To geography which has hitherto not extended beyond India, the boy now adds a study of the "outlines of Asia" and physical geography. He reads a text-book covering the whole history of India; and learns a primer on sanitation. Besides these subjects he may learn, at his option, either what is called "practical physics", but what is in fact the elements of geometrical drawing, or a second vernacular, so that a boy who is reading his Hindi book of the fifth and sixth standards learns to read the Urdu book up to the fourth standard, or *vice versa*.

430. The subjects taught in middle vernacular schools above the upper primary stage may be thus shown in tabular form—

SUBJECTS.	Bengal.	United Provinces.	Punjab.	Central Provinces.	Burma.	Assam.
1. Vernacular . . .	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory.
2. Arithmetic . . .	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto.
3. Algebra . . .	Not taught	Not taught	Ditto	Ditto	Not taught	Not taught.
4. Geometry . . .	Alternative	Compulsory	Ditto	Ditto	Ditto	Compulsory.
5. Mensuration . . .	(with Euclid)	Ditto	Ditto	Optional	Ditto	Ditto.
6. History . . .	Compulsory	Ditto	Ditto	Compulsory where agriculture is not taught.	Ditto	Ditto.
7. Geography . . .	Ditto	Ditto	Ditto	Compulsory	Compulsory (with 10 and 13).	Ditto.
8. Physical geography . . .	Compulsory (with 7).	Compulsory (with 7).	Compulsory (with 7).	Compulsory (with 7).	Not taught	Not taught.
9. Classical language . . .	Not taught	Not taught	Optional	Not taught	Ditto	Ditto.
10. Science . . .	Compulsory	Ditto	Ditto	Compulsory	Compulsory (with 7).	Compulsory.
11. Agriculture . . .	(Included in 10.)	Ditto	Ditto	Compulsory where history is not taught.	Not taught	(Included in 10.)
12. Hygiene . . .	Ditto	Compulsory	Compulsory (with 6, 7 and 8).	Not taught	Ditto	Not taught.
13. Manual training . . .	Optional	Ditto	Not taught	Optional	Optional	Ditto.
14. Drawing . . .	Compulsory	Alternative with a second language compulsory.	Optional	Ditto	Ditto	Ditto.

431. The establishment of these schools was the peculiar feature of Mr. Thomason's system of improving vernacular education, and in the resolution of his Government, dated 9th February 1850, they were described as "Government village schools at the headquarters of each tahsildar", and Mr. H. G. Reid, the Visitor General of Schools, wrote:—"The object aimed at in the establishment of these schools is not to turn out some few accomplished scholars, but to place within the reach and means of all a sound elementary education; to enable the landholder and cultivator to protect themselves from

fraud on the part of the patwari, by teaching them to read and write, and to comprehend the system under which their rights are recorded, their payments entered, and arrears specified in the patwari's books."

432. As these schools contain only six or at most seven classes above the infants' a year's work being allotted to each class, an intelligent boy may run through to the top by the age of 13; but most of the boys take the course in a more leisurely way and it is common to find the top class consisting largely of boys between 15 and 16 years of age.

433. The welfare of the remainder of the system of primary schools largely depends upon the prosperity of the middle vernacular schools, since it is from them that the best qualified teachers for primary schools are obtained, and also because they serve to exhibit the best model of vernacular schools, and thereby exert an indirect influence upon the other vernacular schools of lower grade which come within their sphere of influence.

434. It is satisfactory to find upon the whole an increase in the number both of schools of this kind and of their pupils during the period under review, as contrasted with a slight falling off during the previous quinquennium. The number of schools and pupils in India at periods of five years since 1892 have been as follows:—

	1892.	1897.	1902.	1907.
Schools	1,894	2,065	1,932	2,039
Pupils	136,969	158,753	158,706	184,132

Particulars for the several provinces are given in table 129.

435. The figures of pupils given above represent the total numbers in all classes of the schools. The numbers of boys in middle vernacular schools reading in the classes above the upper primary stage, *i.e.*, in those classes which are peculiar to these schools, are:—

1892	24,306
1897	27,546
1902	27,817
1907	38,373

The figures for 1902 and 1907 for the several provinces are given in table 134.

436. The chief difficulty which these schools have to encounter in the struggle for existence is that parents who are willing to permit their boys to attend school up to the age of 15 or 16 usually desire them to attend an Anglo-vernacular school, which they regard as being a better investment. The careers open to scholars with only a vernacular training are generally those of village teacher and village accountant; in most forms of clerical employment even a smattering of English has its value and dips the scale against vernacular schools. The numbers of pupils who complete their course in middle vernacular schools before proceeding to English secondary schools are not recorded; but they are increasing owing to the institution of special classes to receive them upon transfer. The following table shows the comparative growth in recent years of middle English and middle vernacular schools:—

	1892.	1897.	1902.	1907.
Schools . { Middle English	1,789	1,922	2,030	2,129
{ Middle Vernacular	1,894	2,065	1,932	2,039
Pupils . { Middle English	137,326	155,841	170,561	188,110
{ Middle Vernacular	136,969	158,753	158,706	184,132

437. From the remarks made by the Directors upon the progress of vernacular middle schools during the period under review the following passages may be quoted :—

UNITED PROVINCES.—“The numbers of examinees and passes in the vernacular final examination (which comes at the conclusion of the vernacular middle school course) were 6,026 and 3,740, respectively, this year, against 5,255 and 3,931, the figures for the last year, and 4,056 and 2,148 in the year 1902. The growing popularity of the examination is evidence that in these provinces, at all events, secondary vernacular education is not declining in popularity, whatever may be happening in other parts of India. The percentage of passes this year is 62, against 75 of last year and 53 of 1902. The fall in the percentage is attributed to the spread of plague and the consequent closing of many town schools during the best part of the year. Out of 17 girls who went up for this examination only six passed. This disappointing result was due to the weakness of the candidates appearing from the Girls' Normal School, Lucknow.

“The weak points in the work of examinees are reported to be ‘defective teaching of grammar and lack of method and system in answering questions in arithmetic and mensuration. Candidates do not know how to develop their working in a methodical way or to reason out their answers in a lucid and logical manner. In questions on mensuration, geometrical figures are often poor and inaccurate. In geography map-drawing is a poor performance, and boys lack in general information.’ But notwithstanding these defects, the opinion is widely held that the standard of attainment is rising, and that the scholars coming from middle vernacular schools are better educated than those reading in the corresponding class of English schools.”

438. PUNJAB.—The Lahore Inspector remarks:—“Private bodies have hitherto shown no tendency at all to encourage vernacular education by the opening of vernacular middle schools, so that whenever and wherever a secondary school is opened by the people, it is always Anglo-vernacular. This, to my mind, is a great pity, as the soundest and best education given up to the middle stage is that provided by vernacular middle schools, in which boys are taught subjects through the medium of a language they understand. I am of opinion that if we were to teach every subject up to the middle standard through the medium of the vernacular and were to treat English as a second language, much of the reproach which is laid at the doors of our present system would be taken away, and we would get better education and better English. That the number of pupils in the vernacular schools has fallen is a proof of the strong desire on the part of the public to teach English to their children, and while the wish is commendable, it ought to be properly directed.”

439. EASTERN BENGAL AND ASSAM.—“Middle vernacular schools show a uniform decrease during the last ten years. Between the years 1897 and 1902 they fell to 24,619, and in 1902-07 to 24,401. The fall in the number of vernacular schools and of pupils attending them, though uniform, was not so rapid during the quinquennium under review as in the preceding period. But it is probable that, if all the middle vernacular schools in Eastern Bengal in which English has been started were included among middle English schools, as they should be, it would be found that middle vernacular schools are fast approaching extinction. This result is due partly to a desire on the part of the parents to give their children an English education, but chiefly to the fact that purely vernacular education offers little or no prospects to a youth in life at the present day.”

440. CENTRAL PROVINCES.—“Middle vernacular schools, coming as they do between very elementary primary schools and the English schools, where much is sacrificed to a foreign language, have been called the ‘most truly educative element in our system.’ Hence it would appear that they should receive special attention, but in point of fact (except those which have training classes) they are so very little better than primary schools that in Berar, prior to the amalgamation, they were ranked as such, and in recent communications the Government of India seem to class them in the same way. Statistics show that there was a considerable drop in the number of these schools, especially in Berar, between 1904 and 1906. The number for the past year remained stationary: and the number of scholars, though it has increased 10 per cent. in 1904, has decreased slightly in 1905; and of these the number above the primary stage has actually decreased. It is very difficult to decide whether these schools are popular. One inspector reports that vernacular middle education progresses ‘very slowly, if at all,’ another that ‘there seems to be no demand for it.’ On the other hand, in one circle (Nagpur) these schools have more than doubled during the quinquennium, and are reported to be as popular as ever and the demand for them increasing. Where this demand is felt, it should doubtless be encouraged, but sometimes the wish for any higher education than primary takes the form of asking for English-classes.”

CHAPTER V.

PROFESSIONAL COLLEGES AND SCHOOLS.

Introductory.

441. The statistical tables class as professional colleges those which provide instruction in Law, Medicine, Engineering and Agriculture, and also those which exist for the training of teachers. Institutions for the training of teachers are in this, as in previous reviews, treated in a separate chapter; the other four are dealt with in this chapter, and with them are also grouped the institutions which provide instruction in Forestry and in Veterinary Science.

442. The colleges and schools for Law and Engineering are under the general supervision of the Education departments, and so also, except in Bengal, are those for Medicine; and the educational statistics of all provinces contain returns of their number, strength and expenditure. The Veterinary schools are similarly included everywhere in the returns. The Agricultural colleges and schools are for the most part under the supervision of the Agricultural departments, and the only institutions of this class from which returns are included in the educational statistics are those of Bombay and Bengal. The Forestry schools are nowhere under the supervision of the Education departments, and their returns find no place in the general tables of educational statistics.

LAW.

443. The institutions which impart instruction in Law are of three kinds,—Law colleges, Law classes attached to Arts colleges, and Law schools. The first two prepare their students for University degrees, while the third merely prepares pupils for the local pleaderships examinations. The Law class attached to the Government College, Rangoon, which teaches the courses leading up to the B.L. degree of the Calcutta University, besides preparing students for the local pleaderships examinations, is classed in the statistics as a Law school: none of the other Law schools, properly so called, are of collegiate status, nor do they prepare students for University degrees.

Law Colleges.

444. There are only two Law colleges affiliated to an Indian University, viz., the Law College, Madras, and the Law College, Lahore. In the former institution the number of students remained fairly constant throughout the quinquennium. The average number of students on the rolls was 392. Commencing from the beginning of the quinquennium this college worked as a full-time institution, with a permanent staff consisting of a principal, a junior professor and two assistant professors. Special lecturers were appointed by Government, when necessary, to deliver a special course of lectures. The strength of the pleaderships classes was comparatively small; in the period under report it ranged from 14 to 41, while that of the B. L. class ranged from 262 to 361. The college has been more than self-supporting during each year of the quinquennium.

445. The Law College at Lahore is maintained by the Punjab University. In 1903 a sub-committee of the University syndicate was appointed to consider the question of improving its organisation and financial position. In its report the committee remarked that there was at present no prospect of making the Law College self-supporting. Its recommendations included proposals for paying higher salaries to the staff of readers, and for working the college more on the lines of an Arts college. The syndicate promised to keep in view the first of these recommendations, and to consider, on the occurrence of vacancies, the question of appointing whole-time lecturers, and of making consequent reductions in the members of the staff. They considered that there were insuperable difficulties in the way of

working the college on the lines of an Arts college, in the sense of making it a whole-time institution. The lecturers were not available, except in the mornings and evenings, outside of Court hours; and it was considered that the students could not attend during the day time unless the Law course was made a purely post-graduate course, to which there were objections. It was also decided that Roman Law should not be omitted, as suggested by the Universities Commission, from the LL.B. course, and that a Moot Society should be formed for the discussion by students of points of Law.

The number of students, which was 154 at the beginning of the quinquennium, dropped to 88 in 1905-06, but rose again to 225 in 1906-07.

Law Classes attached to Arts Colleges.

446. The total number of Law classes attached to Arts colleges was 28 at the commencement of the quinquennium, and sank to 25 in 1906-07, with 2,282 students. By far the greater number belonged to Bengal, where there were 12 such classes at the end of the quinquennium, and the students aggregated one-half of the total for the whole of India. Of the 25 institutions in existence in 1907, 11 were maintained by Government, one was under the management of a Municipal Committee in Bengal, and 13 were unaided. In Madras and the Punjab, where there are Law colleges, no such classes exist: nor are there any in the North-West Frontier Province or Coorg.

447. Fifteen of these Law classes were attached to Arts colleges affiliated to the Calcutta University. Of these, six were attached to Government colleges, *viz.*, at Hooghly, Krishnagar, Patna and Cuttack in Bengal, and at Dacca and Rajshahi in Eastern Bengal. One was attached to the Midnapore College, which is managed by the local Municipality; and the other eight were conducted in connection with unaided colleges under private management, of which the Ripon College is by far the most important in this respect. Of these eight, one only was located outside Bengal, *viz.*, the class attached to the Braja Mohan Institution at Barisal.

448. Of the Law classes in Eastern Bengal and Assam, Mr. Sharp writes:—"These classes, as at present organised, are of little use for the purpose of legal education and are attended by the students solely for the purpose of obtaining the certificate of attendance which is required by the University. The number of students has increased but little during the last ten years. That at Dacca, which between the periods 1897-98 and 1901-02 was 134, rose during the next five years only to 148: the rise in the other two colleges was also small. . . . The examination results were equally unsatisfactory. . . . The system under which Arts colleges have been allowed to maintain Law classes has not proved a success."

449. Only one student has so far passed the B.L. examination from the Law class attached to the Government College, Rangoon, since the institution of the class. The students are said to attend irregularly, work indifferently, and take little intelligent interest in their subject. The class appears in fact to exist principally in order to prepare students for the local pleader's test. It is consequently included also in the category of Law schools of lower than collegiate status, and is not shown in table 144 in volume II.

450. Two Law classes were affiliated to the Bombay University, *viz.*, the Government Law School, which is held in the buildings of the Elphinstone College, and which, while not of the status of a college, differs also in some respects from the Law schools existing in Burma and Eastern Bengal; and the Law class attached to the Deccan College at Poona. In addition to these two classes, students are permitted to present themselves for the first LL.B. examination of the Bombay University from certain mufassal colleges, such as the Gujarat College, Ahmedabad, and the D. J. Sind College, Karachi. The Law classes held at these and other similar mufassal colleges are not included in the Law classes enumerated in the returns, as students from them cannot proceed to the final LL.B. examination without a further period of two years' residence in Bombay as pupils of the Government Law School.

451. Of the education afforded by these Law classes Mr. Selby remarks:—

"Except that the number of students has increased things are pretty much where they were. The position cannot be described as satisfactory. Mufassal lecturers are sometimes appointed without much regard to their capacity to teach the subjects prescribed. In Bombay the Law school is not taken very seriously by students. When they have put in the minimum of attendance required, the one thought of up-country students is to escape from their expensive and uncomfortable lodgings in the city. There is no hostel for them in Bombay. The lectures do not cover the whole course of studies, as they do in an Arts college, nor, I am afraid, is the same value set upon them. They are not delivered until the evening, when the lecturers are wearied with a whole day's work or waiting for work in the Courts. The lecturers are mostly practising barristers or barristers who are hoping for a practice; but it is doubtful if the salaries are sufficient to tempt those who by knowledge and experience would be best fitted to give instructions. . . . We produce many graduates in law, but, I fear, few real lawyers. . . . It must be confessed that men do not make the most of the present system, but it must be confessed equally that the system does not afford them the opportunity of becoming scientific and philosophic lawyers."

452. No Law classes were attached to Arts colleges affiliated to the Punjab University.

453. Eight Law classes were attached to Arts colleges within the jurisdiction of the Allahabad University. Of these, one was held in connection with the Muir Central College at Allahabad, and five in connection with unaided colleges in the United Provinces. The establishment of a University Law School, which is noticed later, will, it is anticipated, result eventually in the closing of all these classes. The numbers of students have been rapidly dwindling since 1903-04, partly no doubt in consequence of the change effected as a result of the report of the Universities Commission, by which the standard of general education required of candidates for the pleadership examination has been raised from the Entrance to the Intermediate. The decrease in numbers is said, however, to have been accompanied by a satisfactory increase in the quality of the students. Again, the policy of establishing a central Law school has had its effect on the numbers of students attending the Law classes. At Christ Church College there were no such students, and elsewhere the numbers have steadily dwindled.

454. It will be observed that the education in Law, which is afforded by the system of Law classes attached to Arts colleges, has neither progressed during the quinquennial period nor has it been regarded as very satisfactory. This system has indeed been condemned for many years past, and the Government of India have urged that it should be supplemented by the provision of legal education in properly equipped central Law colleges, situated at the headquarters of each University. Their views are expressed in a letter which they addressed to local Governments in October 1902, from which the following passages are extracted:—

"That some reform is called for in the interest of a branch of education, which is of peculiar importance in India will, the Governor-General believes, be generally admitted. No one will attempt to justify a system under which it is possible for the legal education of students to be entrusted to a single teacher who is supposed to deliver formal lectures on all subjects required for the degree of Bachelor of Laws; while no library is provided for students to consult, and no attempt is made to ascertain by means of essays or exercises how far they have assimilated the modicum of information that the lecturer is capable of imparting. That teaching of this kind is not teaching at all is indeed admitted in substance by those who argue, in defence of the present system, that the students do not go to Law lectures to learn Law, but in order to obtain the certificate required by the University of having attended so many lectures, and that they can master all their subjects in six months' private reading. . . ."

"At the same time the Government of India are inclined to agree that, as in the case of Arts, a central Law college, with fees pitched at a rate commensurate with the commercial value of the education imparted, should be established at each University centre and, if necessary, by the Government. But its object should be to serve as a model; and it should possess no monopoly other than its own merits may secure to it."

Establishment of a central Law school in the United Provinces.

455. Central Law Colleges already exist at the headquarters of the Universities of Madras and the Punjab. No measures were taken during the quinquennium in Calcutta to carry into effect the policy laid down by the Government of India in the foregoing passages. In Bombay a Committee was appointed to consider the subject. In the United Provinces, however,—where the increasing unpopularity of legal education, as shown by the steady decrease in the number of students attending the Law classes attached to Arts colleges, other than the Muir Central College, has already been noticed,—an important change was decided on during the quinquennium and took effect just after the close of the period. This was the establishment of a central Law school, conducted under the management of the University and located at Allahabad. The main features of the scheme as approved by the Senate were the closing of the Law classes attached to the Muir Central College, and the concentration of legal education in a University school of Law. The United Provinces Government in 1906 made a grant of a lakh of rupees to the University to enable it to give effect to the scheme, and this was supplemented from a sum of Rs. 35,000, which had been earmarked out of the Imperial grant-in-aid of University education for the purchase of a site for a Law college and hostel and an office for the Registrar of the University. The appointments of Law professor and of two Law readers at the Muir Central College have been abolished. The staff proposed for the new school of Law consists of a principal on Rs. 1,000 per mensem, a professor on Rs. 400 per mensem, and two assistant professors on Rs. 250 per mensem. The school is to be maintained partly out of the income derived from entrance and tuition fees, which it is estimated will amount to Rs. 16,600 a year, and partly from the interest on the Government grant of a lakh of rupees, from the savings on the Law examinations of the University and from the savings on the annual Law examinations held by the High Court. These sources combined are estimated to produce a sufficient income to cover the annual expenditure on staff and contingencies. A Law library is a most pressing need, as no such library has hitherto been available for the use of professors and students at Allahabad. To supply this defect, a sum of Rs. 5,000 is to be set aside out of the Imperial grant of Rs. 80,000 in aid of the University library. Until a separate building is available, it has been arranged that the Law school shall be held in the Muir Central College.

Law Schools.

456. There are six institutions classed in the statistics as Law schools. One of these is a class attached to the Government College, Rangoon. Its students can prepare themselves both for the B.L. degree of the Calcutta University, and for the local pleadership examinations, and the majority of students adopt the latter course. Its numbers have not fluctuated greatly during the quinquennium. There were 14 students in 1902-03 and 19 in 1906-07. The unsatisfactory character of the work done by the students has already been noticed.

Law schools in Eastern Bengal and Assam.

457. The other five Law schools in existence are located in Eastern Bengal and Assam. The Chittagong College has a Law class preparing solely for the pleadership examinations. This was instituted in 1905-06, and its numbers were 16 in that year and 17 in the following year. The remaining Law schools are the four classes attached to the high schools at Silchar, Sylhet, Gauhati and Sibsagar. The total number of students attending these four classes was insignificant, varying from 39 in 1902-03 to a maximum of 51 in 1905-06.

Changes effected by the New Regulations.

458. The new regulations of the Universities, which have been framed under the Act of 1904, have introduced some changes in the courses prescribed for the various degrees in Law. In every University the minimum period in which the B.L. degree can now be obtained is six years after Matriculation. The only change in this respect is in the Punjab, where the course used to take seven years and there were two examinations, the Preliminary and

Intermediate in Law, interposed between the B.A., or B. Sc., and the LL.B. This has now been reduced to six years, as in the other four Universities; and a single examination, called the first examination in Law, has been prescribed one year after the B. A., or B. Sc. The examination for the Licentiate in Law has disappeared, and a new first examination in Law, through the medium of Urdu, has been instituted. This examination leads, however, to no higher degree.

459. At CALCUTTA, a new Preliminary examination has been interposed between the B.A. or B.Sc. and the B.L.; and a degree of Master in Laws has been instituted, which may be taken one year after the B.L. Formerly there was no examination for the degree of Doctor of Laws, which could be conferred on any Master of Laws who had taken honours after passing the M.L. examination and had written an approved essay on any subject connected with Law. A first-class M.L. can still proceed to the D.L. without undergoing a written examination, on presentation of a thesis; but there is an examination for the higher degree for those who have not taken a first-class in the M.L. examination, but whose thesis has been approved by the Board.

460. In MADRAS, the only innovation is the creation of a degree of LL.D., which may be taken one year after the M.L. by any candidate who has practised for at least five years after passing the B.L. examination. There is no examination, but a candidate must present a thesis which has to be approved by the examiners.

461. In BOMBAY, a new degree of Master of Laws has been created, which may be taken two years after the second LL.B. examination. Honours in Law have been abolished. The regulations for the LL.B. were undergoing revision at the end of the quinquennium.

462. In the PUNJAB, in addition to the changes already described, an examination for Honours in Law has been introduced. This may be taken two years after the LL.B. The examination for the degree of LL.D. has been abolished. Any candidate after passing the Honours examination in Law may be admitted to the degree of LL.D., without examination, provided that he has practised the profession of Law "with repute" for three years and that he produces a thesis approved by the Board of Studies of the faculty of Law on some subject connected with Law.

463. At ALLAHABAD, a new examination called the Previous examination in Law has been interposed between the B.A. or B.Sc. and the LL.B. The Honours examination has been abolished, and a new degree of Master of Laws has been created, which may be taken by a candidate two years after passing the LL.B. Some change has also been made in the qualifications required of candidates for the degree of LL.D. Formerly this degree could be conferred, without examination, on candidates who had passed the Honours examination and were Bachelors of Law of not less than four years' standing. Now a candidate for this degree must have practised for five years after passing the M.L. examination and must have written approved essays on Law subjects.

464. The changes in the subjects of examination for the various degrees are neither very numerous nor very important. In CALCUTTA the examination for the B.L. has been divided into two. At the Preliminary examination candidates have to answer three papers in the following subjects:—

Jurisprudence, the elements of Roman Law, and Principles of Legislation, and Hindu Law. In the Final examination, a year later, the subjects to be taken are:—

1. Muhammadan Law.
2. Law relating to persons.
3. Law relating to property:—
 - (a) Law of Land Tenure
 - (b) Law of Transfer
 - (c) Principles of the English Law of Real Property, etc.
5. Law of Contracts and Torts.
6. Law of Evidence and Civil Procedure.
7. Law of Crimes and Criminal Procedure.

Changes in the subjects for examination for the various degrees.

Preliminary Law examination. B. L. Examination.

Candidates have to answer eight papers in these subjects.

M. L. Examination.

The subjects for examination for the newly instituted degree of M.L. are as follows :—

1. Hindu or Muhammadan Law.
2. Jurisprudence and Principles of Legislation.
3. Principles and History of Roman Law.
4. Private International Law.
- 5 & 6. Any two of the following subjects,—*viz.*,
 - (1) Principles of Equity.
 - (2) The Law relating to the transfer of Immoveable Property and the Law of Prescription.
 - (3) The Law relating to Wills.
 - (4) The Law of Contracts and Torts.
 - (5) Principles and History of the Law of Real and Personal Property.
 - (6) Principles and History of the Law of Evidence.
 - (7) History of English Law.

First examination in Law.
B.L. Examination.

465. In BOMBAY, no change has been made in the subjects for the first examination in Law. The only change in the B.L. examination is the subdivision of the subject "Law of Evidence and Civil and Criminal Procedure," in which there used to be five papers, into two subjects,—

- (a) Law of Crimes and Criminal Procedure.
- (b) Law of Evidence, Civil Procedure, etc.

There are now six papers set with reference to these two subjects.

M. L. Examination.

The subjects for examination for the newly instituted degree of Master of Laws, in place of the old Honours examinations, are as follows :—

BRANCH I.

- i. Jurisprudence.
- ii. Roman Law.
- iii. International Law (public).
- iv. International Law (private).
- v. Principles of Legislation.
- vi. Constitutional Law (British & Indian).

BRANCH II.

- i. Hindu Law (2 papers).
- ii. Muhammadan Law (2 papers).
- iii. The Law of Wills.
- iv. The Law of Marriage and Succession in British India.

BRANCH III.

- i. Real Property (2 papers).
- ii. Principles of Equity.
- iii. The Law of Easements and Prescription.
- iv. Customary and Statute Law relating to Land Tenure in India (2 papers).

BRANCH IV.

- i. The Law of Contracts.
- ii. The Law of Agency, Partnership and Companies.
- iii. Mercantile Law.
- iv. Maritime Law.
- v. The Law of Torts.
- vi. The Law of Crimes.

Candidates will be examined in any one of the above branches. The pass marks are 33 per cent. in each paper and 50 per cent. of the aggregate

number of marks. Those who obtain 66 per cent. of the total marks will be placed in the First class.

466. In MADRAS, there have been no changes in the subjects of examination for the first examination in Law, the B.L. or the M.L.

467. In the PUNJAB, the following examinations in Law are abolished :—

- (1) Preliminary examination in Law.
- (2) First Certificate examination, and
- (3) Licentiate in Law.

Under the new regulations there has been interposed before the LL.B., or Bachelor of Laws, an examination called the first examination in Law. It is conducted (A) in English, and (B) in Urdu. The first or English examination is open to graduates in Arts or Science; and the second or Urdu examination is open to Intermediates in Arts, Science or the Oriental Faculty. In both cases one year's attendance in a Law college is indispensable. The subjects for examination are as follows :—

1. Law of Contracts.
2. Civil Procedure.
3. Revenue Laws.
4. Criminal Law and Procedure.
5. Hindu and Muhammadan Law.
6. Law relating to Registration, Limitation, Court Fees, etc.
7. Law relating to Legal Practitioners, Punjab Courts and Evidence.

The pass marks are 40 per cent. in each paper and 50 per cent. in the aggregate.

For the LL.B. examination the following are the changes in the subjects for examination :—

Old.	New.
1. Jurisprudence.	1. Jurisprudence.
(1) General Jurisprudence.	2. International Law. (Public and Private.)
(2) Principles and theory of Legislation.	3. Constitutional Law.
2. International Law. (Public and Private.)	(1) of England
3. Constitutional History.	(2) of India.
(1) of England	4. Roman Law.
(2) of Law courts and Legislature in India.	5. Principles of Equity with reference to mortgages and trusts. (5 papers.)
4. Roman Law. (4 papers.)	

A candidate may present himself for the new LL.B. examination if he has passed the First Certificate, Intermediate or Licentiate examination under the old regulations before 1907, and if he is also a graduate in Arts or Science, and has attended the LL.B. class for one year. The examination is also open to those who have passed the new first examination in Law, subject to similar conditions of attendance in a Law College.

Old.	Pass Marks.	New.
40 % in each paper.		40 % in each paper and 50 % in the aggregate.
First division.		First division.
50 % in each paper.		60 % in the aggregate.

The Honours in Law examination is also a new examination, and is open to any person who has taken the degree of LL.B. at least two academical years before the examination. The subjects for examination are as follows :—

- I. Jurisprudence,—(1) General Jurisprudence; (2) Principles and Theory of Legislation.
- II. Constitutional History and Constitutional Law,—(1) of England; (2) of India.
- III. International Law,—(1) Public; (2) Private.
- IV. Roman Law,—(1) General History (2) the Institutes of Justinian.

Honours in Law examination.

V. English Common Law and Equity—General principles, including a knowledge of leading cases.

VI. Criminal Law,—(1) History of the English system; (2) General Principles of Criminal Liability.

There are six papers in the above subjects. The pass marks are 50 per cent. in each paper, and 66 per cent. in the aggregate.

L. L. B. Examination.

468. The following statement shows the changes in the subjects for examination for the degree of Bachelor of Laws at ALLAHABAD.

Old.	New.
1. (a) Principles of Jurisprudence.	1. Jurisprudence.
(b) The history and constitution of Law courts in British India.	2. The Law of Contracts.
2. The Law of Evidence.	3. The Law of Easement and Torts.
3. Hindu and Muhammadan Law.	4. Criminal Law and Procedure.
4. The Law of Contracts, transfer of Property, Registration, etc.	5. Civil Procedure, Limitation.
5. Equity with reference to trusts, mortgages and specific relief.	6. Revenue Laws.
6. The Civil Procedure Code and limitation.	7. Hindu Law.
7. The Penal Code and the Criminal Procedure Code.	8. Muhammadan Law.
8. The Law relating to Land Tenure, Revenue, rent etc.	9. Transfer of Property and Equity relating thereto.
	10. Equity with reference to trusts and specific relief.
	11. Jurisprudence and Indian Constitutional Law.

There was previously only one examination for the LL.B., but under the new regulations this has been divided into two—the Previous and the LL.B. The former is to take place after the completion of one year's course in an affiliated school of Law, and the latter after one academical year subsequent to the Previous examination. For the Previous examination there are four papers in subjects 1 to 4; and for the LL.B. seven papers in subjects 5 to 11.

The pass marks are 30 per cent. in each paper and 50 per cent. of the aggregate for the second class, and for the first class 60 per cent. of the total marks.

L. L. examination.

469. As in Calcutta, the examination for the degree of Master of Laws is new, and takes the place of the old Honours in Law examination. The subjects now prescribed for the M.L. are:—

1. Jurisprudence and Principles of Legislation.
2. Roman Law.
3. Law of Contracts.
4. Law of Torts, Easements and Prescriptions.
5. Law of Transfer of Property.
6. Principles of Equity, Law of Trusts and Specific Relief.
7. Either Hindu Law or Muhammadan Law.

There will be seven papers and the candidates will be required to obtain at least 60 per cent. of the marks allotted to each paper.

Results of the Law Examinations.

470. The results of the Law examinations of Indian Universities are shown in the following table:—

	1906-07.
MADRAS—	
Master of Laws	4
Bachelor of Laws	165
First Examination	208
BOMBAY—	
Honours	..
Bachelor of Laws	131
First LL.B.	188

1906-07.

CALCUTTA—

Doctor in Law	..
Honours	..
Bachelor of Law	245

ALLAHABAD—

Doctor of Laws	..
Honours	..
Bachelor of Laws	60

PUNJAB—

Doctor of Law	..
Bachelor of Law	15
Inter. Examination	23
Licentiate in Law	25
First Certificate	17
Preliminary	4

The paucity of those who proceed to the higher degrees is noticeable. No degree of D.L. or LL.D. was conferred during the quinquennium. The output of graduates (Bachelors of Law) from all the Universities fluctuated from 610 in 1902-3 to 323 in 1905-6. The average annual output was 491. The percentage of passes to candidates is shewn in the following table, which, like the one immediately above, is based on the University figures, and therefore covers a rather wider area than that to which the statistics in volume II relate.

Percentages of passes to candidates in the examination for degree of Bachelor of Laws, 1902 to 1907.

	1901-2.			1906-7.		
	No. of candidates.	No. passed.	Percentage.	No. of candidates.	No. passed.	Percentage.
Calcutta	704	352	50.0	539	245	45.5
Madras	406	179	46.9	359	165	48.5
Bombay	216	142	65.7	261	131	50.2
Punjab	65	22	33.8	50	15	30.0
Allahabad	53	20	41	213	60	28

MEDICINE.

471. Medical education is imparted in Medical colleges and schools. The former are affiliated to the Universities and afford instruction to students who are desirous of proceeding to the University degrees, but they also admit, and provide classes for, others whose aim is to obtain a college diploma qualifying them to practise medicine in India, as well as "casual" students who wish to take a part only of their Medical course in India with a view to completing it in Great Britain. The colleges educate the civil assistant surgeons in Government service, who are required to hold a University degree, as well as the military assistant surgeons for the army, who have to obtain a college diploma. All the colleges also admit female students, of whom some are University students, while others content themselves with a college diploma or certificate. At the Madras College there are also departments for the instruction of sanitary inspectors, chemists and druggists, and for the further instruction of hospital assistants after they have passed through the medical schools.

472. The Medical schools are intended primarily for the instruction of candidates for employment in Government service as hospital assistants, to

whom they give a diploma qualifying them to practise in India, but many of their students now-a-days go out into private practice, or take private employment in tea gardens or other commercial undertakings. They are not affiliated to Universities, but they all now demand a certificate of having passed a University Matriculation examination as a condition of admission, and in this way they have ceased to be, what many of them were until recent years, especially in the north of India, vernacular schools. Except at Lahore, the Medical schools are entirely separate institutions from the colleges, with school buildings, hospitals, and teachers of their own.

Medical Colleges.

473. There are four Medical colleges, viz. :—
 The Medical College of Madras.
 The Grant Medical College at Bombay.
 The Medical College of Bengal, at Calcutta.
 The Medical College of Lahore.

The number of students attending the different departments of these colleges at the beginning and end of the period under review was, according to the returns made to the Education Departments :—

	1902.	1907.
Madras	121	195
Bombay	569	679
Calcutta	595	425
Lahore	181	243
TOTAL	1,466	1,542

Proposed
Medical
college for
the United
Provinces.

474. Steps are being taken to found a fifth college at Lucknow for the United Provinces of Agra and Oudh, which will be affiliated to the Allahabad University. The foundation stone was laid by H. R. H. the Prince of Wales on the occasion of his visit to Lucknow; the people of the United Provinces have subscribed liberally towards the cost, and designs for the necessary buildings, including a well appointed college and attached hospital, a hostel for the students, and residences for the staff, have been prepared by Sir Swinton Jacob.

Changes in the Medical Courses at the Universities.

475. The publication of the report of the Indian Universities Commission in 1902, which contained certain recommendations regarding medical education, followed as it was in 1904 by the Indian Universities Act, which directed that a revised body of regulations should be prepared by the new senates, afforded a long desired opportunity to the authorities of the different colleges to revise their curriculum, and many important changes were introduced at all the colleges, with the exception perhaps of the Madras College, whose existing curriculum was of comparatively recent date. These changes were not brought about without much discussion on such points as—

1. The preliminary qualification in Arts for admission to the medical course;
2. The continuance of the Licence in Medicine and Surgery (the L.M.S.), alongside the degree of Bachelor of Medicine (M.B.);
3. The different special branches of study for which a Doctor's degree should be given;
4. The duration of the whole curriculum, if, as recommended by the University Commission, the three stages, Preliminary Scientific, Intermediate, and Final, were to be kept separate and distinct, without over-lapping, and yet be sufficient in themselves;
5. The nature of the course in Sanitary Science and the arrangements for teaching this subject;

and it was not to be expected that the conclusions arrived at on these difficult questions would be the same at all the Universities, though greater uniformity in these matters would have been advantageous.

476. The general result of the changes thus made in the curriculum of the different colleges is shown in the diagrams in volume II, and some of the more important of them are described for each college separately in the following

paragraphs, where also such matters as additional professorships, increased facilities for other improvements, teaching, and the provision of hostels for students, will be mentioned.

477. CALCUTTA UNIVERSITY.—In Calcutta, under the old regulations there were two degrees, the L.M.S. and the M.B. with courses similar as regards duration (5 years), stages, and the subjects of study. All the students entered for both degrees and presented themselves at the two examinations at each stage. The M.B. was practically an Honours degree as compared to the ordinary degree of L.M.S., but it sometimes happened that a student failed at the L.M.S. and succeeded in passing at the corresponding stage of the M.B. A more serious consequence of the dual curriculum was that a student who failed at the earlier stages of the M.B., but passed the corresponding L.M.S. examination, and who wished to have another attempt at the M.B., was often engaged in the studies required for two different stages of the curriculum; he might for instance be still working in the dissecting room for his first M.B. while he was supposed to be devoting his time to the study of professional subjects for the Final L.M.S.

478. This and other defects incidental to such a system led to the abolition of the L.M.S. when the new regulations were framed, and the ordinary degree at this University is now the M.B. only. The duration of the course has been extended to six years, so as to give a clear three years for the final or professional subjects after passing the First or Intermediate M.B. The examination in Arts required for entrance upon medical studies has been changed from the old F.A. to the new Matriculation, as it is considered that the latter will ensure an equally good, if not better, equipment than the former, especially as regards the very important matter of colloquial English.

479. Biology has been substituted for the two separate courses of botany and zoology, the intention being to give the student at an early stage a practical knowledge of the use of the microscope and the elementary structures of animals and plants, in place of a superficial and imperfect acquaintance with their systematic classification. More attention will also be given to physics with a view to its bearing on physiology.

480. The M.D. degree, for which a student was required under the old regulations to pass a searching examination in all branches of professional knowledge, has now been broken up into an M.D. for medicine and pathology, an M.S. for surgery, an M.O. for obstetrics, and a D.P.H. for state medicine, an arrangement which will meet better the difficulty in the present day of specializing in all branches.

These changes have necessitated the creation of a chair in biology in place of the former two chairs in botany and zoology, and a special course of physics has been added to the syllabus of chemistry. There are now also whole-time professors of both physiology and pathology, subjects which in former years were treated as minor subjects and taught by the resident officers of the hospital as a collateral duty.

481. With the completion in 1904 of the new pathological and physiological laboratories, practical instruction in histology, experimental physiology, and physiological chemistry, is available for all students, and in these and other departments the facilities for teaching are now very satisfactory. Many improvements have been made in the hospitals attached to the College, which will tend to improve practical teaching, and a large surgical hospital is nearing completion. A new library, with retiring rooms for professors and students, and a large theatre for general purposes are under construction. It has not as yet been found possible to provide a suitable hostel for the accommodation of the large body of Indian students who at present live in "messes" located in small and insanitary quarters scattered about the town.

The question of separating the professorship of anatomy from the appointment of Second Surgeon to the hospital, for which the need has long been recognised, is now under consideration.

482. A proposal to establish a school of dentistry, with a complete course in this subject leading to a college diploma, is under consideration, the present dental course being elementary and insufficient for the needs of students who

wish to practise as qualified dentists. It is, however, doubtful if the demand for full instruction in this subject is sufficient to justify the very large initial expenditure involved.

483. BOMBAY UNIVERSITY.—At the Bombay University, where previously the ordinary degree had been the L.M.S., though students could, under certain conditions, proceed from this to an M.D., it was decided to introduce a new degree of M.B., B.S., but to retain the L.M.S. until such time as the Government shall have constituted a new qualification outside of the University in its place, the idea being that it is necessary to have some sort of inferior degree, corresponding to the membership or Licence of the Colleges of Surgeons and Physicians in Great Britain, for the benefit of students who are unable to attain to the standard of a University M.B. degree.

484. The L.M.S. student will, as before, enter upon his medical studies from the Matriculation, with the further condition of having passed an examination in elementary mechanics of solids and fluids, but the M.B., B.S. student will be required to have passed the Previous examination in Arts. The duration of the course is the same in both, namely five years, divided into three stages in the manner shown in the diagram. The subjects studied are not always the same, botany in the case of the L.M.S. being replaced by biology in the M.B., B.S. course, and some subjects being added in the latter, such as physics, bacteriology, and mental diseases.

485. The M.D. degree is now broken up into two separate degrees, the M.D. and the M.S. The former may be taken in any one of three branches, *viz.*, medicine, midwifery, or state medicine, but the latter in surgery only. Both these degrees are open under certain conditions to students who hold the L.M.S., as well as to those who have passed the examination for the degree of the M.B., B.S.

486. Corresponding to these changes in the courses of study, three new minor chairs have been created in the College, one in physics, another in biology, and a third in bacteriology. Two lectureships have also been added in recent years in dentistry and diseases of the ear, nose and throat respectively. Additional tutors have also been appointed in medicine, surgery, physiology, pathology, anatomy, dentistry, bacteriology, physics and ophthalmology, besides six Fellows and Registrars to assist in the clinical teaching.

487. The only addition to the buildings of the college in the period under review was a new anatomical department, but since April 1907 laboratories have been provided for bacteriology, biology, and physics by adaptation of old existing buildings. The following are under construction, *viz.*, a new lecture theatre and a pathological laboratory in the college, and a new operation theatre and additions to the ophthalmic department in the hospital. A new and complete out-patient department is likely to be erected soon, and many works are in contemplation for extending the accommodation and teaching facilities in the hospital.

A hostel for the accommodation of 200 students is in course of construction at the present time.

488. MADRAS UNIVERSITY.—At Madras, the L.M.S. has been retained in its old form, as it is considered necessary to meet the cases of students who have not sufficient ability, funds, or industry to gain the higher qualification, but bacteriology has been added to the subjects of the final examination. In the M.B., C.M. course the only change is that the second examination has been shifted back from the end of the fourth to the end of the third year, thus leaving the students two final years free for the study of the strictly professional subjects. For both degrees the new Intermediate examination will be required as the preliminary qualification in Arts, in place of the old F.A. examination. A candidate who fails at the M.B., C.M. final examination can still be recommended by the Board of Examiners for the L.M.S., and students can change at will from the higher to the lower course at any stage.

No change has been made in the M.D. degree, for which any M.B., C.M. is eligible on the production of a thesis in any branch of medicine; nor in

the L.S. Sc. (Licentiate in Sanitary Science), to which both the L.M.S. and the M.B., C.M. graduates are admitted.

489. Two new laboratories, for physiology and hygiene respectively, are now approaching completion, and funds will shortly be allotted for new laboratories for pathology and materia medica. There is a proposal to appoint a whole-time professor of pathology and the professorship of hygiene has been detached from the appointment of Deputy Sanitary Commissioner. The course of bacteriology has been recast and placed on a separate footing under the guidance of the new professor of hygiene.

The construction of a hostel for the students has been under consideration, but no suitable site has yet been found for it.

490. PUNJAB UNIVERSITY.—At Lahore, the L.M.S. has also been abolished and the ordinary degree will in future be the M.B., B.S. only. The preliminary examination in Arts will be the Intermediate, or some higher degree; in Science, the F.Sc. or B.Sc., by which means the student will have passed in the subjects of the former preliminary scientific stage before entering the Medical college, and the teaching of these subjects, chemistry, physics and biology, has been transferred accordingly to the Government Arts College at Lahore. The medical course proper will extend over four years, with examinations at the conclusion of the second, third and fourth years, as shown in the diagram. The examination at the end of the third year is intended to enable the student to dispose of such subjects as pathology, hygiene and medical jurisprudence at an earlier stage, and so leave him free to study the more strictly professional subjects, medicine, surgery and midwifery, in his final year.

In revising the curriculum, more attention has been paid to pathology, hygiene, diseases of the eye, ear and throat, and mental disease. The number of lectures has been reduced and the instruction has been made more practical and tutorial.

The former M.D. degree in all subjects has now been divided into an M.D. and an M.S. in medicine and surgery respectively.

A new chair in biology, which has taken the place of botany and zoology, has been created at the Arts College, to which also the professorship of chemistry and physics has been transferred.

491. At the Medical College it is proposed to create three new distinct professorships in pathology, diseases of the eye, ear and throat, and midwifery with gynaecology, instead of combining these subjects with others in one chair or making them over to an officer with other duties as a collateral charge. Assistant professors are also to be appointed for tutorial instruction in pathology, physiology, medicine and materia medica.

An extensive laboratory, which was recently built for the practical chemistry classes, has been made over to the physiological department for the conduct of practical physiological classes. The proposed transfer of the Medical school from Lahore to Amritsar will set free space for the extension of the facilities for teaching the college classes, as will also the removal of the Chemical Examiner's department from the college. A new wing, including a spacious out-patient department, which has been added to the ophthalmic department of the Mayo Hospital, will also give facilities for teaching this important branch of surgery.

There is at present no hostel at Lahore for the college students, but the question of renting private houses to serve as temporary hostels is before the local Government.

492. ALLAHABAD UNIVERSITY.—The curriculum for the ordinary medical degree of the Allahabad University will be similar to that at Calcutta, but the studies for the first or preliminary scientific stage will be pursued at an Arts college. Graduates in Science who have passed in the first division of the B. Sc. will be excused this stage, but all others will have to pass a special examination in English, chemistry, physics, and biology, before admission to the Medical college.

The subsequent course at the Medical college will be of five years duration and divided into two stages, with an examination at the end of the second year, First M.B., in anatomy, physiology, etc., and a Final M. B. at the end of the fifth year.

Medical Schools.

493. Although the Medical schools are not affiliated to the Universities they have shared to some extent in the general attention that has been paid to medical education since the report of the Universities Commission was published, and their history during the period under review has been one of general progress in respect of buildings, teaching equipment, and practical instruction of the students, as the following particulars of the schools in the different provinces will show.

494. BOMBAY.—There are three Medical schools in the Bombay Presidency, at Poona, Ahmedabad, and Hyderabad (Sind). The course of instruction at all these schools was extended in 1906 from three to four years, and hygiene was added to the subjects of the final year. No change has been made in the teaching staffs. Two new lecture rooms and an examination hall are under construction at Poona. At Ahmedabad, the main block of the civil hospital, to which the school is attached, has been rebuilt on an improved plan, and further additions are in contemplation. At Hyderabad, an entirely new school, with a hostel for thirty students, has been built, but a new dissecting room and a ward for maternity cases are still necessities. The instruction in both anatomy and midwifery at this school is still largely conducted by diagrams and models. Hostels are under construction at Poona and Ahmedabad.

495. MADRAS.—There are three Medical schools in the Madras Presidency. The school, or hospital assistant, department of the Madras Medical College was closed in 1902, and the pupils were transferred to a special institution at Royapuram, a northern suburb of Madras city, where there are a large hospital and suitable buildings for the classes, laboratories, dissecting room, etc. A new Medical school was opened in the same year at Vizagapatam for the benefit of students from the northern districts of the presidency. A private Medical school at Tanjore was taken over by Government in 1906.

496. The curriculum, which is the same in all the schools, was changed from a three-year to a four-year course in 1904, and the subjects of lunacy and ophthalmology were added. It is now under further revision, with a view to a better distribution of the subjects to the different years and giving more attention to anatomy and surgery.

The students of the Royapuram school are housed in a very fine building on a very good open site in the neighbourhood of the school.

497. BENGAL.—The Campbell School in Calcutta has been almost completely transformed in the last few years. The old hospital, which was originally a railway goods shed and afterwards a market, until finally it became a hospital, presenting the unique feature of one single open ward containing something like five hundred beds, has been dismantled and several roomy and well appointed pavilions have been substituted for it. A large central hall has been erected on the site of the old hospital and serves as a library and examination room, as well as a museum for pathology and materia medica. Other rooms have been set apart for normal and pathological histology, as well as for X-ray apparatus. Special provision has also been made for clinical investigation in the new pavilions. It is proposed to add a new dissecting room with attached theatre, and a new morgue, as well as better accommodation for the students attending the classes in forensic medicine; and with these additions the facilities for practical instruction will be very complete and perfect.

The superintendence of the school is now entrusted to a whole-time I.M.S. officer, and the staff of teachers has been increased to eight assistant surgeons, and seven hospital assistants are employed as demonstrators or tutors.

A hostel for the male students is still a necessity at this school, and a suitable site for this purpose has recently been acquired.

498. The Temple School at Patna is intended primarily for the local needs of Bihar, but also admits students from the Central Provinces where there is now no Medical school, and it has recently made special arrangements for "hill students" from the

Darjeeling district and Sikkim. Here new museums for pathology and materia medica have been completed and equipped, and hostels for the ordinary and "hill" students. Clinical teaching is given in the Bankipore General Hospital, and there is abundant material for instruction in anatomy and medical jurisprudence.

The Civil Surgeon of Patna is Superintendent of the school, and the staff consists of four assistant surgeons as teachers, and four hospital assistants as demonstrators.

499. The Cuttack school, which is intended for Orissa students, is the most backward of the three in Bengal, but a new chemical laboratory has been opened and much additional equipment for practical instruction in all departments has been procured. A special apartment has been set apart in the hospital for a clinical laboratory and furnished with microscopes and other apparatus by which the students can be taught the latest methods of clinical diagnosis. The existing hostel is an old and unsatisfactory building, but is to be replaced shortly by a new double storied building for which a site has been selected.

The Superintendent is the Civil Surgeon, and the staff consists of three teachers and three demonstrators.

500. UNITED PROVINCES OF AGRA AND OUDE.—The Agra Medical school has made much progress during the quinquennium, and with increased staff, improved buildings and widened curriculum, it gives now a more thorough education to a better class of students than it did at the time of the last report.

The curriculum is now of the same duration, and similar in every way, for both military and civil students, and has been improved by the addition of lectures in practical pathology, hygiene and eye diseases, and tutorial instruction in minor surgery and bandaging. The staff has been increased by the addition of two teachers, for ophthalmic surgery and minor surgery respectively, and two demonstrators, one for anatomy and chemistry, the other for physiology and pathology. Many buildings have been added or old ones improved. A new Lady Lyall Hospital for women was opened in 1904 and in connection with it there are class rooms and a special dissecting room for female students. A new and well appointed dissecting room for male students was added in 1905, and a class room and laboratory for pathology in 1906. The library and museum have been enlarged, and the old Lady Lyall Hospital converted into a special hospital for eye diseases, which used to be treated in the general wards.

A very satisfactory hostel has been built and accommodates 200 male students, and a similar building to hold 80 female students is under construction.

All students must now have the Entrance, or High School Final certificate before admission to the school.

501. PUNJAB.—At the Lahore Medical School the students are now required to have passed the Matriculation examination of the University as a qualification for admission and to use English textbooks. Physiology has been added to their curriculum, as with their knowledge of English they are able to follow the lectures of the college professor of that subject. All students, military and civil alike, are now required to study for four years. The school has also benefitted by any changes that have been made in the buildings of the college and its attached hospital, which it shares. In one respect the school is in advance of the college, as it possesses a hostel with accommodation for 167 students.

The association of college and school is a hindrance to the progress of both, if only because it increases the difficulty of finding room for expansion; but it is especially detrimental to the school, which is accustomed to be recognised as an inferior institution, content with the leavings of the college and not aspiring to any higher ambitions. With the need for change which has been forced upon the college by the new regulations of the University, a proposal to move the school to Amritsar, which has been discussed for many years, is now under consideration by the local Government, and it is hoped that as an independent institution it will soon show signs of increased vitality and commence a new era of progress.

502.—BURMA.—In 1905 the Government of Burma proposed to establish a Medical school in connection with the General Hospital at Rangoon. The aim was to provide the people of Burma with hospital assistants of their own nationality, and with this view preference as regards admission was given to Burmese, Shans and Karens of whole or half blood, and liberal scholarships were offered. The Secretary of State sanctioned the scheme as an experiment, subject to report after five years, and the school was opened in January 1907 with fourteen students, ten public and four private, but none of them Burmans; and so far the school has not had much success in attracting the particular class of students desired.

A new and magnificent General Hospital is approaching completion, and it is to have a large European staff, so that the school should in the future be a very efficient one, with an unusually competent staff of teachers.

503. EASTERN BENGAL AND ASSAM.—There are two Medical schools in this province, one at Dacca, which was taken over from the Bengal Government at the time of the partition, and the other at Dibrugarh in Assam proper.

At Dacca there has been little change in the curriculum, but an additional teacher has been appointed to the school and the subjects have been redistributed so as to give more attention to pathology and the microscope. It was ruled in 1905 that all candidates for admission should have passed the Entrance examination of the Calcutta University, but this had to be relaxed in the following year in favour of Muhammadans, and this class of student is now admitted on passing a qualifying examination only, which is held by the superintendent of the school and a committee of teachers.

The dissecting room has been improved and space has been set apart as a museum of pathology, which has been suitably equipped with specimens and models as well as with microscopes and other instruments for practical research; and instruction is now given in the examination of blood and excreta for the purposes of diagnosis.

Land has been acquired in the neighbourhood of the school for the construction of a post-mortem theatre, an examination hall, an additional laboratory and bone room, as well as a gymnasium. Plots of land have also been set apart for hostels for both Muhammadan and Hindu students. Apparatus for X-ray work has been ordered from England, and one of the assistant surgeons has been trained in its use at the Dehra Dun Institute.

A class for dhais (native midwives) has been opened, and the compounder class has been much enlarged. The training of the police in first aid and ambulance work is also conducted at the school.

504. At the Berry-White Medical School, Dibrugarh, there has been a similar difficulty in enforcing the rule that all candidates shall have passed the Entrance examination, and here it has had to be relaxed in favour of the residents of the Brahmaputra valley and the hill districts of Cachar, who are admitted on passing a local examination in English and mathematics held at the school. The staff has been increased by two teachers and two demonstrators so that it has been possible to expand the teaching of many subjects, and hygiene and pathology are now compulsory subjects of the curriculum.

The anatomical department has been improved, and an operating theatre, a chemical laboratory, a lecture theatre and three additional boarding houses to accommodate 36 students have been added. Two more boarding houses and an X-ray department are in contemplation.

505. CENTRAL INDIA.—There is a Medical school at Indore for the purpose of training hospital assistants for the Native States in the Central India Agency. Candidates for admission must have passed the Entrance or Middle Class examination and a further test examination in English, dictation, arithmetic and physiography. The curriculum extends over four years. The teaching is in English and is conducted by the Agency Surgeon, two assistant surgeons and four hospital assistants. The charitable hospital at the Residency affords ample clinical material, and subjects for dissection and operative surgery classes are readily obtainable. There is a bacteriological laboratory, a small chemical laboratory, an X-ray department, and a library.

Proposals are now under consideration for enlarging the students' quarters so as to accommodate the full complement of seventy, and also for a new lecture room, chemical laboratory, museum and dissecting room.

HIS HIGHNESS THE NIZAM'S DOMINIONS.—The Hyderabad Medical school differs in one respect from the other Medical schools as it has two distinct curricula, one for assistant surgeons of five years duration, and another for hospital assistants of four years. The standard of preliminary education is the Matriculation of any University for the assistant surgeon class, and the middle school of the Madras University for the hospital assistants. The courses embrace all the usual subjects required for a complete medical qualification, and there are ten teachers, of whom seven hold British University degrees, two are L.M.S.'s of an Indian University, and one is a military assistant surgeon with an Indian College certificate. All the lectures are in English, which the students understand thoroughly. The Medical school consists of lecture rooms, a fairly good library, a chemical laboratory, a pathological laboratory, a large room for X-ray apparatus, and professors' and students' retiring rooms, besides the usual offices. For clinical instruction the students attend the Afzul Ganj and Residency Hospitals and the city dispensaries.

It is proposed to recast the lectureships so that there may be a separate lecturer in physiology, which is at present taught conjointly with pathology, and practical bacteriology will be added to the pathological course. Reconstruction of the pathological laboratory will be undertaken immediately.

The total number of students is 65, of which 16 belong to the assistant surgeon, and 49 to the hospital assistant, class.

507. The number of students attending the Medical schools—exclusive of those in Central India and the Nizam's Dominions—were, according to the returns made to the Education departments, as follows:—

	1902.	1907.
Madras	387	318
Bombay	235	307
Bengal	1,316	1,285
United Provinces	242	314
Punjab	477	394
Assam	70	...
Eastern Bengal and Assam	...	560
TOTAL	2,727	3,178

The total number of students includes in most cases a certain proportion of compounder students, who do not go through the full course but are taught dispensing, materia medica, and a small amount of minor surgery and simple medicine. The demand for qualified compounders is increasing, and these men are gradually displacing the less competent class of men who have picked up their knowledge at some small dispensary. At some of the schools there are also classes for dhais or native midwives.

508. The necessity of giving military officers practical instruction in the use of the special apparatus designed for X-ray work in field hospitals led to the establishment of an institute for this purpose at Dehra Dun in 1905. Civil medical officers and subordinates are also admitted when there is room for them. Classes are held twice a year, and the duration of the course is three months for military, and two for civil, officers. Up to the present time it has been located in an ordinary dwelling house, but a special building with suitable class rooms and other conveniences is under construction and will shortly be completed. Instruction is given in the theory and practical use of all electrical apparatus, both as regards diagnosis and curative treatment, and much attention is paid to the care and repair of electrical instruments, as well as to the means of avoiding injury from exposure to the X-rays. The institute is in the charge of an I.M.S. officer, assisted by a military assistant surgeon and a skilled mechanic from London.

The X-ray
Institute at
Dehra Dun.

ENGINEERING.**Changes introduced by the New Regulations.**

509. Except in the Calcutta University, the new regulations framed under the Act of 1904 have introduced practically no changes in the courses leading up to degrees in Engineering. In Madras, the Engineering course is open as before to Intermediates in Arts. There is an examination known as the First examination in Engineering which occurs two years after the Intermediate in Arts, and later there is a final examination for the degree of Bachelor of Engineering. The only change that has been introduced is that, instead of a 2½ years college course followed by one year's practical training, there is now a full three years' course at the college leading up to the degree of B.E. In Bombay the Engineering course begins, as before, after the Previous examination in Arts; and there are two examinations to be taken prior to the examination for the degree of Licentiate in Civil Engineering. These are called the First and Second examinations in Engineering respectively. The term Licentiate has still been retained, though in the other Universities which confer degrees in Engineering the corresponding degree is called the Bachelor of Engineering. There is an examination for the degree of Master of Civil Engineering, which is open only to Licentiates who have passed the B.A. or B.Sc. examination and have practised for three years as Civil Engineers. There is no separate faculty of Engineering at Allahabad. At the Punjab University no Engineering degree is conferred; there is, however, a course in Engineering lasting two years. At the end of the first year there is an examination, called the First examination, which is open to any student who has passed the Matriculation examination, in Arts or Science. The final examination at the conclusion of the two years course is only open to students who have passed the Intermediate examination in Arts or Science as well as the First examination in Engineering.

Calcutta
University.

510. The changes in the Engineering course of the Calcutta University are of some importance. Before explaining them it will perhaps be as well to describe briefly the position of the University from its inception with regard to the conferment of degrees in Engineering. When the University of Calcutta was first founded a sub-committee was appointed to consider the conditions which should be complied with by candidates for degrees in Engineering. This committee remarked that, "the college diploma will still be held as sufficient evidence of ordinary attainments and ordinary competence, while the University degree of Graduate or Bachelor of Civil Engineering will attest the possession of far higher professional attainments, of general scientific knowledge, and of the fruits of intellectual cultivation." They endeavoured to provide for candidates entering the Civil Engineering college after passing the Entrance examination, undergoing a two years course in Engineering, and then going into the practice of Civil Engineering for two years, during which time they would devote themselves also to private study for the B.A. At the conclusion of the four years they would go in for the B.A. examination, and one year later they would be admissible to an examination for the degree of B. C. E. These proposals met with considerable criticism; and the committee accordingly met again and altered their recommendation. They now proposed that there should be but one degree in Civil Engineering, to be called the Master of Civil Engineering, and that in order to be admitted to examination for this degree a candidate must first of all obtain the B.A. and must then go through a course of four years' study and practice, after which he might enter for the examination, which would be a single examination conducted entirely from printed papers and held in Mathematics, Natural Philosophy, Architecture and Practical Science. A month later the most successful candidates were to be allowed to compete again for honours. In 1859 the faculty of Civil Engineering drew up a resolution in which they severely criticised the scheme for Engineering degrees, and pointed out that the degree of M. C. E. was, under the conditions laid down, unattainable. They proposed instead to leave the M. C. E. unchanged, but to institute a lower degree in Engineering, which they proposed to call the G. C. E., or Graduate of Civil Engineering.

The qualification for entrance to the Engineering course was to be the F.A. examination, which had in the interval been introduced, and the course was to be three years in an Engineering college and two years in practice. The position of affairs, then, prior to the introduction of the new regulations in 1906, was that there were three Engineering degrees, *viz.*, the Licentiate, the Bachelor's degree, and the Master's. The examination for the Licentiate and for the Bachelor's degree was the same, but there was this difference, that a student who had passed the Entrance examination could proceed at once in a four years' course to the Licentiate, while the degree of Bachelor was only open to students who had passed the F. A. examination in Arts or Science and who had also passed the First examination in Engineering one year later. Nearly all the candidates adopted the latter course and passed the F.A. examination before taking up the courses leading up to the degree of B. E. Both Licentiates and Bachelors could proceed a year later to an examination in honours, but the degree of Master of Engineering was restricted to those candidates who had passed both the B.E. examination and the subsequent honours examination. A further peculiarity of the Calcutta system was that candidates for the B. E. might study the Engineering course concurrently with the Arts or Science course leading up to the F. A. This provision of facilities for concurrent studies served no useful purpose and has now been abolished.

Another weak point of the old system was that the study of the more specifically Engineering subjects was postponed until too late in the course, and that consequently sufficient attention could not be devoted to these subjects, nor could anything be attempted in the way of specialisation in the various branches of Engineering. These defects have now been remedied.

511. Under the new regulations the Engineering course is open only to those candidates who have passed the Intermediate examination in Arts or Science. The examination for the Licentiate in Engineering has been abolished. There is now one degree of Bachelor of Engineering, the course for which takes four years after the Intermediate in Arts or Science, and which provides for an Intermediate examination at the expiry of two years. This Intermediate examination takes the place of the old First examination in Engineering, which was mainly a test in Mathematics and Science. It is now taken at the end of the second instead of the third year of the course, and after passing this examination a student has a choice between three parallel courses, any one of which may be taken for the degree of B. E. These courses are: (1) Civil Engineering, (2) Mechanical and Electrical Engineering, and (3) Mining Engineering. The honours examination and the degree of Master of Engineering have been abolished. In their place there is a degree of Doctor of Science in Engineering. There is no written examination for this degree in the case of candidates who have taken a first class in the B. E. examination. Candidates have to present a thesis for the approval of a Board, consisting of the Dean of the Faculty of Engineering and two other persons. In the case of candidates, however, who have obtained a second class in the examination for the degree of the B.E., and whose thesis is approved by the Board, there is also a written examination.

Engineering Colleges.

512. There were in existence during the quinquennium four Engineering colleges, *viz.*, the Civil Engineering College, Sibpur, the College of Science, Poona, the College of Engineering, Madras, and the Thomason Civil Engineering College, Rurki.

513. CIVIL ENGINEERING COLLEGE, SIBPUR.—The Civil Engineering College, Sibpur, is affiliated to the Calcutta University, and teaches the course leading up to the Intermediate in Engineering and the B. E. It is divided into two departments,—the Engineer department and the Apprentice department. All Engineering schools in Bengal and Eastern Bengal and Assam either are affiliated to this college and teach up to a certain stage in the Apprentice department course, or are organised on the lines of that department. The standard aimed at by the Engineer department of the

college is that of the provincial Engineer establishment of the Public Works Department; and the standard of the overseer and sub-overseer grades of the Public Works Department is supposed to be attained on the successful completion of the whole and a certain portion, respectively, of the Apprentice department course.

Number of students and results of University examinations.

At the end of the quinquennium there were 94 students in the Engineer department and 233 in the Apprentice department. Of the former class, 126 students were presented during the quinquennium for the B. E. examination, of whom 55, or 42.3 per cent., passed. For the F. E. examination 137 students were sent up, and 71, or 51.8 per cent., were successful. The results of the last examination were by far the most satisfactory of the whole period, the percentage of successes being 66.7 and 57.9 respectively. This improvement is attributed to the fact that in 1906 the college had for the first time its full complement of teachers. The staff was slightly strengthened during the period under review.

Apprentice Department.

514. The organisation of the Apprentice Department is thus described in the provincial report:—

“The course of the Apprentice Department consists of three stages:—(a) the sub-overseer course, extending over 2 years, (b) the overseer course, extending over 1½ years and (c) a practical training course, extending over 1½ years. Stages (a) and (b) correspond respectively to the lower and upper subordinate classes at the College of Engineering, Madras, and at the Thomason Civil Engineering College, Rurki. The first two stages end in examinations. The examination which ends the first course entitles a successful candidate who leaves the college at this point to a certificate testifying to the possession by the holder of the theoretical qualifications required of a sub-overseer in the Public Works Department. On the results of the examination which ends the second stage the third grade overseer certificate is awarded; and on the completion of the period of practical training the foreman-mechanic certificate is awarded according to proficiency.”

Results of examinations of students in the Apprentice department.

During 1906-07, 48 apprentices appeared at the sub-overseer examinations, and of these 40 were successful. The percentage of successes gained by the Sibpur apprentices at this examination during the last three years of the quinquennium amounts to 83.1. At the overseer examination of 1906-07, 47 apprentices were presented and 38 passed; and the percentage of successes in this examination for the last three years was 76.1.

Proposals for removal of the college.

Proposals for removing the college from its present site have been accepted in principle by the Government of India. The college was hampered by the want of adequate accommodation, and is said to have fully maintained its reputation for unhealthiness.

515. COLLEGE OF SCIENCE, POONA.—This college is affiliated to the Bombay University in Engineering and Agriculture and up to the degree of B.Sc. It is divided into the:—

Engineering class.

Agricultural class.

Sub-overseer and workshop classes.

The number of students attending the Engineering class has varied very slightly during the quinquennial period. In 1906-07 it was 143. The number of students who presented themselves for the L. C. E. examination was 61, of whom 44 were successful.

Sub-overseer and workshop classes attached to the College of Science, Poona.

516. Besides these classes reading for University degrees, there are also Diploma Classes attached to this College. Dr. Thompson reports:—“Courses of study have been arranged for sub-overseers, mechanical engineers, and electrical engineers. Each course extends over three years. The entrance examination is about equal to the University Matriculation and many candidates have passed the Matriculation before joining. In former years no fees were charged; all students received wages; and even with these inducements it was impossible to get properly qualified candidates for admission. Nowadays each student pays a class fee of Rs. 30 per annum, wages

are not paid, and the number of candidates at the Entrance examination in January 1907 was about four times the number of available places. In the sub-overseer class students are prepared for subordinate posts in the Public Works Department, a few of these posts being guaranteed to the best students every year. Many of them get temporary posts in the Department, and after gaining experience and showing aptitude are placed on the permanent list. On this account the class is very popular. The numbers in the Mechanical and Electrical Engineering classes are small, prospects for employment being not assured. This will be remedied in future years. Several firms in Bombay and elsewhere take our passed students as apprentices for a year, to go through a course of practical work. The workshop is well equipped with machines, tools and appliances: a new compound steam engine, condensing and non-condensing, specially designed for teaching purposes, is being installed, and students are prepared for examination under the Bombay Boiler Act.”

517. COLLEGE OF ENGINEERING, MADRAS.—With regard to this institution, Dr. Bourne writes:—

“The College of Engineering, Madras, continued to be the only institution providing courses of training for the profession of engineer. During the period new departures were made in several directions. Tours for the inspection of irrigation and other important engineering works by the students under the charge of the staff were initiated in 1902-1903 and have been repeated each year. The second Chair of Engineering, which was sanctioned by the Secretary of State in 1900, was filled for the first time in 1905, and the teaching staff now consists of the principal, two professors of Engineering, a professor of Mathematics, four instructors and seven assistants.

518. “The most important event in the history of the college was the appointment in 1904 of a committee to consider the needs of the college. After a prolonged deliberation the committee submitted a report containing recommendations which, with slight modifications, were accepted by the Government and which were embodied in the new rules for the constitution of the college published in March 1907.

“Under the old rules there were four classes, for engineers, engineer subordinates, sub-overseers and surveyors, and draftsmen, the college courses for which were three, two and a half, two and two years. These have been reconstituted into classes for civil engineers, mechanical engineers, upper subordinates and lower subordinates, and for each class the course is three years. The first two classes correspond to the old engineer class; they now have a common curriculum till the end of the first year only, after which the course bifurcates. The qualifications for admission to this class have been raised. Under the old rules the minimum general qualification was the F.A. examination certificate; but now only graduates are eligible for admission, and further they must have graduated either in Mathematics or Physics. The upper subordinate class corresponds to the old engineer subordinate class; the qualification for admission has been raised from the Matriculation examination to the F.A. examination certificate. The lower subordinate class comprises the old sub-overseers and surveyors and draftsmen classes. It was found that the courses of training given to these two classes failed to produce a very satisfactory type of subordinate.

“Mr. Keeling, then Acting Principal, reported in 1904 thus:—

‘The former (*i.e.*, the sub-overseers and surveyors) cannot draw, and the latter (the draftsmen) are mostly so ignorant of general engineering as to be only useful as tracers and copyists.’

“It is expected that the extended course of training and the higher educational attainments of the students, who are now expected to have passed the Matriculation or Upper Secondary examination, whereas formerly it was sufficient if they had passed through the lower secondary stage, will produce a better class of subordinate. The Committee expressed the following opinion:—

‘The committee considers that the new class (for lower subordinates), the formation of which it strongly recommends, will be capable of

meeting all the demands now made both for sub-overseers, surveyors and draftsmen. The course proposed will, in its opinion, furnish more efficient men of the first-named class than is the case at present and will remove the complaint now frequently made that these men cannot draw or plot their own work.

"The courses mentioned above refer only to the time spent in the college. In addition there is a practical course of one year for the students of the first three classes who have successfully completed the college course. In this extra year civil engineer and upper subordinate students are attached to Public Works divisions, where large works are in progress, and mechanical engineer students proceed to the Public Works workshops or the Madras Railway locomotive shops, and in their case the practical course may be extended to two years.

"The new rules also provide for a Board of Visitors to advise the Director of Public Instruction and the Government in matters relating to the college, and for the addition of two members of the college staff to the Board of Examiners as advisory members.

"The Committee appointed in 1904 also considered the requirements of the college in the matter of accommodation, and came to the conclusion that in view of the existing need for more laboratory and residential accommodation, the future expansion of the college to meet modern developments, and the impossibility of extending the buildings on the present site, it was desirable to remove the college to a more suitable site. The Government accepted this view and have decided to remove the college to the site at Saidapet which is now occupied by the College of Agriculture and which will become available when the new Agricultural Research Institute at Coimbatore is completed."

Number of students and results of examinations. 519. The number of students attending the college is stated in the Director's returns to have been 263 in 1906-07. No information is available as to the distribution of these students between the different classes, as lately reconstituted. Seven students appeared for the B. E. examination in Civil and Mechanical Engineering respectively, and four out of the seven were successful in each case. Thirty-seven candidates presented themselves for the F. E. examination, of whom 13 passed. Sixty-eight out of a total of 89 candidates for the diploma examination in Engineering and Surveying were successful.

520. THE THOMASON CIVIL ENGINEERING COLLEGE, RURKI.—Formerly this college was nominally affiliated to the Universities of Allahabad and Calcutta, but this is no longer the case. It holds its own examinations and grants its own certificates. The following statement shows the classes into which it is subdivided, and the number of pupils attending each class, according to the returns of the Director of Public Instruction:—

Civil Engineer Class	62
Electrical Engineer class	6
Upper subordinate class	79
Apprentice overseers	16
Lower subordinate class	122
Draftsmen and computers' class	13
Technical class	33
Mechanical apprentice class	50
Industrial classes	86
Military Survey classes	28
TOTAL	495

521. The whole period under review is said to have been one of expansion and development. The staff has been strengthened by the appointment in 1904 of an instructor in chemistry. A striking increase has occurred in the number of Muhammadan students. The income and expenditure have both risen, though the average cost of educating a student has decreased consider-

ably. Many improvements have been carried out in the buildings and plant, but much still remains to be done, specially in the direction of providing more power for the workshops, etc., and of enlarging and improving the laboratories.

Engineering Schools.

522. The schools which impart instruction wholly or principally in Civil Engineering are shown in the following statement:—

Province.	Name of School.	Pupils.			Class of institution.
		1897	1902.	1907	
Madras	Vizagapatam London Mission Engineering Class.	21	20	..	Aided.
Bombay	School of Engineering, Karachi.	20	14	16	Aided.
Bengal	Behar School of Engineering, Patna.	194	110	151	Government.
	Andal Mission School, Orissa.	..	18	20	Aided.
Punjab	Engineering Class . .	17	54	..	Aided.
	Engineering School . .	..	..	198	Government.
Burma	Insein School of Engineering.	16	27	63	Government.
Eastern Bengal and Assam.	Ashanulla School of Engineering, Dacca.	..	140	304	Government.
C. P. & Berar	Engineering School, Jubbulpore.	30	33	24	Government.

523. In addition to the above-mentioned institutions there are Engineering classes attached to the Burdwan Technical School, and the Maisadal Raj Technical School, Midnapore, which teach up to the sub-overseer standard. In both schools there is also an artisan class. The percentages of successes at the sub-overseer examination in the five years under review were 53.8 and 25 for the two schools respectively. At the Victoria School, Kurseong, there is a class for Europeans and Eurasians, which teaches up to the sub-overseer standard. This class opened in 1904 and the number of students has risen from 8 to 14. It has been very successful in passing its students for the sub-overseer examination of the Sibpur college.

Engineering classes in Bengal.

524. In Eastern Bengal and Assam there are four "Technical Schools" under District Boards, affiliated to the Sibpur College and containing, among others, sub-overseer classes, that is, classes which teach the course of the first two years of the Apprentice department at Sibpur, the examination permitting successful candidates to enter the third year of the Apprentice department of the Sibpur College or the Dacca School of Engineering.

Technical schools in Eastern Bengal and Assam.

525. The Dacca school and the four "Technical Schools" are practically fed by "B" classes attached to seven high schools in the province. Success in the "B" course examination of these high schools permits of entry into the second year of the apprentice course of one of the four technical schools or of the School of Engineering at Dacca.

School of
Engineering,
Lahore.

526. Of the institutions mentioned in the foregoing list, the London Mission Engineering Class at Vizagapatam dropped out during the quinquennium. In 1906 the Engineering class maintained by the Punjab University at Lahore was replaced by a Government School of Engineering, with a staff consisting of a head master on Rs. 200—20—300, teachers of Mathematics, Surveying and Drawing on salaries of Rs. 100, 60, and 60 respectively, and a workshop overseer on Rs. 45 per mensem. This change was necessitated by the fact that the University had been unable, through want of funds, to provide more than one teacher for the class, or to replace the few old instruments in possession of the class. The local Government consequently accepted the responsibility of providing adequate instruction in Engineering, and the new school was opened on June 1st, 1906, with 250 students.

School of
Engineering,
Karachi.

527. The School of Engineering at Karachi is in reality a small Engineering and Surveying class, attached to the Daya Ram Jethmal Sind College,—an Arts college. It is said to have been unsuccessful and to fail to attract many pupils from the artisan class.

Bihar
School of
Engineering.

528. The Behar School of Engineering teaches the whole of the overseer course. Since 1902 it has been allowed to conduct its own examinations independently of the Civil Engineering College at Si5pur. Rather more than a fourth of the total number of students belong to the *amin* class. During 1906-07, ten candidates appeared at the overseer examination, of whom six passed, and 33 at the sub-overseer examination, of whom 22 passed. The working of the school is said to have been very satisfactory and more than half of the students joining the school are natives of Bihar.

Government
Engineering
School,
Insein.

529. The Government Engineering School at Insein in Burma increased its scope considerably during the quinquennium. The number of Burman and Indian students has grown larger, and the number of Europeans and Eurasians has decreased. Proposals for re-organising the school on a wider basis and for moving it to a larger and more suitable site were under consideration at the close of the period under review.

Ahsanulla
School of
Engineering,
Dacca.

530. The Ahsanulla School of Engineering at Dacca has been re-organised during the five years under review. It was originally a Survey School, but in 1902 it was decided to constitute it a school of Engineering for the purpose of training students up to the overseer standard. The Nawab of Dacca made a donation of Rs. 1,12,000 for this purpose, and Government also contributed Rs. 60,000. A new building has been erected and is being provided with furniture and apparatus. A European head master has also been appointed. The school comprises four overseer classes, the pupils of which are eligible for overseer certificates on passing the Sibpur College examination. Twenty-two candidates appeared for the overseer examination in 1906-07, of whom 11 passed, and 62 for the sub-overseer examination, of whom 41 were successful. The school is said to have proved highly popular in its reconstituted form.

Engineering
School,
Jubbulpore.

531. The Engineering School, Jubbulpore, trains students up to the sub-overseer standard. The status of the school has been improved and the staff increased. The standard of admission has been raised, only matriculates now being entered; the curriculum has been revised, and a six months practical training under an officer of the Public Works Department has been added to the two years course of study. Applications for admission are far in excess of the capacity of the school and the supply of sub-overseers is said to be less than the demand.

Madras Tele-
graph School
and Indus-
trial Appren-
tice Class,
Insein.

532. In addition to the schools which train students principally or wholly for the overseer and sub-overseer examinations, there are two institutions which give instruction chiefly in other branches of engineering, *viz.* the Madras Telegraph School, which teaches Electrical Engineering and practical Telegraphy, and which had 28 students on the rolls in 1906-07; and the Industrial Apprentice Class attached to the Railway Workshops at Insein

in Burma. This class trains students in Mensuration, Plane Geometry and Steam. The results of the examinations held by the Education Department are said to be encouraging, but the number of students has declined from 57 to 40 during the quinquennium.

Survey Schools.

533. Survey classes are attached to some of the Engineering Schools which have already been noticed. These are the D. J. M. Sind College at Karachi, the Bihar School of Engineering, Patna, the Ahsanulla School of Engineering, Dacca, and the four Technical Schools managed by District Boards in Eastern Bengal and Assam, and the Engineering School, Jubbulpore.

534. The Survey class attached to the College at Karachi is reported to have been unsuccessful. At the Bihar School of Engineering the course for the training of *amins* lasts for one year only. In 1906 twenty-two out of twenty-four candidates were successful at the *amin* class examination. The classes of the Dacca School of Engineering are of two grades,—the first year or *amin* class, and the second year or Survey class. The former is intended to give elementary instruction in field book-keeping and in compass, plane-table and cadastral surveys. In the Survey class a thorough practical training is given in all the branches of survey work. The *amin* classes at the Technical Schools have a two years' course, and the examinations are locally conducted. The classes are said to be popular, and successful candidates readily obtain employment under zamindars.

535. The Survey School, Cuttack, which contains 99 students, exists at present solely to afford instruction in surveying. The complete course extends over two years. *Amins'* certificates are awarded as the result of an examination held after the first year's course. There is another examination at the end of the second year's course. In the examination held in 1907 nearly all the candidates were successful. It is proposed to develop this school into an Engineering school, which will teach up to the sub-overseer standard and eventually up to the overseer standard; but this change had not been carried into effect by the end of the period under review.

536. The Survey of India Department trains its own men in special schools and classes, which, however, are not open to students other than members of the Department. At the training school at Dehra Dun, officers are trained for the provincial service, and instruction is given in triangulation, plane tabling, traversing, levelling, computing, drawing and printing. The sole instructor is a provincial officer of the Survey Department. Students after a course of one year in the school undergo a second year's training in the field, attached to the Berar training party. This system of field training, which was instituted in 1904, is said to have proved very successful.

A training school of sub-surveyors used formerly to be held at Dehra Dun, but this was abolished in 1901. The only training now given to men of this class is afforded by the training parties in the Northern and Eastern circles, the students of which are regarded as apprentices for the Department, and are given a small monthly salary while under training.

AGRICULTURE.

537. A convenient summary of the long and complex history of agricultural education in India is given in paragraph 793 to 814 of the fourth Quinquennial Review of the progress of education in India. From these paragraphs it will be seen that, although much anxious consideration had been given to the subject and although there were in the year 1901 five institutions in India at which theoretical and practical instruction in Agriculture was imparted, the results which up to that time had been achieved were incommensurate with the time, labour and money which had been devoted to the subject; and it was considered that this result was due chiefly to the fact that the Agricultural colleges and schools were regarded primarily as an avenue to the

Survey
classes
attached to
Engineering
and Technical
Schools.

Survey
School,
Cuttack.

Training of
Survey of
India Depart-
ment pro-
vincial officers
and subordi-
nates.

The previous
history of
agricultural
education in
India.

Government service, and the training offered at them had not been taken advantage of to any material extent by those who would turn their instruction to practical account in private farming and estate management. Having regard to these facts, the Government of India, in addressing local Governments on the subject of the proceedings of the Educational Conference convened at Simla in 1901, expressed a doubt whether there was any need in India for advanced theoretical instruction in Agriculture, and whether it would not suffice if practical knowledge were supplemented by a merely elementary acquaintance with such subjects as Botany and Chemistry. They also remarked that it seemed open to question whether the study of Agriculture need be encouraged by the affiliation of the Agricultural colleges to the Universities and the offer of degrees, and whether in some cases the attention which up to that time had been devoted to higher agricultural education might not profitably be diverted to elementary vernacular instruction in Agriculture.

Scheme of recent Reforms.

The recent expansion of the Agricultural Department.

538. Since these views were expressed the situation has been completely changed by the rapid expansion of the Agricultural department which has taken place in the last few years. It may indeed be said that the history of agricultural education during the quinquennium has been the history of the growth of the Agricultural department and of the institution and development of the Imperial Agricultural College and Central Research Institute at Pusa. But before dealing with the subject of agricultural education proper, it will be convenient to explain in some detail the present policy of the Government of India in regard to the general development of Agriculture. In this development there have been three well-marked stages. The first step was taken in 1901 by the appointment of an Inspector-General of Agriculture in India, aided by a nucleus staff of agricultural experts. A further impetus was given to the movement in 1903 by the generous donation of £30,000 given by an American gentleman,—Mr. Henry Phipps,—the greater part of which sum was devoted to the establishment of the Imperial Agricultural College and Central Research Institute at Pusa in Bihar. But no real advance was possible till the Government of India announced their intention, in 1905, of setting aside twenty lakhs of rupees annually for the development of agricultural experiment, research, demonstration and instruction in India. Local Governments and Administrations were consulted as to the lines along which this development should be guided, and in an important despatch addressed to His Majesty's Secretary of State for India at the end of 1905, the Government of India defined their general policy in the following words:—

The present policy of Government.

“Dealing then with Agriculture alone, we will first sketch the complete organisation to which, in our opinion, an approximation should be made in every large province. We fully admit that the variety of local conditions is such that any rigidly uniform scheme would necessarily be defective, but when we notice later on the schemes of the several local Governments approved by us, it will be seen that we have made full allowance for this diversity.

“We propose to establish in each important province an Agricultural college and research station, adequately equipped with laboratories and class rooms, to which will be attached a farm of suitable size. At each institution the superior staff will, it may be hoped, ultimately consist of an expert agriculturist, an economic botanist, an agricultural chemist, an entomologist and a mycologist; and a selected member of this staff will, in addition to discharging his duties as an expert, be the Principal of the college. The staff will be required to combine teaching with research work, for we do not consider it desirable at present to duplicate the staff in the manner proposed by some provincial Governments; and we are convinced that research will ordinarily be more active and better sustained if it is associated with lecturing, which will check any tendency to the investigation of problems unlikely to lead to practical results. The experts, moreover, will need ample leisure for research and for tours in connection with their special subjects of study. Accordingly, each will be provided with an adequate number of assistants and demonstrators in his own department, so that the time of specialists may not be frittered away on merely elementary tuition, and that provision may be made for necessary lectures when members of the staff are away.

“The institutions will fulfil a two-fold purpose. The problems connected with the agriculture of each province will be studied in the laboratory and in the field, while students will be given a thorough general education in all branches of agricultural science.

The farm will afford a field for experiment and for the test of laboratory research, as well as a training ground for the students in the practical application of science to agriculture.

“Each institution with the farm annexed and—a very important point—a whole-time Director of Agriculture to be presently proposed, will form the nucleus out of which the fully organised department for the province will be developed with greater or less rapidity as circumstances admit. The impetus and direction will come from the central source of activity thus provided: but it is also very necessary to provide for the diversity of local conditions within the province. In many cases extensive tracts can be distinguished, presenting characteristic agricultural features. In the case of every important province the area is too large for a single expert to undertake the investigation of its agriculture and the supervision of its Government farm. We propose, therefore, to establish in each important and distinctive agricultural tract an experimental farm, where the agriculture of that tract will receive special study and where improved and new varieties of crops and agricultural methods will be thoroughly tested before being offered to the cultivators; and to divide each important province into circles containing one or more of such agricultural tracts, each of which will be placed in the immediate charge of an expert agriculturist, designated Superintendent of Farms, whose duties will include the care of the experimental farms, the systematic study of the agricultural conditions prevailing in his circle, the guidance of local agricultural associations, attendance at agricultural shows, the distribution of suitable seed and implements and the like. Under this arrangement there will be a local officer in close touch with the cultivators, ready to answer their enquiries and to advise them in the introduction of improved methods. One of these officers will be the expert agriculturist of the Agricultural college in charge of the attached farm, which will be the central farm for the purpose of the tract in which it may be located. The other members of the staff of the central institution will from time to time visit all the experimental farms of the province in order to guide the work connected with their special branches and to acquire a knowledge of the local conditions. Lastly, in order to complete the chain between the central institute and the cultivators, it will be necessary to establish at convenient centres, and place under the supervision of the circle superintendent, a number of demonstration plots, usually rented from or lent by the cultivators themselves, where the practical results of experiment and research will be brought to their notice under the actual conditions of agriculture with which they are familiar.

“We have now described the typical scheme to which, as far as may be practicable, we hope the arrangements in the several provinces will more or less conform. This scheme has a definite relation to the history of agricultural improvement during the past twenty-five years. When our Agricultural department was reconstituted in 1881, its watchwords were agricultural enquiry, agricultural improvement and agricultural efficiency. Efficiency was to be the consequence of enquiry and improvement, and enquiry was naturally taken up first. The most urgent matter was the improvement of the land-record system in many provinces, and for a decade or more effort was mainly directed to that end. Perhaps it may be said that the full acceptance of the doctrine, that effective improvement in Indian agriculture depends largely or mainly on the application of European science to Indian facts, dates from the time of Dr. Voelcker's visit to India in 1890. At all events, from that year onwards, few who have given the agricultural problem of India serious thought have had any doubt respecting this proposition, which has been entirely endorsed by the members of the Famine Commission of 1901, in the passage of their report to which we have already alluded. We do not, of course, overlook the familiar arguments that India has been a land of skilled agriculturists for hundreds of generations; that in parts of India, such as Gujrat and the Thana district in the Bombay Presidency, the Coimbatore district in Madras and the Jullundur and Hoshiarpur districts in the Punjab, there are cultivators who know as well as any peasantry in the world how to make the most of the soil and of the fruits of tillage; that Western experience and practice are dangerous guides in the East; that we ought to possess a more complete mastery of the facts of Indian agriculture before we proceed to instruct the peasantry in their own business; and that in that business, guided by traditions handed down by many generations and justified by general success, even our experts are amateurs. The replies which seem to us conclusive against such arguments are that it is one of our principal objects at present to prosecute, with more system and energy than heretofore, the enquiries into the facts of Indian agriculture which will enable us to further its development; and that agriculture itself, as the experience of other countries demonstrates, is capable of improvement by the application of science, like the other industries of mankind.

“It is true that the methods of applying Western science to Indian agriculture have till lately not been thought out, and as they were necessarily too costly for introduction in years of financial pressure, little, if any, definite progress was made until during the last quinquennium we began the recruitment of specialists and took a further important and significant step in the same direction by the foundation of the Pusa Institute. The present scheme follows the same principles which governed our efforts in gathering together our present staff of experts and in organising the college and research institute which is now being formed at Pusa. We hope that what Pusa is to be

for the Indian Empire, the agricultural colleges and research stations of the several provinces will be, on a smaller scale, for those provinces themselves. Upon the relation between the agricultural colleges of provinces and the Pusa Institute we shall have more to say below.

"In giving effect to the present scheme, we have no intention of making any break in the continuity of work which has hitherto been done by provincial departments of agriculture. As before, agricultural experiments will be carried out. The introduction of new staples, the growing of new and improved varieties of crops, the acclimatization and selection of seed and its distribution, experiments in the use of various manures, the reclamation of saline lands, and many similar problems, will occupy the attention of our experts, as they have in the past occupied the attention of Directors of Agriculture and Land Records, who have often not been experts. The difference will be that the necessary researches will be prosecuted with more scientific method and greater scientific knowledge than heretofore. We attach great importance to the improvement of indigenous products and practices by the comparison of the products and practices of different parts of the country. Here again the facts must be carefully and scientifically observed and compared; and it will be one of the most important duties of the Superintendents of Farms to study thoroughly the agricultural facts and conditions of their circles, and to bring to the notice of the specialists at the provincial research institute defects in and obstructions to successful agriculture with which they become acquainted.

"While continuity with older work will thus be preserved, our aim can only be directly attained by the presence in India of a sufficient number of men who themselves possess the scientific knowledge which it is necessary to apply to the facts of Indian agriculture. Such men are not to be found at present in the country, and it is inevitable at the start that we should recruit them from the West. Nor can we depend solely in the first instance on the services of young men fresh from college whom we should have to train out here for some years before they could be really useful. We must have at the outset a leaven of older and thoroughly competent specialists, who can take their places at the local colleges. In the first instance such men should usually compose the whole teaching staff; eventually, as younger men become available, they will maintain its efficiency. The younger men, also called out from England, will meanwhile be trained for their future duties under the guidance of the Pusa staff.

"In our proposals for the improvement of the agricultural side of the Poona College of Science, we noted our intention that the Pusa Institute should receive from the provincial colleges a supply of students for advanced training. In pursuance of that intention we now desire that the provincial colleges should teach up to a three years' course, and that the men who have during that course shown most scientific aptitude should be drafted to the Pusa Institute for a further two years' course of post graduate study. In this way we hope gradually to arrange in India for the future recruitment of our specialists, and to remove the reproach admitted in paragraph 37 of our Resolution on the history and progress of education in India that, although the necessity for the development of the agricultural resources of the country is generally recognized, India possesses no institution capable of imparting a complete agricultural education."

Progress made in carrying out this policy.

539. Good progress has been made with the scheme thus outlined. A strong staff has been collected for the Imperial Department at Pusa, which, in addition to various supernumeraries under training who are intended to fill leave vacancies in the Department, consists of the following officers:—

The Director of the Central Research Institute and Principal of the Agricultural College.
The Imperial Agricultural Chemist.
The Imperial Mycologist.
The Imperial Entomologist.
The Imperial Second Entomologist.
The Imperial Bacteriologist.
The Imperial Agriculturist.
The Imperial Economic Botanist.

An Imperial Cotton Specialist has also been appointed. In most provinces a whole-time Director of Agriculture has been appointed, and a staff has been gathered round him, consisting usually of a principal of the Agricultural College, an Agricultural Chemist, an Economic Botanist, and one or two all-round agricultural experts. Most of these experts have been recruited, and the sanctioned cadre of the department has been increased from six officers in 1901 to fifty-five at the end of the period under review. Nearly sixty experimental farms, moreover, in addition

to the demonstration plots, have been established in various parts of the country. But satisfactory though these figures are, the stage has now been reached at which it is essential, if further development is to take place, to provide a competent subordinate staff, and it is recognised that for the moment agricultural education is more important than agricultural research. Trained assistants are required to help the European staff in supervising demonstration plots and in managing and working the experimental farms, many of which are of considerable size; and above all, they are wanted as assistant professors and lecturers at the Pusa Research Institute and in the provincial colleges, in order that the time of the European experts may not be entirely taken up with their professional duties and that they may be able to devote their leisure to research work and to touring. Moreover, it is the hope of the Government of India that the country will become as far as possible self-supporting in the matter of the development of agricultural training and research.

540. It is evident, therefore, that the policy which held the field in 1901 in regard to agricultural education is no longer applicable to present conditions, and that the need for higher education, both in Agriculture generally and in its specialised branches, has become insistent in India. In 1903 the provision for agricultural education in India was as follows. In Madras there was a college at Saidapet, and in Bombay there was a class attached to the College of Science, Poona, where the students passed through a three years' course. In the United Provinces, there was a school at Cawnpore with a two years' course which did excellent elementary work, but did not profess to teach an advanced course of agricultural science and practice. In Nagpur there was a similar school, also with a two years' course and with special arrangements for a vernacular class for sons of landowners and the like. A good practical education was given, and promising students were sent annually to Poona to finish their education, with the promise of appointment if their progress was satisfactory. In Bengal, there was a class attached to the Sibpur Engineering College, with a course of two years, where a training in the elements of Agriculture was taught to students who had taken their B.A. degree or who had passed the F.E. examination in the Engineering College. In the Punjab and Burma there was no Agricultural college or school. For the reasons already explained, these institutions were generally speaking unsuccessful, and they are now being replaced by properly staffed Agricultural colleges in each important province, (except Eastern Bengal and Assam), where a three years' course in Agriculture will be taught, and from which selected students who have shown scientific aptitude will be drafted to the Imperial College at Pusa for a two years' course in the more advanced branches of agricultural science.

The new arrangements for Agricultural education.

The Pusa Agricultural College.

541. The Pusa Agricultural College and Research Institute, which is situated on a Government estate of more than 1,300 acres at Pusa in Bihar, was practically finished by the end of the period under review. The main building, which is called the Phipps Laboratory, is a two-storied structure containing well-equipped laboratories for each branch of agricultural science, and including also a library and reading room, museum, and lecture halls. Quarters have been provided for the European and Indian staff, and there is a large hostel, with accommodation for 70 students. Recreation grounds have also been laid out, and a well-equipped hospital and dispensary have been erected for the use of the staff and students. Attached to the college is a farm of 400 acres, with the necessary buildings, which is intended both for instruction and experiment. Another 400 acres have been set aside for the purpose of cattle breeding, and a botanical garden, seventy-five acres in extent, has also been laid out and furnished with a garden laboratory. Students have already been admitted to the college during the period under report, and the staff undertook the training of 22 probationers sent up from the various provinces. It is hoped, however, that the college will be opened very shortly, and that it will then fulfil its proper functions of a higher

teaching institution, with its course limited to post-graduate studies which will qualify candidates for appointment as experts in specialised branches of agricultural science, such as agricultural chemistry, economic botany, mycology, entomology and the like.

542. Provisional syllabuses have been drawn up in the following subjects:—

- I. Agricultural chemistry (two years' course).
- II. Botany (one year's course).
- III. Entomology (one year's course).
- IV. Mycology (two years' course).
- V. Agriculture.

The syllabus for bacteriology has not yet been prepared, as it is not intended that students shall be admitted at present to this course.

Agriculturists who have been trained in the provinces and who require some further training in practical agriculture to fit them for the higher executive posts in the subordinate Agricultural department, such as Superintendents of Farms and Managers of Court of Wards Estates, may be deputed to Pusa for a period not ordinarily exceeding a year, and will be given facilities for obtaining comprehensive experience in the management of field and garden crops and orchards, and in the use of agricultural machinery, tools and implements, and in cattle, sheep and poultry-breeding.

Provincial Agricultural Colleges.

The Poona
College in
Bombay.

543. Until 1904-05, the agricultural teaching at the Poona College of Science was rather defective, and in that year a Committee was appointed to propose improvements. Its principal recommendations included the strengthening of the teaching staff by the appointment of European professors of Agriculture, of Botany and of Agricultural Chemistry, and improved arrangements for practical work. These recommendations have now been given effect to. A fully equipped Agricultural college, distinct from the College of Science, is under construction; and more than 100 students are now occupying the temporary buildings. There are special Indian assistants for teaching entomology, mycology, physics, surveying, farm accounts and veterinary science. The college will continue to be affiliated to the Bombay University, which grants a degree in Agriculture. Pending the completion of the Pusa College, four students have been deputed to England to specialize in different branches of agriculture at Cambridge, but it is hoped that henceforth the necessity of sending Indian students to foreign countries for higher training in Agriculture will cease.

The Coimbatore
College
in Madras.

544. The Agricultural College at Saidapet was started in 1854. In the year 1904-05 a Committee was appointed to examine the course of training at the college. Its report was adverse and strongly criticised the management then existing, pointing out the unsuitability of the curriculum, the inadequacy of the teaching staff, and the inefficiency of the practical work and of the management of the farm attached to the college. The Government of Madras have accordingly abolished the college at Saidapet and started a new one at Coimbatore. The new college is in course of construction, and it is hoped that it will soon be ready for occupation. Three European specialists have been appointed and they will be assisted by Indian professors and lecturers.

The Bengal
College.

545. The Agricultural class at the Sibpur Engineering College for various reasons was not a success. Its place will now be taken by a properly equipped Agricultural college, which is being built at Sabour in the Bhagalpur district. This institution will also meet the educational requirements of Eastern Bengal and Assam, for which, at present, there will be no separate college. A principal for the college has been appointed, as well as an Agricultural Chemist and an Economic Botanist, but it is anticipated that considerable difficulty will be felt in recruiting an Indian staff.

Six students have been sent from Bengal to the Cornell University, in America, to be trained in Agriculture; and three of these have since returned to India.

546. The Cawnpore school in the United Provinces has now been raised to the status of a college, and the full staff of European professors is at work, with a fairly complete establishment of Indian assistants in each branch. The instruction farm has been opened and a hostel has been added, and the equipment of the laboratories has been improved. The Cawnpore College.

547. In the Central Provinces the Agricultural school at Nagpur established in the year 1888 has now been raised to the status of an Agricultural college, teaching the usual three years' course. The Nagpur College.

Large buildings, including laboratories for research work and a hostel for students, have been provided, and the teaching staff has been strengthened by three European professors and some Indian assistants.

548. In the Punjab, which had hitherto no Agricultural college, Lyallpur, now the head-quarters of the Agricultural department and of a large Canal Colony, has been selected for the location of the provincial College and Research Institute. This institution will also serve, for the present, the educational requirements of the North-West Frontier Province. As in other provinces the three European professors will be aided by a sufficient number of Indian assistants who are now being trained at Pusa. It is hoped that the college will be opened in the course of the next two years. The Lyallpur College.

549. In Burma, Mandalay has been fixed as the site of the Agricultural college which is now in course of construction. A large experimental farm will be attached to the college. The College in Burma.

550. The minimum of educational qualification for entry to Agricultural colleges has been fixed in Bombay at the Previous examination and elsewhere at the Matriculation, Entrance or other examination of equal standing, except in the case of private students who wish to acquire experience for some particular agricultural employment. These may be admitted on the principal of a college satisfying himself that their general education has been sufficient to enable them to benefit fully by the instruction provided. It has also been laid down that a good knowledge of English is essential for all students. Qualifications for entry to the provincial colleges.

551. The Board of Agriculture in India framed, in 1906, a standard syllabus for the provincial Agricultural colleges. The Board recognised that the very different local conditions of each province rendered it impossible to lay down a fixed course of study applicable to all India. The standard syllabus was, therefore, framed only to serve as a guide to assist local departments in settling their college courses. It particularly included a practical course, and studiously avoided the danger of attempting too much in the studies. It provides for a full three years' course of education. The object in view is to attract as far as possible students who have been brought up on the land, and to turn out practical men with a general knowledge of Agriculture and agricultural sciences, so as to fit them for upper subordinate posts in the Agricultural departments and for employment as managers of Court of Wards and private estates and, after extra training at Pusa, for work in specialised subjects. A certain minimum course has been prescribed as essential in all colleges, but a margin has been allowed for expansion or modification to meet special local conditions. Practical training in the field will form part of the first year's work, so that undesirable students may be weeded out as early as possible. Syllabus for Agricultural Colleges.

552. The Board of Agriculture in India in 1906 recommended that an identical form of degree or diploma should be given by all the provincial Agricultural colleges. With regard to the exact title to be conferred, the Board recommended that some such title as Licentiate of Agriculture (L.Ag.) might suitably be given, and in view of the danger that Proposed Agricultural degree.

diplomas conferred by individual colleges might have different value, it was suggested that a combined diploma should be given, and that it should be recognised as equal to the B.A. degree. This recommendation is now being considered in consultation with the local Governments and Administrations, but the Government of Bombay have decided to maintain their present system under which the College of Agriculture is affiliated to the University of Bombay, which grants a degree of Bachelor of Agriculture to qualified students.

Text-books.

553. One great defect of Indian Agricultural teaching is the want of suitable text-books. European and American text-books of agricultural sciences are unsuitable, because they deal with crops, methods of cultivation and other matters which are foreign to Indian practice, so that the student cannot appreciate the object lessons and illustrations given in explanation of general principles. The experts in the various sections of the Imperial Department of Agriculture will, therefore, undertake the task of preparing Indian text-books dealing with their respective sciences. The Imperial Entomologist has already published a text-book on Indian Insect Pests, which it is intended shall be elaborated into a larger and better illustrated publication.

Rural Education.

554. The education of the rural classes, which is so closely connected with the improvement of Agriculture, formed the subject of discussion by the Board of Agriculture held in 1905. The Board emphasised the importance of conducting such instruction upon proper principles, based upon the agricultural surroundings of the children, and recognised the importance of the policy laid down in paragraph 21 of the Resolution on Indian Educational Policy issued by the Governor General in Council in March 1904, in regard to the principles of education in rural schools, for with that policy is bound up the future of Indian Agriculture.

555. Mr. Sly, the acting Inspector-General of Agriculture, submitted to the Government of India in 1905 the following proposals on the subject of agricultural education in rural schools :—

(1) That a closer connection should be established between the Education and Agricultural departments in the control of rural education.

(2) That the Director of Agriculture should be a member of the Text-book Committee appointed to revise the curriculum and text-books of rural schools.

(3) That the provincial Directors of Agriculture should submit the revised text-books to the Imperial Department of Agriculture for advice before their final adoption.

Importance of nature study.

556. The Government of India have accepted the view that the importance of nature study as a fundamental feature of rural education cannot be exaggerated. It teaches children to observe closely and to reason accurately from the data gained by observation. Nature study brings them face to face with real things and tends to give to their minds an intelligent bent towards cultivation and, later, to the assimilation of useful scientific facts. An essential feature of the scheme for affording instruction in nature study in connection with rural education is that the training of the village school masters should be such as to render them capable of imparting instruction in the reading lessons dealing with agricultural subjects, and of illustrating them by object lessons drawn from agriculture.

557. That the importance of this matter has been already recognized is shewn by the fact that in the Bombay presidency this training is given at the regular training colleges under the Education department, at each of which a small farm is maintained. In the Central Provinces, again, each village school master goes through a special course of instruction for six months at the Nagpur Agricultural College and Experimental Farm. In the United Provinces, an offer is made to teach and train labourers if these are sent to the farms, and wages are paid to them while so engaged. It is hoped thus to educate them to take an intelligent interest in the experiments that are being conducted at various Government farms.

FORESTRY.

558. The great importance of forestry education in India may be gauged from the fact that at the end of the period under review the area of State forests had reached the enormous total of 233,651 square miles, or nearly one quarter of the extent of British India, and that forests in Native States or privately owned comprised an area of about one-half that above quoted. The annually increasing demand for forest produce and the steadily progressing revenues point to the necessity for the provision of a highly trained staff in order to maintain and improve this valuable property. Forestry cannot be regarded as a simple science but involves a more than superficial knowledge of a number of cognate sciences. The object of education in this subject is not only to impart a knowledge of these sciences, but also to inculcate and develop habits of accurate observation; consequently the training must be largely of a practical nature and imparted in the forest.

Importance of the Forest Department.

559. The importance of forestry as an aid to agriculture has for many years been fully recognised, but the benefits derived from it were considered mainly with reference to easements, and to the supply of cheap forest produce for the agricultural classes and of fodder in times of scarcity. Of late years, however, the importance of forests in their relation to atmospheric and soil moisture has become prominent, and it is now recognized that they have a direct bearing on the maintenance of a perennial and equable flow in the rivers and streams on which irrigation depends. There is, however, still a great deal to be done in this and other directions of scientific and economic research. The forest staff in India has hitherto been employed chiefly in organization, so that the task now before the department necessitates a more highly trained establishment for its accomplishment. It will be seen from the following brief account that the period under review has been one of great importance in developing and organizing forest education for this purpose.

The Forest Department.

560. There were no important alterations in the constitution of the forest services. These are composed of two main branches, classified as controlling and subordinate establishments. The controlling establishment is subdivided into an upper controlling staff, 80 per cent. of which is recruited in England and known as the Imperial Forest Service, the remaining 20 per cent. being recruited in India by selection from the senior and best qualified members of the provincial service; and the lower controlling staff, which belongs to the provincial service and is entirely recruited in India. It comprises a few Europeans, but is chiefly composed of members of the domiciled and native communities. The subordinate establishment consists of rangers, deputy rangers, foresters and guards, who are almost all natives of India and recruited locally.

Constitution of the forest services.

561. The members of the Imperial Forest Service received their education in forestry up to 1905 at the Royal Indian Engineering College, Cooper's Hill; but on the closing of this institution by the orders of the Secretary of State it was resolved to transfer the two professors of forestry to Oxford and temporarily to establish a school of forestry at that University. This scheme has been sanctioned as an experiment for three years only and will be reconsidered on the expiry of that term. At present the forestry classes at Oxford are almost entirely maintained at the expense of the Government of India and of the recruits for the Indian Forest Service. The curriculum appears to have undergone little change, and consists of a two years' course of lectures, supplemented by excursions to British woodlands, and followed by a year's residence in the forests of Germany.

Education of members of the Imperial Forest Service.

562. During the first three years of the period under review, there was little or no alteration in the scheme of forestry education in India described in the last quinquennial report, except that in 1902 the forest classes at the Poona College of Science were discontinued and the education of candidates for the Bombay subordinate forest service was transferred to Dehra Dun. The growing importance of investigations into the scientific and economic

Changes in forestry education in India.

problems of forestry established the necessity of adapting forest education to the work before the department; and the Government of India decided in June, 1906, to raise the Forest School to the status of a college and at the same time to create an Imperial Forest Research Institute, thus making Dehra Dun the centre of higher forest education and research work in India. Some important changes followed as a consequence of this decision. The vernacular forestry classes were abolished and the training of lower subordinates delegated to local Governments. These classes had been conducted in Urdu and were therefore limited in their range to the Hindustani speaking provinces of the Punjab, United Provinces and Central Provinces; and it was evident that the men would profit more from a practical course in those forests where their future work had to be performed, than at a central institution which could not be typical of all. The result of this change was to relieve some of the pressure that had been felt in accommodating the increasing number of students deputed to the college by Government, Native States and Colonies.

563. It has been stated that the provincial service supplies the whole of the lower and a proportion of the upper controlling staff. Entry into this service had formerly been by selection from the ranger class, but it was found in practice that this system did not give complete satisfaction, as the men had generally passed a long term of service in the subordinate grades and had not developed the independence of character necessary to enable them to undertake the new responsibilities devolving upon them. While still keeping the provincial service open to subordinates of approved service, it was resolved to introduce a system of direct recruitment, by which men selected for the provincial service would take the ordinary course at the college for two years, then undergo a third year's special training at that institution, and thence, after three years' probation in forest work, be drafted into the provincial service.

Centres of
forest
education.

564. The two main centres of education are the Imperial Forest College at Dehra Dun, which meets the requirements of the whole of India except Burma, and the Burma Forest School established in 1899, at Tharrawaddy, and now under removal to Pyinmana. Most of the officers now in the Burma provincial forest service have passed the course at Dehra Dun.

Dehra Dun Forest College.

565. As already remarked, there were important changes in the constitution of the Dehra Dun Forest College. It still remains under the administrative control of the Inspector-General of Forests, who is assisted by a Board of Control consisting of three Conservators nominated yearly, while the head of the college and the Director of Public Instruction in the United Provinces are *ex-officio* members. Prior to the change in the status of the college, the Director of the school was also the Conservator in charge of the School Forest Circle, but was relieved of his administrative territorial duties and gazetted as principal of the college, assuming at the same time one of the six following professorships:—

- Imperial Forest Silviculturist.
- " Superintendent of Forest Working-Plans.
- " Forest Zoologist.
- " Forest Botanist.
- " Forest Economist.
- " Forest Chemist.

Each of the above professors is required to give a course of lectures and, in addition, four instructors have been appointed from the provincial service, whose work lies chiefly in supervising the practical training in the forest and the discipline of the students. The classes are now conducted entirely in English. The full complement of students is assessed at 120, but as quarters are provided for 80 only, any students in excess of this number are non-resident, while the demands for entry to the college courses are so great that a number of applications for admission have to be refused each year.

566. Omitting the third year students, who entered the college after the close of the period under review, the students fall into three categories—

Classification
of students at
the Dehra
Dun Forest
College.

- (1) Private students.
- (2) Students already in Government service.
- (3) Students deputed by Native States.

Private students comprise all those who are at present without appointments in any forest service, and whose object it is to qualify themselves by obtaining the college certificates for service either in State or other employ. They must not be less than 18 or more than 25 years of age on the 1st April of the year of admission.

The proportion of private to paid students and of Indians to Europeans and Eurasians in both classes, at the time of entry, is compared for the five years in the following statements:—

Year of entry.	Class.	PRIVATE STUDENTS.		PAID STUDENTS.				Total students.	Percen- tage of private students.
		Euro- peans and Eura- sians.	Indians.	GOVERNMENT STIPENDIARY STUDENTS		STIPENDIARY STUDENTS FROM NATIVE STATES.			
				Euro- peans and Eura- sians.	Indians.	Euro- peans and Eura- sians.	Indians.		
1902	Upper Class . . .	3	16	..	12	..	4	} 45	44
	Lower Class . . .	..	1	..	7	..	2		
1903	Upper Class . . .	1	5	2	18	..	..	} 36	17
	Lower Class . . .	..	..	..	5	..	5		
1904	Upper Class . . .	2	9	4	16	1	3	} 43	31
	Lower Class . . .	..	1	..	5	..	2		
1905	Upper Class . . .	6	6	3	8	..	6	} 39	33
	Lower Class . . .	..	1	..	6	..	3		
1906	Upper Class . . .	2	13	3	18	..	9	} 50	30
	Lower Class . . .	..	..	..	..	..	5		
1907	Upper Class . . .	..	11	2	17	..	13	44	25

567. The special entrance examination was abolished in 1907, and any one of the following educational qualifications is now deemed sufficient to render a student eligible for entry to the college:—

Qualifications
for entry to
the Dehra
Dun Forest
College.

- (i) The B.A., F.A., B.Sc., or Licentiate of Agriculture.
- (ii) The Matriculation, where no School Final examination exists.
- (iii) The School Final examination, provided the candidate can show that he has qualified in English and Mathematics up to the Matriculation standard, or in the case of European candidates can produce a certificate of having passed the High School examination, with a similar proviso.

568. The ordinary college course extends over a period of two years, at the close of which a higher standard certificate is granted to successful candidates; but a third year's course of theoretical and practical training is provided, either to fit passed students for direct appointment to the provincial service, or to meet the wishes of local Governments or Native States who may desire their nominees to specialise in any branch of forestry.

Curriculum.

The subjects taught in the two year's course are the following:—

- (1) Forestry, including silviculture, utilization, and forest working-plans both theoretical and practical.
- (2) Mathematics—elementary algebra, trigonometry, and mechanics, in their application to forest questions.
- (3) Physical Science, including chemistry, physics, physiography, geology, mineralogy and soils.
- (4) Botany, both theoretical and practical; including the collection and preservation of plants.
- (5) Zoology—the classification of animals and the study of useful and dangerous species, especially of insects, and the collection and preservation of specimens.
- (6) Drawing, surveying, and estimating; as required for Forest officers.

- (7) Forest engineering, theoretical and practical.
- (8) Forest law: the elements of criminal law, and departmental organization.
- (9) Forest accounts and procedure.

Terms.

569. The terms of study are as follows :—

Preliminary term—April 15th to June 30th, in camp or at Dehra Dun.

1st year	Rains term—July 1st to October 31st, at Dehra Dun.
	Winter term—November 1st to December 22nd, in camp.
	Vacation—December 23rd to January 2nd.
	Spring term—January 3rd to March 31st, in camp.
2nd year	Vacation—April 1st to April 30th.
	Hill tour term—May 1st to June 30th.
	Rains term—July 1st to October 31st, at Dehra Dun.
	Winter term—November 1st to December 22nd, in camp.
	Vacation—December 23rd to January 2nd.
	Spring term—January 3rd to February 15th, in camp.
	Examinations, including survey test—February 16th to March 31st.

The third year course commences on the 1st July in each year.

Examinations.

570. The College examinations are—

- (1) Periodical, to test progress and application.
- (2) Final.

The periodical examinations are held from time to time, as the principal may order, and the marks obtained at these examinations count for one-third of the aggregate at the final examination, which is held in March of the second year, when three certificates are granted—

- i. Honours.—If 50 per cent. marks are obtained in each subject and 75 per cent. of the highest possible.
- ii. Higher standard.—If pass marks in obligatory subjects are obtained and 60 per cent. of the highest possible.
- iii. Lower standard.—If pass marks in obligatory subjects are obtained and 45 per cent. of the highest possible.

Pass marks in obligatory subjects are 50 per cent. of the marks given in the subjects of forestry, botany, surveying and engineering.

These certificates are only issued on the order of the Board of Control, who have authority to exercise their discretion in doubtful cases.

A certificate may also be granted by the principal to candidates for appointment to the provincial service who have in his opinion satisfactorily passed the third year of training prescribed for such candidates, or to students nominated by local Governments or Native States to attend a selected portion of the college course.

Stipends.

571. The average stipend given to a candidate undergoing the ranger's class is Rs. 50 per mensem; the cost of board, uniform, books, etc., is estimated at Rs. 45 for Europeans and Rs. 35 for Indians. These may approximately be doubled for the third year's course taken by candidates for direct appointments to the provincial service. The college being maintained essentially for the training of candidates for employment in Government and Native State forest services, no charge is made for tuition; and thus the expenditure incurred by Government at the college in the interests of forest education reached in 1906-07 the sum of Rs. 1,28,288, the revenue being Rs. 4,111.

Since the foundation of a forest school at Dehra Dun, 774 certificate holders have passed through the college, 439 of whom are at present in Government service and 146 in the employment of Native States; 17 are in other Government employment or in the colonies, 50 have left the service, 92 have died, and information is wanting in regard to the remainder.

Burma Forest School.

572. There was little or no alteration in the Burma Forest School, which was located at Tharrawaddy. In 1904 the Government of India suggested the advisability of introducing an English course of instruction; and when

considering this proposal, which met with general approval, the Burma Government came to the conclusion that the location of the existing school at Tharrawaddy was unsuitable, and towards the close of the period under review submitted a comprehensive scheme for extending the scope of the school and removing it to Pyinmana. The proposals were not however sanctioned until the following year.

General.

573. The period under review has been one of great importance in the history of forest education. Great progress has been made in the direction of raising the status and extending the scope of the main educational centre at Dehra Dun and in providing similar facilities in Burma. The decentralization of the forest education of lower subordinates, by the transfer to local Governments of the responsibility of training their own men, will, it is believed, tend to popularize the objects of forestry in the provinces; and though the Forest College at Dehra Dun will still remain the chief centre of education in India, there are indications that in the future its principal sphere of usefulness will lie in affording a higher training than has hitherto been offered in India. The third year course, which has recently been instituted in order to remove one of the difficulties attending the policy of extending the indigenous agency in the Department, will, it is anticipated, go far towards improving the quality and efficiency of this important branch of the public service.

VETERINARY SCIENCE.

574. The most important feature in the progress made in veterinary education during the last five years is the abolition of all schools, except in Burma, and the adoption of a uniform three years' course of instruction at all Veterinary colleges, with three examinations conducted by the Government Board. In order to accomplish this, the Ajmer Veterinary School has been closed and the native teaching staff transferred to the Punjab Veterinary College; and the salutri class at the Bombay Veterinary College has been discontinued.

575. The following are the institutions at present existing :—

List of institutions.

- (1) Punjab Veterinary College, Lahore.
- (2) Bombay Veterinary College, Parel, Bombay.
- (3) Bengal Veterinary College, Belgachia, Calcutta.
- (4) Madras Veterinary College, Vepery, Madras.
- (5) Burma Veterinary School, Rangoon.

576. The courses of instruction at the various institutions are as follows :—

Courses of instruction.

Institution.	First year.	Second year.	Third year.
Punjab, Bombay, Bengal and Madras Veterinary Colleges.	Anatomy, physiology, elementary chemistry, elementary botany, materia medica and pharmacy. Handling of animals.	Anatomy, physiology, theoretical equine and bovine medicine and surgery, therapeutics, theoretical principles of horse-shoeing, and hygiene.	Practical equine medicine and surgery, practical bovine medicine and surgery, operative surgery, hygiene, obstetrics, soundness and age, and meat and milk inspection.
Burma Veterinary School	Instruction in general subjects, such as elementary anatomy, physiology, materia medica, etc., and special training in matters pertaining to contagious diseases, and to the care of stock.		

577. Owing to the closing of the Ajmer Veterinary School, the whole of the teaching staff of that institution was transferred to the Punjab Veterinary College; and this has allowed of a more advantageous division being made of the various subjects and of more thorough instruction being given in them. In addition to this, new anatomical and physiological rooms, offices and outpatient clinic have been erected, and a spacious contagious ward, furnished

Punjab Veterinary College.

with laboratories, class room, office, isolation stables, *post-mortem* room, etc., has been completed, so that everything connected with the teaching of these subjects, both theoretical and practical, is grouped together. An Imperial officer has been appointed as professor of Sanitary Science and Hygiene, and has under him a suitable staff. This institution is thoroughly well equipped.

Bombay
Veterinary
College.

578. The direction in which progress has been made in Bombay has been in the provision of buildings and equipment, in respect of which the college had hitherto been very backward. A suitable site has been secured adjoining the present premises, and occupied hitherto by the hospital belonging to the Society for the Prevention of Cruelty to Animals; and a new college, with proper lecture rooms, museum, library, chemical laboratories, etc., has been built. A hostel for the accommodation of students is completed and in use. The equipment and conveniences for teaching have been very greatly improved, and a professor of Bovine Pathology has been added to the teaching staff. Plans and estimates for anatomical rooms, an operation theatre and a contagious ward with laboratories, are under consideration; and these will, when provided, bring the college into line with Lahore, excepting in the matter of professors. Graduates of this college have now the opportunity of attending the Sanitary Surveyor's class held in Bombay.

Bengal
Veterinary
College.

579. A large area of land has been acquired during the quinquennium, and a new hostel, research laboratory, dissection room, *post-mortem* room, operation theatre, horse and cattle wards, contagious wards, etc., have been added. The teaching staff has been increased by two lecturers and one assistant. The entrance qualification has been raised, so that no student may be admitted until he has completed the high school course. Great improvement has been effected in respect both of the equipment and of the teaching staff.

Madras
Veterinary
College.

580. Until 1903, veterinary science in Madras formed part of the Agricultural course; since that time, however, a separate Veterinary College has been established at Vepery, the buildings having been completed in 1905. The hospital, forge and pharmacy belonging to the Society for the Prevention of Cruelty to Animals have been handed over to the college for teaching purposes. The Government of Madras have erected a very useful main college building and other necessary premises are gradually being provided. The teaching staff is rather weak at present, but will be gradually improved as opportunities occur and officers become available. The establishment of this college marks a very great advance in the progress of veterinary education in Madras.

Burma
Veterinary
School.

581. There has been no marked change in veterinary education in Burma, though some minor advances have been made. An endeavour has been made to attract a class of men with higher educational qualifications, up to the 7th standard, (vernacular or Anglo-vernacular), so that it may be possible to extend the range of subjects taught.

Statistics.

582. The number of veterinary graduates passed out from Veterinary colleges during the quinquennium, and the number of students attending during 1906-07, are given below :—

	Total number of graduates passed out during the years 1902-1907.	Number of students attending during 1906-07.
Punjab	209	259
Bombay	59	111
Bengal	65	104
Madras*	29 in 2 years	90
TOTAL	362	564

* Commenced in July 1905.

Satisfactory though these figures are, the demand not only for qualified veterinary assistants but also for the higher grades of provincial officers, such as deputy superintendents and veterinary inspectors, already exceeds the supply; and as in many important provinces the subordinate veterinary departments have in the last two or three years been re-organized and expanded, the difficulty is likely to become even more acute in the near future. The following table compares the existing strength of the subordinate veterinary staff in each province with the staff which has been sanctioned :—

Province.	EXISTING STAFF.			SANCTIONED STAFF.		
	Deputy Superintendents.	Veterinary Inspectors.	Veterinary Assistants.	Deputy Superintendents.	Veterinary Inspectors.	Veterinary Assistants.
Madras	..	..	15	3	15	132
Bombay (including Sind)	..	3	27 + 6 = 33	4	24	215
Bengal	..	15	40	9	30	229
United Provinces	..	8	81	2	20	210
Punjab	..	14	112	..	24	170
Burma	..	7	72	5	12	120
Eastern Bengal and Assam	..	1	11	2	8	120
Central Provinces and Berar	..	4	60	..	6	126
North-West Frontier Province	..	2	20	..	2	26
Rajputana	..	..	2	..	..	2
TOTAL	..	54	446	25	141	1,350

CHAPTER VI.

TECHNICAL SCHOOLS.

583. TECHNICAL education, in the sense of specialised training for trade, commerce and industry, may be said to fall into three grades. At the top stand technical institutes having for their object to provide instruction and training in the principles of science in their application to the industrial arts, with a view to the right understanding of the foundations upon which these arts rest, and to promote their effective development. At the bottom stand craft schools having for their object to train artisans to follow their calling with dexterity and intelligence. Intermediate between these two are technical schools for the training of foremen and others, whose functions are superior to those of the artisans and who require some training in scientific principles, the working of machinery and the like, but do not receive a complete scientific training.

There are at present in India no technical institutes of the higher kind first mentioned, but during the quinquennium a scheme for the foundation of an Indian Institute of Science has been slowly approaching maturity; and a system of technical scholarships has been established, whereby students are sent to other countries to profit by the technical institutes there.

The Indian Institute of Science.

584. The Indian Institute of Science owes its inception to the liberality of the late Mr. J. N. Tata and his family, who have placed at the disposal of the Institute an endowment consisting of property in Bombay estimated to yield an annual income of Rs. 1,25,000 a year. The Mysore Government has provided a site at Bangalore and has undertaken to contribute Rs. 5,00,000 towards the initial expenditure of the buildings and fittings. The Government of India have made a grant of Rs. 2,50,000 towards the buildings and fittings and have promised an annual grant of Rs. 87,500; this grant being based upon an undertaking to contribute to the extent of half the amount of income provided from other sources, subject to a maximum contribution of Rs. 1,50,000. The object of the Institute at present is that it shall be primarily an institution devoted to post-graduate study and research, particularly in science, and conducted with a view to the application of science to Indian arts and industries. Its constitution will resemble that of a University which takes entire responsibility both for teaching and examination and will confer diplomas on its own students only.

State Technical Scholarships.

585. As a result of the educational conference held in Simla in 1901, a system of State Technical Scholarships has been instituted, the holders of which are sent abroad to undertake definite courses of instruction in subjects connected with industrial science or research. During the quinquennium 15 scholarships were awarded, and they are now granted at the rate of ten annually. A detailed description of the institution and working of these scholarships may be of interest, especially as it includes results of enquiries into the industries which were thought in each province to be capable of further development by these means, and shows the different degrees of success with which suitable candidates were sought, the antecedents and qualifications of the candidates, and the extent of their connection with the industry to which they are to devote their studies. The first of the scholars was sent to England in September 1904, and the

15 scholarships awarded up to the end of the quinquennium are as follows :—

Date of award.	Province.	Subject.	Place of study.
August 1904	Bengal	Mining	Four scholars sent to the Birmingham University.
April 1905	Bombay	Prospecting	One scholar sent to join a prospecting party of the Geological Survey of Canada.
May 1905	Bombay	Textiles	Three scholars sent to the Manchester School of Technology.
August 1905	Punjab	Mining	One scholar sent to continue his studies at the Birmingham University.
August 1905	Punjab	Metal work	One scholar sent to England.
September 1905	Central Provinces	Mining	One scholar sent to the Birmingham University.
October 1905	Bengal	Mining	Two scholars sent to the Birmingham University.
February 1906	Madras	Weaving	One scholar sent to the Manchester School of Technology.
July 1906	United Provinces.	Textiles (silk)	Destination to be settled in the India Office.

586. The scholarships are confined to natives of India, and their chief object is to provide the higher technical education which may qualify their holders, on returning to India, to assist in promoting the improvement of existing native industries and the development of new industries, wherever possible. Agriculture does not fall within the scope of this scheme, nor do the professions of law, medicine, engineering, forestry and veterinary science. The industries for which the scholarships are most suitable are those which are or may be organized on a considerable scale, and those in which native capital is or may be embarked. Subject to these main principles, the industries to which the scholarships are to be applied are chosen by the local Governments in consultation with the mercantile public. The number of scholarships to be awarded annually is not yet fixed, but depends upon the extent to which suitable candidates are forthcoming.

587. A few principles are laid down as to the choice of the persons to whom the scholarships are to be awarded. It is important that the scholars should not only be intelligent, but that they should have a practical interest in the industries and a real intention of returning to India and devoting themselves to practising what they have learned. Competitive examination, which would be inappropriate to test qualifications such as these, is forbidden as a means of choosing the scholars. When it has been determined to offer a scholarship in connection with a particular industry, the local Government gives the widest possible publicity to this intention, and invites applications, which it judges by the help of persons cognizant of the industry and of the officers concerned with technical education. No age limit is laid down. It has been indicated as desirable that the scholar should not only have a competent knowledge of English, or of the language of any other country to which he is to be sent, but that he should have had the best technical education available in the province in the particular industry which he has to study.

588. The scholarships are as a rule tenable for two years, and their value is £150 a year, though in particular cases proposals for a larger amount may be entertained. In addition to this, the scholar receives his travelling expenses to and from the country of study, and his fees are paid for him. He is not bound by any agreement to serve Government on his return to India, nor does Government guarantee to find him employment. Provision is made for his supervision while at study, and his scholarship may be cancelled for misconduct.

589. A start was made by the allotment to Bengal of four scholarships for coal mining, afterwards followed by two others, and to Bombay of two for the textile industry, increased to three when it was found that that number of well qualified candidates was forthcoming. Inquiries were at the same time made in the other provinces as to the industries for which scholarships might be offered.

In the careful inquiry which all the provinces made, the comparative merits of many industries for the award of scholarships were examined; and it was not without difficulty that industries could be found to satisfy the necessary condition of being susceptible of organisation on a large scale and of being supported by native capital. The Chambers of Commerce were not sanguine of good results.

590. The following extract from the reply of the Madras Chamber of Commerce indicates the nature of the difficulties which they detected :—“The Chamber understands that manufacturing industries are what Government have chiefly in mind, and if it is only in that direction that encouragement by the grant of scholarships is proposed, the Chamber fears that the difficulty you mention of attracting suitable native candidates for them will prove insurmountable. The reasons are that practically all manufacturing industries in India are at present run by Europeans, and they, when requiring men with expert knowledge for responsible posts (such as an ex-scholarship holder would naturally aspire to), would almost certainly prefer to employ a European, whose capacity and general reliability they could better form an opinion of. Natives doubtless realise this, so those of a class and with the education, ability and energy to qualify for technical

scholarships are scarcely likely to care to enter on a career with no very promising or assured prospects for them in it."

591. The Chamber of Commerce for Upper India appointed a Committee and arrived at negative conclusions, which are expressed in the following remarks:—

"The Committee have been assisted in their deliberations with the views held by a comprehensive range of industries, and, though diversity of opinion was to be expected in regard to a question possessing such different bearings when viewed from the standpoint of the various classes of producers, the Committee feel that certain well defined objections to the Government of India's proposals are shared by the great majority of those interested in production on a large scale by means of extensive labour-saving machinery. I am to represent in the first place, that, so far as the organised industries of these provinces are concerned, it is not thought that specially trained scholars, who have undergone such a course of studies as is contemplated by the Government of India's scheme, would be of any material value. These students would presumably expect to be installed in positions of trust and importance, and as it is not considered that it would be possible for them in the time at their disposal to gain more than a limited and circumscribed acquaintance with the practical details of the particular industries they had selected for their studies, it would be extremely doubtful that the heads of important concerns would regard them as qualified to replace European experts, possessing years of practical experience, in the more responsible appointments. On the other hand, the very fact of their being favoured by such special selection at the hands of Government as is indicated in the memorandum under consideration would be calculated to render them unfitted in their own estimation for the more subordinate positions in mills and factories.

"As to the value of such students as instructors in technical schools, the Committee does not feel itself competent to pronounce an opinion: but in the case of what may be termed the major industries, the knowledge gained by a thorough training in a factory working under Eastern conditions would seem to provide a very much more useful preparatory course than the superficial instruction which a scholar would be likely to receive in foreign countries. In the present position of the local manufacturing industries it is not experts or highly qualified men with a knowledge of the technique of their trades that are difficult to obtain, but a more plentiful supply of the crude material from which to select the ordinary rank-and-file of operatives and the improvement of the standard of intelligence and manual skill amongst those operatives."

592. The Governments however persevered in giving effect to the scheme. In MADRAS it was reported that there were a large number of native industries, but very few of them were appropriate for selection as the majority were not susceptible of being organised on a considerable scale. Amongst others which were passed in review were the trade in gold lace, which is imported up to the value of ten or fifteen lakhs per annum from France; metal plate work; pottery and brick manufacture; textile industries, including cotton spinning, dyeing, machine loom weaving and hand weaving; mining which, however, except for mica in Nellore is entirely in the hands of European Syndicates; glass making; and the manufacture of sulphuric acid, the demand for which in the Madras Presidency was said to average about 90 tons per annum. After careful consideration, the Government came to the conclusion that first scholarships might be most advantageously assigned in connection with the study of industrial chemistry in one or more of its branches, and with the tanning industry. Government therefore invited applications in January 1906 for scholarships in these subjects. Although industrial chemistry and tanning represented the deliberate choice of the Madras Government before suitable candidates could be found in these, an opportunity occurred to nominate a scholar to study weaving, and this was accordingly the subject of the first State technical scholarship instituted in Madras. A scholar 39 years of age, who was weaving master in the Coimbatore jail, was sent to Manchester to study the various types of hand looms for dealing with silk, cotton and other fibres, and the means to be employed to secure the best preparation of warps for hand looms. The occupation of cotton weaving, spinning and dyeing maintains about 1½ million persons in Madras, and a hand loom factory for the teaching of improved methods has recently been started by the Government of Madras at Salem.

593. In BOMBAY, it was the unanimous opinion of the authorities consulted that the first scholarships ought to be given in connection with the textile industry. Contrary to the experience in some other provinces, it was found that a European firm, that of Messrs. Wallace and Co., Bombay, had shown sufficient faith in the technical training of Indian employes to send home a Hindu, employed at their mill at Sholapur, to go through the textile industry course at the Manchester School of Technology. It was settled that one of the State technical scholarships should be awarded to a candidate who was willing to go through the course of textile industry at Manchester, Leeds or Bradford. There was some difference of opinion as to the precise direction which it would be best to give to the second scholarship. Hand block printing had been suggested as the subject of study, and it seemed that there was a considerable opening for the improvement of this industry, if developed on proper and scientific lines, in Gujerat; but it was doubtful whether a scholar could obtain training in it in Europe. It was agreed, however, that

if a student were trained as a textile chemist he would acquire knowledge which might enable the hand-printers of this country to regain the position they once held as producers of printed fabrics with colours of exceptional brilliancy and endurance. The Government of Bombay therefore decided that the second scholarship should be offered for a course of textile study, with special reference to chemistry in its application to textile requirements, and especially to the printing of textile fabrics, with the special object of improving the hand methods now followed in the villages and towns of the Bombay Presidency.

Of the candidates who applied for the scholarships five were found to be fully qualified, and it was decided to award three scholarships instead of two. The three scholars sailed for England in May 1905 and were entered at the Municipal School of Technology at Manchester.

594. In BENGAL, the proposal that mining should be the subject of the first scholarships was received with general consent; and the Indian Mining Association added the suggestion that electrical engineering should form one of the subjects to be taken up by the mining students. The need for a further supply of trained men to be employed in connection with mines has been recognized by the publication of rules under the Indian Mines Act, 1901. The scholarships were widely advertised, and of the applicants, four were chosen and sailed to England in September 1904, to enter upon a course for the diploma in mining at the Birmingham University. The course there is three years, and the scholarships were to be capable of extension to three years if satisfactory progress was made. In the next year, 1905, two more scholars were selected in a similar way for the course in mining at the Birmingham University.

595. In the UNITED PROVINCES, where the Chamber of Commerce held the unfavourable opinion already quoted as to the prospects of the scholarship scheme, the Government made very full inquiries, which however turned out to be fruitless, for an industry for the support of which a scholarship might suitably be given. The first suggestions tentatively made were that the indigenous industries which might be helped by a scholarship were:—(1) ghee and butter making, (2) sugar refining, (3) brass work. As regards the first of these, it was reported that although there might be a good deal of scope for a man who had devoted his life to the chemical investigation of fatty matters to improve the ghee industry, it was unlikely either that the necessary training could be obtained out of India or that ghee factories on a large scale would be established. Butter making was considered an unsuitable industry in which to train an expert, because of the monopoly of this trade by the Military Department. Sugar refining was also reported to be an industry in which it was unlikely that large factories would be started with the aid of local capital. Inquiries into the brass-work trade did not reveal sufficient positive grounds for expecting that the institution of a scholarship in it would be a success. The proposal to institute technical scholarships in the United Provinces was therefore postponed. In the year 1906 two natives of Benares asked for scholarships to enable them to continue technical training which they had already begun, one in the subject of silk weaving and the other in that of glass making. An exception was made to the rules which require that the subject in which the scholarship is to be given is to be selected by the local Governments, and that applications for candidates are to be invited with the widest publicity, and scholarships were promised to these two men.

596. In the PUNJAB many suggestions were made by those whom the Government consulted. Some of these pointed to existing industries carried on by natives and capable of improvement by an application of more scientific methods, while others pointed to trades which might be called into existence if the necessary capital and knowledge were forthcoming. Prominence was given to the fact that many hides are exported from the Punjab and re-imported when tanned and dyed; and it was stated that of the natives who are engaged in the trade in hides some are possessed of large capital. Pottery was also recommended as an industry to be encouraged by a scholarship. Mr. Percy Brown, the Principal of the Mayo School of Art, Lahore, calling attention to the passage in the report of Colonel Clibborn's Committee on Industrial Schools, in which they recommended the establishment of an institute for pottery at Delhi, and remarked upon the bad quality of Indian pottery owing to the ignorance of the most suitable clays, and the imperfect kilns in use and the prevailing ignorance of the use of glazes, wrote:—"The above indicates mainly that an experimental institute is required; but it also points out the important fact that an industry employing a large number of workpeople is waiting to be improved by the introduction of an expert. Delhi is shown as being the centre of the craft, but Mooltan has been omitted, and here some of the finest glazing of the country is made. The preparation of tiles, plain and glazed, for walls and floor, is also an industry of the future, and, in fact, there is no limit to the list of useful and artistic articles which may be made of terra cotta. I think it may be accepted that pottery chinaware will well repay development in the Punjab. As an ancient art, it must have employed many thousands of hands; the remains of the mosaic tile work and terra cotta decoration on old buildings all over the province testify to this, and with encouragement there is every possibility of it becoming an important craft of the future."

597. Metal in various forms was also mentioned as an industry likely to be improved by the increase of expert knowledge. Under this heading were mentioned the trade in despatch boxes at Sialkot and Mooltan, surgical instruments at Sialkot, cutlery and steel work generally; the manufacture of brass and bell-metal utensils, and iron

foundries. It was stated that inferior metal was in use, and that the bazar methods of casting and moulding were very crude and the instruments very primitive; and there was room for more or less improvement in every branch of this important craft.

Other subjects mentioned were glassware, manufacture of articles from the bones of animals (e.g., buttons), boiler-making, calico printing, dyeing and bleaching, sugar industry, cotton and flour mills.

The local Government decided that of all the industries mentioned, those which might be developed with advantage by the help of scholarships were tanning, metal work and pottery.

598. Two scholarships were allotted to the Punjab, and the local Government decided to invite applications for scholarships in tanning and metal work. The best of the candidates for the tanning scholarship had received no instruction in science, his school career having extended only as far as the middle school examination. Inquiries were made in England whether it would be useful for such a candidate to proceed there for the purpose of technical training, but the reply was unfavourable. Consequently no scholarship for tanning was awarded in the Punjab. A suitable candidate was found for the study of metal work, and a scholarship was awarded to him.

599. BURMA saw no opening for the technical scholars and no means of obtaining a suitable candidate. The local Government considered whether a scholarship might be offered for training an analytic chemist for the purposes of the petroleum industry, but came to the conclusion that a native of the province so trained would be unlikely to obtain remunerative employment in Burma.

600. In the CENTRAL PROVINCES, where the prospectors for minerals have been active and successful, the promised growth of the coal, iron and manganese industries were sufficient to justify a demand for a technical scholarship. The other industries examined were the culture and manufacture of tussar silk, dyeing, tanning, hand weaving, oil pressing, mining. Tussar silk and dyeing were set on one side because the local Government considered that they were in a primitive condition, which called, not for the moderate amount of expert knowledge which a technical scholar might be expected to apply, but for an original investigator of high scientific training and faculty. Tanning, hand weaving and oil pressing, on the other hand, were not pursued in any one place upon a large enough scale to give prospect of the profitable employment of a scholar.

Assam saw no opening for the award of a technical scholarship.

601. In addition to the scholarships the award of which in the different provinces has now been described, two were awarded to Indians who were at the time pursuing technical studies in England and who applied for assistance to enable these studies to be continued. The first of these was awarded in April 1905 to a native of Bombay who was studying at the Royal College of Science, London, for the diploma of Associate in Mining. It was recommended that the training which he had received at the Royal College of Science should be supplemented by further experience in one of the Colonies where mining and prospecting were being prosecuted, and the scholar was sent to Canada for this purpose in August 1905 and placed under the supervision of the Director of the Geological Survey in Canada. The other scholarship awarded in England was given to a native of the Punjab, who was studying mining, at the University of Birmingham and who desired to prolong his course. Having studied at his own expense for two years, the technical scholarship was awarded to him to date from September 1906, in order to enable him to remain at the Birmingham University for a further period of two years.

602. Of the fifteen scholars to whom technical scholarships have been awarded, three were domiciled Europeans, viz., two mining scholars from Bengal and one of the textile scholars from Bombay. The rest included Hindus of several castes and only one Muhammadan.

It is remarkable that of the fifteen scholars only two hold a University degree. The scholar at Benares to whom a scholarship in the textile industry was promised has taken the M.A. degree at Allahabad, and the one who was sent to Canada on a prospecting party was a B.Sc. of the Bombay University. Of the remaining thirteen, four had passed the Intermediate examination and the rest had not been to college.

Seven of the scholars had received technical instruction at a technical institution in India. All three of the textile scholars sent from Bombay had been through a course at the Victoria Jubilee Technical Institute, as also the scholar sent from the Punjab to study metal work. One of the mining scholars from Bengal had studied at the Behar School of Engineering, another had been through the apprentice department at Sibpur, and a third had studied at the Sibpur Engineering College and had passed the first examination in Engineering, and had received special training in the analysis of coal and in practical mineralogy and field geology. The other technical scholars, who had not been at a technical institution in India, had nevertheless all had some practical experience of their subject, usually as salaried assistants in the trade.

Of the scholars' conduct while in England there has only been one serious complaint; that of a man who endeavoured to take advantage of the opportunity of being in England to qualify himself in law, while neglecting his technical studies. Such reports upon the other scholars as have reached the Government of India have been, upon the whole, satisfactory.

603. The result of the working of the State technical scholarship scheme, so far as it has gone at present, is that the difficulties of finding suitable industries and suitable candidates to hold the scholarships and providing suitable courses of training for them have been successfully met. It still remains to be seen what careers lie before the scholars upon their return to India and how they can turn their studies to good account in the promotion of the industries concerned.

604. The State scholarships are not the only agency by which young men are sent abroad to pursue scientific and technical studies. A body styled the "Association for the advancement of scientific and industrial education of Indians", established in Calcutta in March 1904, has provided many students with technical scholarships tenable abroad, and there are other associations of the kind. This body collects subscriptions and donations and is reported to have granted 16 travelling scholarships in 1904, 44 in 1905, and 96 in 1906, of different values, ranging from Rs. 25 to Rs. 100 per mensem, with or without passage money. The majority of the young men who have received these grants have proceeded to America and Japan, and a few to Great Britain, Germany and France. Some of them may be correctly described as pursuing higher technical studies, but the majority are not qualified to do this and content themselves with less ambitious standards. The subjects of study are agriculture, leather, mechanical engineering, pharmacy, electrical engineering, practical chemistry, spinning, weaving, handlooms, matches, soap, buttons, enamel, sericulture, glass and mining. Some of these have returned and have found employment in this country.

605. If in the past there has been a reluctance on the part of Indian students to apply themselves to technical studies, that reluctance is passing away; the complaint that industrial careers have no attraction, as compared with the security of Government employ, for young men of the better class, is now becoming out of date; and if the establishment of technical institutes has been retarded by the fear that when opened they would fail to attract students, such fears need no longer be entertained. Public feeling may change again, but as matters stand at present there is a strong and active demand for technical instruction of the higher kind, and this demand is in advance of the supply. Some further measures for meeting it were under consideration at the end of the quinquennium.

Technical Schools, Intermediate Grade.

606. Turning now to technical education of the intermediate grade, the progress to be reported during the quinquennium relates to instruction in mining, textile manufacture, tanning and mechanical engineering.

School for Mining.

According to the statistics of 1906 there are 285 coal mines in India, with an annual output of eight million tons, and employing ninety thousand persons. There are 95 mines in which less than 50 persons are employed, 68 in which more than 50 and less than 150 persons are employed, and 122 in which the number of persons employed exceeds 150. Formerly there was no legal requirement as to the qualifications to be possessed by the managers of the mines, and the only provision in this country for training mine managers was a provision of two scholarships of Rs. 50 a month offered by the Government of Bengal, to enable passed B. E. students of Sibpur, at the rate of two a year, to proceed to a mine or colliery approved by Government in order to receive a course of two years' practical training. These scholarships, however, did not succeed in supplying trained officials to the mines. Those who held them seldom pursued the profession of mining any further; the larger mining companies obtained their managers from outside India, the smaller companies did not offer salaries at sufficiently tempting rates. There were no regulations requiring the mine officials to be qualified persons, and many of those employed were without the training which in most countries would be thought necessary.

new rules
under the
Indian Mines
Act.

607. On the 21st April 1906 were published rules, made by the Governor General in Council under the Indian Mines Act, 1901 (VIII of 1901), for application to all coal mines in British India. These rules require that the managers of mines shall hold certificates, which are of two classes. A first class certificate is required for the manager of a mine in which the number of persons employed simultaneously underground exceeds 150, or in which the average monthly output exceeds 1,800 tons; in mines where the persons so employed and the monthly output do not reach these figures, but exceed 50 and 600 respectively, a second class certificate suffices. The certificates are to be granted after an examination by a Board of Examiners, consisting of the Chief Inspector of Mines and two other persons; for a certificate of the second class it is necessary to have attained the age of 21 years before the examination and to have had practical experience in a coal mine for not less than three years; for a certificate of the first class the minimum age for admission to the examination is 23, and the period of practical experience five years. These periods of practical experience are reducible by two years in the case of candidates who have received a diploma in scientific and mining training, after a course of at least two years at an approved educational institution, or who have taken a degree in scientific and mining subjects at an approved University. Some of the existing managers, i.e., those persons who have been employed as managers of the larger mines for five years, or as managers of the smaller mines for three years, before October 1906, are exempted from the examination, and may receive "certificates of service." The rest of the existing managers, and all appointed in future, can become qualified only by undergoing the examination and obtaining certificates of competency.

608. The Bengal Government was invited by the Government of India to frame proposals for a mining school; and under the scheme as finally sanctioned a school of mining has been established at the Sibpur Engineering College (shortly to be removed to Ranchi) by the formation of a special mining class in the apprentice department. The apprentices at Sibpur, after passing through a secondary school, begin their apprenticeship by a course, which lasts for about eighteen months, of general introduction to technical training. They spend three hours a day at the carpenters', blacksmiths', and boiler makers' shops, and they also receive instruction in mathematics, science, drawing, surveying, elementary engineering, and simple estimating. At this point they pass the sub-overseers' examination, and the age rules are such that at passing this examination they are not less than 17 and not more than 19 years of age. The mining class is formed for apprentices who have passed this sub-overseers' examination. Those who enroll themselves for instruction in mining receive the greater part of their training in common with the other apprentices, but receive also some special instruction in mining subjects over a course lasting two years. This two years' course consists of a workshop course, accompanied by a course of studies in drawing, mathematics, science, and engineering. The special subjects inserted in this course for the benefit of mining students are:—First year course, (1) geology applied to mining, (2) mining-engineering, (3) coal-mining, (4) metal-mining; second year course, (1) descriptive mineralogy, (2) mining-engineering, (3) coal-mining, (4) metal-mining.

Special instruction is also provided for the mining students in surveying, for which purpose a cold weather camp is arranged in the mining districts.

This involved an addition to the staff at Sibpur of a professor of mining-engineering and an instructor in surveying, and a provision of funds for the purchase of diagrams, models and other apparatus, and for the tents and expenses of the survey camp.

After passing through the mining school at Sibpur, the students receive a college diploma and then take employment in mines and are examined for the managers' certificates when they have completed the necessary period of practical work.

609. Provision has also been made for the instruction of persons already working in the mines as managers and sub-managers or in any other capa-

cities, by the appointment for five years of a mining instructor who was recruited from England. This officer gives instruction in the mining districts at convenient centres. The mining class at Sibpur was started in February 1906 before the scheme had been finally settled, and appears to be progressing favourably and to offer good prospects for the employment of those who hold the diploma. The professor of mining, Mr. Robertson, is quoted by the Bengal Director of Public Instruction as making the following observations upon its future developments:—

"I consider it highly desirable to develop the practical side of the mining department, but have till now put forward no definite scheme, as I wished to study the lines of work which are most suited to the conditions of the country. With regard to the mining laboratory, this can be gradually built up, and perhaps might be allowed to hang fire a little, until after the removal of the college. I have, however, this year indented, for the nucleus of this laboratory, for a fine-grinding machine for the purpose of experimenting with Indian coal and attempting to separate on a commercial scale the ash from the clean coal. It is proposed to add an experimental coal washing plant later on. With regard to practical work I have noticed that in applications for mining assistants a knowledge of boring is looked upon as a desideratum. It would therefore be desirable to turn the mining students on to this work. . . . I propose to make practical boring part of the regular work of the students."

Schools for Textile Manufacture.

610. Successful work has been done for some years at the Victoria Jubilee Technical Institute, Bombay, in textile manufacture. The course extends over three years and leads to a diploma. The institute is a centre for examinations under the City and Guilds of London Institute, and students of the institute have been very successful in the examination in cotton spinning and cotton weaving, and the Director reports that many find employment in mills. A scheme was sanctioned at the end of the quinquennium whereby, in addition to various improvements in the plant of the institute, a laboratory for technical chemistry will be established, in charge of a professor upon a salary of Rs. 300 rising to Rs. 500 and two demonstrators. Instruction will then be given in the textile department in the dyeing of various kinds of fibres and cloth, bleaching, finishing, sizing, and calico printing. "The field for industrial development in these arts is very large," writes the principal of the Institute, "existing institutes of the kind being in a backward state and the workpeople and overseers with but few exceptions knowing little or nothing of the character of the chemical agents used. The large mill industry has so far failed to grasp the importance of the study of the sizing ingredients which they use, beyond that of rule of thumb, and improvements in this direction would be of very great benefit to mill owners." The establishment of two other weaving schools in the Bombay Presidency is in the same stage of advancement, viz., that the scheme has been approved and funds have been provided. One of these is to be established by private munificence at Ahmedabad and the other by Government in another suitable locality. The Ahmedabad school, founded and endowed by Mr. Chinubhai Madhavlal and assisted by Government, will be intended primarily to give instruction to those who are already in employment in mills and who under the scheme will be assisted by scholarships to spare some hours a day for attending schools, where they will be taught drawing and design, the elements of weaving and of the textile fibres, practical weaving of different fibres, and the working of hand and power looms, and will thus by degrees be led to understand all the processes and operations of an efficient mill.

611. An experimental school has been established at Ahmednagar in connection with the American Mission, called the Dinsha Petit Manekji Industrial School, Ahmednagar, in which Mr. Churchill, a graduate of the Massachusetts Institute of Technology, Boston, has been experimenting since August 1901 with a view to the improvement of the hand-loom. A large class of pupils is being trained in working it, and a factory has been erected to turn out cheap improved hand-looms such as can be erected and repaired in a village and will be simple to use and will increase the weavers' outturn. "There is every reason to believe," wrote Mr. Giles, the late Director of

Ahmednagar
Textile
school.

Public Instruction in Bombay, "that Mr. Churchill's experiments will result in complete success and that a great impetus will thereby be given to an industry which affects a very considerable population in various districts of the Presidency." This enterprise is now being liberally aided by the Bombay Government.

Serampur
weaving
school.

612. A scheme was sanctioned at the close of the quinquennium and funds were provided for the establishment of a school for hand-loom weaving in silk, cotton and wool at Serampur in Bengal. "It is well known," wrote the local Government, "that a great hand-loom industry exists in Bengal. Its condition however is precarious and it is considered essential that, if it is not to be allowed to sink further into decay, real practical technical instruction should be provided for the class of weavers, except the very small number who are employed in artistic work to which mechanical improvements are not applicable. It is notorious that the great mass of native weavers still use the old native hand-loom and warping apparatus and are ignorant of the extraordinary mechanical improvements which have been made since the middle of the eighteenth century as regards these appliances and the preparatory processes of weaving." Serampur was selected as the centre where the school of instruction should be established because there is an intelligent artisan population in that place and in its neighbourhood, which has already adopted some important improvements in the hand-loom and the warping apparatus. It is intended to establish classes in two grades, the one for young men who have been trained at one of the affiliated technical schools of the province or have passed the B. class final examination in secondary schools. The course of training for these students will be from one to two years and will include a special course of instruction in drawing and designing. The other class of students will consist of weavers from Serampur and its neighbourhood, not excluding adults, who will receive a more limited course of training lasting from about six months to about one year and imparted through the medium of the vernacular. It is intended also to organise instruction at outlying centres under the inspection of the principal of the school at Serampur. For this school two officers, the principal and an assistant, trained at one of the large technical centres in England and having experience of the weaving industry, are to be recruited. The initial cost of the school is estimated at Rs. 87,000 and an assignment of Rs. 35,000 annually towards its maintenance was made by the Government of India.

School for Tanning.

613. Some inquiries made by Mr. Chatterton as Superintendent of Industrial Development in Madras resulted in the establishment of a chrome tanning department, where some instruction was given in the methods applied. The field of industrial development, as such, does not of course lie within the scope of this review; but as students resorted to this tanning establishment at Madras from other parts of the country in order to learn the processes, an account of it, taken from a report by Mr. Chatterton, may find a place here.

"The chrome tanning department originated from a grant of Rs. 2,000 for experiments in chrome tanning, which was sanctioned in November 1903. The experimental work commenced in December 1903, and was at first on a very small scale till it was ascertained that a material could be made which could be manufactured into saleable articles. In April 1905, I added to the tannery a boot and shoemaking department, in which chrome leather is made up into boots and shoes, sandals, kavalais, harness, belting and so forth. During the year 1905-06 sales to the extent of Rs. 29,700 were effected and the average outturn is now over Rs. 4,000 a month, although the accounts do not show so large a sum. This is due to the fact that a considerable number of hides and skins are purchased by outsiders and sent to us to be tanned and dressed into leather, and in the accounts only the tanning and dressing charges are shown. The tanning is all done in drums on the school premises, but the preliminary processes of liming and un-hairing are carried out in local tanneries outside the municipal limits. All the objectionable work connected with tanning is done elsewhere than on the school premises, and the tanning department creates no objectionable smell about the place.

Numerous applications were received from a great variety of people to be allowed to learn chrome tanning in the department, and all that came from eligible

applicants were admitted. These students received no remuneration and paid no fees. No regular course of instruction was laid down for them but they were supposed to work in the tannery from 7 in the morning till 5 in the evening, with an interval in the middle of the day. After a time it became obvious that it would be necessary to place some restriction on the number of pupils admitted, and for this the best plan seemed to be to charge a fee sufficient to prevent students seeking admission on the off-chance that something might come of it. Government approved of the proposal and sanctioned levying a fee of Rs. 5 a month. This has had practically no effect on the number of pupils in the department, as there are eleven on the rolls at the present time and this is about as many as accommodation can be found for. During the year 1905-06, seventeen students joined and left the department, and the period during which they were in attendance varied from six weeks to six months. The majority naturally came from Madras and many of them were connected with the tanning trade in some way or other. But amongst the students there was one from Sholapur, one from Orissa, one from Ahmednagar, one from Calcutta, one from Rangoon, one from Coorg and one from Gwalior, the last mentioned being the Superintendent of Industrial Schools in the Gwalior State and deputed by His Highness' Government to make a study of the work going on here with a view to introducing it into his State. The majority of the students are well educated, amongst them being two M.A.'s, three B.A.'s, two F.A.'s and several matriculates. They work in the tannery, and so far as possible their services are usefully employed. Mr. Tiruvengkatachari is in charge of these students, and he gives them verbal instruction from day to day, but there are no regular lectures and there is no laboratory work. The amount of work now going on is sufficient to give the students opportunities of acquiring a practical knowledge of the chrome tanning business on lines suited for Indian requirements.

"The leather turned out here is of a good quality, but the finish is not of a high class as it is necessary to provide something as cheap as possible for the native use. . . . The tanning industry in Madras is one of great importance, and if the chrome leather industry becomes firmly established in India, it can scarcely be questioned that if a properly equipped technical school for tanners on the lines of those established at Leeds and in Bermondsey be started it would be an unqualified success. We have succeeded in awakening the tanning trade of this Presidency to the necessity of technical education and have to some extent demonstrated to the Science graduates of the University that in this industry there exists a profitable field for the employment of scientific and technical trained men."

Schools for Mechanical Engineering.

614. The training of mechanical engineers is carried out chiefly at the Engineering colleges and schools which exist in all provinces and of which the chief aim is to supply men for the Public Works Department. The extent to which these institutions also supply the needs of private industry cannot be stated in a statistical form. In Bombay the Victoria Jubilee Technical Institute, which is not connected with the Public Works Department, supplies trained mechanical engineers for business purposes. The plant of the Institute in the mechanical engineering and electrical engineering departments has been enlarged and improved during the quinquennium, and the students are said to have been very successful in the examinations in Mechanical engineering of the City and Guilds of London Institute. The Director of Public Instruction speaks favourably of the progress made by the Institute in this department, stating that many of the students find employment in mills, and adding that a growing demand for electrical engineers is to be expected.

615. The apprentice department of the Sibpur Engineering College, Bengal, which has for some years past aimed at supplying private industry no less than the Public Works Department with trained foremen mechanics, has added a class for motor drivers, and instructs men in keeping a car in order and carrying out ordinary repairs and in driving. It is also reported that the students of the college erected an electrical installation in the college workshops during the period under review and completely constructed (with the exception of the boiler) an eighty foot launch with twin compound condensing engines and also two motor boats. The college gained two gold medals for exhibits at the recent Calcutta exhibition.

616. An institution called the Bengal Technical Institute was started in Calcutta towards the end of the quinquennium by a society styled "The Society for the Promotion of Technical Education in Bengal." The following description of this institute is taken from a recently published report by Mr. J. G. Cumming:—

"It was started in August 1906 at 92, Upper Circular Road, where large workshops have been erected—mechanical workshops, smithery, electrical engineering shed, and a

Bengal
Technical
Institute.

carpentry shed. There are also arrangements for teaching drawing, chemistry, and dyeing. There are moderately well-equipped physical laboratories. The institute was started under the revulsion which followed the partition of Bengal, but the system of instruction has fortunately been directed on sound lines. For funds the Committee are principally indebted to Mr. Palit, Barrister-at-Law, and have the advantage of the assistance of two master minds in the mechanical and educational world of Calcutta.

"All the courses have not yet been started. The secondary course, as it is called, is for three years, though, it is hoped, it will be extended to four years. It is proposed to have courses in mechanical engineering, electrical engineering, sheet metallurgy, technological chemistry, a commercial course and economic geology. This is an ambitious syllabus, but for the present complete arrangements have only been in the mechanical engineering course. The governing body propose that the technological chemistry course will deal with the following subjects:—Geology, ceramics, tanning, paint and varnish-making; dyeing and bleaching; soap, candle, oil, and perfume-making, and the preparation of matches. On the engineering side the instruction will be similar to that given at Sibpur. But there is here an excellent opportunity for young men to become foremen mechanics in reality as well as in name, and to take advantage of the demand which the anticipated industrial activity will promote. The course for industrial chemistry is still in its infancy, but it has anticipated the proposals for the establishment of similar classes in Sibpur, which classes, I hope, may be the nucleus of a Government technical institution in Calcutta after the Engineering branches of Sibpur College have been removed to Ranchi."

Mechanical
apprentice
class, Rurki

617. An important departure was taken in 1906 by the expansion of the mechanical apprentice class at the Thomason College, Rurki, so as to provide for training mechanics to set up, run, repair, and take to pieces the kinds of machinery used in the United Provinces. Towards this project the Government of India made a special assignment of thirty thousand rupees annually. The local Government found that there was a demand for men able to handle machinery, both in factories and outside; that small factories were springing up in the Meerut and Agra division, chiefly in connection with cotton; that the use of motor cars was rapidly spreading and that the demand for men competent to run and repair them was already considerable; that electricity was being installed rapidly in public buildings, clubs and private houses at Cawnpore and elsewhere; that electric tramways were about to be introduced in Allahabad and Lucknow; and that these developments which offered well paid employment were hampered for lack of men. A special class was accordingly established at Rurki providing a three years' course of instruction and admitting thirty students yearly, who must be of pure Indian descent and domiciled in the United Provinces, not above twenty-two years of age, and must have passed the Entrance or School Final examination. The students are to be put through a course of practical work in carpenters' shops, forge and foundry, fitting and machine shops, and to specialise in one or more of the following subjects:—

Division A.

- (1) Electrical power installations,
- (2) Electric light installations,
- (3) Telephone exchange installations,
- (4) Motor cars.

Division B.

- (1) Steam, gas, or oil engines,
- (2) Machines related to the cotton industry,
- (3) Machines related to the manufacture of ice,
- (4) Machines related to the manufacture of sugar.

618. Students are admitted without payment of fees and are provided with free quarters and a free grant of books and instruments. The Director reports that the class "has been successful in its own way, but the men at times have not had sufficient previous general education to make it possible to train them highly and fit them for responsible industrial posts. The foundation for all good technical work is a sound general education, and when this is wanting no amount of training can supply the deficiency." The applications for admission to the class greatly exceed the number of vacancies, thus supplying one more illustration of the growing demand for technical training in this country.

619. A technical institute is being erected at Amraoti, for the training of mechanical engineers to work in the cotton gins and presses of Berar. It will bear the name of the Victoria Technical Institute, and the funds for its erection and maintenance have been supplied partly from a subscription for a memorial to Queen Victoria and partly by a grant from the local Government. The school will give a three years' course, of which the first two years will be devoted to the study of drawing, mathematics, physics, mechanics and chemistry, accompanied by practice in the workshops; and the third year will be devoted to the study of mechanical engineering, both theoretical and practical. The management is vested in a committee, part of which is officially nominated and part elected by the municipalities and subscribers. The initial outlay is estimated at ninety thousand rupees and the recurring expenditure at Rs. 11,514. The local Government undertook to contribute an initial grant of 30,000 rupees and a recurring grant not exceeding 11,360. The buildings are now nearly completed.

Victoria
Technical
Institute,
Amraoti.

Craft Schools for the training of Artisans.

620. It will be convenient to turn now to technical schools of the third grade described above, that is to say, craft schools for the training of young artisans in some one industrial pursuit. These schools are not widely spread in India, nor is there at present much indication of a demand for them among the artisan population. The Indian craftsman ordinarily learns his trade not at a school but by apprenticeship at the craft itself, and those who establish schools which are intended as a substitute for apprenticeship must depend upon being able to prove to the artisan that they can give a better training in that particular craft than is to be obtained in the workshop. Upon examination of the existing schools of this kind, some are found to be aiming not so much at the improvement of an industry as at providing a course of training for boys and girls who would not otherwise be able to learn a trade in the ordinary way by apprenticeship. To this class belong the industrial orphanages, which fulfil a charitable and laudable purpose in teaching a trade to children who have no other means of being placed out in the world. The establishment of craft schools is also sometimes advocated and attempted in order to supply local deficiencies, as for instance of carpenters in Sind. If these succeed in establishing a supply of workmen it does not necessarily follow that the substitution of schools for apprenticeship will be permanent in that craft; for when the supply of competent workmen has been created the natural tendency will be for them to teach their sons by apprenticeship to follow their trade. Another form of industrial school is that which may more properly be ranked as a manual training primary school, that is to say a primary school in which general education is given but in which great stress is laid upon the idea of associating book learning with manual occupation. It is not necessarily the object of these schools to produce workmen skilled in a particular craft, and if woodwork and ironwork are used in them as accompaniments to a general education it is not necessarily a condemnation of the schools to remark that many of the pupils on leaving school become neither carpenters nor blacksmiths. Lastly, there is the craft school proper, which has for its definite aim to improve a particular industry by giving its pupils a better training than the bazar affords, and this it endeavours to do by choosing the best workmen as instructors, by teaching the principles of drawing and design, by setting good examples before the pupils, and by regular hours and regular methods of cultivating manual dexterity. The workshops attached to some of the Schools of Art are instances of institutions conducted on these lines.

621. As an example of the change in the character of an institution, according as it aims at one or other of these objects, may be quoted the Lucknow Industrial School, the successive developments of which are described in a report by Mr. S. H. Butler upon technical education in the United Provinces of Agra and Oudh:—

Lucknow
Industrial
School.

"The history of the Industrial school at Lucknow is a record of inconstant purpose, with breaks of unconcern. The committee of 1891 intended it to train the children of

artisans (especially artisans in railway workshops) in reading, writing, and arithmetic, elementary mechanics, physics, and drawing 'in strict subordination to manual training in a workshop under skilled instructors.' This object was ignored. No workshop was erected; no machinery was ordered; no skilled instructor was appointed; no effort was made to link the institution to the railway workshops. Until 1896 the curriculum was mainly literary, supplemented by some messing with materials. In 1896 the 'guiding idea' of the school was declared to be preparation for the Thomason College, although classes for dyeing and glass-blowing were retained. Changes in the curriculum became almost seasonal. After ten years a competent headmaster was imported from England. Four classes were started: (1) an industrial class; (2) a class preparatory for the mechanical apprentice class at Rurki; (3) an apprentice class in the bazar, on the lines of the Casanova School at Naples; and (4) a night school. The two last failed *ab initio*: the first emptied when literary education was withdrawn. A further reorganization then took place. Some machinery was erected, and manual training was added to primary education of a non-literary character. At the last meeting of the school committee it was decided to attempt to connect the school more closely with the railway workshops; and so after fifteen years' vacillating effort the school has arrived at a prospect of fulfilling the function for which it was originally designed."

Recommendations of the Simla Conference of 1901.

622. The recommendations of the Simla Educational Conference of September 1901 upon the subject of technical education included proposals for a wider establishment of local trade or crafts schools, and a committee was appointed to report upon the best means of establishing such schools. The recommendations of the Simla Conference, included in the reference to this Committee, were as follows:—

- (a) That the instruction given in such schools should be technical in preference to general, specialised instead of diffuse.
- (b) That the most useful form of industrial school is a local trade or crafts school, directed to the furtherance or development of a local industry, which appears to be capable of expansion by the application of superior methods or implements.
- (c) That such schools may be either rural or urban, according as the industry in question is practised in the country or in towns.
- (d) That in country districts such schools will best be devoted to the study and development of single indigenous products; in towns to the development of manufactures: and that in towns it may be possible to collect several industries in a single building and to give instruction in diverse branches of industry or manufacture.
- (e) That such schools, whether country or urban, should be primarily educational and not commercial institutions; that they should be, as far as possible, self-supporting, but should not compete with established private trades.
- (f) That only such pupils should be admitted as will proceed to practise the industry taught.
- (g) That the levy of fees is a proper feature of industrial schools, but that it must be dependent upon the position and means of the pupil and the stability and popularity of the institution, and cannot everywhere be enforced in the early stages.
- (h) That it will be a necessary preliminary to the institution of such schools to ascertain what are the industries or manufactures to which they may be applied, in the light of the industrial surveys already made.
- (i) That, where it is considered possible to open new or extended markets for the produce of the industry or manufacture thus developed, it will probably be found desirable to connect them with commercial museums, both in and outside of India.
- (j) That for the present the best available teachers, overseers, and foremen for these schools should be procured either in India or from abroad; but that in time it is hoped that they may be produced in larger numbers by institutions at suitable centres in India, where the investigations of products and industries can be carried on.

- (k) That in provinces where the suggested developments admit of wide or rapid growth, it should be for the consideration of the local Governments whether a separate Technological Department of Government may in time be instituted, for their special supervision and control.

Industrial Schools Committee.

A committee was appointed to report what schools should be established on these principles.

623. The committee visited the several provinces and collected information, and succeeded in drawing general attention to the subject and promoting discussion of it. But their report, when received, was found not to be based upon the principles accepted at the Simla Conference, nor to contain proposals for establishing schools in accordance with those principles; but they proposed instead as their chief substantive recommendation the imitation of an Italian institution which had attracted their notice, by which boys at the same time receive a general education and are apprenticed to trades; but instead of being sent out to workshops to be apprenticed, they receive their trade teaching from master artisans, who are induced to open their shops and conduct their business on the school premises. Nothing has come of this committee's recommendations. The Government of India circulated their report, at the same time indicating the objections which they entertained to the principles upon which the report was based. Apart from other considerations, the impossibility of reorganising society in India upon the basis of centralising workshops round schools prevented action being taken on the lines proposed by the committee. One such experiment was tried in connection with the Lucknow industrial school and proved a total failure. Consequently the question rested very much where it did before the committee had been appointed, and local Governments were again invited by the Government of India in 1904 to consider the establishment of industrial schools, whose efforts should be confined to producing artisans who would rise to a distinctly higher standard both of general intelligence and of manual skill than can be obtained by the ordinary traditional routine.

624. The effect of this further consideration of the subject was to show that craft schools cannot be effectively established in the absence of better provision of higher technical institutions, which can produce teachers qualified to superintend them. Consequently attention is now being turned to the practical measures necessary for attaining this end. Mr. Selby, the Director of Public Instruction in Bombay, where at present the most progress is being made, well sums up the points established by the recent enquiries.

"The general considerations which have guided Government," he writes, "have been:—

- (1) The necessity of beginning at the top, by providing teachers thoroughly equipped theoretically and practically to diffuse knowledge and skill through the workmen and craftsmen of the Presidency.
- (2) The necessity of importing European experts to give instruction, if there is to be any advance in local crafts and industries.
- (3) The necessity of laboratories to bring Science to bear upon crafts.
- (4) The desirability of concentrating the main expenditure upon existing large and central institutions, while at the same time everything possible should be done to aid existing schools which are doing good work, and assist experiments that are being made in connection with any important and widely-diffused industries.
- (5) The necessity of providing decent quarters for mufassal students, and of encouraging gifted youths by scholarships."

Assignment of Grant by the Government of India.

625. The Government of India made in 1905 for the promotion of technical education a special assignment of Rs. 2,44,000 in aid of the provincial revenues, and after considering the replies of local Governments as to the manner in which this expenditure could be most usefully applied, distributed the grants as follows:—Bombay, Rs. 1,67,000; Bengal, Rs. 35,000; the United Provinces, Rs. 30,000; the Central Provinces, Rs. 12,000. These sums were permanent additions to annual expenditure.

626. BOMBAY.—The scheme of the Government of Bombay was the outcome of a strong conference of official and non-official experts held at Bombay in March 1904; and it was approved by the Government of India as it stood, and is now being brought into effect. Parts of it have already been mentioned above in the description of the steps taken to establish weaving schools and improve the teaching of mechanical engineering, but it will be convenient to recapitulate the main features of the scheme as a whole:—

- (1) To develop and increase the efficiency of the three central institutions, *viz.*, the College of Science, the Victoria Jubilee Technical Institute and the Sir J. J. School of Art; and to provide, in connection with each of them, for the adequate training of teachers for technical and industrial schools.
- (2) To provide for adequate inspection for—
 - (a) schools of weaving and textile industry,
 - (b) ordinary technical schools,
 - (c) elementary drawing in all kinds of institutions.
- (3) To create and maintain three new special schools, *viz.*,—
 - (i) a special school for weaving,
 - (ii) the Ranchhodlal Chhotahal Technical Institute, Ahmedabad,
 - (iii) a Central Technical school at Karachi.
- (4) To provide for development and increased efficiency of a certain number of existing approved technical schools by increased grants.
- (5) To give scholarships in all classes of approved technical institutions, for the express purpose of securing the complete training of pupils who would otherwise discontinue instruction for the sake of wages.
- (6) To increase by Rs. 15,000 the grant-in-aid allotment on account of technical and industrial schools.

627. The estimated initial expenditure of the scheme was Rs. 4,42,000, and the recurring expenditure, exclusive of the cost of an inspector of drawing in ordinary schools, which was held to fall outside the charges for technical education, and including one instead of two inspectors of technical schools, was estimated at Rs. 1,67,000.

628. The grants to Bengal and the United Provinces were for the weaving school at Serampur and the mechanical apprentice class at Rurki which have been already described above.

629. CENTRAL PROVINCES.—The grant to the Central Provinces was for the maintenance of the Central School of Handicrafts at Nagpur. The scheme was thus described by the Chief Commissioner of the Central Provinces:—

“It is generally admitted that the elementary handicrafts of these provinces are still in a very primitive stage. There is everywhere a dearth of good carpenters, smiths, and stone-masons. In the larger towns a man is here and there capable of almost any iron work that does not require heavy and expensive machinery, but the village ‘Lohar’ cannot repair the simplest machine, nor can the village ‘Barhai’ make accurately the plainest box. Yet there are signs of better things. Not only is the artisan of the town sometimes a naturally deft man, but every district officer has come across the village which has won a name on the countryside for making good cart-wheels, or good carts, or good metal-bound chests or other ware. Special skill even now shows itself and commands a special market. It is by stimulating these existing roots of industrial life by the means of competent and sympathetic teachers that a new future may be begun, with the best hope of natural growth and permanence.

“In these provinces drawing and colour-painting have been generally introduced into the schools, but the only serious attempts at special craft education have been made by missionaries and have been somewhat desultory, though extensive. Any instructors that could be got are employed, and the time of the boys is half given to literary education. The object has been rather to supply the famine orphans with an occupation than to raise the industries of the country to a higher level. It is with the latter object that a carefully-planned school should be established at Nagpur, containing perhaps, to begin

with, the three departments of (1) wood-work, (2) metal-work, (3) weaving, in which expert artisans should teach to the sons of artisans the virtues of accuracy, thoroughness, inventiveness, taste, and the use of improved tools; incidentally also the habits of cleanliness, punctuality, order, and obedience. Admission should be limited to the sons of craftsmen, or at least to boys of that class. If such pupils were placed, in the ordinary way of the country, to learn their business as apprentices, they would from the first day get at least subsistence from their master. Mills pay their apprentices. . . .

“At present the artisan father who wishes his son to read and write sends him at the age of 6 or 7 to school, and in his spare time and holidays lets him play with the tools, and so adapt his hand to them, pending the time when he can leave school and devote himself to the craft. It would be wise to follow these lines by giving preference to boys under 12—

- (1) who can read and write, and who have also been attached to an artisan's shop,
- (2) who can read and write, without such qualification.

“At least an effort should be made to avoid a distracting half-time system and to secure a class of boys who, having first bent themselves to learn reading and writing, will be free to devote all their faculties to mastering a special art. . . . The basis of the education should be geometrical and free-hand drawing, which should be taught by the head master, whose only other quite essential qualification will be that he knows what good work is. Over each of the departments should be a first-rate craft-master who will work with the pupils. To adopt the Casanova system or any other system for apprenticing boys to the local employers, even if the best of the latter were willing (which they are not) to impart their most valued knowledge, would be to rely on the very men whose improvement is aimed at. The too likely effect would be to stereotype the present low standard of work. Government must be prepared to start on their own account and trust, by results, to win over the popular mind to take the movement out of their hands and carry it on. With this view attention should be paid to the supply of native wants in the way of furniture, etc., such as will find favour in the eyes of the people, to the uses and faults of local timbers and metals, to the study of glues, polishes, preservatives and other products, as shown in the Economic Museum, and to the display of results. An annual exhibition of work done, with prizes awarded by an expert, should partly take the place of examinations. The school should be in close connection with the Victoria Technical Institute at Nagpur, which has been established ‘for the promotion and diffusion of technical and scientific knowledge,’ and which is to be the headquarters of the Central Provinces Agricultural and Industrial Association. Lastly, though it is hoped that most of the pupils will go out to take the place of their fathers in the local world, yet this primary school should be linked on to more advanced education by picking out those who emerge from the ruck and sending them on scholarships to the Victoria Technical Institute in Bombay, the Sibpur Engineering College at Calcutta, the School of Art in Bombay or Calcutta, the Government Coal Mines, or elsewhere. . . . The crucial difficulty is the procurement of teachers. . . . Most important of all is the head master, for it is he who will set the standard and give vitality to the movement. He should be a man at once of practical training and artistic sense, the cultivated artisan able to draw and design, to appreciate good work and material, and to recognise and originate improvements in all the handicrafts, quick also to understand and sympathise with an alien race. Such a man may probably be found in India if search is made. . . . The school as proposed would soon produce young men well fitted to become masters in their turn to the 30 mission schools already at work with an imperfect staff, and to district schools which would spring up. With this view they should be classed in their last year as monitors or pupil-teachers. It is believed there is at this moment no normal school of handicrafts in India, which means that the bottom stone of true technical education has yet to be laid and that such local schools as exist are under half-trained men; a system which will ultimately do more harm than good.”

630. The foregoing account of the progress of technical education has been largely devoted to describing projects which are only just beginning to be put into execution. In respect of technical education, Mr. Selby writes, the quinquennium “has been a period rather of preparation and discussion than of substantial extension and development.” This remark may be applied to other provinces besides Bombay. But it will be convenient to notice the statistics of the existing institutions, and to illustrate them by some excerpts from the reports of the Directors.

631. The statistics show the number of technical and industrial schools existing at the end of the quinquennium to be only 147, with 6,820 pupils, as compared with 84 schools with 4,977 pupils at the beginning of the period. This however is not quite a full account of the facts, as it does not include those who are receiving technical education in the industrial classes attached

to the Schools of Art, and the Engineering colleges. The figures for the provinces severally are as follows :—

	Schools.	Pupils.
Madras	14	290
Bombay	31	2,030
Bengal	52	1,275
United Provinces	11	782
Punjab	19	1,639
Burma	3	193
Eastern Bengal and Assam	12	475
Central Provinces and Berar	5	136
Coorg	...	...
North-West Frontier Province	..	...
TOTAL	147	6,820

632. Madras however ranks only its technical schools of the lower grade as "technical and industrial schools", and places its more advanced technical schools, which number 57, with 2,877 pupils, against another line in the statistics, as "other schools." If these are added to the figures given above, the total number of technical schools in India in 1907 was 204, with 9,697 pupils, and Madras heads the list in respect of numbers. The increase of pupils in technical and industrial schools during the last five years has taken place in Bengal (including the transferred territory) and the Punjab, and amounted to about 1,000 and 700 pupils respectively in these provinces. The expenditure upon the 147 schools in 1907 was Rs. 5,91,095, of which only Rs. 33,691 was met from fees. Provincial and local funds are recorded as contributing Rs. 2,12,504, and private sources Rs. 3,26,425. The expenditure in the several provinces is given in table 155 in volume II.

Present Condition of Technical Schools.

633. MADRAS.—The classification of technical schools in Madras is based upon a system of technical examinations controlled by the Commissioner of Government examinations. These are in three grades, elementary, intermediate and advanced; and technical schools are classified as higher class or lower class according to the grade of examination for which they prepare pupils. The examinations are held in the following groups of technical and industrial subjects:—Drawing, wood and metal work, tailoring and dress-making, printing, book-binding and type-founding, leather work, textile fabrics, cookery and jewellers' work. The system of examinations also covers other subjects of special education, such as civil and mechanical engineering, agriculture, commerce, telegraphy, physical science, biology, sanitary science, pharmacy and music.

634. "The majority of the schools," writes Dr. Bourne, "are industrial in character and most of the technical schools have their industrial side; the conditions of the presidency are such that industries are carried on by artisans working singly or in small groups and not in large workshops or factories, and the schools have to attempt to take the place of the workshops as well as of the technical classes of other countries.

"A noticeable feature of some of the most efficient of the schools is the extent of their commercial side. The schools employ skilled artisans and execute orders of some magnitude, and in their annual statement of accounts the cost of materials and wages of workmen bulk largely on one side, while on the other the sale-proceeds form a correspondingly large item. In one or two of the schools the extent of the operations permits, even requires, the use of labour-saving machinery. The commercial aspect of these schools distinctly influences the character of the training which they give to their pupils, an influence which on the whole is for good. A pupil, say, in wood work is not kept at work solely on models and specimens throughout the course; as early as possible after he has mastered the use of his tools and the common forms of joints he is put on to help the skilled artisan in the construction of saleable articles, and later to make them himself under supervision. . . . Taking the schools which teach subjects which come under one or more of the groups mentioned above the subjects most commonly taken up are those which come under the head of drawing, as might be expected from the fact that one or other of the numerous branches of this subject are required as part of the technical training in so many industries. Next in order comes engineering, comprising subjects such as earthwork and road making, building, drawing and estimating, building materials and construction, mensuration and surveying and levelling, subjects which are

largely taken up in conjunction with technical or industrial subjects. Wood and metal work, textile fabrics, commerce, and tailoring and needlework follow in order. The number of pupils who select other subjects is quite small.

"Among the schools teaching in only one group (excluding schools purely intended for art, engineering or commercial students, which are dealt with separately) those for textile industries and printing have by far the largest number of pupils.

"In the schools of the lower class, the course of instruction in each subject is prescribed by the department. The course is arranged in four standards, A, B, C, and D, leading up to the elementary grade of the technical examinations. Compositors' work and carpentry for boys, and lace-making for girls, are the subjects most largely taken up."

635. "Though there has been some advance in technical and industrial education during the period, its general condition is still far from satisfactory. Out of the large population of the presidency less than three thousand children were receiving technical instruction in the various handicrafts, and of these less than nine hundred were non-Brahmin Hindus, the class of the community to which the bulk of hereditary workers in wood and metal and textile fabrics belong. There is as yet little demand for technical education, and the little advance that has been made has practically left unaffected the great mass of the industrial population."

636. BOMBAY.—In the Bombay Presidency the industrial schools are principally situated in the Northern and Central divisions, and "one noticeable fact is the large part played by missions in this sphere of education." The subjects mentioned as taught in the schools are drawing, carpentry, smithing, enamelling, embroidery, weaving, rug-making, laundry work, lace-making, wood-turning and inlaying, elementary steam and mechanics, moulding, carving in brass and iron and turning and fitting.

"Dr. Thomson notices with regret," writes Mr. Selby, "what I confess that I observe with pleasure, viz., that the workshops make large sums of money in the year by the sale of their goods. He will not hear of any blending of education with trade. I think it is a general defect of our system that in the last year of their training, at any rate, youths are not allowed to make finished articles which can be used or sold. In carpentry classes, for instance, the perpetual making of joints must be wearisome work. More time, I think, is assigned to it than is really necessary to make good workmen. It interests a youth to make something which can be used, if not sold, and the sale diminishes the expenditure on the school. At present the rooms of our technical schools are stocked with products which are of no use but to be burnt."

637. BENGAL.—In Bengal, Mr. Hornell writes :—

"In the face of the great preponderance of classes teaching carpentry and smithy work it is difficult to resist the conclusion arrived at by Sir Edward Buck as regards technical and industrial schools in India, viz., that their object appears to be to teach these subjects to boys who have no intention to become carpenters or to engage in any manual occupation whatever. It is not maintained that there are no industrial schools at which sound work is being done. It must, however, be admitted that the effect of the existing schools on the industrial development of the province is practically negligible."

In the detailed report which he gives of the work done in the several divisions of the province he mentions the following handicrafts as being taught:—carpentry, smithery, fitting, turning, iron foundry, brass foundry, pattern making, tool making, plating, cane work, carriage building and carriage painting, weaving, printing, embroidery, tailoring, watch repairing and shoemaking. He notices the efforts of missionaries in the establishment of technical and industrial schools, and mentions also a considerable increase in the number of technical schools and pupils in Chota Nagpur. "This increase," he writes, "is mainly due to the exertions of Mr. Radice, Deputy Commissioner of Hazaribagh, in which district the number of industrial schools has increased in two years from 3 to 18."

638. UNITED PROVINCES.—In the United Provinces, Mr. de la Fosse describes the present working of the Industrial School, Lucknow, where there are 243 boys on the rolls, of whom 53 are sons of artisans and 190 sons of traders, clerks and others of the middle class. One of the chief drawbacks of the training noticed by Mr. de la Fosse is that few boys stay long enough to pass the final examination, but no boy who has completed any of the school courses is out of employment.

"A brief account of the abortive system of bazar workshops on Casanova lines, which is based on the detailed history furnished by the headmaster, may be of interest as an illustration of the difficulty experienced in attempting to adapt foreign practices

to India. The principle of the Casanova system is to provide a shop rent-free, in return for which workmen are to train boys as apprentices while carrying on their own business. Three industries, viz., calico printing, copper and brass work, and tarkashi (wire inlaid work in wood) were started in a hired building near the Aminabad Bazar. A rent-free shop, however, was not a sufficient attraction, for no man could be induced to open his shop in the building or bring his own work or materials or tools. It was therefore necessary to modify the Casanova principles by employing mistris on monthly wages, who treated and taught the boys exactly as they would have done in their own shops. The number of boys under instruction was nine in calico printing, three in tarkashi, five in copper work. They were also taught drawing at the school, but not the three R's as previously. The work done by the mistris was much superior to the bazar work, but as there was no demand for better and higher priced articles it did not prove remunerative. Thus *degchis* were made by the copper workers out of the solid sheet without any joint in the bottom or sides, but were quite unsaleable. Similarly in the case of calico printing the fast colours and the better cloth commanded no higher price than the inferior article. An experiment pursued on uncommercial lines was naturally a failure. The ordinary bazar article was good enough and customers declined to pay more for a better one. Cheapness, as long as an article is serviceable, appears to be the chief consideration, and herein lies a serious obstacle to the improvement of indigenous industries. After a brief trial of fifteen months the scheme was pronounced a failure and abandoned."

Mr. de la Fosse also notices two railway night schools established by the Oudh and Rohilkhand Railway and the Great Indian Peninsula Railway at Lucknow and Jhansi and attended by European and Eurasian apprentices.

639. PUNJAB.—The Director makes no general remarks upon the progress of the industrial schools, but gives a short account of the subjects taught and the number of boys in the separate institutions. There are 19 schools in this province with 1,639 pupils, but even this number may give an exaggerated view of the extension of industrial education, unless it is borne in mind that the schools combine general education with industrial training and that the 1,639 pupils include infants' and primary departments. The subjects taught in these schools are as follows:—

Wood work.	Metal work.
Shoemaking.	Spinning, etc.
Tailoring.	Drawing.
Smithy.	Typewriting.
Weaving.	Needlework, etc.
Engraving.	Cookery.

640. BURMA.—There are, besides the Government Engineering School at Insein, only three technical schools, with 193 pupils; but the educational code also offers grants for technical instruction given at ordinary schools.

"Schools usually content themselves," writes Mr. Covernton, "with one or more of the following technical subjects:—cooking, needlework, dressmaking, lace making, carpentry, cane-work, tinsmith's work, weaving, tailoring, book-binding and printing. Of these the first four are naturally preferred in girls' schools, the others in boys' institutions. The equipment and apparatus maintained for these purposes are on the whole very fair, and in some instances good."

Mr. Covernton also mentions a night class attached to the Insein Railway workshops, where European apprentices are taught mensuration, plane geometry, and elementary facts concerning the steam engine and steam. There are also boards constituted by Government at Rangoon, Moulmein, Akyab and Mandalay, which dispense stipends to European lads who are apprenticed out "to any railway workshop, ship-building or timber yard; in any sea-going or river steamer or ship; at any rice mill or other place of manufacture or business which the Board may approve."

641. EASTERN BENGAL AND ASSAM.—Technical education in Eastern Bengal centres round the Ahsanulla School of Engineering, Dacca, and the preparation of boys for entrance thereto. The Dacca Engineering College contains courses similar to those which are known at Sibpur as the apprentice department, but it teaches these only up to the overseer's examination, so that the men who have become qualified as overseers at Dacca have to go to Sibpur to undergo the 1½ years' practical work which is necessary in order to qualify them as foremen mechanics. So far as this work at Dacca is concerned, it chiefly belongs to the sphere, not of technical education in the sense of preparation for trade, but to the preparation of sub-overseers, overseers and foremen mechanics for the Public Works Department. But there are seven high

schools in Eastern Bengal which contain engineering classes, and in the places where these high schools are situated the instruction in science and workshop practice is given to the engineering pupils in separate technical schools maintained by district boards; and these technical schools, besides training the engineering pupils, have other pupils of their own, and give them a course of workshop practice as preparation not for the Public Works Department but for industrial employment. These technical schools are situated at Mymensingh, Comilla, Rangpur, Rajshahi, Barisal, Pabna and Rampur Boalia. The district boards appear to show a genuine interest and energy in their management, and one of them, that in Mymensingh, has received a donation of a quarter of a lakh of rupees from a private benefactor. The school at Rampur Boalia contains, besides the engineering section, a sericultural and a weaving department. It has a mulberry garden attached to it, and deals with mulberry cultivation, microscopic examination of seeds, and detection and prevention of silk-worm pests. The management of this department was taken over by the Government in 1907. In addition to the seven schools mentioned above, there are a technical school for weaving recently started at Malda, and a privately managed technical school in Chittagong for weaving, tinning and jewellery.

642. In Assam there are no technical schools, the one at Dibrugarh having been abolished in 1905. There is instead a system of industrial apprenticeships, which was re-organised by the Chief Commissioner in 1904. The object of this system is to turn out good general carpenters or blacksmiths, and the railway authorities have permitted the railway workshops at Dibrugarh and Jorhat and the tramway workshop at Tezpur to be used for the purpose of training them, and some private workshops are also utilised for it. The Public Works Department renders assistance in the instruction and in certifying the qualifications. Boys are admitted as apprentices between the ages of 15 and 18 and must, before admission, have received elementary education. The course of apprenticeship is for three or four years, and the apprentices are taught drawing and are trained in the carpenter's, blacksmith's and fitter's shops. The apprentices are supported by stipends during their apprenticeship, and on its satisfactory completion the apprentice is given a grant of Rs. 25 to assist him in the purchase of tools, and a bonus of Rs. 100 is paid to the workshop authorities. Part of the cost of this scheme is met from a fund termed the Williamson Endowment and the remainder from provincial funds. The number of apprentices under training is about 15.

643. CENTRAL PROVINCES.—There is an industrial school at Amraoti under Government management, which teaches carpentry, smithing and tailoring. This institution will be merged in the technical institute at Amraoti described above. There are also industrial classes managed by the various missions in the Central Provinces. The Director speaks favourably of their management:—

"They teach such employments as carpentry, tailoring, weaving, blacksmith's work, etc., and turn out some very good articles. At Bhandara one of the mission houses was almost entirely built by the orphanage youths under proper supervision. The workshops of the Alliance Mission at Akola turn out the best tongas in the Central Provinces, and the Deputy Commissioner, Hoshangabad, reports that the Rasulia Workshops near Hoshangabad have raised the style of carpentry in his district to an almost European standard."

Schools of Art.

644. The Simla Conference of 1901 passed certain resolutions defining the scope and functions of Schools of Art. The more important of these resolutions were the following:—

"That the true function of Indian Schools of Art is the encouragement of Indian art and art industries; and that in so far as they either fail to promote these arts or industries, or provide a training that is dissociated from their future practice, or are utilised as commercial ventures, they are conducted upon erroneous principles.

"That the first duty of Indian Schools of Art should be to teach such arts or trades as the pupil intends to practise when he has left the school.

"That these fall naturally into two classes—

- (a) such arts as designing, in special reference to Indian arts and industries, drawing, painting, illumination, modelling, photography, engraving, which may be taught either to those who intend to practise them professionally in the future, or to drawing-masters in schools;
- (b) such art industries as are capable of being practised in the locality, and in which improvement is capable of being introduced by instruction of the pupils or workmen by means of superior appliances, methods or designs.

"That the practice of these arts or art industries should be directed to the improvement of the skill and capacity of the pupil or workman, and thereby to their expansion, and should not be pushed to the point of competing with local industries organised upon a caste or trade basis, or of doing within the school what can equally well be done outside, or of usurping the sphere of private enterprise.

"That samples of the wares produced in Schools of Art may legitimately be kept for sale or for orders, and may profitably be exhibited in public museums, but that it is undesirable to convert the schools into shops, or for Government Educational Officers to be responsible for extensive commercial transactions."

Government
School of Art,
Madras.

645. The views of the Conference were accepted by the Government of India, and their adoption necessitated considerable changes in the Madras School of Art, and to a lesser extent in the Calcutta School of Art. In the case of the former these changes involved an almost complete reversal of the policy which had been followed in the past. The industrial side had been far more fully developed than the fine-arts side. Aluminium ware was manufactured on a commercial scale, and large orders were executed for wood-work, textiles and chrome leather goods. Since 1903, the industrial side of the school has been reduced. The aluminium department has been closed and the stock sold; and the chrome-tanning, weaving and carpet-making departments have been transferred to other agencies. The scope of the teaching has been restricted to (1) pure design and (2) design applied to industries, such as those of the artist in metals, the lacquer-worker and the wood-carver; and the commercial side of the school has been restricted to very narrow limits. A reorganisation of the teaching staff was decided on during the quinquennium, but had not been carried out by the end of the period. The number of students in the Arts classes has shewn a steady increase.

The School
of Art, Cal-
cutta.

646. The Calcutta School of Art has no manufacturing industrial side. It consists of two divisions, the first of which gives systematic instruction in drawing and design, for drawing and technical art teachers, for skilled general draftsmen, for artisans and art workmen, and for designers for art industries. Some progress appears to have been made in the development of this industrial art side on the lines laid down by the Simla Conference. This branch of the school is reported to have produced some good workmen, and the works executed by the students are said to show a marked tendency towards originality. But the scope of the instruction afforded in the industrial arts is still narrow; and further schemes are under consideration for developing this branch of the school, by bringing the training into closer relation with the artistic industries of Bengal and by devoting attention to the question of their expansion and improvement. At present, the school hardly takes its proper place as an agency for the development of this branch of industrial education in the province.

The second division is the "fine art" side, and is intended to train painters and sculptors. The fine art division has made little progress. Mr. Hornell observes that the lines on which it was originally organised were wrong. Instead of aiming at the improvement of Indian Art, lessons were given in the art methods of Europe, and the Art gallery was filled with copies of pictures of the old Italian and early English schools, while Indian Art was practically ignored. An attempt has now been made to reorganise the

system of instruction on Indian lines. The European pictures in the Art Gallery have all been sold, and Indian works of art purchased in their place, with the result that the gallery is said to contain the finest collection of Indian Art in India. The school now aims at installing Indian Art in the place which it ought to occupy in an Indian Art School, and at reviving Indian ideals among the students. The number of students in both branches of the school was 250 at the end of the quinquennium.

647. The Sir J. J. School of Art in Bombay is a Government institution. Dr. Thomson reports as follows:—"It provides courses of study in drawing, painting in water-colours and oils, and sculpture. It has classes for teachers of drawing and draftsmen. In its art-workshops it trains workmen in artistic wood, metal and stone work, and in pottery. The number of pupils averages about 400, and of these some 250 attend the elementary drawing classes. The number attending the workshops is about 150, divided into classes for carpentry and wood-carving, artistic iron-work, rug-weaving, jewellery, pottery and enamelling. About half the number of the pupils receive scholarships of from one to twenty-five rupees a month."

Sir J. J.
School of Art
Bombay.

648. Of the progress in Art education during the quinquennium, Mr. Selby writes:—"It is with a view," says Mr. Burns, "to widen the scope of the artist's opportunities for finding work in which he can obtain a decent living connected with art, and to provide a body of teachers who possess a technical knowledge of the chief handicrafts in advance of that found among the workmen of the bazar, as well as to introduce new artistic crafts into the country, that the proposed developments of the School of Art have been designed." It is obvious that, to improve Indian art, we want in the first place good trained teachers. It is equally important, I think, that those who are being taught should feel that at the end of their course there will be a market for their skill. At present youths do not see what they will gain by going through the whole course. They are therefore ready to leave it at any point if they can obtain work in a Railway Workshop, or even a clerk's place in an office. Thus the work of the instructors is but a rolling of Sisyphus' stone. They begin at the bottom and mount to a certain point, and then have to begin at the bottom again. But neither the second time nor at any subsequent time do they go much higher than they did at first. My advisers often tell me that I must distinguish between learning and earning. My idea is that if learning does not lead to earning, there will be but little learning. Why has the School of Art accomplished so little in the past? Because it has not taught its pupils to design, and because it has not produced craftsmen much more skilful than the ordinary bazar workmen. The characteristic of Indian art is that it confines itself to a few traditional designs. Every Englishman knows that after a year or two of residence in India it is impossible to find anything new which he can send home to his friends, whereas in England it is always possible to find something which is at the same time pretty and new. And it is important to notice that by new is meant not only new designs in old materials, but also artistic work in new materials. The rich classes of India have found this out, and they decorate their houses and ornament their rooms with the artistic work of Europe. Out of 29 presents given to a Native lady at her wedding only 11 were of traditional use or of Indian design. Not a single piece of porcelain or earthenware of the finer sort or terra cotta that can be called artistic is produced in India at the present time. The imports from England alone are worth about £200,000 a year, the trade being almost entirely confined to the better class of work. So with regard to the manufacture of glass, the higher class of textiles and metal and wood work, artists of the first rank in Europe are perpetually working at new designs and capital is always ready to employ workmen to execute them. The question then is this: European artists have created in rich and travelled Indians tastes which Europe alone can gratify. If the School of Art renders possible the gratification of these tastes in India, will Indian capital give employment to the designers and the workmen, and produce for the rich in India what they now can only buy

abroad? It is certain that the rich will continue to gratify their æsthetic tastes. It is certain that the West will continue to tempt them with new forms of beauty, or what passes for beauty. I am inclined to think that Government might set an example to Indian capital. It would certainly pay to open a factory in connection with the School of Art for the designing and producing of the ornamental work which is required by the Public Works Department and by architects in Bombay. At any rate the general object of the educational expenditure which has been sanctioned is, firstly, by means of drawing, painting and modelling classes to turn out men who can not only paint pictures and mould figures, but can also produce artistic designs: secondly, by means of experiments in laboratories, to produce new material for artistic expression: and, lastly, to turn out an array of workers who can produce what is designed."

The Mayo
School of
Industrial
Art, Lahore.

649. The Lahore School of Art has been very briefly noticed in the provincial report. The number of its students, now 301, remained practically the same throughout the quinquennium. It is more fully developed on the industrial than on the artistic side, and turns out students suitable for employment as draftsmen, drawing masters, carpentry teachers, decorators, modellers and metal workers.

Pattern
Books.

650. In 1904 the Government of India consulted local Governments on a proposal to compile a series of provincial standard pattern books for the principal art industries in India. It was suggested that the Schools of Art would be appropriate agencies for the preparation of the pattern books, and that, with the exception of Burma, the provinces in which no Schools of Art exist should be included within the scope of the scheme, by affiliation to the Art Schools most closely connected with them. Independent arrangements were to be made for the production of pattern books of Burmese Art. These proposals met with general acceptance, and in June 1905 the Government issued a resolution setting forth their conclusions and orders on certain questions of method and detail. The United Provinces were affiliated to the School of Art at Lahore, and the Central Provinces to that at Bombay. It was decided that the scheme should be confined to the reproduction of indigenous designs in a few specially selected industries, and that no attempt should be made to cover the whole field from the outset, especially in provinces which do not possess a School of Art. The first industries to be selected were those which had already been surveyed with more or less completeness in the existing industrial monographs or otherwise. Trained draftsmen were to be employed for the preparation of the copies from which the illustrations are to be reproduced. It was suggested that two editions of pattern books should be prepared, the one for the use of artisans, which would show by means of plates the different stages through which the finished article is reached; and the other, which might be better bound and got up and would contain illustrations only of the finished article, for the use of the general public. It was arranged that the principals of the various Schools of Art should meet and settle minor details. The results of their discussion have been reported, and it has been left to local Governments to decide what measures should be taken to give effect to their recommendations.

651. In Burma, it was arranged that a good draftsman should be engaged to travel through the province, making drawings of the designs used in the characteristic art industries of the people. The drawings thus obtained are to be introduced into a Hand Book of Art to be compiled for the purpose.

Commercial Schools.

652. There is little to chronicle regarding the progress of commercial education, by which is meant the special instruction afforded by certain schools and classes with the object of fitting the pupils to enter mercantile firms as clerks, with qualifications superior to those acquired by students in ordinary secondary schools. The total number of such institutions shewn in the returns is twelve, of which two are maintained by Government, two are aided, seven are unaided, and one is supported by a Municipality. In Madras, there is a Government School of Commerce at Calicut which is said to have done good work and the numbers in which have risen. A few other institutions

teach shorthand and type-writing, but these subjects are not confined to commercial schools only. In Bombay, there is a commercial class attached to the B. J. Parsi Charitable Institute which is well conducted, but the numbers of students attending this and similar institutions are not increasing. Commerce is recognized as an optional subject in the School Final Examination, and examinations are also held by the Education Department for the Senior and Junior certificates of the London Chamber of Commerce, but with what results is not reported. In Calcutta there are a certain number of schools which teach shorthand, type-writing, book-keeping, correspondence, etc. So far as any information is available about them, they cannot be pronounced to be successes. The experiment was tried at the Victoria Boys' School, Kurseong, of opening in 1906 a commercial class for Europeans and Eurasians, which aimed at affording a three years' course of commercial training such as would fit the students to be assistants in mercantile firms. The class attracted very few pupils, and its entire reconstruction was found necessary after a very short experience. The "C" or commercial classes attached to certain Government schools in Bengal are said to have been a failure. Their curriculum cannot properly be described as specialization in commercial subjects. A commercial class was opened in 1903 at the Presidency College, in order to provide advanced commercial instruction. It was not a success, and in 1905 a Committee was appointed to consider the whole question of commercial education. A revised scheme was adopted on the recommendation of this Committee. There is now a two years' course, ending in an examination controlled by a combined board of educational officers and representatives of the mercantile community, at which certificates are given to successful candidates and are endorsed by the Secretary to the Bengal Chamber of Commerce. Hitherto only seven candidates have secured certificates at the examinations held in connection with the day courses. The commercial classes were removed in 1907 from the Presidency College to a building in Bow Bazar Street.

653. It is too early yet to pronounce on the success or failure of these classes. Their aim is to turn out a type of young man who, if he is willing to learn, has the makings of a useful commercial assistant. Mr. Hornell remarks with reference to these classes: "It is obvious that parents and guardians who look to work in connection with commerce to support their sons will not send them to a commercial class if, when the certificate has been gained, they are in no better position as to obtaining employment than those who have never attended such a class at all. If the successful students of the commercial class prove to be no more useful than the ordinary chance youth who is willing to enter an office on a nominal salary, then the sooner the commercial class is reformed or abolished the better. On the other hand it will surely be to the ultimate interest of the commercial community generally to assist Government in the up-hill task which it is attempting, by giving the successful students, whom the class turns out at first, a fair trial." Evening lectures are also given in political economy, banking and currency, industrial and commercial law, annuities and insurance, and modern English. The aim of these lectures is to give persons employed in connection with commerce a chance of improving their efficiency as shorthand writers or typists, or of increasing their stock of English, or of acquiring some insight into the economical, financial or legal principles on which modern commerce is based. So far as the latter subjects are concerned there has been little demand for instruction, but the experiment is to be continued a little longer, and the Bengal Chamber of Commerce has undertaken to support it.

654. PUNJAB.—In the Punjab there is a Government Clerical and Commercial School at Amritsar, which dates as a separate institution from 1902; it is said to be neither efficient nor popular.

655. In 1905 the Punjab Government appointed a committee, under the presidency of Sir David Masson, to consider the whole question of commercial education in that province. This Committee in its report observed that the system of commercial education prevailing in the clerical and commercial classes at Lahore and Amritsar was marred by (1) the want of properly qualified teachers of commercial subjects, (2) the want of a suitable course of English, (3) the attempt to teach a variety of subjects which the majority

Appointment
of a Com-
mittee on
Commercial
Education in
the Punjab.

of the students could but imperfectly understand at this stage. They accordingly recommended that book-keeping and shorthand should be omitted from the ordinary School Final course, as being too technical, and that a special additional course in English should be added to the curriculum. They put forward detailed proposals for the revision of the subjects for the School Final Examination. They also recommended the establishment of a Commercial Institute at Lahore for the education of youths destined to a commercial career or for teacherships in the commercial classes. The principal of the institution, they considered, should be a commercial expert recruited from the United Kingdom or from America, on a salary of from Rs. 500 to Rs. 700 a month; and the course should extend over two years, followed by a further course of two years in what they called the "High School Final Commercial Class." They suggested a curriculum for this Commercial institute, and stated that their object was that on the completion of this course youths should be so well qualified that they would be able to enter a business office and to take up at once, under practical instruction, the more technical side of a commercial career. They proposed that there should be two examinations, one called the "Lower Examination," to be held at the conclusion of the School Final course, and the other to be called the "Higher Examination," to be held at the end of the advanced course; and they recommended that Government should be asked to recognise the higher examination as equivalent to the Intermediate Examination of the Punjab University. They thought that scholarships and stipends should be awarded to really good students; and that an Employment Bureau should be established in connection with the Institute, under the supervision of the principal, and that lists of successful candidates, showing the subjects in which they have passed, should be forwarded to commercial firms and offices throughout the Punjab as well as to Deputy Commissioners. They also considered that the text books in use should be revised under the guidance of the principal.

656. In addition to the recommendations already mentioned, the Committee proposed that some provision should be made for the opening of continuation classes for men who wished to study commercial subjects out of office hours. They advised that the principals of European schools should be encouraged to develop the commercial side of the curriculum, and that a course of commercial instruction should also be added to the Vernacular Middle course. Finally, they recommended that an Advisory Committee should be appointed by Government, to whom facilities should be afforded to visit Commercial Schools and classes, and that this Advisory Committee should be kept fully informed of the progress of commercial education in other parts of India.

Action taken
on the Com-
mittee's re-
commenda-
tions.

657. The proposals regarding changes in the curriculum and regulations of the School Final Examination were still under consideration at the close of the quinquennium. It was decided not to establish a Central Commercial Institute, but to open commercial classes in selected high schools, supplemented by evening classes at the Central Training College, Lahore. The dearth of qualified teachers is said to have hampered the progress of the classes attached to high schools. The preparation of suitable text-books on commercial education has been entrusted to the Punjab Text-book Committee. Orders have been deferred regarding the proposal to establish commercial classes in connection with vernacular middle schools. An Advisory Committee has been appointed by Government.

658. UNITED PROVINCES.—There is a commercial night-school of an elementary character at Cawnpore, which was started in 1903, but has hitherto achieved little success.

659. BURMA AND THE CENTRAL PROVINCES.—In Burma and the Central Provinces there is practically no attempt at affording special instruction in commercial subjects.

660. EASTERN BENGAL AND ASSAM.—In Eastern Bengal and Assam there are a few "C" classes, with a two years' course leading up to admission to the commercial classes in the Presidency College, Calcutta. No progress in this branch of education is reported. The only other institutions of the kind are three private unaided commercial schools in Dacca, which teach shorthand, typewriting, and commercial arithmetic.

CHAPTER VII. TRAINING OF TEACHERS.

661. THE statistical tables prescribed for general use recognise two classes of institution for the training of male teachers, *viz.*, training colleges and training schools for masters; but for several reasons it is not possible to give a clear account of the existing systems without departing from this principle of classification. An attempt was made during the quinquennium to amend the general tables of statistics on more clearly established principles of classification, but owing to the diversity of institutions in which training is given the difficulties in the way of such amendment have not yet been overcome. A sufficiently clear line of distinction can be drawn between the systems of training secondary and vernacular teachers to enable a separate description of the two to be given here; although, owing to the existence of some institutions in which both kinds of training are combined, the separation of the statistics relating to the two kinds necessarily remains incomplete.

Training of Secondary Teachers.

662. The training of secondary teachers is carried on in English, and is designed to provide persons qualified to teach in those classes of secondary schools in which English is either the subject or the medium of instruction. The end to be desired is that only graduates should be employed in such teaching, and consequently that the training colleges for secondary teachers should be reserved for graduates; but the financial condition of the secondary schools, and the supply of graduates, are such that the employment as teachers of men of a lower standard of general education than that connoted by the Bachelor's degree is at present unavoidable, and consequently training colleges are bound to make provision for such students. In Bombay alone the secondary training college is confined to graduates. In other provinces men who have passed the Intermediate examination, and even those who have only passed the Matriculation examination, are admitted to training. There is no province in which the training of graduates and of non-graduates is carried on in separate institutions, but it is intended so to separate them in the United Provinces. At present the training institutions receive both classes of students, but teach them separately.

663. The general principle is that the training of graduates and the training of non-graduates should be different in three respects, *viz.*, (a) the subject matter of the course, (b) its length, and (c) the authority by which the certificate of training is issued. Where this principle is carried out, the graduates receive only training in the theory and practice of teaching, whereas the non-graduates follow a course which embraces also the extension, consolidation and revision of their general studies. For graduates one year's training suffices, for non-graduates two years are required. For graduates, the course may be laid down by the University and lead to a University degree or diploma; for the training of non-graduates, the scheme of instruction should be determined by the authorities of the training college and by the Education department, and the certificate should be awarded upon an examination held by the same authorities, and the students under training should not be prepared for any higher external examination. These are the principles laid down, but they have not yet been fully carried out. A distinction is everywhere made between the training of graduates and non-graduates; the course for graduates is everywhere of at least one year's duration, and is extended in the Punjab to two years. A certificate after only one year's training is still issued to some non-graduates in Madras, Calcutta, the United Provinces and the Punjab. All the Universities except Bombay offer teaching degrees; but in Bombay at present the graduates who have undergone training receive their certificate from the Education department. Of the remaining four Universities which offer teaching degrees

all except Calcutta confine themselves to courses and degrees for graduates; but the Calcutta University has laid down a course and offered a degree of Licentiate of Teaching to those who have not less than two years previously passed the Intermediate examination, and the course laid down for such students is not necessarily of two years' duration. The principle that students under training should not be permitted concurrently to study for an Arts degree and a training qualification is observed everywhere except in Burma.

Changes in the system of training secondary teachers.

664. The changes which have taken place during the quinquennium in those general conditions under which the training of secondary teachers is carried on are as follows :—

MADRAS.—No change. The graduates, as before, follow a course of professional studies of one year, leading to the degree of Licentiate of Teaching granted by the University; and the non-graduates follow a separate course of professional studies of one year, leading to a departmental certificate.

BOMBAY.—Previously there was no training for secondary teachers. A secondary training college has now been opened, and has made a most successful beginning. It admits graduates, and non-graduates only when they are teachers in actual service. It has no connection with the University.

BENGAL.—There was previously no training of secondary teachers. It has been determined to make a beginning, but up to the end of the quinquennium nothing has been done. The Calcutta University, which previously made no provision for teaching degrees, has published syllabuses, and offers degrees of Licentiate of Teaching, obtainable by non-graduates and of Bachelor of Teaching, obtainable by graduates after one year's professional study.

UNITED PROVINCES.—The length of the course for matriculates was previously one year, and has now been raised to two years. The Allahabad University, which previously made no provision for teaching degrees, now offers degrees of Licentiate of Teaching, obtainable by non-graduates and of Bachelor of Teaching, obtainable by graduates after one year's professional study.

PUNJAB.—Previously the length of the course for both classes of students was one year. It has now been raised to two years for graduates. Previously the University offered no teaching degree. It now offers the degree of Bachelor of Teaching, obtainable by graduates after two years' professional study.

BURMA.—No change during the quinquennium. School boys who have passed the 7th standard are allowed to be enrolled as students under training and proceed to the Entrance examination, while receiving out of school hours some professional training, and similarly men who have passed the Matriculation examination are allowed to proceed to the Intermediate examination under like conditions. The course in each case takes three years. The whole system was under revision at the end of the quinquennium.

EASTERN BENGAL AND ASSAM.—No change. This province is in the same condition as Bengal with respect to its contemplated arrangements.

CENTRAL PROVINCES.—No change. As before, there is a two years' course both for graduates and for non-graduates, leading to a departmental certificate. The new degree of Licentiate of Teaching established at Allahabad will be open to the trained graduates of the Central Provinces.

Institutions and Pupils.

665. Institutions of the higher grade in which secondary teachers are trained are called colleges, and, except in Madras and Burma, the training of secondary teachers is carried on only in colleges. These colleges are reserved exclusively for secondary teachers, with the exception of those at Lahore and Jubbulpore where there are also vernacular classes. These colleges are situated in the presidency of Madras at Saidapet and Rajahmundry, in the presidency of Bombay at the Elphinstone High School,

Action on the matter.

Bombay, in the United Provinces at Allahabad, in the Punjab at Lahore, and in the Central Provinces at Jubbulpore. The following table shows the number of institutions and pupils in 1902 and 1907 :—

Secondary training colleges for men,—Institutions and pupils, 1902 and 1907.

	1902.		1907.	
	Number of institutions.	Number of pupils.	Number of institutions.	Number of pupils.
Madras	2	74	2	86
Bombay	...	...	1	31
Bengal	1	16	...	...
United Provinces	1	24	1	66
Punjab	1	46	1	74
Central Provinces and Berar	1	14	1	13
TOTAL	6	174	6	270

These figures relate exclusively to students under training for secondary schools; they do not include the vernacular classes at Lahore and Jubbulpore. Each of these colleges, except that at Allahabad, is in charge of a principal belonging to the Indian Educational Service; and a principal in this service is to be recruited for the United Provinces also. The colleges at Saidapet and Lahore have in addition a vice-principal, who is in the Indian Educational Service.

666. The expenditure of these institutions in the year 1907 was as follows :—

	Rs.
Saidapet and Rajahmundry	38,674
Bombay	25,869
Allahabad	33,699
Lahore	61,686
Jubbulpore	10,711
TOTAL	1,70,639

Except at Lahore and Jubbulpore, these figures of expenditure relate exclusively to the training of secondary teachers; but at Lahore and Jubbulpore, where vernacular students are also received, the cost of training the secondary and the vernacular teachers respectively cannot be distinguished, and the figures given above are those relating to the whole of the institution at each of these places. About Rs. 1,500 of the expenditure of the colleges is met from fees and other sources, and the remainder is borne entirely by provincial funds. Five years ago the amount expended upon the training of secondary teachers was about Rs. 90,000.

667. In addition to these training colleges for secondary teachers, there are in Madras and Burma training schools of an inferior grade at which students are received for a year's training. There are five of such schools in Madras, each of which is also an institution for training vernacular teachers. Three are managed by Government and are situated at Tanjore, Coimbatore and Calicut, and two are under private management and are situated in the districts of Madura and Tinnevely. These training schools have altogether 54 secondary students on the rolls; the cost of their training is merged in that of the whole of the institution and cannot be separately given. In Burma, the normal schools at which students are received for training as secondary teachers are six in number: four are managed by

Training Schools for secondary teachers.

Government and are situated at Rangoon, Mandalay, Moulmein and Akyab; and two are under private management and are both situated at Rangoon:—one in connection with the American Baptist Mission College, and the other in connection with the St. John's Collegiate School. They contain altogether 139 secondary students. The Government School at Rangoon and the St. John's Collegiate School, Rangoon, are for secondary students only; the remainder contain also vernacular classes. The cost of training the secondary students cannot be separately given.

Thus the total number of students in training for secondary teaching, both at colleges and at schools, is 463.

Proportion of
graduates to
students.

668. Complete information is not available as to the qualifications of the students before entering on their course of training, but the number of those who were graduates may be put at something less than 150.

In Madras out of the 86 students at training colleges 68 were graduates and 18 were non-graduates. In Bombay, as already stated, only graduates are admitted as new candidates for training, but non-graduates are admitted from the ranks of teachers already in service. In 1907 there were 17 graduates and 14 non-graduates under training. In the United Provinces, an exceptionally large number of teachers already in service were under training, and particulars as to the qualifications of the students are not available. In the Punjab, 26 of the students under training in 1907 were graduates and 40 were non-graduates. In Burma three were graduates and 136 were non-graduates. In the Central Provinces five were graduates and eight were non-graduates.

Opening of
the secondary
training
college in
Bombay.

669. At the beginning of the quinquennium there was no system of training of secondary teachers either in Bombay or in Bengal, and in both these provinces it was determined to establish such a system. In both, the first step to be taken was to find an officer who should be charged with the duty of starting a college. In Bombay, Mr. Fraser, previously professor of English Literature at the Deccan college, was appointed to this duty, and before undertaking it paid some visits to training institutions in the United Kingdom. On his return a successful beginning was made in January 1906. The following account given by Mr. Fraser is taken from Mr. Selby's report:—

"The Secondary Training College was opened in January 1906, the principal being Mr. J. Nelson Fraser, the vice-principal, Mr. H. D. Vachha. It is accommodated in the Elphinstone High School buildings, the educational library in the adjoining middle school being also placed under the charge of the principal. The students include seventeen graduates selected to receive Government stipends, and twelve non-graduate masters, already in service, sent up for training. The College undertakes to train five men annually deputed by the aided schools; in 1907 two such men were present:

"The students are actually under instruction about eighteen hours a week. They attend lectures on method, psychology, and the history of Education; and they are taught elocution and drawing. Most of the time of the staff, however, is spent either in demonstration or criticism lessons; especially, during the second term, in the latter. The students are required to do as much teaching as possible under supervision, the amount actually accomplished being perhaps during the second term six hours on an average for each student.

"The work in literary subjects has been the province of the principal. It has been made a principle to devote most of the time to work with the youngest classes, as any improvement in school methods must depend on the foundation laid here. The subjects of English and geography have received special attention. As geography work at this stage must be in the vernacular, a class has been taken by the principal twice a week at the Indo-British Institution, where a course of object lessons has also been given. In English, half the students have been specially trained to conduct work on the direct method.

"The students have been required to write one exercise a week, and a high level in handwriting has been secured. They have also been taught a little practical work in the production of relief maps, a kind of work which it is intended to develop.

"They have been taken out on numerous excursions: to the Natural History Museum, Elephanta, the New Dock Works, the Gas Works, the Victoria Memorial Blind School, the Cathedral and Scotch Church, the P. & O. S. S. *Persia*, the Grant Medical College Museum, the G. Morarji Cotton Mill, and elsewhere. It is intended both to widen their ideas and teach them how to conduct such excursions with their own pupils.

"To sum up the chief defects noticed in the new comers, they are, first, imperfect sympathy with the position and needs of their pupils; and, secondly, inability to use their voices in a pleasant and effective manner. We have attempted to make them realise that their first thoughts must be with their pupils, and their own effect on their pupils' minds; and we have tried to improve their technique. They have shown themselves responsive to these efforts, and our relations have always been thoroughly cordial. A small Cricket Club has been formed under the guidance of the vice-principal and athletic members of the College encouraged to play.

"Mr. Vachha has done some work in the vernacular in the middle school, teaching English translation in Standard II. He has also taken charge of the mathematical and scientific work.

"Two lectures a week, in the evening, have been thrown open to all teachers in Bombay. It is intended in this way to offer to the aided schools a course which in a few years will have gone over all subjects of interest to teachers. The attendance, however, has hitherto been most disappointing.

"I may add that the seventeen students receive stipends and bind themselves under a penalty to serve Government for three years. Two stipends of Rs. 50 are reserved for M. A.'s; the value of the rest is Rs. 30. It is intended in future that those who pass out of this College shall at once be given permanent masterships in high schools. The old examination for a Secondary Teachers' Certificate will be held, if it is held at all, mainly for the benefit of teachers in aided schools."

670. In BENGAL an officer was selected in England to take charge of the system of Anglo-vernacular training, and after visiting training institutions in the United Kingdom and in Germany arrived in India in October 1906, but remained only till March 1907 when he resigned. Two masters of method were also recruited to assist him, and they remained in this country and began operations after the close of the quinquennium. Mr. Hornell in his report records at length the discussions which took place as to the location and number of the proposed training institutions, and whether the practical work should be done in existing schools or in a school established for the purpose. Ultimately, after the close of the quinquennium, work was begun in connection with the existing Government high school in Calcutta.

671. In the UNITED PROVINCES, Mr. de la Fosse relates that at the beginning of the quinquennium the belief in the necessity for the training of secondary teachers was not widely spread, consequently that the trained teacher had no better prospect than the untrained, and that in 1902 only 24 candidates sought admission to the college. It was then determined that no teacher should be permanently appointed to Government service until he had obtained a certificate in teaching, and that preference should be given in all recognised schools to trained men. The value of training is now fully realised, and there is no lack of applicants for admission to the college. In 1903 it was determined that a selection should be made of teachers already in service to be passed through the college, and during the quinquennium 97 of these have undergone training; but in order to make room for them at the training college the number of recruits had to be reduced. But the training of teachers already in service has now been completed, since all who were considered suitable for such training have now received it, and the college has returned to its normal conditions, under which only new candidates are admitted.

"The teachers' certificate examinations," writes Mr. de la Fosse, "show that from year to year improvement in the work has taken place, though, of course, the work of training teachers cannot be adequately gauged by an examination. The real test is the type of man turned out and the kind of work he does as a teacher in the routine of a school. Judged by this test, the college is fulfilling its mission satisfactorily. It is disappointing that English should still be reported to be the weakest subject; but it must be remembered that the result in this subject is dependent primarily on the previous training of the students in school and college. Efforts, in view of the importance to a teacher of a good knowledge of English, must be redoubled to remove this defect. In the principles and practice of teaching, for which the training college is wholly responsible, quite satisfactory results were obtained. It is also very gratifying to learn that the practical work in science was well done.

"Excellent as the results of the institution have been, the time has now arrived for a thorough reorganisation. It is not possible to train with the best results senior and junior teachers along exactly the same lines. The graduate who will be engaged in teaching higher classes requires a stiffer course on the theoretical side and more specialised instruction on the practical; the junior, on the other hand, cannot assimilate so much theory and does not need to, but must acquire as perfect a technique as possible for the handling of large classes of little boys. The present courses are an at-

tempted compromise between the two, but like so many compromises serve neither end completely. A scheme is therefore under consideration for removing the undergraduates elsewhere, and reserving the present college for graduates preparing for the degree of licentiate in teaching, lately instituted by the University. To secure affiliation for the purpose of this degree, the college will have to prove its ability to teach up to a much higher standard, and to this end the staff will be greatly strengthened."

672. PUNJAB.—The Director, after giving the numbers of students which have been noticed above, and mentioning the examination results, remarks:—

"Both individually and collectively, these results compare very favourably with those of five years ago, not only as regards the number of candidates and the number passed, but also in respect of the percentage of passes. The extensive alterations and additions made in the College premises have resulted in the work being carried on under very favourable conditions. One of the large additional lecture-rooms is fitted up as a model class-room, and is an object lesson to managers and teachers. The Science lecture room and the Chemical and Physical laboratories are fitted with every convenience, and are generally admired by competent critics. The new rooms have been supplied with the latest apparatus and appliances for efficient teaching. The new gymnasium is well equipped. A gymnastic instructor has been appointed, and the course of instruction revised. Skill in, and a practical knowledge of, the rules of cricket and football are required of all candidates for the Junior Gymnastic Certificate.

673. BURMA.—In Burma, the Director remarks with respect to the higher grade certificate course, *i.e.*, a course of training provided for persons who have passed the Entrance examination and are taught at institutions where they are permitted both to obtain a training qualification and to proceed if they please to the University Intermediate examination, that there was never a great influx of candidates for this certificate: at first the majority were private students, latterly pupils from normal schools entered. But in the whole quinquennium not more than 34 passed the examination. With respect to the secondary grade certificate course, *viz.*, the course provided for students who have passed the 7th standard of secondary schools and who are required to proceed to the Entrance examination while also receiving professional training, he writes that the system only provides for a minimum of professional instruction in school management and the theory and practice of education; that this professional work is taken out of school hours, and that the main object of the students is to proceed to the Entrance examination; and that in order to achieve this end not a few of the pupils neglect the professional side of the training and seek to evade the obligation to enter the teaching profession.

"The professional examinations in theory were, and still are, conducted by the Educational Syndicate, which utilizes the personnel of the department, having no staff of its own available for such a purpose. Lastly, the system was distinguished by a confusing and unnecessary multiplicity of certificates, partial or final, literary, theoretical or practical, signed by a variety of authorities.

"The lowness of the qualifications for admission, and the unsuitability of the final literary tests, the unsatisfactory position of the professional work, and the misuse of the opportunities that normal schools provided, together with the generally confused exposition of the rules in the code, called for a comprehensive revision, which was undertaken in 1906-07. The new normal rules have since been sanctioned, and will be applied from January 1908. Under them, the ages of and qualifications for admission have been raised, improved literary courses (including a vernacular course corresponding to the higher grade), not synonymous with, though not opposed to, the ordinary Anglo-vernacular or vernacular school standard courses, and a revised professional course will be introduced. The rates of stipends awarded to normal students will be raised from Rs. 7 to Rs. 10, and a higher scale of pay will, if funds are available, be permissible for normal school staffs."

674. EASTERN BENGAL AND ASSAM.—The Director writes:—

"One of the most urgent requirements of the province is some adequate provision for the training of teachers, both male and female. At present there is little of such training which is really efficient.

"In Eastern Bengal, there are no facilities for training English teachers. Two officers (a principal for the contemplated training college and a head master for the practising school) have, however, been recruited in England; and it is hoped to start the college within a very short time. In Assam, something is attempted at the training school, which is combined with the high school at Shillong, and which prepares teachers for the aboriginal schools of the Khasi and Jaintia Hills. The system is, however, quite inadequate."

675. CENTRAL PROVINCES.—The Director records that the course of training was extended from one year to two during the quinquennium, that

the superintendent was provided with an assistant in 1904, that a model high school was established in 1905 in connection with the institution and four more teachers added to the staff, and that the expenditure on the training institution has risen from Rs. 5,800 annually to Rs. 10,700, and on the practising school from Rs. 100 to Rs. 2,500. The institution has been moved to a more commodious site and provided with buildings, comprising a block of class rooms for the training institution, another for the model high school, another for the vernacular practising school, a boarding house already much overcrowded, and a house for a resident master.

"Such is the record of the training institution, and it would seem that all the stipulated requirements have been carried out, but the results are far from encouraging.

"The demand for secondary teachers in these provinces may be judged from the fact that during the quinquennium 613 teachers left the department or died, and 810 were appointed. The figures for last year alone were 136 and 175, respectively.

"The Superintendent of the Training Institution writes: 'During the 18 years of its existence the institution has trained 273 teachers, of whom 229 have been matriculates, 18 F. A.'s, and 26 graduates. Last year there were 123 high and middle schools in the Central Provinces, from which it appears that we have been able to supply an average of little more than two trained teachers per school in 18 years.' There are certain minor reasons for this, *e.g.*, the reduction of the allowance given to teachers under training, and the extension of the course to two years, both unpopular moves; and I may add the unwillingness of private school managers and many municipalities, owing to want of funds, to provide substitutes. But there are more important grounds. The Superintendent reports: 'The cause of this state of things is to be looked for, first, in the unpopularity of teaching as a profession, which is due to the smallness of pay, and, secondly, in the method by which the classes are recruited. Teachers are allowed to take up appointments, and are sent afterwards, on three-fourths of their pay, to be trained; and if they can manage to put in two years as teachers, the period of training is only one year. Thus there is every inducement for those who intend to become teachers to avoid the training institution at the commencement of their careers. So long as this system continues the training institution will not be able to meet the demands of the schools.'

"This applies both to graduate and matriculate teachers. The Superintendent says: 'The supply of a sufficient number of scholarships and a rule, strictly enforced, that no matriculate will be recognized as a teacher until he has passed through the training institution, would perhaps produce the desired effect. The only means I can think of for securing a supply of graduate students is to institute a number of college scholarships tenable by students who would not otherwise be able to study for the B. A. degree on condition that they enter the institution afterwards, and become teachers.' But above all, 'until the poor pay and prospects of the teaching profession are improved, it is useless to rely upon scholarships to attract candidates.'

"Even if the supply of students and teachers under training were made adequate to the demand, there would still remain a few desirable improvements. One useful move would be to raise the institution to the rank of a college, and to affiliate it to the University of Allahabad, putting the examination of the collegiate grade for the L. T. degree in the hands of the University, and leaving that of the rest, not to external examiners, but to the institution itself, which would take into account the student's work throughout his training. More important still is to keep the great body of teachers, and especially head masters, in touch with the institution; periodical visits of head masters to the model high school would be one way of accomplishing this; conferences are another, and much can be done by co-operation between the institution and the inspectorate."

Training of Vernacular Teachers.

676. There is a general resemblance between the systems of training vernacular teachers followed in Bombay, Bengal, the United Provinces, the Punjab, Eastern Bengal and Assam, the Central Provinces and Berar, and the North-West Frontier Province; and it will therefore be convenient to describe these first and to mention afterwards the systems pursued in Madras and Burma. In the seven provinces named, the chief feature in the training of vernacular teachers is the provision of institutions, called in Bombay Training Colleges, in the United Provinces, the Punjab, the Central Provinces and the North-West Frontier Province, Normal Schools, and in Bengal and Eastern Bengal and Assam, Training Schools. To these institutions vernacular students are admitted for training after they have completed the most advanced course of instruction given in vernacular schools, *i.e.*, after they have reached what is in most provinces known as the vernacular middle standard, being as a rule the seventh standard of vernacular instruction

above the infants' class. In the Central Provinces alone they are admitted on passing the fourth standard. In the training institutions they receive in the vernacular a course of instruction lasting for two years, and comprising some extension and revision of their general studies and also professional training in the theory and practice of teaching. During the period of their training the students are not only lodged and taught free, but receive stipends, usually of about Rs. 7 a month, for their food and their expenses. At the end of their period of training they readily find employment both in primary schools, middle vernacular schools and the vernacular classes of secondary schools. Almost all the institutions of this kind have been established and are maintained by Government under the direct management of the Education department, but there are also three which are conducted under private management in connection with missions. The numbers of these institutions and of their pupils are as follows:—

Training schools for Vernacular Teachers, 1907.

	Institutions.	Pupils.
Bombay	7	1,078
Bengal	8	474
United Provinces	6	708
Punjab	5	401
Eastern Bengal and Assam	5	393
Central Provinces and Berar	5	370
North-West Frontier Province	1	25

677. These training institutions are placed at central positions, and the area from which they draw their students is usually somewhat larger than a Commissioner's division or inspector's circle. They are placed as follows:—In the BOMBAY Presidency the Government institutions are at Poona, Dhulia, Ahmedabad, Dharwar, and Hyderabad, and there is a missionary institution at Nagar, and one at Rajkot under Native State management.

In BENGAL, the Government institutions are situated at Calcutta, Hooghli, Ranchi, Cuttack and Bankipur and there are two subsidiary schools called second grade training schools, at Daltonganj and Motihari. There is also a training school conducted by the Church Missionary Society at Krishnagar.

In the UNITED PROVINCES, they are all conducted by Government and are situated at Allahabad, Lucknow, Agra, Moradabad, Gorakhpore and Almora.

In the PUNJAB, they are all conducted by Government and are situated at Lahore, Delhi, Multan, Jullundur and Rawalpindi.

In EASTERN BENGAL AND ASSAM, they are all conducted by Government and are situated at Dacca, Rangpur, Chittagong, Jorhat and Silchar.

In the CENTRAL PROVINCES AND BERAR there are four Government institutions, situated at Jubbulpore, Raipur, Nagpur and Akola, and one under Mission management at Ellichpur.

In the NORTH-WEST FRONTIER PROVINCE there is one, conducted by Government, at Peshawar.

678. The chief changes which have been made in this system of training during the period under review are that the numbers of these institutions have been increased, and that the course has been extended to two years wherever previously it fell below this, *i.e.*, in the Punjab, the Central Provinces, and, to some extent, in Bengal, that the staff of teachers at the training schools has been strengthened and improved, and that special attention has been paid to training the students to connect their teaching with realities and to rouse intelligence and interest. Some of the existing institutions have been rebuilt and enlarged. Those which have been newly established during the quinquennium are at Gorakhpore, Almora, Silchar and Peshawar; and the training school at Jorhat is also new, but replaces one which previously existed at Gauhati.

679. They are for the most part well built and well equipped, and contain M.A.'s on their staff whose salaries range up to as much as Rs. 500 per mensem. Thus Mr. Selby writes of the Poona College, which is the largest of them, that it was moved in 1905 into new buildings which are airy and spacious and in every way convenient and adequate, erected at a cost of nearly

two lakhs, and including houses for the principal and vice-principal, with accommodation for 200 students, besides a practising school and a good garden, mainly botanical; and he adds that a further extension of the building to accommodate 50 more pupils has been sanctioned. And, again, Mr. dela Fosse mentions that the new normal school recently established at Gorakhpore cost more than Rs. 1,50,000 on buildings alone, "but it is questionable whether the provision of such palatial accommodation for student teachers drawn from villages is justifiable." He also states that the number of students at each of the schools is 160, but that experience has shown that a single practising school cannot properly provide instruction for more than eighty students. In Eastern Bengal and Assam it is mentioned that the Dacca training school has been provided with a new commodious building of its own at a cost of Rs. 70,000, and had 84 pupils on the rolls.

680. The character of the training institutions and the progress recently made will be illustrated by the following extracts from the reports of the Directors of Public Instruction:—

BOMBAY.—Mr. Selby writes:—

"The extension and improvement of vernacular training colleges and schools is perhaps the most important feature in the history of the last five years. It is upon the adequate organisation of these that the success of primary education depends." After mentioning the names of the institutions and the enlargements of the Poona training college, which have been mentioned above, he details similar improvements and extensions made at the colleges, and embracing extensions (resulting in Hyderabad in doubling the accommodation), new quarters for students, new class rooms, new practising schools and new equipment.

681. "Retraining.—The additional room which has been provided in all colleges is required not only for the training of the new masters required in new schools, but also for masters whom it is now the policy to call up for a certain period for retraining. This is necessary if new modes of instruction are to be introduced into all the schools. All inspectors bear witness to the success of this 'retraining.' Mr. Kelkar, the principal of the Poona College, has held such classes for masters from 1902. They were so popular, and he received so many applications for admission, that he still continues a class of this kind in addition to the regular masters' class in the college. He tells me that his pupils are immensely interested, and that from a few typical lessons they soon pick up the essentials of the new methods. The Inspector in Sind reports that 'the masters called up for retraining had displayed sufficient interest and enthusiasm to far exceed the course laid down for them in cardboard and clay modelling, map drawing, painting, etc., and made all sorts of ingenious and well-executed models, maps, pictures, etc., in their leisure time.'

682. "Stipends.—At Poona and Dhulia practically all the pupils receive stipends, which are paid by the boards or the Agencies which send up the pupils. In Poona the minimum is Rs. 7 and the maximum Rs. 8-8. In Dhulia there are two rates, Rs. 7 and Rs. 7-8. In Ahmedabad only 94 out of 144 students receive stipends, at the rate of Rs. 6 in the first and second years, and Rs. 7 in the third year. In Dharwar also there are 50 non-stipendiary students. In Hyderabad all students have so far received stipends. Every student ought to receive a stipend. It is not right that boys of this class under training should be worried by money anxieties. The boards at present contribute, I think, as much as they can afford, and I hope that without making further demands upon them it may soon be possible to provide stipends for some at least of those who are now without them.

683. "Teaching.—Drawing is a compulsory subject in Training colleges; and by a Code, which was provisionally sanctioned in 1905, the scope of the course has been much enlarged. It is found that practice in drawing makes boys more observant and exercises their memory, besides giving suppleness to the hands. The teaching power of a master, too, is increased, if he can draw the object which he has to describe. The variety of the new course, the introduction of colour drawing and of the drawing of objects, have made the subject more interesting.

684. "Agricultural teachers have also been added to the colleges in Poona, Ahmedabad, Dharwar and Hyderabad. There has been an improvement in the teaching of this subject since the introduction of Mr. Knight's readers in 1906. These books are now the basis of all teaching, and besides school lessons pupils are given opportunities of seeing actual agricultural operations in farms and gardens. The general aim is to develop a habit of thinking on the why and wherefore of agricultural processes. It is part of a general effort to develop intelligence, and to bring it to bear on everything that is done.

685. "Music teachers also have been appointed in these four colleges. The types of verses found in the readers are set to appropriate music. Time and tune are taught, and the boys learn to recite verses in proper native fashion according to simple forms of music. In Poona, ambulance lectures on "first aid to the injured" were also delivered. Practical examinations were held every year, and those who passed were given Ambulance certificates.

Further, the teaching of surveying and plot-work was introduced in 1905-06, and the students, it is hoped, will soon be qualified to make a rough survey of a village and a fair map of the surroundings for use in the school.

686. "People of this country are curiously unobservant of facts and objects in nature. I may illustrate from a few examples of what is done in the Poona College the efforts which are being made to awaken observation and reflection. These same illustrations will also make plain what the spirit of the new teaching is. Its main object I should describe as being to connect school lessons with facts, and so to make them interesting and give them a stronger hold on the memory. It is hoped that the interest thus awakened in the school will be carried into life beyond the school, so that there may in process of time be a general alertness of intelligence and a general desire to understand.

687. "The Kindergarten teaching of infants is based on nature study, being connected with peculiarities in the objects of the different seasons. A programme of excursions is arranged for the year for each class in the practising school, and the pupils are taught not only to observe natural phenomena, but also to take note of objects of geographical or historical interest. Sometimes they are taken into shops to see the work going on in them. The pupils in the training college are enabled to watch the life history of insects, the development of fish and frogs, and the habits of ants, which are kept in artificial nests. Collections are made of typical weeds in the compound, and they are named and described. The use of weather instruments, the barometer, thermometer, and anemometer is taught. There is a sun-dial in the compound, and the pupils learn how to reduce sun time to standard time. Typical leaves and flowers are collected and their peculiarities noted. The germination of seeds is watched. The rain is measured. The relation of the shadows of objects to the position of the sun is observed. In fact it is attempted to invest all surrounding objects with an interest. Pupils of course have ample opportunities of practising the art of teaching in the large practising schools which are attached to the colleges."

688. BENGAL.—Less improvement has been achieved in Bengal than elsewhere during the period under review; and this is partly due to the delay in carrying out a plan, which had been projected and has been under discussion throughout the period, for placing the system of vernacular training in the province under the superintendence of a special officer in the Indian Educational Service and establishing him at a central institution.

689. Mr. Hornell mentions unfavourably the practice which still prevails of permitting teachers, who have undergone an incomplete course of training, to enter service as teachers, and then return and undergo a final examination at the training institution, thereby gaining a certificate of training. He adds:—

"The course of studies appears on paper to be very elaborate, though the pedagogical part of the course is extremely meagre. Practical work is enjoined, but the only theoretical study of the principles of teaching attempted is the reading of the Senior and Junior Teachers' Manuals. The general verdict on these works is that they are the most worthless productions, and it seems to be extremely doubtful whether the students derive any benefit whatever from the study of them. On the other hand the general course comprises (a) Bengali literature and grammar and Sanskrit (at the Ranchi and Patna Training Schools Hindi literature and grammar and Urdu are substituted for these subjects), (b) the history of India, (c) general geography, (d) arithmetic and algebra, (e) geometry and mensuration, (f) elementary science (physics, hygiene, chemistry, botany, agriculture and natural history), (g) drawing and practical geometry, (h) manual work (seed-placing, paper-plaiting, stick-laying, clay-modelling, rope-work, mat-weaving and basket-making), and (i) drill. All these subjects except "manual work" are obligatory.

690. "There is evidence of a widespread feeling that the students trained at the first grade training schools have recently deteriorated considerably. This view is supported, not only by the reports of inspecting officers, but also by the letters of various persons who were consulted on the improvement of secondary education. The main causes to which this deterioration is ascribed are the reduction of the course to two years, and the abolition of the practice of holding a public examination at the end of the middle stage of school instruction, which is alleged not only to have made it difficult to decide whether a candidate for admission to a first grade training school has the requisite educational qualifications, and to the consequent admission into the training schools of inferior material, but also to have resulted in an actual lowering of the standard of acquirement attained during the school course.

691. "Rai Madhusudan Rao Bahadur, Inspector of Schools, Orissa Division, writes on this point as follows:—

"The supply of trained vernacular masters . . . is quite adequate to local requirements . . . but the quality of such masters has undergone some deterioration in the matter of general scholarship, in consequence of the period of study having

been reduced from three to two years, and of the further circumstance that the 'primary examination' for middle schools, which has recently been instituted, is not a test sufficiently stringent and uniform for the purpose of providing eligible students for first grade training schools."

Mr. Hornell also details the steps followed in the discussion relating to further improvements in the training system, and states that they were still under consideration at the end of the quinquennium.

692. UNITED PROVINCES.—Mr. de la Fosse writes:—

"The number of students has grown in five years from 442 to 708, of whom the vast majority are Hindus. It is a curious fact that in all branches of the profession of teaching Muhammadan recruits are scarce; but I am inclined to think that not enough effort is made by district inspecting officers to secure them. It was ascertained during the year that 3,836 teachers in vernacular schools now hold normal school certificates. The expenditure, which has risen since 1902 by nearly Rs. 40,000, amounted to Rs. 92,692, the increase being largely due to the greater number of students and the raising of the stipends from Rs. 6 to Rs. 7, the increased charge being met from the Government of India's grant of five lakhs. Minor reforms, such as the appointment of clerks, and the raising of the pay of the gymnastic instructors, account for a small portion of the increase.

693. "Until the year 1905 each normal school contained 120 students, excepting Moradabad which had 140, who were divided equally into a senior and a junior class of sixty each. There was no fixed proportion between the Hindi and Urdu reading students. The demand for certificated teachers, however, became so pressing that in 1905 the number of students in the schools was raised to 160 at Agra, Lucknow and Moradabad. * * *

694. "The courses need overhauling, and the methods are rather too wooden and sometimes hardly quite up to date. In regard to the examination in the practice of teaching, one examiner remarks: 'The lessons were on the whole satisfactory, but they were all cast in the same mould. The notes of lessons did not indicate any originality; most of them were, however, very elaborate, and some of the object lessons given were interesting. The oral test revealed the defect that the pupils read too fast and as a rule without any expression.'

695. "Certain changes have been made in the course of study. Physical training has assumed greater prominence, gymnastics are now compulsory and teachers are trained to teach *desi kasrat*, for which special certificates are given. At Moradabad 74 out of 76 students obtained such certificates. Freehand and blackboard drawing were added last year. The headmaster of one normal school reports that both teachers and taught found difficulty in the new subject, and suggests the need of a special drawing master. An inspector notes that the largest number of failures occurred in this subject. It has also been remarked that normal passed men are weak in literary subjects, and that this side of the course should be strengthened. All these are points which will now receive attention at the hands of a special inspector.

696. "The discipline at normal schools has, I regret to say, never been quite satisfactory. The students, drawn mostly from villages where life moves easily and slowly, are rather inclined to chafe at necessary restrictions and at the enforcement of punctuality and regular habits, and they are excitable, suspicious and easily misled. Outbreaks are not uncommon, but there have been two that had serious results. One culminated in a regular rebellion and the other in a general strike, and strong measures had on both occasions to be taken. Lately the normal school students have in some schools become infected with the prevailing unrest. Being ignorant of most things outside their own narrow sphere, and credulous and superstitious to a degree, they constitute very inflammable material. They need therefore the most watchful attention of the staff, and for this reason, if for no other, the reduction in their numbers had become desirable."

697. PUNJAB.—The Director writes:—

"During the quinquennium, new normal schools have been erected at Lahore and Delhi, the accommodation at the other normal schools has been increased and improved by removal of the inspectors' offices to other buildings and making suitable alterations and additions to the existing blocks; two new boarding-houses have been erected and the other boarding-houses enlarged; at Lahore, Rawalpindi, Jullundur and Multan land has been acquired for practical work in agriculture; new furniture and apparatus have been provided out of the liberal special grants made last year for the equipment of the schools according to modern requirements; the libraries have been supplied with the best manuals available; good wall pictures, diagrams and charts have been obtained; and considerable additions made to the collection of objects; the number of students under training has largely increased in every circle, and the enrolment in the Zamindari class (at Lahore) has more than doubled. While few changes have been introduced in the curriculum, attempts have been made to make the instruction more practical by the more general adoption of Kindergarten methods of teaching. Examination in drawing and Kindergarten have been instituted, and the instruction in these subjects made more systematic and thorough. Singing is now practised with more or less success in every

normal and model school; its recognition as a subject of the curriculum marks a real advance. An impetus to physical training has been given by the holding of an annual central tournament for normal schools, and an interest in something more than text books, examinations, results and percentages has been awakened by the organisation of regular visits to museums and places of interest. As a result of all these developments, the expenditure has considerably increased, and the results of examinations are far superior to those of 1901-02. Five years ago there were no stipendiaries from Native States: at the close of last year there were 14 in the Lahore Normal School. It is thus evident that the sphere of influence of the school has widened, and that it no longer limits its operations to supplying the needs of primary schools of the adjacent districts. In increasing the number of stipends in normal schools, the intention of the department was to extend the course of training to two years. This two years' course has been held in abeyance for the last three years, in order to increase the supply of trained teachers for primary schools by allowing students to appear at the certificate examination after one year's training. Nothing but the great demand for teachers of this class can excuse this procedure, and as soon as this demand is met, the full two years' course will be required of all normal school students. In the junior vernacular certificate examination the failures were generally in geography and mathematics. The Jullundur Normal School is the only one outside of Lahore where special arrangements exist for preparing and sending up candidates for the Zamindari test. In the third annual tournament of the normal schools held in January last, Lahore again headed the list, being this time the champion school in all the three contests—cricket, football, gymnastics and athletic sports. Agriculture has been a subject of instruction in our normal schools for a long time, but the teaching was mostly theoretical, and only occasionally supplemented by concrete illustrations from the schools miniature garden. The schools generally have now proper farms in their neighbourhood. The students have to work on the farms with their own hands, and to observe and note on the processes performed, and the stages of growth of the typical crops, cereals and vegetables grown. The importance of this practical work is enhanced by the fact that a number of those who enter the profession as primary school teachers do not belong to the agricultural tribes."

698. EASTERN BENGAL AND ASSAM.—Mr. Sharp writes:—

"The three schools in Eastern Bengal are situated at Dacca, Rangpur and Chittagong. The Dacca Training School, which was for many years held in a rented house, was provided, in 1906, with a commodious building of its own, at a total cost to Government of Rs. 70,000. It possesses a good library, consisting of over 5,000 useful English, Sanskrit and Bengali publications, which is annually supplemented by the purchase of fresh books. A little more apparatus for the teaching of science is all that is needed for its thorough equipment. The teaching staff consists of six teachers, three of whom are M.A.'s, one an undergraduate, one a passed student of the Calcutta Arts School, and one a Sanskrit title holder. The school had on its rolls, on the 31st March 1907, 84 pupils, against 92 on the corresponding date in the previous year, and 69 in 1901-02. The percentage of attendance, which was 85.5 in 1901-02 and 85.7 in 1905-06, decreased to 82.9 during the last year of the quinquennium. Besides the ordinary pupils, 6 sub-inspectors and 70 head pandits of middle and subordinate pandits of high schools attended a special course of training for three months during 1906-07.

699. "The Rangpur Training School is a fairly well-equipped institution, but the staff requires strengthening, and the accommodation is insufficient and unsuitable. A new building will shortly be constructed on a site which has already been acquired.

"The Chittagong Training School is located in two houses. One belongs to Government and is situated on a hill. The other is a rented house on the plain below. It is well provided with furniture and appliances and has a good library. The staff consists of the head master, who is an experienced M. A. of the Calcutta University and a member of the provincial service, and five other teachers. The number of pupils in the school increased from 40 in 1896-97 and 42 in 1901-02 to 87 in 1906-07.

"The Jorhat Training School supplies teachers for schools where the language is Assamese. It has recently been removed from Gauhati, has undergone a thorough re-organisation and has been placed in an admirable building. There are 32 stipendiaries divided into a first and a second class. The staff now consists of two English masters and a drawing master.

"The Silchar Training School was established for the training of vernacular masters in November 1906, and is held in an excellent building, which was erected at a cost of Rs. 26,219 on a site situated in the best quarter of the town. It is a well-equipped institution, and its staff consists of two teachers, one of them a member of the subordinate education service, and the other a graduate, an instructor and a drawing master. The number on the rolls was 115."

700. A uniform course of studies is prescribed for all the three schools in Eastern Bengal. In accordance with Bengal Government Order No. 2497, dated the 18th July 1901, the period of training was reduced from three to two years and some alteration was made in the curriculum. Trigonometry and the histories of Greece and Rome were dispensed with; chemistry, botany,

agriculture, natural history, practical geometry, object lessons, Kindergarten and drill are added to the course, while manual work was made an optional subject. Further changes were introduced in the year 1907, when the study of Sanskrit and algebra was abolished and special attention was drawn to the method of teaching.

701. CENTRAL PROVINCES.—The Director reports:—

"There are four normal schools in this province for the training of male primary teachers, at Jubbulpore, Nagpur, Raipur and Akola. All these have been established for over 40 years.

"The main difficulty in the way of training primary teachers in the Central Provinces is not, as in the secondary grade, want of candidates: 'Every year,' the Superintendent of the Jubbulpore institution reports, 'we have double the number of candidates for the vacant scholarships.' It lies in the poor quality of the material sent up, a complaint which annually appears in the reports. The standard for entrance, in the Central Provinces, is only the primary certificate, and the majority of boys, who pass that examination before they are 14, forget most of what they have learnt before they join the normal school at 17. Hence throughout their history the normal schools have been chiefly occupied in giving the students general instruction up to the 6th standard, and the time available for special training is insufficient to produce good teachers. Moreover, there has been a strong tendency to overcrowd the curriculum, so that the examination contains 24 sub-heads, in each of which the candidate must pass. In Berar, this difficulty is largely met by the fact that the minimum standard of admission is the 6th class of a vernacular middle school, and consequently the passes at Akola are proportionately higher than at the other schools. But here again the school is very unpopular, and few Berari boys will attend it for a course of three years with no prospect before them but that of a village schoolmaster. The number of candidates for admission seldom reaches that of the vacancies. Scholarships are always vacant and the Superintendent has repeatedly asked me to allow him to admit outsiders from the Bombay Presidency.

"It seems, then, that both the quality and number of our teachers are unsatisfactory. In spite of all that has been done, the number of uncertificated teachers (including monitors, who are supposed to be abolished, but cannot be, for lack of funds) remains unduly large, even excluding Berar, which has only one-fifth of its teachers trained. The actual output of the normal schools last year was only 114, but matters were slightly bettered by the fact that 126 candidates obtained untrained teachers' certificates."

702. NORTH-WEST FRONTIER PROVINCE.—A Government Normal School for men was opened at Peshawar in May 1906, out of the Imperial grant of Rs. 40,000 and Rs. 15,196 was set apart for this purpose.

The course of training will extend over two years. The total number of stipends tenable at one time will therefore be 60. There were 25 stipendiaries at the end of 1906-07, and the direct expenditure on the institution amounted to Rs. 4,385.

The school is located at present in a rented house, which is not at all suitable. As a better house could not be secured in Peshawar, and the erection of a Government building will take time, certain alterations and additions were made in the building now occupied. The Government of India sanctioned Rs. 57,000 for the school buildings, and detailed estimates and plans were being prepared. As the estimate of Rs. 57,000 was based on incorrect information with regard to class and boarding-house accommodation, it is probable that an additional grant will have to be applied for.

The required furniture, apparatus and appliances have been purchased, but, in order that the institution might be adequately equipped with illustrative charts and models and have a fairly good library for the use of teachers and pupils, the Hon'ble the Chief Commissioner sanctioned the utilization for this purpose of the savings, amounting to Rs. 4,199, which were available out of the normal school budget.

703. It will be seen from the accounts given above that these training institutions are providing a satisfactory kind of training for the best of the vernacular teachers, but that they are costly institutions and that at present the number of students who pass through them is insufficient to meet the demand. It is difficult to gauge the adequacy of the output by any numerical standard, because the amount of wastage in the teaching profession has not been ascertained, and because the future expansion in the number of primary schools cannot be precisely estimated. A rough test is afforded by the comparison of the number of primary schools at present existing with the number of students under training. But it should be remembered that the students under training are destined not only for these schools, but also for vernacular

middle schools and for vernacular departments of secondary schools. The figures are as follows :—

	Number of students under training.	Number of primary schools.
Bombay	1,078	9,485
Bengal	474	33,962
United Provinces	708	9,545
Punjab	401	3,151
Eastern Bengal and Assam	393	17,531
Central Provinces and Berar	370	2,645

When working under normal conditions, the output of the training institutions would be not more than half the number of students under training, as the course is in most cases for two years; and upon this basis the training arrangements in Bengal and Eastern Bengal and Assam are palpably inadequate. But wherever the provision of primary education depends to any large extent upon the employment of ill-paid teachers in venture schools, the training institutions which have been described above are incapable of expansion to meet the full needs of training; not only because of their costliness to the State, but because the rewards of the teaching profession in these circumstances are not sufficiently great to induce the candidates to undergo the preliminary education up to the vernacular middle standard and pass through two years of professional training. Consequently, the training institutions are supplemented by less thorough but less costly methods of training lower classes of aspirants to the teaching profession. Bombay and the Punjab rely only upon the training institutions, except that in Sind some training classes were opened in connection with local board schools in 1904 with a view to remedying the dearth of trained Muhammadan masters. These however have not proved a success, and the inspector fears that the scheme will have to be abandoned.

704. In the other provinces now under consideration, *viz.*, Bengal, United Provinces, Eastern Bengal and Assam, and the Central Provinces, inferior forms of training are systematically adopted, and these fall into three kinds :—

- (1) Small training classes
- (2) The apprenticeship or pupil teacher system.
- (3) The opening at the higher grade training institutions of lower classes for students with insufficient qualifications to take the regular course.

The first of these expedients has been adopted on a large scale in Bengal and Eastern Bengal during the quinquennium. The second has for some time past existed in the Central Provinces, and has been adopted in the United Provinces during the quinquennium; it exists also in Burma, but is about to be discontinued. The third is being introduced in Assam and is to replace the apprenticeship system.

Guru Training Schools.

705. The training classes in Bengal are held at schools known as Guru training schools. These were started in Bengal at the beginning of the quinquennium. There were then about 50,000 teachers in the province, and the state of the qualifications of these teachers may be judged from the fact that at the end of the quinquennium, in the reduced area of Bengal, out of 35,000 teachers only 4,550 had passed the middle vernacular standard, 4,367 the upper primary, and the remainder, amounting to more than 26,000, held lower educational qualifications than these. The plan which was adopted was to establish a Government upper primary school in each sub-division, drawing pupils from the neighbourhood, and taught by two teachers, one on a salary of Rs. 9 a month and one on a salary of Rs. 7 a month, the head teacher being also allowed to retain the fees; and it was intended that the head teacher at least should be a trained man who should have passed through one of the first grade schools. Attached to each of these upper primary schools, numbering in the old Bengal 135 in all, is a class of about ten Gurus,

who attend the school for a course of two years and spend part of their time in studying up to a higher standard of primary education than they had previously attained, part in acquiring some knowledge of drawing, school gardening and other subjects, and part in learning a manual on the art of teaching and in teaching the children in the school under the supervision of the head teachers. This system was applied to training both new candidates and teachers already in employment, but the new candidates were to receive no stipends. In practice the scheme has principally attracted teachers already in employment, and since its inception in 1903 it has been found necessary to raise the salaries of the teachers who form the staff of the school from Rs. 9 and Rs. 7 to Rs. 18 and Rs. 10 respectively. Thirty-nine of these schools were transferred to Eastern Bengal upon the formation of the new province, and there remained 96 in Bengal, which number with various additions was brought up in 1907 to 111 training schools with 1,233 students. These schools were costing about Rs. 90,000 a year altogether.

706. When the scheme had been in operation for two years it was considered to have attained sufficient success to be worth establishing more firmly, and the following points which had arisen were then dealt with :—

- (1) It had been considered an open question whether the schools were intended to remain always at the places where they had been established, or whether they were intended to train the Gurus who resided within a short distance of them, and having exhausted this area to be transferred elsewhere. While this uncertainty lasted, no quarters were provided for the teachers under training, and thus the department was limited in the choice of sites to the neighbourhood of towns or big villages. It was now decided that the schools should be regarded as permanent institutions, not peripatetic, and that quarters should be provided for the students under training.
- (2) Some of the teachers had endeavoured to retain their own schools, and teach them in the early hours of the morning before proceeding to the Guru training school for the day's study. This has now been prohibited.
- (3) Stipends are to be raised, where necessary, to rates ranging from Rs. 5 to Rs. 10 a month, according to local requirements.
- (4) Admissions for the present are to be confined to teachers who have entered the profession and whose education has been at least up to the lower primary standard.
- (5) The number of students admissible to each training school has been raised from 10 to 16.
- (6) The number of teachers engaged upon the staff of each school has been raised from two to three.

Ninety-six new schools, *viz.*, one to each sub-division, are being erected upon these principles, and type plans, which include hostels for students and quarters for headmasters, have been prepared, in accordance with which the schools are being erected.

707. In Eastern Bengal, where there are 39 of these schools, established under the Bengal Government and transferred on the rearrangement of provincial boundaries, the Director has nothing but adverse criticism for them. They exist there in the condition in which they were originally established by the Bengal Government, except that the stipends have been raised to Rs. 5. Mr. Sharp writes :—

“The course extends over a period of one or two years, according as the teacher has or has not passed the school final examination from standard VI. In addition to the ordinary subjects of study, the pupils receive a special training in drill, drawing, object lessons and Kindergarten principles. Where a school garden exists, they are expected to help the master in laying it out and supervising the gardening operations. At the close of the course, examinations are held *in situ* by deputy inspectors, and certificates, countersigned by inspectors of schools, are granted to the Gurus.

“The characteristic Guru training school of Eastern Bengal has nothing attractive or inspiring about it. A somewhat dishevelled mat or mud hut, divided into two halves. In the one half the remnant of the ten Gurus selected for training—those, that is, who choose to put in an often inadequate attendance. An ill-qualified instructor. In place of an intelligent display of the methods of instruction, a string of lugubrious complaints

from the Gurus, how their stipends and their pay are inadequate; how they have to yield up the fees and salary of their school for two years to a substitute; and how the chances are that, when they return home, they will find themselves permanently displaced by that very substitute, and left, as a result of their training, without even their former scanty means of livelihood.

"The arrangement for training teachers is admitted, on all hands, to be unsuccessful. 'It is unpopular,' as was observed by the Director of Public Instruction in his report for 1905-06, 'because the prospects are bad, those under training have no hostels to live in, and Gurus fear that, in their absence, their schools will be appropriated by the *locum tenens* or by some interloper. It is insufficient, because the instructors are ill-qualified, and many of the Gurus so ignorant that some cannot even write their names correctly. It is inadequate because, even supposing the lives of the Gurus were prolonged beyond the term of nature, they could not all, at the present rate, be trained in less than a hundred years.' To these may be added the facts that supervision over these scattered schools, with an inspecting staff numerically weak, has hitherto been inadequate; that the course is too long; that the average income of a village Guru is not sufficient to induce him to undergo any sort of special training for his profession; and that the stipend allowed to him, while under training, does not even cover his boarding expenditure, much less enable him to support his family. This lamentable state of affairs can only be remedied by the erection of hostels, by the reduction of the length of the course, by the improvement of the condition of the Gurus during the period under training, and, above all, by the increase of the grant to those of them who undergo the prescribed course of instruction. The last point perhaps deserves primary consideration, for, unless better prospects are held out to the Gurus, it is useless to expect them to leave their homes to undergo a course of training which will be of no material benefit to them. In support of this fact, it need only be pointed out that, although a hostel was erected for the Rajbari school nine months ago, not a single Guru has yet come to live in it."

Pupil Teacher System.

708. The pupil teacher systems do not differ radically from the Guru training schools which have just been described, for in both cases the principle is to attach students under training to existing schools. The term pupil teacher however indicates that the system is chiefly intended for youths before they enter the teaching profession, and that if existing teachers are admitted to it, this is rather a concession to temporary necessity; the distinction of name also perhaps implies that the pupil teacher takes a more regular part in the teaching of the school than the student of the Guru training school; and there is also this difference, that the Guru training schools are established in order to provide training, whereas the pupil teachers are an adjunct to already existing schools. A pupil teacher system was established in the UNITED PROVINCES in 1905 upon the following principles. Middle vernacular schools with upper and lower primary sections are chosen, and training classes consisting of not more than six pupil teachers are attached to these schools; each training class is under the supervision of an instructor who must have been trained in a normal school and holds his appointment for three years, during which he receives a minimum pay of Rs. 12. The head teacher of the middle vernacular school has a general control over the instructor and the pupil teachers. Admission to the training class is restricted to men under 25 years of age who have passed the upper primary examination, and priority is given in the first instance to those who have completed their studies up to the middle vernacular standard and in the next to those who have had experience of teaching. The pupil teachers under training receive stipends of Rs. 3 a month, or, if they are already in practice as teachers, they receive their actual pay as teachers up to a maximum of Rs. 6 a month. The course of study is for one year, the subjects being :—

- (a) Teaching (theory, method and school management);
- (b) Second language;
- (c) Arithmetic;
- (d) Revision of other subjects up to the upper primary standard;
- (e) Drill.

In addition to the above, the pupil teachers are required to teach under supervision the classes of the lower primary and preparatory sections of the school; but no pupil teacher may be called upon to devote more than two hours daily to class teaching.

709. Forty-eight such training classes have been established in the United Provinces and contain 274 pupil teachers. Their cost is Rs. 20,834 annually. Mr. de la Fosse writes favourably of them.

"In almost every case the results have been satisfactory, though at first the work in different districts varied considerably. With few exceptions the classes are now favourably reported on. One inspector remarks: 'The training classes started in each district are likely to effect great improvement in course of time. These classes are now conducted on more intelligent lines than was the case before, and one hopes that with the appointment of a special inspector they will be kept quite up to the mark.' Another inspector writes: 'Teachers in vernacular schools are now more methodical in their work, and many of them write notes of lessons which would do credit to masters of English schools.' The system is capable of much further improvement, and as experience is gained changes are being introduced which insure greater uniformity of standard and thoroughness in training. The plan has already passed beyond the experimental stage and has undoubtedly a future before it; for the necessity for doubling the number of these classes has already been recognised and proposals to this end are now being considered. 'They are,' as remarked in an inspection report, 'cheap institutions, and they afford a simple but sufficient training for masters in lower primary schools, thus obviating the necessity of adding to the number of the much more expensive normal schools.'"

710. In the CENTRAL PROVINCES there are 67 training classes attached to middle vernacular schools. The system does not extend to Berar. The Director writes as follows :—

"These classes have a certain value: in the Nerbudda circle they are said to be very useful, and in the Nagpur district they passed more candidates in the five years than were supplied from the normal school. On the other hand, in Chanda, only 13 candidates have passed in five years, and in Wardha none since 1903. Mr. Spence writes: 'The annual reports bear abundant witness to the failure of these classes to accomplish the work for which they were intended. Nor is this surprising, for the masters themselves have not been educated beyond the standard up to which they are required to educate their pupils, and moreover they have also the management of a large school on their hands.' I do not entirely agree with Mr. Spence, and I think that if the vernacular schools to which training classes are attached were selected with more care and the headmasters relieved of some of their work by the appointment of an assistant, a good deal of excellent work might be done in training men who wish to be schoolmasters, but who cannot afford to spend two years at the normal school. As a rule, however, those who pass through the training class are admittedly inferior in quality to those who have been through the rigorous training of a normal school."

"The simplest solution of the difficulty is an increase in the number of normal schools. A normal school for each inspector's circle was recommended by the Education Commission as long ago as 1884, and this we had so long as the Central Provinces were divided into three inspectorships; but the formation of the new Nerbudda circle necessitates the establishment of a normal school at Hoshangabad. The Nagpur and Berar circles each ask for another normal school, and it is evident that there should be a separate one for Muhammadans."

"Mr. Spence writes further: 'A possible line of development which would enable the existing normal schools to supply a large number of teachers would be to separate the general education of the students from their pedagogical training, and by making every candidate for the normal school pass through the vernacular middle school, permit the former to devote its whole efforts to their practical training as teachers. One year would be sufficient for this training, and this would permit the normal schools to turn out annually double the number they do at present. The difficulty (felt in Berar) of getting a sufficient number of boys to take up the middle course might be overcome by the offer of small scholarships tenable in vernacular middle schools. Existing training classes could be worked into such a scheme by being converted into feeders of the normal schools. Failing some development like the above, increased efficiency must be looked for in the direction of simplification of the course of study, by laying more stress upon the cardinal subjects of primary school instruction, leaving the others optional. This would permit more attention to be paid to practical teaching.' The subject is an extremely difficult one, and the proper measures to be taken are now under consideration."

710A. A similar system exists in ASSAM of training teachers by apprenticeships held at high schools and middle vernacular schools. The Director writes :—

"The course is of two years, and stipends are given of the value of Rs. 3 per mensem for two years in the case of candidates possessing only a lower primary certificate, and of Rs. 4 per mensem for one year in the case of those who have an upper primary certificate. When the Guru training schools were abolished in that portion of the province, a definite number of apprenticeships was allotted to each local board. This number was subsequently increased to 250. Six hundred and two pupils were trained under this

system during the quinquennium, at a total cost of Rs. 16,086. The number of apprenticeships will gradually decrease as the number of vacancies to be thrown open to new candidates in the guru classes in the Jorhat and Silchar Training Schools increases. The disappearance of the apprentice system will, it is generally admitted, be a considerable advantage. The system may be capable, under certain conditions, of producing satisfactory results, but it does not appear to be so in Assam. The explanation is of course that it throws upon the masters of middle schools a heavy responsibility, which they are by no means fitted to bear. They are themselves, for the most part, men of indifferent qualifications, and precision of method and clearness of thought are not among their virtues. The result is noticeable in their own teaching and still more when they are training others to teach."

Lower Departments of Training Schools.

711. The only province in which lower departments are attached to the training institutions of the first grade is Assam, and the local Government is sufficiently satisfied with the experiment to improve and extend it, and to permit it to replace entirely the apprenticeship system described in the last paragraph. There are, as has been already stated, two training institutions of the first grade in Assam, one at Jorhat and the other at Silchar, and to each of these has been attached a class for training 60 Gurus. The same buildings and the same hostels are used as for the first grade students, but the teaching is separate and the curriculum simpler. The great fault, however, of the course is that at present it is only of 6 months' duration, and this defect will soon be remedied.

System of Training in Madras.

712. MADRAS.—The system of training vernacular teachers in Madras has hitherto differed from that existing in other provinces, and at the end of the quinquennium it was in a state of transition, having been partly but not wholly recast. In the other provinces, as has been explained above, the system of training mainly depends upon the existence of a few institutions of the first grade, well-equipped and well-staffed, into which students are received after passing the middle vernacular standard of general education, that is to say the 7th standard above the infants, and remain at the training institution for two years, during which they continue their general education and receive training in the theory and practice of teaching. Such training institutions of the first grade are now in most provinces supplemented by inferior systems of training designed for students of lower qualifications, but the influence of the training institutions permeates these inferior systems also, since the teachers who administer them have been trained at the first grade training institutions. In Madras there are at present no training schools of a kind corresponding to those of the first grade in the other provinces, but there are 44 training schools for masters, at which students receive a course of training which qualifies them to have charge of primary schools. At the beginning of the quinquennium primary schools which have three classes above the infants were known as lower primary, those which have four classes above the infants were known as upper primary, and those which have seven classes above the infants were known as lower secondary. The principle upon which the admission to training was arranged was that students who had passed through an upper primary school might by one year's training at a training school become qualified to have charge of lower primary schools, and those who had passed through a lower secondary vernacular school were qualified after one year's training to have charge of upper primary schools. The training institutions in which these courses of one year's training were given had great defects. The limitation of the course to one year provided an insufficient time of preparation for the work of a teacher, and this course was entirely confined to professional training, that is to say it included no extension of the general education of the student. The practising schools were poorly attended, and the students received insufficient practice in teaching. There were stipends for the students, but there were no hostels provided for their residence. The practising schools had no staff of their own, but were taught by the training masters and the students. The staff of training masters was inadequate and poorly paid and their qualifications were low. Shortly before the beginning of the quinquennium the training

schools were placed under the inspection of a special inspector, who combined with this work the duty of inspecting European schools; and Mr. Stone, the first incumbent of this office, made an exhaustive report upon this system, in which he wrote:—

"I think the above account of the primary teacher's general and technical education is enough to show that his general culture is almost ludicrously inadequate, not only for providing him with the subject matter of his teaching, but as a basis for any valuable technical training. I do not deny that his year in the training school does him some good. He does get hold of some notion of how to set about his work, and his mind must be to some extent enlightened by association with his teacher and his comrades, and by the work he does. At the same time, I do not think any apologist for our system would say that the ordinary trained and certificated primary schoolmaster is fit to teach a class and still less to manage a school even under the existing curriculum, or that as long as the bulk of the teaching in elementary schools has to be done by primary teachers of the class I have described any substantial improvement in the quality of the education given in these schools is possible."

713. The Madras Government thereupon took in hand the revision of the training schools, and during the quinquennium effected great improvements in the lower classes of training institutions, intended to train students whose preliminary qualification consists in having reached the fourth standard. They also intend to establish training schools of the higher grade for students of higher preliminary qualifications, but this change had not yet been carried out at the end of the quinquennium. In the institutions of the lower kind the course of training has been extended from one to two years. The general education of the students is continued during these two years and they receive professional training in addition; many of the training schools are being rebuilt, the practising schools are being provided with a complete staff of their own, and the pay of the training masters has also been improved, and trained graduates are being appointed to the headmasterships at them. The passed students are called probationary teachers, and they do not receive their final certificate until they can show eighteen months' satisfactory work as teachers in schools and satisfy the inspector of their practical ability in teaching.

714. The course of training is thus described by the Director:—

"In elementary training schools the course is normally two years, and is mostly concerned with general education. The subjects of instruction are the vernacular language, arithmetic and experimental geometry, geography, civics, nature study, drill and garden work, kindergarten occupations and training. For mistresses, civics and drill are replaced by needlework and calisthenics, and geometry is omitted. Optional subjects, such as a second language, music, manual occupations, hygiene, agriculture, may be added. The professional part of their training consists in elocution, blackboard work (writing and drawing), teaching in the model school under supervision, and having model lessons. The students also gain ideas on school organisation, discipline and methods of teaching, not so much by formal lectures as by observation of the practice in the model school, and in the case of the last subject by the mode of presentation of the various subjects of their general educational course."

715. Candidates for admission to the training schools are selected from the following classes:—teachers in public schools, persons about to become teachers in schools under public management, teachers in village schools about to come under departmental supervision, persons about to become teachers in public schools, and persons desirous of adopting the teacher's profession. They are recruited by the agency of the circle inspector. Dr. Bourne writes:—

"It is not an easy matter to fill the training schools in the elementary grade, as the pay and prospects of the teachers' profession are not such as to tempt men to sacrifice a year or two away from their homes to qualify themselves for it, and the fact that the schools are as full as they are is perhaps mainly due to departmental pressure. The annual outturn of trained teachers is probably little more than sufficient to repair the wastage in the numbers of elementary teachers by death and retirement, and many years must elapse before the elementary schools are all staffed by trained teachers."

716. In the year 1907 there were 1,451 students under training in the 44 training schools, as compared with 982 at the beginning of the quinquennium. Thus the average number of students at a training school is 33.

"The policy in this presidency," writes Dr. Bourne, "has been to make the schools as accessible as possible geographically to the prospective teachers and to avoid transporting them away from their native districts, rather than to concentrate the schools at

a few centres. To this must be ascribed the comparative smallness of the strength of the individual schools. Independently of this consideration, there is an advantage in having small rather than large classes, as they are more easily handled and each student can receive more individual attention."

717. The following quotation shows their location and management :—

"With the exception of one small training class attached to the Olcott Schools in Madras, training institutions in this presidency are managed either by the Government or by missionary agencies. Practically, in each district there is one Government training school for masters. In one or two districts which are bilingual or in which special classes of the community have to be provided for, two or even three Government schools exist. For instance, in Ganjam there are three training schools, one Uriya, the second Telugu, and the third for the Agency Tracts. In Malabar there are also three, one of which is specially for Mappillas. In the city of Madras there are two training schools, one for Muhammadans and the other for Panchamas, which serve the whole of the presidency. The training schools under private management, all of which are aided, are so placed as best to serve the needs of the missions which maintain them."

718. The following particulars are given of their accommodation :—

"Much was done during the period to improve the accommodation of Government training schools. Commodious new buildings were erected at Chittoor, Kurnool, Bellary and Nellore; the building at Rayachoti was extended, and those at Salem and Trichinopoly improved. A type design for training schools was drawn up by the Consulting Architect in consultation with the inspector, of which Mr. Stone writes as follows:—"The design makes provision not only for class rooms for teaching work of the ordinary kind but for others specially designed for that of training schools—criticisms and model lessons and blackboard work. Great attention has also been paid in the plan to lighting and ventilation, avoidance of noise, and easy communication between the different parts of the buildings." The building at Nellore was on this design; a similar building at Villupuram was nearly completed at the end of 1906-07. New buildings at Dindigul (to accommodate the school now held in Madura), Tinnevely, Chicacole, Anantapur and Malappuram have been sanctioned. Schemes for new or reconstructed buildings at Guntur, Salem and Saidapet are in various stages of progress. Most of the aided training schools are provided with satisfactory buildings.

"The furniture and equipment are being improved; maps, geographical books and simple scientific apparatus have been supplied to all the schools. The special feature of the quinquennium was the introduction of school museums and school gardens. All the Government schools whose situation permits them contain gardens, and all but one or two have museums."

Most of the aided schools have arrangements for boarding their students, but hostels have not been yet provided at the Government training institutions, and the Director remarks that there is little doubt that such provision would add to the efficiency of the training.

719. In addition to the 44 training schools described above there are also in Madras some sessional schools established by local boards, and having for their object to prepare pupils for admission to training schools. They number 219 pupils, and their inclusion in the statistics brings the strength of training schools for masters in Madras up to 1,670 pupils.

System of Training in Burma.

720. BURMA.—In Burma, also, the system of training vernacular teachers was under revision at the close of the quinquennium. The system as existing during the quinquennium was as follows:—Pupils who have passed the fourth standard and intend to become teachers are sent for two years to a normal school, where they are trained in the theory and practice of teaching and where they also continue their general studies up to the 6th standard. Thus in two years they pass through two standards, which is the ordinary rate of progress for a pupil who is not receiving normal training; and the students under training receive this instruction in the standards by attending school together with other pupils who are not under training. Consequently the only time left for their professional training is out of school hours, and the normal school exists in order to provide this. While residing at the normal school the pupils receive stipends at the rate of Rs. 7 a month. At the end of their two years' course they pass an examination in the theory and practice of teaching, and they must then teach continuously in school for two years, after which they are examined in their practical ability in teaching, and if they pass this test receive a complete certificate. Such a certificate

is considered to render them eligible to have charge of schools up to the fourth standard, *i.e.*, up to the standard of general education which they had reached before entering the normal school. A certificate of this kind is called the primary grade certificate.

721. There is a higher grade of certificate, called the secondary vernacular certificate, which qualifies the holder to teach up to the 7th standard; and this certificate is obtainable by pupils who pass the 5th standard before entering the normal school and who receive a course of two years' training, during which they study in an ordinary school up to the 7th standard and receive professional training in the theory and practice of teaching out of school hours.

Both these classes of students are taught at the same normal schools, and it is open to them to spend a third year at the normal school whereby they obtain a special certificate of a higher grade.

722. Some of the normal schools contain classes, not only for vernacular students, but also for Anglo-vernacular students under training; some receive only vernacular students; some receive only Anglo-vernacular students. Those which receive vernacular students, whether alone or in combination with Anglo-vernacular students, are six in number. Four are managed by Government and are situated at Mandalay, Moulmein, Akyab and Toungoo. Two are under private management, one in connection with the American Baptist Mission college at Rangoon and the other in connection with a Roman Catholic mission at Thônzé. The Government school at Toungoo and the Roman Catholic school at Thônzé receive only vernacular students; the remaining four receive both vernacular and Anglo-vernacular students.

723. Figures are not available to show the number of vernacular students attending these normal schools. There are also two normal schools which receive Anglo-vernacular students only, *viz.*, a Government and an aided school at Rangoon. In the eight normal schools which exist in the province both for Anglo-vernacular and vernacular students there are 448 students, as compared with 389 five years ago. This includes 71 female students attending training schools for masters. The total expenditure of the normal schools in 1907 was Rs. 89,291, of which Rs. 84,269 was met from provincial revenues.

724. In addition to the training provided in normal schools, there is a pupil teacher system in Burma in the vernacular but not in the Anglo-vernacular schools. A candidate is required to have passed standard IV before being admitted as a pupil teacher, and his term of service is three years, during which he passes the higher standards at the rate of one a year, and is expected also to receive practice in teaching and instruction in the theory of teaching. Selected pupil teachers are sent in their third year to a normal school for a course of training. The number of pupil teachers employed at the end of the quinquennium in vernacular schools was 428, which was a diminution of more than a hundred since five years ago.

725. During the quinquennium the number of normal schools in Burma has been raised from six to eight by the provision of two new normal schools, both managed by Government, at Rangoon and Akyab. The first of these has a new building of its own, and the other is located in a hired house. Schemes for the improvement of the premises of normal schools have been under consideration during the quinquennium but have not yet been carried out. The number of students under training in Burma is insufficient to provide an adequate supply of trained teachers, and this difficulty is aggravated by the fact that some of the successful normal students drift into other professions. Of the contemplated revision of the Burma system of training the Director writes as follows :—

"The lowness of the qualifications for admission and the unsuitability of the final literary tests, the unsatisfactory position of the professional work and the misuse of the opportunities that normal schools provided, together with the generally confused exposition of the rules in the code, called for a comprehensive revision, which was undertaken in 1906-07. The new normal rules have since been sanctioned and will be applied from January 1908. Under them the ages of and qualifications for admission have been raised, improved literary courses (including a vernacular course corresponding to the higher grade) not synonymous with, though not opposed to the ordinary Anglo-vernacular or vernacular school standard courses, and a revised professional course will be

introduced. The rates of stipends awarded to normal students will be raised from Rs. 7 to Rs. 10, and a higher scale of pay will, if funds are available, be permissible for normal school staffs.

Statistics of Pupils and Expenditure.

726. The following tables show, as nearly as the statistics permit, the total number of vernacular students under training in schools for masters, and the expenditure upon them :—

Training Schools for Masters.

	1902.		1907.	
	Institutions.	Pupils.	Institutions.	Pupils.
Madras	59	1,198	61	1,670
Bombay	7	614	7	1,078
Bengal	23	781	119	1,755
United Provinces	5	417	54	982
Punjab	5	261	5	401
Burma	6	389	8	448
Eastern Bengal and Assam	22	420	51	1,102
Central Provinces and Berar	4	273	5	370
Coorg	1	13	1	27
North-West Frontier Province	...	...	1	25
TOTAL	132	4,596	312	7,856

Expenditure on Training Schools for Masters.

Province.	1902.	1907.
	Rs.	Rs.
Madras	1,42,345	1,84,800
Bombay	1,07,560	1,42,674
Bengal	90,282	1,60,087
United Provinces	55,916	1,13,526
Punjab	34,688	62,732
Burma	48,205	89,291
Eastern Bengal and Assam	22,100	79,116
Central Provinces and Berar	35,044	58,335
Coorg	1,620	2,903
North-West Frontier Province	...	4,385
TOTAL	5,32,755	8,97,809

727. In Madras the figures both of pupils and of expenditure include the training schools for masters and also the sessional schools; and the training schools for masters include, as explained above, a few secondary students.

In Bombay the figures relate only to the vernacular training institutions. In Bengal the figures relate only to vernacular training, and include both the training schools and the Guru training classes. In the United Provinces the figures relate only to vernacular training, and include both the normal schools and the training classes for pupil teachers. In the Punjab the figures relate only to vernacular training, and include the normal schools, but not the vernacular class, numbering 96 students, attached to the Central Training College. In Burma the figures relate to the normal schools as a whole, containing both vernacular and Anglo-vernacular pupils. In Eastern Bengal and Assam the figures relate only to vernacular training, and include the training schools and also the Guru training schools, but do not include the pupil teachers. In the Central Provinces the figures relate to the training of vernacular teachers only; but they do not include the pupil teachers.

Agricultural Courses.

728. Among the improvements introduced into the curriculum of the training colleges are not only an extended use of Kindergarten methods and object lessons and drawing, but also agricultural courses, which have been introduced in some provinces for the benefit of vernacular schoolmasters in training. When properly arranged, the purpose of these courses is not to turn the village schoolmasters into agricultural teachers; but to cultivate in the teachers the habit of observation as applied to the ordinary surroundings of rural schools, and to furnish them with a basis of some positive knowledge of the principles of the growth of plants, in order that they may be better qualified, when serving in rural schools, to give suitable object lessons. Opinions seem to be settling towards the view that the proper place at which to provide these agricultural courses is the training institutions themselves. In the CENTRAL PROVINCES the system has been to draft the teachers from the training institution to a farm school for a six months' course. A similar system was intended to be pursued in the PUNJAB by the drafting of teachers to the Agricultural College at Lyallpur, but this project has not been carried out, and one obstacle to it is the lack of inducement to the student to undergo additional training without receiving additional pay; consequently, in the Punjab, some training of this kind is at present given at the normal schools, three of which have rented small plots for illustrating the agricultural lessons, but it is stated that only one of the instructors has any qualifications for giving this kind of instruction.

729. In MADRAS and BOMBAY it has been thought preferable to attach agricultural teachers to the training institutions themselves. In the UNITED PROVINCES, "an agricultural class was opened at the Moradabad Normal school in 1902-03 for training teachers in the principles of agriculture, with a view to their serving as agricultural instructors in vernacular schools; but as there was no demand among the agricultural population of these provinces for such teachers the class did not justify the expenditure incurred upon it and after two years it was closed." Mr. Sly, the Inspector General of Agriculture, in his paper on school gardens, wrote upon this point :—

"Two systems of training are under trial in India. The first consists of a short course lasting about six months in a special class attached to an agricultural school or college. I have had considerable experience of this system at Nagpur. There the Education department has avowedly aimed at a dual object; they have endeavoured not only to give a training in nature study, but also to teach the students some elementary knowledge of improved methods of agriculture, in the hope that they would become not only good schoolmasters but also useful members of the village community in introducing new ideas about agriculture to the children's parents. I can confidently say that in nearly all cases the second object has not been realized, more harm than good resulting from attempts at agricultural improvement by such an agency, whilst the training of the student as a schoolmaster has much suffered. The instructors have imparted to their students a smattering of the agricultural sciences, which is quite insufficient to produce any real result, and have neglected their primary duty of imparting instruction in methods of nature study. The chimera of attempting to introduce improved agricultural methods by the agency of schoolmasters should be wholly abandoned, and the training confined to the single purpose of producing schoolmasters equipped with a full knowledge of the methods of nature study. Even with this change, there remains the strong objection that a course at an agricultural college is divorced from all other training in pedagogy. The shortness and concentration of the course enable a large number of masters to be trained in a short time, but the tendency towards cramming is

thus encouraged. The principles should permeate the whole course of training and not be confined to a short separate course. For these reasons, I am personally of opinion that better results will be secured from instruction in a Training college where the method is systematically taught throughout the whole course, provided that proper arrangements for teaching are made at the college. The success of the institution will largely depend upon the instructor, who must possess two qualifications, a knowledge of agriculture and a knowledge of methods of teaching. In addition to a knowledge of plants, animals and other natural objects, he must possess 'an intimate knowledge of the laws of development of the child, how the mind operates, the needs and interests of the child, its activities and its sympathies.' These qualifications can only be secured by selecting a candidate who is a graduate of an agricultural college, and who has also passed through a course of instruction in methods of teaching at a Training college. It will thus be necessary either to select an agricultural graduate and put him through a course at a Training college, or to select a good student from a Training college and send him to an Agricultural college. In the selection of such a candidate, the personal element is all important, for the instructor must be an enthusiastic believer in the principles that he is to teach. The equipment of the Training college must also be suitable, including provision for indoor study and outdoor practice. There should be a reading room and library equipped with the most useful books on pedagogy and nature study; a class room completely fitted with material for indoor experiments; a practice room where the student can try his prentice hand; and above all a plot of land for outdoor work. The plot of land need not be large, but it is very important that it should be managed on correct principles. At one training institution, I found that the school farm was worked like an agricultural experiment station, comparative tests being made on fairly large plots of different kinds of manures. This seems to be a radical misconception of the province of a school farm. It is all right to plan an object lesson in the utility of manure, but this is very different from attempting to solve an agricultural problem of the comparative value of several kinds of manure. The main object of the school farm should be to train the masters in the method of managing a school garden and of growing and utilizing its object lessons. There should be a model school garden, and in addition each student (or group of students) should have a separate plot to work as a school garden. There may also be other plots to show object lessons on a larger scale. Again I would recommend close co-operation between the Education and Agricultural departments in the management of Training colleges for rural school-masters. The Agricultural department should help in securing a really efficient instructor, should advise as to the curriculum, should inspect the school farm, and should assist in the examinations."

Training of Female Teachers.

730. The chief difficulty with which female education has to contend is the scarcity of qualified teachers. Training institutions for women are doing more than they have formerly done to supply this deficiency, but the outturn of trained teachers from them is still quite inadequate. There is no lack of demand for their services when they have been trained, but the profession does not attract them, and there is complaint from all sides of the impossibility of inducing them to take up the work in sufficient numbers. The following quotation from a report by Miss Brock, inspectress of schools in Bengal, is but one example of many in which similar thoughts are expressed:—

"The great obstacle to the furtherance of female education still remains, I am convinced, the want of female teachers. On the mission side the output from the training classes during the last three years has been extremely promising, both in the number of trained teachers and their improved quality. In the training class for Brahmos attached to the Brahmo Girls' School, Calcutta, the numbers are very small, and the quality of the training distinctly inferior to that given in the mission training classes. As regards Hindu and Muhammadan teachers, the only attempt to secure them as yet made has been by means of the classes, misnamed "training classes," for Hindu and Muhammadan widows. . . . Were it not for the above difficulty regarding the supply of teachers and their inefficiency, I should be inclined to think that the possibility of educational work in *zananas* and *purdah* institutions was more promising than it has ever been. I have marked during the last three years a steadily growing demand for teaching in *zananas*. Had I the teachers for it, there are few large centres where important work of this kind could not be started. *Zanana* teachers seldom find any difficulty in getting pupils, and it is in a large number of cases found possible to group them together in small classes. But the poor qualifications of the only teachers to be found do not encourage me to recommend their appointment very frequently. As I am coming more in touch with *zananas*, I hear in them strong and well merited criticism of the kind of teachers employed, and am frequently requested by pupils and their relations to obtain better qualified women. It is a fact that at present we are forced to appoint at a high salary women who can only read and write, without being able to compose a simple letter in their own tongue, and who have no pretensions to a knowledge of either arithmetic or needle-work."

It is, however, satisfactory to observe that where increased facilities for the training of female teachers have been provided, candidates have usually been forthcoming in numbers sufficient to justify the expenditure incurred.

731. The statistics show that there are 1,456 female students under training as teachers, and they are distributed as follows:—

In colleges for men	6
In colleges for women	30
In training schools for masters	153
In training schools for mistresses	1,267

The female students at training colleges for men are five in Madras and one at Allahabad; in training colleges for women, one in Madras and twenty-nine at the two training colleges for European women in the Punjab; the female students at training schools for masters are thirteen in the Madras training schools, fifty-two at a Bengal female training department wrongly classed among the institutions for men, seventy-one in Burma, distributed among the training schools for masters, thirteen in Eastern Bengal and Assam and four in Coorg. The female pupils in training schools for mistresses are thus distributed:—

Madras	368
Bombay	223
Bengal	300
United Provinces	174
Punjab	72
Burma	94
Central Provinces and Berar	36
TOTAL	1,267

732. The total numbers under training, as shown in the statistics for 1902 and 1907 respectively, are as follows:—

	1902.	1907.
Madras	351	387
Bombay	234	223
Bengal	525	352
United Provinces	105	175
Punjab	0	101
Burma	159	165
Eastern Bengal and Assam	26	13
Central Provinces and Berar	23	36
Coorg	...	4
TOTAL	1,423	1,456

This comparison, however, does not quite fairly represent the progress made in the five years. In BOMBAY there has really been not a diminution but an increase of female students under training, but owing to a statistical accident, the number of pupils present on the 31st March at the large training college at Ahmedabad is returned as *nil*. The average number on the rolls at this college was 117, and therefore the figure of students under training at Bombay should stand at about 340. Again, in BENGAL, the figure 525 returned five years ago was altogether fictitious; it represents not the number of students in training but the total number of girls under instruction at certain schools at which a few of the elder students were trained for teaching. The number entered in 1907, however, (with the probable exception of the fifty-two said to be under training in schools for masters) consist entirely of *bonâ fide* students under training. In the PUNJAB, the figure for 1902 includes, while that for 1907 omits, girls present in training classes attached to certain schools: such pupils probably number between 30 and 40. Lastly, in the CENTRAL PROVINCES AND BERAR, the figures for 1907 omit girls under training at classes attached to schools, who number probably between 80 and 90. Thus there are really between 1,650 and 1,700 female students under training in 1907, as compared with probably less than 1,000 in 1902. The number is,

however, altogether inadequate to meet even the actual demand for trained female teachers, and its inadequacy is rendered more prominent when analysed by the race or creed to which the students belong. The 1,456 female pupils returned in the statistics as undergoing training are thus composed :—

Europeans and Eurasians	207
Native Christians	846
Brahmins	88
Hindus, non-Brahmin	204
Muhammadans	70
Buddhists	32
Others	9
TOTAL	1,456

733. The Europeans and Eurasians look chiefly for employment in European schools, and the native Christians look for employment in missionary schools. Mr. Earle, the Director in Bengal, wrote in his report in 1906 :—“Now, good though the work done by the Christian mission training schools is, these classes may practically be left out of account because they provide teachers almost entirely for Christian girls' schools. Moreover, strenuous objection is raised nearly everywhere to Christian women teachers, while even Brahmo women teachers are not by any means universally welcome. The crying want is therefore for good Hindu and Muhammadan female teachers.” In Madras, 327 of the female students under training are Europeans and Eurasians or native Christians, and in Bengal 313. Bombay alone has so many as a hundred Hindu female students in training. The particulars for the provinces are given in table 172 in volume II.

Institutions and Pupils.

734. At the beginning of the quinquennium there were 46 training schools for mistresses and at the end of the quinquennium there were 63. The Government of India addressed all the local Governments in 1901, suggesting that where possible the facilities for training female teachers should be increased both by the establishment of additional Government normal schools and by the encouragement of those under private management. The Government normal schools at that time numbered only eight, viz., five in Madras, two in Bombay and one in the Central Provinces. The number of Government schools has now risen to twelve; five new schools having been provided, and one in Madras, at Vizagapatam, having been closed. The Bombay Government have established a new training school at Dharwar, a school for the training of teachers has been opened at Dow Hill, Kurseong, which is a Government institution; Government normal schools have been opened at Lucknow and Lahore, and a second normal class at Nagpur. Thus the list of Government normal classes now stands as follows :—

Province.	Name of Institution.	Number of pupils.	Annual expenditure.
Madras	Presidency Training School, Madras	57	R 8,475
	Hobart Muhammadan Training School, Madras.	5	2,955
	Coimbatore Training School	29	2,491
Bombay	Calicut Moyan Training School	19	3,109
	Poona Training College	87	14,645
	Mahalaxmi Training College, Ahmedabad	117	13,854
	Dharwar Training College	23	3,393
Bengal	Dow Hill Training School	20	2,755
United Provinces	Lucknow Normal School	41	11,003
Punjab	Lahore Normal School	72	11,912
Central Provinces	Normal School, Jubbulpore	36	13,790
	Normal School, Amraoti		

Practically the whole cost of these institutions is met from provincial revenues. The students are provided with stipends, and, except in Madras, with residential quarters.

735. Although the difficulties in obtaining suitable candidates for training are very great, yet all the new institutions which have been opened have succeeded in overcoming them. The Dharwar training school is at present an exception to the general statement that the schools are residential, but new buildings are under construction and will soon be ready for occupation, and the institution will be raised to the level of the colleges at Ahmedabad and Poona.

736. In BENGAL, the training school at Dow Hill is for Europeans. It is intended to establish two training colleges for mistresses at Calcutta and Bankipore, and two ladies have been deputed from Bengal to undergo training in England in order to take charge of these institutions.

737. Of the Lucknow normal school Mr. dela Fosse writes :—

“The progress of female education in the United Provinces has been hampered as much by the dearth of female teachers as by the prejudices of the people and the strictness of the *purdah* system. The first need, therefore, was a school which should educate as well as train women for the profession, and in 1902 the Government decided to utilize a portion of the Government of India's five lakh grant upon opening a normal school at Lucknow. It was necessary to proceed tentatively and cautiously and to be content with a very low standard of work; but the school, which started experimentally and amid many misgivings, has now become well established and taken its place permanently in our educational system. It commenced its existence in a hired house with only 14 students, five of whom were boarders, and the municipal girls' middle school, with sixty pupils, served it as a practising school. Despite the drawbacks of unsuitable quarters and unsatisfactory surroundings, the school soon showed promise of success. The number of the students rose to 22, and had then to be limited for lack of accommodation. It was then felt that steps could safely be taken to provide the school with a home of its own; and a school building, a boarding house, and quarters for teachers were erected in a healthy and quiet situation. The school has but recently moved into its new home, but already the boarders have risen to 41, and the day-scholars have more than doubled their number. It cannot yet be said that the school has succeeded in supplying qualified women teachers; but the outlook is distinctly hopeful, and the time has arrived for improving the training given there and raising the standard of attainment.”

738. Of the normal school in Lahore the Director writes :—

“This much-needed school was established in Lahore on January 4th, 1905. The school shows a marked advance, and is now in all respects in good working order. Owing to the appointment of a Pandit at the close of last year, the teaching work is now carried on in all the three vernaculars—Urdu, Gurmukhi and Hindi. The full staff has been sanctioned both for the normal school and its practising school. The difficulties of teaching full grown women who have been for some time out of school are very great. They so quickly forget. This necessitates a good deal of preliminary teaching before they can begin the normal course. One great gain is the marked improvement in the general use of the blackboard. Last year it was necessary in most instances to teach the women how to hold a piece of chalk, and the result, if not encouraging, was often amusing. That is now a thing of the past, as most of this work is neat and the women have learned the need of the constant use of the blackboard. There is also an improvement in class teaching. When the school was started it was practically necessary to teach each pupil, individually; but now class work as such is regular. ‘During the latter part of the year,’ says Mrs. Gilbertson, the head mistress, in her report, ‘several village women have joined the school, and many applications from this class of women are being received, which is encouraging.’ Owing to the outbreak of plague the school was temporarily closed; but, as the virulence of the plague increased, more particularly in that part of the city where the school is situated, the re-opening of the school was deferred, and in consequence the Certificate Examinations were abandoned. These examinations have since been held with excellent results. After two years of such work as the school has accomplished it is not too much to consider the school as now well established. But with buildings in no way designed for the purpose and situated in a quarter of the city notoriously subject to plague, the work of training female teachers is at the best carried on in very unfavourable circumstances. The school, together with its practising school, must be properly housed if it is to meet to any extent the great demand made upon it. Most of the women are willing to take up work out of Lahore. One woman returns to Patiala, one to Multan. Four women of the Dev Samaj return to their various villages. ‘The women who left us last year,’ says the head mistress, ‘came to see us during their winter holidays. They looked happy and prosperous, and I have learned from their inspecting officers that they are doing satisfactory work. This visit has had a good

effect on the present class' The boarding house arrangements are the same as last year. A building some distance away is rented for Hindus under the charge of a Hindu superintendent. Some of the rooms of the school *haveli* which cannot be used as class-rooms are given up to Muhammadan boarders, of whom the head mistress says, 'there are four under my charge; others make their own arrangements, which is not at all satisfactory. Of the school students, 2 are Indian Christians, 10 Brahmins, 25 non-Brahmin Hindus, 4 Sikhs, and 31 Muhammadans. Of the boarders, 7 are Hindus, 6 are Muhammadans, and 1 is a Christian.'

739. There are only two training schools for mistresses under the management of local bodies, *viz.*, one at Hyderabad, Sind, with five pupils, managed by the local board, and one at Karachi, with thirteen pupils, managed by the municipality. Of the latter Mr. Selby quotes the following account by Miss Chubb, the Inspectress of Schools:—

"Karachi, with its more mixed population of Gujratis as well as Sindhis, and where the *purdah* system is less strong, is able to attract more students to the normal class. In fact all the stipends available are used and more could be utilised. Useful work is done in preparing teachers for the municipal schools. The standard is not a high one, and I consider that it would be a distinct advantage if after two years' experience as teachers a higher examination could be taken. The fact that all the municipal teachers meet in the normal class for instruction once a week has done much to improve the teaching and promotes *esprit de corps*. The municipality have generally awarded prizes for improvement, and this is very encouraging to the teachers."

740. The Native States which fall within the area of our educational statistics maintain one training school for women, *viz.*, Barton College, Rajkot, which has 24 students. Mr. Selby writes that since its foundation in 1884 it has sent out 169 trained mistresses and that there is hardly a girls' school in that State without trained teachers.

741. In pursuance of the policy of encouraging the spread of training schools under private management, the number of these institutions has grown from 34 to 48 in the period under review. These are chiefly managed by missionaries and are connected with girls' schools under the same management. Their separation from the girls' school and their existence as distinct training departments is more or less complete according to their size; the largest of them being provided with a separate staff of training mistresses and housed in quarters of their own, and the smallest of them being small classes of a few girls who are reading in the standards and also receiving some instruction in the theory and practice of teaching. Some of them are intended exclusively for Europeans, and some in Bombay specialise in kindergarten work. The principal change to be recorded in the condition of the privately managed training schools is the reconstruction of the system in Bengal. It has been mentioned above that the statistics of girls under training in these classes at the beginning of the quinquennium in Bengal did not bear close examination. The number of pupils returned as present in them was not the number of students under training but the total strength of the schools to which the classes were attached. "It is impossible," writes Mr. Hornell, "to estimate how many female students were under training as teachers when the matter attracted the attention of the Government of India, or how much of the total grant which was being paid to these schools was on account of the training work which they were attempting. It is noticeable, however, that when the lady principal of one of these schools was addressed in connection with the scheme for increasing the out-turn of trained female teachers she explained in reply that the number of girls even fit for training was but a small proportion of the girls who attended her school."

Miss Brock, the newly appointed inspectress of schools, surveyed the situation in 1904 and proposed a system under which students under training could be identified as distinct from the pupils in the schools, and could be classified according to their educational attainments and provided with suitable courses of instruction.

742. Under this reorganisation eleven classes were recommended for recognition and received special aid, and this number has now grown to 17. In 1905 forty-three candidates were presented for the certificate examinations, in 1906 sixty-seven, and in 1907 ninety-three.

"The training classes," runs the latest report, "continue to show steady improvement, and are doing excellent work. Every year marks an improvement upon the

quality of the teachers produced. Methods are improving, and the general education of the teacher is being carefully attended to during the course of training. There is also beginning to be a strong desire in the best training classes to spend at least two years in the course and to proceed to the senior certificate after taking the junior."

743. An attempt has also been made in Bengal to develop classes for the training of widows to be teachers. These classes have resulted in some elementary instruction being imparted to a certain number of Hindu and Muhammadan widows, but not in making teachers of them, and the reasons for this appear to be three:—

- (1) that their general education is, to begin with, so low that they must receive an ordinary course of primary instruction before they are qualified to receive any training as teachers;
- (2) that there is a dearth of trained teachers qualified to instruct them;
- (3) that they have the usual disinclination to the profession of teacher.

"I have never known any of the pupils in these classes develop into teachers," writes Miss Brock, "and the majority of them would be horrified at the idea of leaving their native village and natural protectors."

744. UNITED PROVINCES.—Mr. de la Fosse selects for description two institutions:—

"*Sigra Female Normal School, Benares*.—This school, which is maintained by the Church Missionary Society for the training of native Christian girls, more especially for employment in Mission schools, and which was until recently the only school of its kind in these provinces, is reported to be doing good work. This year there were 95 students on the rolls. During the quinquennial period Government gave an additional grant of Rs. 600 for the award of stipends to students who were unable without assistance to complete their course. Also the staff of the school has been strengthened by the addition of a trained certificated teacher sent out by the Mission from England.

"*Isabella Thoburn College Normal School, Lucknow*.—Training classes for female teachers in Anglo-vernacular schools have been opened in this institution, with a curriculum resembling that of the Allahabad Training College. Last March eight girls were being trained in the senior and six in the junior course. Three years ago there were twelve students under training. The classes are reported by the inspector to be ably conducted under the superintendence of the principal. The institution receives a Government contribution of Rs. 200 per mensem on account of the normal school. It was noted in the last annual report that the school cannot turn out anything like a sufficient supply of trained teachers to supply the demand for teachers in schools and governesses in private families."

745. PUNJAB.—In the Punjab, besides the Government Normal School at Lahore, there are some training classes the pupils of which have not been included in the statistics of students under training. The Director mentions seven such classes attached to schools at Lahore, Delhi, Amritsar, Sialkot, and Gujranwala, and they appear to turn out about ten trained teachers annually. He writes:—

"Training in the Christian schools is good, being under the management of English ladies acquainted with modern methods. In kindergarten teaching especially great advance has been made in the last two or three years."

The training of women teachers for European schools in the Punjab has received a great impetus from the opening of training classes at the Roman Catholic Convent, Simla (St. Bede's), and Auckland House Church of England School. These had 21 and 8 pupils respectively at the end of the year.

"The examination results were excellent," writes the Director, "as out of 9 candidates who appeared from St. Bede's College 7 passed, 3 standing in the first division and 4 in the second. No candidates appeared from the training class attached to the Auckland House School, as it was not started till the beginning of April 1906. Two college scholarships were held in the Auckland House training class and 7 in St. Bede's College. In addition to these scholarships, 17 stipends of the value of Rs. 30 each are given to students who are not members of religious orders. These institutions are doing exceedingly good work, and should, in the course of a few years, work a great reformation in the general teaching of European girls' schools."

746. BURMA.—The Director writes:—

"No normal school for mistresses has been opened by Government, though female pupils may and do attend the Government normal schools. The number of such female students is 71, of whom the majority attend Anglo-vernacular schools. The aided schools for mistresses (which except in certain optional

and technical subjects follow the same course as those taken by men) dwindled by two, the decrement being due to the abolition of the vernacular normal class at the Old Convent, Rangoon, and the Anglo-vernacular one attached to St. John's Convent. There has also been a loss in pupils attending female normal schools, their total now standing at 94 only as against 111 in 1901-02. The inspector of normal schools, however, states that the students of the abolished institutions joined the Government Normal School, Rangoon, 'so that there is no loss in efficiency.' He notes, however, that vernacular girls show an increasing reluctance to take up vernacular normal work and prefer the anglo-vernacular courses, naturally, since they lead to much higher pay and English is a fashionable accomplishment. The normal schools for mistresses are distributed at large centres where English can be easily acquired and where a knowledge of it is comparatively common. General surroundings therefore also tend to draw girl students towards English. The inspector of schools, however, adds that the number of girl students in the vernacular classes at Toungoo and Mandalay remains satisfactory, and the supply of trained female vernacular teachers will probably be equal to the demand."

747. CENTRAL PROVINCES.—In the Central Provinces, no training institutions under private management appear in the statistics, but facilities have been given during the period under review to aided schools which satisfy the department that they are able to prepare students for the examinations held for the students of the Government normal schools, and the Director remarks as follows upon this development :—

"The training of schoolmistresses has made a certain amount of progress. In place of one normal school and no training classes (total 5 candidates) in 1902, there are now two normal schools and 14 training classes (total 123 candidates). This very marked improvement is largely due to the mission societies, which manage 11 out of the 14 schools with training classes. The passes from these schools were 40 in 1906."

748. EASTERN BENGAL AND ASSAM.—In Eastern Bengal and Assam there were at the end of the quinquennium no arrangements for training female teachers, but proposals were then under consideration. The thirteen female students returned as studying in training schools for masters are all native Christians.

Courses of Study.

749. Generally speaking, the courses of study are so arranged as to be suitable for girls who have passed the fourth vernacular standard and also to be suitable for those who have passed the fifth or sixth vernacular standard when such candidates can be obtained. Usually the training consists of continuing the general education of the student and at the same time giving her some practice in teaching and some instruction in the theory of teaching, and the course usually lasts for two years. The conditions under which a certificate is obtainable are made as little onerous as possible, and certificates of a lower grade are sometimes issued to those students who have been through the course, but failed to pass the examination, or to those who take an incomplete course. The arrangements thus summarised may be stated more in detail as follows :—

750. MADRAS.—In Madras, the training schools for mistresses have, like those for masters, been reorganised so that students in elementary training schools (who are selected for admission to those schools which are under Government management by circle inspectresses) undergo a course of two years' study, during which they continue their general education and are trained in teaching. The subjects are the same as for men, except that mistresses study needlework and calisthenics instead of civics and drill, and omit geometry. The secondary training schools for women, like those for men, continue to give a one year's course. The students at training schools for mistresses were thus distributed :—

In the upper secondary training class	18
In the lower secondary training class	271
In the primary training class	79

751. BOMBAY.—In Bombay, the different training colleges have different courses of their own; the lowest standard of admission to the Poona college is the fourth vernacular standard and at the Ahmedabad college the fifth standard, and students are admitted at the age of 14 and over. "As the standard of the entrance examination is so low and the previous education of

the students has been of poor quality, a considerable part of the college course is necessarily occupied with general education, and the technical training follows simple practical lines."

752. BENGAL.—Students who have read for a full year in standard 4 are admitted to the junior training classes, and students who have read for a full year in standard 6 are admitted to the senior training classes, and become eligible after a course of two years' training in either case for junior and senior certificates respectively. Mr. Hornell writes :—

"The syllabus followed in the training classes for female teachers is strikingly different from the courses followed in training schools for men. It aims at giving the students not merely some practical experience of the work which they will subsequently have to undertake, but also at making them think for themselves about the problems which must confront every teacher. Child-study is a compulsory part of the course, but no text-book is prescribed, it being laid down that the questions will be of a very practical character, designed to test whether the student has studied the children whom she has been called upon to teach. Both senior and junior candidates are tested practically, the latter being required to give before the examiner an object lesson and a drill lesson, while the seniors have to submit notes of lessons on three different subjects, of which an object lesson and a Kindergarten occupation must be two. Every senior student has to give before the examiner one of the lessons on which she has prepared notes. Papers are set on child-study and nature work, and on the methods of teaching all the subjects required by the prescribed curriculum, up to the upper primary standard in the case of junior students and the middle vernacular standard in the case of the senior students; every student must qualify in each of these subjects. The practical acquaintance of each student with the work of a Kindergarten is tested by a short *visà voce* examination on the right use of the Kindergarten occupations and by a simple free arm drawing test. Natural models in clay and free arm drawings in outline in chalk or charcoal from nature have also to be presented by each student. No student can gain the senior certificate, unless she has been for one month at least in charge of a class, for the work and general management of which she has been entirely responsible."

753. UNITED PROVINCES.—In the newly established normal school for mistresses, Lucknow, it is laid down that candidates for admission must have at least passed the upper primary examination or a test equal to it. Provision is also made for permitting applicants with lower qualifications to attend the school as stipendiaries. The course of study extends for three years, and brings the general education of the students up to the level of the vernacular final examination for girls with certain additions, *viz.*, object lessons, practice of teaching, school method and management, sewing and cutting-out and the learning of a second vernacular language. The students appear for the vernacular final examination in the second year of their training, and for the teachers' certificate examination at the end of their third year.

754. PUNJAB.—In the Punjab the course of training lasts for one year only. The junior classes consist of girls who have passed the upper primary examination, and the senior classes of those who have passed through a middle vernacular school. The teaching includes both general studies and training. The students in the two classes are eligible for junior and senior certificates respectively, and both these certificates are divided into two grades, of which the first grade certificate is awarded to those who pass the examination and the second grade certificate is awarded to those who fail in some part of the examination but who pass in school management and the practice of teaching.

754. CENTRAL PROVINCES.—No educational test is prescribed for the admission of students to normal schools or training classes, but the conditions of the final examination are such as to require the student to have read up to the fourth standard before the training begins. The course in the normal schools and classes extends for two years, and comprises instruction in all the subjects prescribed for standard 5 of the vernacular middle school for girls, with the addition of object lessons, action songs, and the theory and practice of teaching. The final examination is held in these subjects, and the theory and practice of teaching is divided under six heads as follows :—

- The Kindergarten system.
- The best method of teaching the subjects prescribed in the curriculum for vernacular schools.
- The art of oral teaching generally.
- The form of school registers, the mode of keeping them and making returns from them.

- (e) Notes on a lesson on a given subject.
 (f) The organization of a primary school, and proof of ability to maintain order and inculcate principles of truthfulness, obedience and general morality.

Stipends.

755. The universal practice in Government schools is to provide the girls with stipends for their maintenance during the period of training. The rates of stipend usually differ with the grade of a student. In Bombay they increase by Re. 1 a month during each year of training. For vernacular female students the rates are in Madras Rs. 7 a month, in Bombay Rs. 6, Rs. 7 and Rs. 8; in the United Provinces Rs. 5, Rs. 6, and Rs. 10. In the Central Provinces the stipends have been raised during the quinquennium from Rs. 6 a month to Rs. 10 a month. In the training classes under private management the practice varies between the payment of stipends or scholarships to the students under training, and the payment of grants to the schools in order to provide for their maintenance. In the Central Provinces there is a system of paying money rewards to the teachers when their students under training obtain certificates.

Expenditure.

756. The total expenditure on training schools for mistresses has risen from Rs. 1,79,399 per annum in 1902 to Rs. 2,43,236 per annum in 1907. These figures include, in the Punjab, only the cost of the Government Normal School, not that of the two training colleges for European teachers or the training classes attached to high schools. The total expenditure from provincial revenues on training schools for mistresses is entered at Rs. 1,46,506. The particulars for the several provinces are given in table 173.

CHAPTER VIII.

EDUCATION OF CHIEFS AND NOBLES.

Chiefs' Colleges.

757. In the fourth Quinquennial Review, Mr. Nathan, after describing the organisation and curricula of the four Chiefs' Colleges,—at Ajmer, Lahore, Rajkot and Indore,—and mentioning the conference on the subject held at Calcutta in January 1902, added a note to the chapter, in which he reviewed briefly the progress and changes which had resulted from the deliberations of this conference in the period between the close of the quinquennium and the date of publication of the Review. He alluded to the decision to reduce the Daly College at Indore to the status of a school for less important Chiefs and Thakurs; the provision of an adequate and suitably paid European staff for the colleges, consisting in all of 13 officers in the Indian Educational Service; the abolition of the dual control which formerly existed in the Mayo College, Ajmer, and the Aitchison College, Lahore; the revision of the curriculum; the alterations in the system of college life, and the arrangements made for the regular inspection of all the colleges by the Director of Public Instruction, Punjab. These reforms belong properly to the period now under review; but as they have already been described in the last Review it is unnecessary to mention them again in detail.

Ajmer Conference, 1904.

758. The Calcutta conference of 1902 was followed by an equally important conference which was held at Ajmer in March, 1904, under the presidency of the Agent to the Governor General in Rajputana, and which was attended by a number of ruling Chiefs from Rajputana, Central India, Bombay and the Punjab, as well as by officers of the Political and Education departments. Certain suggestions were remitted to this conference for consideration; and after much deliberation by the whole body of members, as well as by committees and sub-committees of the Ruling Chiefs, resolutions were passed dealing with such matters as the direct representation of the Chiefs and the parents of the pupils in the administration of the Mayo College, the religious instruction of the boys in all colleges, the curriculum, the question of fees, the age for admission and withdrawal, messing and accommodation in boarding houses, the selection and duties of *motamids* or house-masters and *musahibs*, and the number and description of private servants allowed. These resolutions were accepted in their entirety by the Government of India; and from this conference dates the reorganisation of the colleges which forms so important a feature in the history of the quinquennium.

759. The changes which were recommended in the case of the Rajkot and Lahore colleges were not of a very fundamental character. More important were the changes introduced in the constitution and management of the Mayo College. It was decided that in future there was to be a General Council, with the Viceroy as President and the Agent to the Governor General in Rajputana as Vice-President, and composed of (1) all Chiefs who were already members, (2) such Chiefs from places other than the Bombay Presidency, the Punjab, and the North-West Frontier Province, as may be nominated by the Viceroy, after qualifying for membership by contributing Rs. 10,000 or more to the Mayo or Daly College, and by sending a son or ward to the former, (3) the Agent to the Governor General in Central India, (4) the Principal of the Mayo College, (5) the Commissioner of Ajmer, (6) three Political Officers each from Rajputana and Central India, nominated by their respective Agents to the Governor General, and

Changes in
the Mayo
College.

(7) such other officers as the Viceroy may see fit to nominate. There was to be a working committee consisting of—

- (1) not more than ten Ruling Chiefs, members of the General Council;
- (2) the Commissioner of Ajmer; and
- (3) one Political Officer from Central India.

Subject to the general control of the Vice-President and of the Committee, the ordinary business of the college was to be conducted by the principal, who was to have the right of referring any matter to the Vice-President for orders.

Curriculum
for Chiefs'
Colleges.

760. The curriculum common to all boys in the colleges was to include English, history, geography, mathematics, a vernacular language, and drawing, and there was to be a choice as well between classical languages and science.

The Diploma
examination.

761. The progress of students was to be tested by a common examination held annually under the superintendence of the Inspector of Chiefs' Colleges, and successful candidates were to receive a diploma, issued under the authority of the Government of India. The examination was to be held annually in March or April, commencing from the year 1905, and was to be an oral and practical as well as a written examination.

The conference recommended that application should be made to the Universities to recognise these diplomas as equivalent to the Matriculation examination; and this proposal was generally accepted, except in Bombay. Examinations have been held annually since the Ajmer conference; in 1905 and 1906 under the superintendence of Mr. Bell as Inspector of Chiefs' Colleges, while that of 1907 was conducted by Mr. Giles and Mr. Hesketh. In this last examination five out of seven candidates at the Mayo College obtained diplomas, nine out of ten at the Aitchison College, and all four candidates at Rajkot were successful. The diploma course now comprises the following subjects:—

Compulsory—

English.
History and geography.
Mathematics.
Vernacular languages.
Drawing.

Optional—

One each out of the following groups—

- (a) Science or a classical language.
- (b) Advanced mathematics, or law and administration, political economy and surveying.

The standard of marks fixed at the examination in 1907 was 67 per cent. for "distinction"; and for a pass 33 per cent. in English and in the aggregate, and 25 per cent. in other subjects.

Daly College,
Indore.

762. But perhaps the most striking result of the Ajmer conference was the decision arrived at by the Central India Chiefs to restore the institution at Indore to the status of a college. This resolution met with widespread and enthusiastic support; the Chiefs promised donations amounting to 11½ lakhs, and undertook to send boys to the college in the event of its reconstitution on the lines of the other Chiefs' Colleges. The project received the cordial approval of the Government of India, and was referred to the Secretary of State in July 1905. It was proposed to rebuild the college on a more suitable site, which was presented by the Indore Durbar, at an estimated cost of some 7 lakhs, and to provide accommodation for about 150 boys. Two and-a-half lakhs were to be set aside out of the endowment fund of 12 lakhs towards the cost of the new buildings, the balance, which was estimated at 4½ lakhs, being met from Imperial revenues. The remainder of the endowment fund was to be invested so as to produce an income of Rs. 33,000 a year: and the balance of the annual estimated expenditure of Rs. 75,000 was to be

met from an Imperial subvention. The European staff, which had consisted previously of a principal in the Indian Educational Service, was to be strengthened by the addition of two assistants. The scheme received the provisional sanction of the Secretary of State towards the close of 1905, and steps were at once taken to recruit the staff. A temporary managing committee was appointed, and the foundation stone of the new buildings, the designs for which were prepared by Sir Swinton Jacob, was laid on November 4th. Lord Curzon, who was to have performed the ceremony, was prevented by indisposition from attending, and the speech which he had prepared for the occasion, an extract from which is here reproduced, was read by Mr. Fraser.

"But what, it may be asked, your Highnesses, is this College to do for your sons? I think I know what you want, and I am sure I know what the Government of India want, and I believe that we both want the same thing. We both desire to raise up a vigorous and intelligent race of young men, who will be in touch with modern progress, but not out of touch with old traditions; who will be liberally educated, but not educated out of sympathy with their own families and people; who will be manly and not effeminate, strong-minded but not strong-willed, acknowledging a duty to others instead of being a law unto themselves, and who will be fit to do something in the world instead of settling down into fops or spendthrifts or drones. How are we to accomplish this? The answer is simple: First you must have the College properly built, properly equipped and properly endowed. Then you must have a good staff of teachers, carefully selected for their aptitudes and adequately paid, and a Principal who has a heart as well as a head for his task. Then you must have a sound curriculum, a spirit of local patriotism, and a healthy tone. And, finally, you must have two other factors, the constant support and patronage of the Political Officers who live in this place and in the various Central India States; and above all, the personal enthusiasm, the close supervision, and the vital interest of the Chiefs themselves. I say "above all" because the lesson which the Chiefs of India have to learn—if they have not learned it already—is that these Colleges will depend in the last resort not upon Government support, but upon their support, and that the future is in their hands much more than in ours."

763. Between 1905 and 1906 the number of boys attending the college rose from 33 to 50 and at the end of the quinquennium it stood at 54. The sanctioned staff at the latter date consisted of an English principal and two assistants and eight native assistants. The new buildings were still at an elementary stage, and the existing accommodation was so insufficient that applications for admission had frequently to be refused. In his inspection note on the Daly College in 1907 Mr. Giles remarked as follows:—"The classes are uneven, which is usual in special schools of this kind, where boys often enter at an advanced age and with little or no previous education. The unevenness is emphasized in the Daly College owing to the past history of the institution, but it was very noticeable that the boys who have joined reasonably young were generally well advanced in their studies, keen and very promising.....I saw the boys constantly out of school, and consider that all arrangements for their recreation and general life are as suitable as is possible under existing conditions.....There was little room for criticism as regards their manners, and their energy in games was entirely satisfactory.....Presumably, the full and efficient development of the institution cannot be anticipated until the new buildings are completed, but in the meantime it is a matter for congratulation that the school is now in a thoroughly healthy and satisfactory condition, and that all that is possible, under existing circumstances, is being done to promote the moral, intellectual and physical welfare of the students."

764. The interest and enthusiasm evoked among the Chiefs by the Ajmer conference had its effect upon the other colleges also. The Mayo College, Ajmer, made remarkably rapid progress during the quinquennium. One hundred and forty-three boys were on the rolls in March, 1907, as against 60 at the beginning of the period. The staff was increased from a principal and head master, with nine Indian assistant masters, to a principal, vice-principal and two assistant masters, all in the Indian Educational Service, and eight native assistants. Mr. Giles' inspection report contained the following observations:—"On the whole, the instruction given throughout the classes appeared to be careful and thorough. Any boy of average ability, who

Mayo College,
Ajmer.

joins the college at a reasonably early age, has every prospect of obtaining in it a sound and useful education.....In the games there was every indication of keenness and proficiency, and I do not think that the most captious critic would have any fault to find with the general arrangements for recreation and physical instruction, which are in my opinion admirable. The boarding houses appear to be excellently managed, and the whole college, with its large numbers, approaches more nearly to the model of a good English public school than any institution I have seen in India. I have only to add that, throughout the college, the manners and bearing of the boys are excellent. They appear to be gentlemen in every sense of the word."

The Aitchison
College,
Lahore.

765. Prior to the reorganisation which resulted from the conferences of January 1902 and March 1904, the staff of the Aitchison College consisted of a military officer, a Governor, a principal and vice-principal, and four Indian assistant masters, besides instructors in special subjects. At the close of the quinquennium the reconstituted staff contained a principal and two assistant masters in the Indian Educational Service, and seven Indian teachers. The numbers on the rolls rose from 64 to 83. Mr. Giles remarked that great pains were being taken in the correct instruction of the classes and that the whole tone of the college was excellent. This is the only Chiefs' College where advantage can be taken of the proximity of an Arts College to enable students to read for a University degree. The Director observes that the class-rooms are sufficient and commodious, but that the college stands in need of a well-equipped laboratory. The school department is said to be generally deficient in up-to-date aids to teaching, though considerable additions have lately been made to the Science apparatus. The discipline of the college is reported to be excellent, and the system of having house-masters, including Europeans, from the staff, in conjunction with *Musahibs*, has proved very useful in controlling the boarding houses.

The Raj-
kumar
College,
Rajkot.

766. The number of students at the Rajkumar College, Rajkot, has remained practically the same during the quinquennium. In place of a European principal, an Indian vice-principal, and eight other Indian assistant masters, the staff now consists of a European principal and vice-principal, and fourteen Indian assistants, of whom two are M.A.'s and two B. A.'s. Of this college Mr. Giles wrote, as a result of his inspection in March, 1907, as follows:—"I saw the boys constantly in their games and physical exercises. All the Kumars ride, and their riding drill, tent-pegging with spear and sword, and equitation generally, are of a very high order of excellence.....I have nothing but praise to give as regards their outdoor life, and their manners in and out of school are exceedingly pleasant and attractive.....The main deficiency of the college is its lack of numbers, and I am of opinion that this is a matter which deserves the most serious attention of the College Council. I hope that at their next meeting they will very carefully consider the question of enlarging the scope of the college, and of bringing to this excellent institution some of the numerous boys in Kathiawar who are of equally good blood with the existing students, but whose circumstances do not permit them to pay the high fees which are of necessity charged in a college which has only a small endowment fund. Meanwhile I may record my opinion that the college, under its present administration, fully maintains the high reputation which it has earned in the past under Messrs. Macnaghten and Waddington."

767. The history of the four Chiefs' Colleges during the quinquennium has thus been generally one of reorganisation and progress. Of the popularity and usefulness of these institutions there can be no doubt; and their future prosperity and success seem to be fully assured by the great interest taken in them by the Chiefs and other notables in whose interests primarily they are maintained.

Other Institutions.

768. In the Madras presidency, the Court of Wards maintain at Newington, Madras, an institution for the education of the minor proprietors of

the estates which come under their management. The institution is under the control of a European tutor, who is assisted by a European graduate and several native teachers. The Director reports favourably of this institution, which at the close of the quinquennium contained nine minor proprietors. In the Bombay presidency, the school at Wadwan, which was founded for the benefit of the small Talukdars and Girassias, and the Girassia College at Gondal, are both reported to be doing good work. A less encouraging report is given of the progress of the young Talpurs who are being educated at the Madrasa in Sind. The majority of the boys are said to regard education as a waste of time, unless it leads to Government employment. On the other hand, their general demeanour has improved and they distinguish themselves at athletic sports.

769. BENGAL.—Proposals for the amalgamation of the Nawab's Madrasa at Murshidabad, which is a high school intended for the education of the descendants and relations of the Nawab, with the Government high school were under consideration at the close of the quinquennium. The number on the rolls was 48. The school suffered much from unhealthiness.

770. UNITED PROVINCES.—The Colvin Taluqdars' School at Lucknow had a considerable increase of students until the year 1906-07, when the severity of plague resulted in a diminution of numbers. The examination results were particularly satisfactory in 1903. The attention paid to games and outdoor sports is said to be an essential feature of the education given at this school.

771. BURMA.—A Government school for the sons of Shan and Karenni Chiefs and notables was established at Taunggyi in the Southern Shan States in April 1902. It numbered at the end of the quinquennium 75 pupils, all of whom are sons or near relatives of Chiefs. There is a principal, who is an Oxford graduate, appointed in 1906, and a staff of six masters. The progress in English is said to be slow, and the boys are somewhat idle. It is anticipated, however, that the educational standard will rise by degrees. The boys are described as "very attractive and well bred." In view of the wide powers and responsibilities which will be entrusted to many of them hereafter, it is a matter of great importance that they should receive the advantage of a sound and liberal education on English lines, and should learn to be gentlemen, and to give to their people the benefits of a pure and enlightened administration. The general control and management of the school have been expressly vested in the Superintendent and Political officer, Southern Shan States, and it has been arranged that the principal or head master is ordinarily to be selected from the Political Department in Burma.

772. CENTRAL PROVINCES.—The Rajkumar College, Raipur, is not of collegiate status, and is not altogether on the same footing as the four larger Chiefs' colleges. It continued to make good progress. At the end of the quinquennium there were twenty-three boys on the rolls, some of whom came from Bengal and Eastern Bengal and Assam. The staff has been strengthened by the addition of another assistant, and now consists of an English principal, and eight Indian assistants. Progress in studies is said to have been quite satisfactory. Religious instruction forms part of the curriculum, a religious text book which has been approved by all the Chiefs being read in class under a qualified teacher. Much attention is paid to gymnastics, the discipline is very good, and the gentlemanly behaviour of the boys has received special commendation.

CHAPTER IX.

EDUCATION OF GIRLS.

Introductory.

773. RATHER less than sixty per cent. of the girls and women who are under instruction in India are attending institutions intended exclusively for females, and rather more than forty per cent. are in attendance at institutions common to both sexes. In examining the progress of female education, therefore, it is necessary to take account of both these modes. Institutions for female students are classified in the same way as those for male students, but some of them are wanting. Thus there are Arts colleges for women, high schools and middle schools, both English and vernacular, for girls primary schools for girls, training colleges and schools for mistresses, and Medical schools for female students.

There are no instances of any of the following institutions established exclusively for women:—Oriental colleges, Law colleges, Medical colleges, Engineering colleges, Agricultural colleges or Schools of Art.

Female students are found in the following institutions established for male students, or perhaps, to speak more correctly, for students of both sexes; viz., in Arts colleges, Law colleges (there is but one female law student in India), Medical colleges, Teaching colleges, Schools of Art, in all grades of secondary schools and primary schools, and in Technical and Commercial schools.

Thus, in one mode or another, female students are receiving instruction in the same branches of general and professional knowledge as men, with the exception of Oriental studies, Engineering and Agriculture.

774. The Arts colleges for women number eight and are situated in the Madras Presidency, Calcutta, Lucknow, Allahabad, Mussoorie and Simla. A list is found in table 175, vol. II. None of them is an independent institution existing only as an Arts college, but all of them are connected with high schools. All but three are college classes attached to schools for European girls. The Medical schools for women are the female branch of the Agra Medical School, the North India Medical School for Christian women at Ludhiana, and one school in the Bombay presidency with four pupils. The remainder of the female medical students are taught in the Medical schools with male students, separate arrangements being made for their boarding and also, to a certain extent, for some separate tuition.

Secondary schools for girls, primary schools for girls and institutions for training female students as teachers are found in every province.

Number of Pupils.

775. The number of female students who are receiving instruction in every kind of institution, whether for girls exclusively or with male students, is shown both for India as a whole and for the provinces severally in table 176 in vol. II. The total number of such students at the end of the quinquennium was 645,028. During the past twenty years the number of female students under instruction has been steadily rising, with the exception of the period 1896-99 when it received a set-back. The rate of growth however has now been considerably accelerated. The addition during the past quinquennium has been 200,558.

776. In the preceding period it was 42,312, and between 1897 and 1902 it amounted to 63,127. This increase is located chiefly in Bengal and Eastern Bengal and Assam, but there is no province in which there has not been an increase during the past quinquennium; and the percentage of

addition made during the quinquennium in the several provinces was as follows:—

Madras	26.3 per cent.
Bombay	16.8 "
Bengal with Eastern Bengal and Assam	78.6 "
United Provinces	92.6 "
Punjab	40.5 "
Burma	56.5 "
Central Provinces	36.0 "
Coorg	14.7 "
North-West Frontier Province	65.5 "

777. The provinces now stand in the following order in respect of the total number of female students, as compared with the population of school-going age:—

	Percentage of girls in school to population of school-going age ³ .
Burma	8.14
Bombay	5.9
Madras	5.7
Eastern Bengal and Assam	3.5
Bengal	3.2
Punjab	2.6
Central Provinces and Berar	1.9
United Provinces	1.2

The chief growth has been in the number of girls receiving primary education. Other grades of female education also show increases, with the exception of Arts colleges, where there is a falling off.

The cause of the growth is undoubtedly the renewed and increased exertions which have been made by the Education departments and local Governments to devise means for spreading female education, aided as these have been by a liberal supply of funds.

778. The following extracts from the Directors' reports illustrate the general progress which has been made in female education during the period under review and the difficulties with which it has to contend:—

MADRAS.—“The most salient feature in the period, after the expansion of female education as a whole, has been the reorganization of existing Government girls' schools, the opening of new Government schools and the consequent expansions of the budget allotment. The scheme of reorganization comprised an increase in the staff, an increase in the pay of the teachers and the provision of better accommodation and equipment. The number of Government girls' schools for general education increased from 151 to 175 and their strength from 11,628 to 15,563. Of these, two were new schools and twenty-two were taken over from board or private management.

There is, I regret to say, still little evidence of any serious indigenous effort to secure the education of girls.”

779. UNITED PROVINCES.—“The total number of institutions of all kinds for the education of girls has risen from 612 to 1,067 during the quinquennium. The schools under public management are now almost twice as numerous as they were at the commencement, and aided schools have increased from 237 to 476. The number of scholars has increased at an even greater rate, having risen from 20,821 to 40,111 or by nearly 93 per cent, while the increase during the year under report was almost 7,000. Of the total number no fewer than 10,645 read in boys' schools, being thrice the number so returned in 1902.

“These figures afford clear evidence that the efforts made during the last five years have not been unavailing. It is true that the vast mass of the people are as indifferent, apathetic, and perhaps as prejudiced as ever; nevertheless the outstanding fact remains that the percentage of girls attending schools to the female population of school-going age has risen from .6 to 1.16 per cent., or very nearly doubled. It is satisfactory also to find that the increase has been general throughout the province.”

780. BURMA.—“In regard to female education in 1901-02 Burma stood at the head of all provinces in the Indian Empire, at least so far as the number of girls in attendance at school was concerned. Whether it still does so, it would be premature to surmise. But there has been a very marked and steady increase in the figures in the last *decennium*. The greatest increase has taken place in the attendance at public secondary schools, though in public primary schools also the gain has been large. The only falling off is in the collegiate sphere. In 1901-02 the number of girls at college rose to

the unprecedented maximum of 8, from which it has since declined to 2. These figures of course include European, Eurasian and Indian girls, as well as Burman. But the majority of girl pupils belong to the latter race or to kindred tribes. The readiness of the Burmese female child to accept education is due to the absence of any 'purdah' system and to the comparatively late age of marriage, but most of all to the alertness and forcefulness of the Burmese feminine character. In Burma women are not kept in the back ground, nor are they expected abjectly to subordinate their interests and energies to those of their male belongings, as in India. Hence they have a much greater scope in various spheres of life, a fact which no doubt leads them to appreciate the benefits of education to a greater degree than do their sisters in India."

781. The Director in EASTERN BENGAL AND ASSAM quotes the following remarks by the inspector of schools, Rajshahi.

"It is satisfactory to notice that female education in Eastern Bengal and Assam is making progress. The Director of Public Instruction in his report for 1905-06 noticed that the girls' schools in this province increased from 2,475 to 2,571, or by nearly 4 per cent.; pupils from 43,936 to 46,820, or by nearly 6·6 per cent. Progress has also been shown in the reports of inspectors during the last quinquennium. In the Chittagong division the number of girls' schools increased from 481 to 977 and their attendance from 8,475 to 17,104, or more than double. Statistical accounts showed that in the Dacca division there was a great falling off in 1904-05, but since then there has been a steady rise. In the Rajshahi division the total number of girls advanced from 7,371 to 11,980.

The advancement is not to be judged merely from the statistical returns. Many Hindu girls receive education at home, of which the educational officers can take no notice. There is hardly any respectable Hindu household where the girls have not received some amount of education. This, however, cannot be said with confidence about Muhammadan households.

The difficulties attending female education in Bengal have been repeatedly pointed out. Besides those arising from customs there is one arising from the Hindu conception of household happiness. A literary woman is generally supposed to be negligent of household duties. This conception arises more from a theoretical consideration of things than from practical experiences; and as such experiences will increase the theory is expected to be dissipated."

782. CENTRAL PROVINCES AND BERAR.—The Chief Commissioner observes:—"The great increase in the number of girls' schools is doubtless due to the amalgamation of Berar with the Central Provinces, and the provincial figures cannot be taken as an exact indication of the progress made during the period under report; but at the same time there has been a marked advance in female education in the last two years. The appointment of a female inspecting staff is already having its effect in gaining the confidence of the mothers of girls and enlisting their sympathies on the side of female education. The management of girls' schools, for which local bodies and aided societies were formerly responsible, has changed hands, and nearly three-fourths of the schools are now under the control of the department. It is satisfactory that there has been a great improvement in the status and in the pay and prospects of the staff; but, as in the case of boys' schools, there is still a great dearth of really efficient teachers, though considerable progress in the training of female teachers, principally due to the efforts of mission societies, has been made."

Race and Creed of Pupils.

783. The figures which are given in the general tables relating to female education include female students of all races,—European, Eurasian and Indian. The total number of European girls is less than one-fortieth of the whole and accordingly its inclusion makes but little difference to the statistics of female education viewed as a whole. But it is essential to notice, in considering the state of higher female education, that if European and Eurasian pupils, native Christian pupils and Parsis were omitted, the figures would be very small indeed. Thus of 160 female students receiving instruction in Arts colleges, 48 are European or Eurasian, 43 are native Christians and 33 are Parsis; and 70 out of 76 pupils qualifying for a medical degree, and 141 out of 168 female students qualifying for a lower medical qualification, belong to these three communities. When we come to secondary education we find that there are not nearly so many high schools for native girls as there are for European girls, and this statement is true for every province except Eastern Bengal and Assam. There are only 29,394 female pupils receiving education in secondary English schools, and of these 11,502 are Europeans and 10,725 are native Christians. It is not until we come to primary or vernacular education that the nationality of the pupils is predominantly Indian. In the upper stages of the vernacular schools the Buddhists take the lead, having

6,246 representatives in middle vernacular schools as compared with 4,713 Brahmans—a testimony to the extension of female education in Burma and the later age to which the girls stay at school. In the primary schools of a lower grade than middle vernacular the Buddhists outnumber the native Christians, the Muhammadans outnumber the Buddhists, and the Brahmans outnumber the Muhammadans; but the majority of the pupils belong to the large mass of population reckoned as non-Brahman Hindus. The racial position in the various grades of schools, as here described, is the same as five years ago. The particulars of the numbers of female students of different races will be found in table 180 in vol. II.

784. In the main, when female education in India is spoken of, it connotes primary education, that is to say, the teaching of little girls to read and write in the vernacular, to do easy sums and a little needlework. The overwhelming proportion of Indian girls who come to school never proceed beyond this stage. In one province, for instance, where female education is most advanced, 99 per cent. of the girls who are at school are in the primary stage.

Secondary Schools.

785. So exiguous is the number of Indian girls who pursue secondary education that some of the Directors in their reports on female education do not make any specific reference to secondary schools. Nevertheless, it will be convenient here to extract so far as possible the facts and comments which relate to secondary education of girls, as distinguished from their primary education. The treatment, however, of female secondary education in India is obscured unless the education of European girls (which is treated of in the chapter headed European schools) is distinguished from that of natives of India. In the general statistical tables schools for girls, without discrimination of race, are treated as one category. There are not sufficient materials for separating the two kinds of schools entirely, and therefore the statistics relating to the secondary education of native Indian girls and the recorded facts regarding them are imperfect.

786. Unlike boys' schools, the chief purpose of girls' secondary schools is to give primary education. They are chiefly frequented by girls who have no intention of proceeding beyond the primary stage, but they contain classes at the top for a few of the exceptional girls who will read to the middle and high stages. In the whole of India, excluding European schools, there are only 1,208 girls in the high stage of secondary schools, out of a total of 560,261 under instruction; and 563 of these are in Bombay. In the middle English stage there are 4,332; and in the middle vernacular stage there are 3,039. Thus the total in the high and middle stages is 8,579. This, although a very small number and less than one-thirtieth of the number of boys in the same stages, is yet an increase of 48 per cent. upon the figures of five years ago. The details for the several provinces will be found in tables 188 and 189, vol. II, where it will be seen that the provinces in which the numbers of girls in the secondary stages are greatest in proportion to population are Bombay and Madras.

787. Those who complete their studies in the high stage enter for the Matriculation examination. In 1907 the number of girls who passed the Matriculation examination was 178. The race and creed of only 98 of them is shewn, viz:—

Europeans	19
Native Christians	35
Brahmans	11
Non-Brahman Hindus	14
Muhammadans	0
Buddhists	0
Parsis	17
Others	2
TOTAL	98

788. There are 156 secondary English schools, excluding middle vernacular schools for Indian girls in India, of which 43 are high schools and 113

Number of
Schools.

are middle schools. Bombay has the largest number, *viz.*, 11 high schools and 38 middle schools. The number of such secondary schools does not exceed a total of 3 in the Central Provinces and Berar, and only reaches 5 in the Punjab and Eastern Bengal and Assam. The particulars are given in table 185 in vol. II.

demand for
secondary
education.

789. The smallness of the number of secondary schools for Indian girls is chiefly due to the absence of demand. "There has been considerable advance," writes Mr. Hornell in Bengal, "in the number of girls sent to school, but the returns do not disclose any desire on the part of the parents to keep their daughters at school for longer periods." The following remarks by Mr. Sharp illustrate the condition of affairs:—

"All efforts to promote female education have hitherto encountered peculiar difficulties. These difficulties arise chiefly from the customs of the people themselves. The material considerations, which have formed a contributing factor in the spread of boys' schools, are inoperative in the case of girls. The natural and laudable desire for education as an end in itself, which is evinced by the upper and middle classes as regards their sons, is no match for the conservative instincts of the Muhammadans, the system of early marriage among the Hindus, and the rigid seclusion of women which is a characteristic of both. These causes prevent any but the most elementary education from being given to girls. The lack of trained female teachers and the alleged unsuitability of the curriculum, which is asserted to have been framed more with a view to the requirements of boys than those of girls, form subsidiary reasons or excuses against more rapid progress. To these difficulties may be added the belief, perhaps more widely felt than expressed, that the general education of women means a social revolution, the extent of which cannot be foreseen. 'Indian gentlemen,' it has been well said, 'may thoroughly allow that when the process has been completed, the nation will rise in intelligence, in character and in all the graces of life. But they are none the less apprehensive that while the process of education is going on, while the lessons of emancipation are being learnt and stability has not yet been reached, while, in short, society is slowly struggling to adjust itself to the new conditions, the period of transition will be marked by the loosening of social ties, the upheaval of customary ways, and by prolonged and severe domestic embarrassment.' There is, it is true, an advanced section of the community that is entirely out of sympathy with this view. In abandoning child-marriage they have got rid of the chief obstacle to female education; and it is among them, consequently, that female education has made proportionately the greatest progress in quantity and still more in quality. But outside this small and well-marked class, the demand for female education is much less active and spontaneous. . . . In fact, the people at large encourage or tolerate the education of their girls only up to an age and up to a standard at which it can do little good, or according to their point of view, little harm."

790. This is the prevailing state of affairs, but it is not quite universal. One of the inspectresses of schools in the Bombay presidency reports:—

"There are more promising signs of growth in Anglo-vernacular schools than in any other branch of girls' education so far as it has come under my observation, at the same time there is more danger of instruction being diverted into undesirable channels. In the cities of Bombay and Ahmedabad and to a certain extent at Surat and Baroda there is a strong desire on the part of higher class Indians to give their girls an English education, and I have been much impressed with the fact that, whereas elementary vernacular education is being pressed on the people who simply accept and tolerate it, Anglo-vernacular or English education is really wanted, and parents who send their girls to the schools have a genuine desire for them to learn. Whilst there is so much apathy with regard to female education, it is a mistake not to meet this demand as freely as possible. Theoretically it would be preferable to spread women's education by means of elementary education of the mass and to work gradually upwards, but as there is so little real desire for it among the people it may be possible to accomplish the same end by affording every opportunity for development along right lines of the higher education of the few who ask for it—the influence of a few highly and rightly educated women must ultimately affect the mass."

791. One of the inspectors in BOMBAY, Mr. Prior, remarks:—

"I confess that I prefer to suspend judgment as to the benefit of secondary education for native girls in India. It appears to me that with Hindu girls at any rate it involves a strain which they are ill-qualified to bear, and even in the case of Parsi girls I am often compelled to think that the advantages are very doubtful. Moreover in this country marriage is rightly the almost inevitable destiny of woman, and beyond the power of conversing in English a secondary education commonly contributes little that is of much service in later life."

The Director, Mr. Selby, agrees with Mr. Prior that at present the physical strain is too great, but would propose to lighten it by a change in the curriculum.

792. The Director in the UNITED PROVINCES reports several instances in which private individuals have opened schools at their own expense, among which are two boarding schools situated at Moradabad and Dehra Dun. The Kanya Patshala, Dehra Dun, is reported by him to have made most remarkable progress since its opening in 1902 and to be supported by liberal endowments and subscriptions, which testify to the interest and enthusiasm it has locally aroused.

793. Of the high schools, five are managed by Government and 38 by private persons; of the middle schools, one by Government, one by a local board and 111 by private bodies. The Government high schools are found at Madras, Poona, Ahmedabad, Calcutta and Dacca. Management
of secondary
schools.

The bulk of female secondary education in India is provided by missionaries; the principal difficulty in maintaining a secondary school for Indian girls is to provide a staff of qualified teachers; it is by their willingness to undertake these duties that the missionaries have succeeded in occupying so large a portion of the field.

794. It is a question whether more Government high schools for girls are required. The inspectress in Bombay writes:—"The whole tone of girls' higher education would be improved if Government would establish one or two model high schools." Mr. de la Fosse, the Director in the United Provinces, who bears testimony to the generosity of private founders of girls' schools, remarks:—

"There are only five high schools in the whole province for Indian girls, and the great majority of secondary schools are managed by missionary bodies . . . The time seems to have arrived for considering whether the State should not itself open one or two high schools for girls. That Indian gentlemen are beginning to desire a good education for their daughters there can be no longer any doubt, but they are naturally averse to sending them to sectarian schools attended mainly by girls of another faith."

795. In BENGAL, all the girls in the high stage, numbering only 143, are either Brahmos or Christians. There is a Brahmo girls' school in Calcutta, managed by prominent members of the Brahmo Samaj, and this school, which had been going down-hill for some time, was reorganized during the quinquennium and placed under a managing committee of Bengali ladies.

Mr. Hornell thinks that the establishment of more Government high schools for girls would be premature, and he quotes the opinion of the Inspectress that there are sufficient high schools already in existence, but that they require improving, especially in the matter of staff and equipment.

796. The total number of pupils in secondary English schools, other than schools for Europeans, is 15,455. In 1902 it was 12,371, and thus there has been an increase of 3,084. This is undoubtedly a testimony to a growth in the desire for female education in India, but, as has been noted above, the chief purpose of secondary schools is to supply primary education, and the increase in the numbers of Indian girls is on so small a scale that it is hardly noticeable by comparison with its inadequacy. Number of
Pupils.

797. In MADRAS there are native Christians in the high stage, very few Hindus and no Muhammadans. In Bengal there are only Brahmos and native Christians. In Burma there are chiefly Buddhists and, though the Indian community in Burma is increasing rapidly, very few of its girls attend school.

798. To some extent the facilities for the higher education of native Christian girls have been curtailed during the quinquennium. A tendency was beginning to grow to seek for their admission to schools for Europeans. In some provinces there is no limit to the extent to which native Christians might be admitted to these schools, but the code for European schools promulgated during the quinquennium and universally adopted has now limited to 15 per cent. the proportion of non-Europeans admissible to them.

Curriculum.

799. The curriculum of high school education for Indian girls is determined by the Matriculation examinations of the Indian Universities, which are described above. There is no difference made between boys and girls in the regulations, except that girls are at some Universities admitted to the examination without the requirement that they shall have been at recognised schools. Madras and Bombay offer departmental examinations alternative to the Matriculation, and the rules for these examinations provide alternative subjects, as, for instance, botany, hygiene, drawing, dress-making or cooking, as substitutes for algebra and geometry. But the girls' schools prefer to send up their pupils for the Matriculation examinations rather than the departmental. Miss Lynch, an inspectress in the Madras presidency, writes :—"Preparation for the Matriculation sums up the entire work, and success at this examination is the ultimate goal in all high schools. The examination shadow is to be seen in every room from the third form upwards, and it is only with the greatest difficulty that sufficient time can be snatched for the teaching of a little recitation, drawing, and drill, in view of the annual inspection."

800. Miss Ashworth, an inspectress in Bombay, writes :—

"At present, with one or two exceptions, the schools follow the same course as the boys' schools and aim at preparing all girls for the examinations of the University. Such a course is harmful, and girls leave these schools with weakened physique and very little in the way of real culture to compensate for it. Under the stimulus of examinations both teachers and pupils work hard, and as all teaching in the higher forms is done through the medium of a foreign language, the mental strain is greater and the life altogether more strenuous than in European schools which prepare for the same examinations. There is a strong tendency to resort to mere cram, in fact since so many of the English text books studied are beyond the comprehension of the girls, cram is inevitable."

801. In BURMA, the Director reports that the courses of study are the same for girls as for boys, except that girls are not compelled to study a second language, and are given the option of learning calisthenics, needle-work, domestic economy and hygiene. A society consisting chiefly of Burmese ladies has been formed, which will under expert medical advice promote the study of hygiene among girls, and assist in the production of the necessary books.

Primary Schools.

802. The number of girls in primary schools, whether for boys or for girls, is 545,091, as compared with 348,510 in the year 1902. This shows an increase of 196,581.

Difficulties attending the promotion of female education.

803. The principal difficulties in the administration of female education are to induce parents to send their girls to school, and to obtain properly qualified teachers; and round these two difficulties most questions connected with female education revolve. Expedients for overcoming them form the bulk of most reports of committees on female education, and are the key to most changes of departmental administration. If girls can be tempted to boys' schools they are made welcome; if they prefer separate girls' schools, separate girls' schools are opened for them; conditions of purdah are observed; the children are brought to school in conveyances; female inspecting officers are appointed, fees are remitted, and prizes are liberally offered. Sometimes it is thought that local bodies show apathy in promoting female education, and accordingly their schools are transferred to Government. Sometimes it is thought that the standards exacted from the pupils are too high, and inspecting officers are instructed to relax their demands. Codes and regulations are drawn so as to favour girls' schools by grants-in-aid, and direct capitation grants have been tried in the past quinquennium, to reward the teachers of boys' schools for every girl whose attendance could be obtained. The measures which will solve the difficulty of inducing the child even to come to school and remain at school will in time also provide a supply of teachers; but in the meantime special efforts are made wherever there is a likelihood of success for obtaining teachers, as for instance, training schools are opened and girls are paid to attend them; schoolmasters are rewarded for inducing their wives

and female relatives to take up the teaching profession; and special attention is given to the prospects of enlisting widows as schoolmistresses. The progress of female education at present is chiefly the history of experimenting on the two difficulties of obtaining pupils and obtaining teachers.

804. Miss Ashworth writes of female primary education in BOMBAY :—

"I find it difficult to estimate the general progress or otherwise of girls' vernacular education. My remarks refer to the schools in Bombay and the Thána and Ahmedabad districts only, and are based simply on personal observation. There is a marked difference between the Bombay schools, which have adopted the Joint Schools Committee's Code, and the schools in the Northern division which follow the curriculum of the Government Code. The former is the same for boys and girls and is more advanced than the Government Code. In the municipal schools in Bombay there are promising signs for future development: the machinery of organization is becoming more effective and the curricula are planned on sound educational lines. The source of weakness is, as in all branches of school education, the want of trained teachers and suitable school buildings. In the lack of trained teachers girls' schools suffer more than boys, as the general education of women is on a much lower level than that of men. Although I see little evidence of a desire on the part of the people to have girls educated, in Bombay and Ahmedabad elementary female education has been accepted, parents have become accustomed to the idea of girls attending school regularly and place no obstacles in the way. Thus if there is no rapid progress in numbers I think it may be claimed that vernacular education is becoming firmly established. In the districts stagnation is to be accounted for by the continued prevalence of plague: under specially favourable conditions however individual schools do flourish in spite of depressing conditions. In the villages people themselves are either apathetic and merely submit to it or they are actually opposed to female education."

805. The Director in Bombay remarks as follows regarding female education in Sind :—

"There are certain special circumstances which operate against the spread of girls' education in Sind. The purdah system, a general dislike to leave home, the fact that more can be earned by needle work in the home than is given in the form of a stipend at the Training College, and the general contempt in which the teaching profession is held—all make it difficult to get a supply of trained teachers. Generally, too, it is necessary to separate Hindu and Mahomedan pupils, and this makes the organisation of schools in small towns a matter of difficulty. Still there has been an advance. Methods of teaching have improved. The number of Hindu girls attending school has more than doubled in five years. Parents are willing to let their girls remain at school much longer than formerly. Aided Mahomedan schools have for the first time come into existence. As a rule Mahomedans prefer home education for their girls."

806. Of the progress of female primary education in BENGAL, Mr. Hornell writes :—

"The first obstacle to surmount was indifference, but there are not wanting signs that this difficulty has to a considerable extent ceased to be operative. Whether advantage will be taken of the ground which has been gained and a further advance made, or whether things will be allowed to slip back, depends entirely upon whether a machinery can be organised for conducting the education of Indian girls upon the lines on which alone the majority of the community is prepared to accept it. If from among the orthodox Hindu and Muhammadan communities lady teachers can be produced who by their position will command respect, while by their capabilities they will justify in themselves the education which they have received, then progress, it would seem, is assured, but while existing conditions continue, no prospect is apparent, but retrogression."

807. The following remarks are taken from the report of the Director in the CENTRAL PROVINCES :—

"The ideal we are aiming at," it was said in the last Annual Report, "is a system of girls' schools properly housed, staffed by female teachers, visited by the ladies of the locality, and under female inspection. The attainment of this ideal depends largely upon public support. Miss Haes says: 'Even during the two and a half years I have been here I have seen a remarkable change in the attitude of the people towards the education of girls. The mothers of girls are taking much more interest. This has only been possible since some of the girls' schools have been handed over to women inspectors. Evidently this step has already given the women confidence.' This enlistment of the mothers on the side of education is doubtless a great step. But progress has to be circumspect. With regard to opening new schools it seems useless to do so in any village, unless there is a real desire among the people for a girls' school. The most satisfactory new schools are those which are first started by the villagers. But there is a difficulty about keeping these going until they are able to earn a grant. It therefore seems that some system of grants-in-aid should be instituted by which schools just started should receive a special grant (provincial), even though they cannot

conform to the rules laid down.' One of the main hindrances to the development of female education has always been the want of efficient teachers. The remedy lies in appointing more assistant inspectresses, to counteract the bad effects of ill-educated teachers. If this were done, there would be better prospects for newly started schools of the kind mentioned above; and it appears to be along some such lines that the development of female primary education will in the future have to lie."

Co-education.

808. In all provinces girls are admitted to boys' schools and stay there until the age of eight or thereabouts, being taught with the little boys. The provinces differ from one another in the extent to which they practise co-education.

In India as a whole, the number of girls in boys' schools is 42 per cent. of the total of girls under instruction, but in Burma and Madras the number of girls in boys' schools exceeds the number of girls in girls' schools, and amounts to 76 and 56 per cent. respectively of the total number of girls under instruction in those provinces. The Punjab stands at the other end of the scale and provides separate girls' schools for over 92 per cent. of the girls under instruction. The particulars will be found in table 178 of vol. II.

809. The Director in MADRAS, where the greater proportion of girls who are under instruction are in boys' schools, writes that co-education "so far from being undesirable has certain advantages, and boys' or mixed schools are less expensive to maintain than special schools for girls." In this presidency boys also are admitted to girls' schools up to a certain age at the discretion of the inspectress.

810. In BENGAL, Mr. Hornell allows to co-education the credit of increasing the facilities for female instruction, since it is impossible to establish a girls' school in every village, but considers that this aspect of the question should not blind us to its defects. He reports a very general and marked aversion on the part of a large proportion of the population to sending girls to school, not because the people are indifferent to the education of their girls, but because they do not like to send them to school where there are male teachers; and one of the Muhammadan Inspectors of Schools states that more girls would be sent to school if the schools were staffed by women, and that the provision of properly qualified schoolmistresses is an indispensable condition of any real advance. The Director adds that when girls attend boys' schools they cannot be taught needlework unless the boys' schools are staffed by women, which at present, to his regret, is impossible.

811. In the UNITED PROVINCES, the attendance of girls in boys' schools was specially encouraged by the department during the past quinquennium. In the year 1906 a grant of four annas a month for each girl attending a boys' school—afterwards reduced to eight annas for every five girls—succeeded in raising the number of girls in these schools from 6,305 to 10,381. It is reported that the girls enrolled under this scheme were not properly taught, but were induced to stay in the class room merely in order to earn the grant for the teacher. The Director does not regard the system of making capitation grants as a really permanent and satisfactory means of spreading education among girls, and adds that when girls attend boys' schools they have to be removed before they have learned enough to make their attendance worth while.

812. We may compare with this the opinion of Mr. S. C. Hill, the Director of the CENTRAL PROVINCES, who writes:—

"As the girls' curriculum is different from that of the boys', schools for girls only are a desideratum, but the attendance of girls at boys' schools is generally the first public manifestation of a desire for female education, and therefore an increase of girls in boys' schools, accompanying the withdrawal of girls from such schools when special girls' schools are established in the neighbourhood, is a very pleasing sign of progress."

813. Three inspectors in the PUNJAB report that the feeling of the people in their circles is against co-education; but another reports that there are some signs of a change in this respect.

814. The Director in EASTERN BENGAL AND ASSAM considers that the number of girls in boys' schools (over 25,000) indicates that co-education up to the age of ten or eleven does no violence to Indian feeling in this province, and would seem to justify further the tentative efforts in this direction.

815. In BURMA, the monastic schools are for boys only and, with very rare exceptions, exclude girls; but the lay schools admit them; and the Director has been informed by Burmans "that the Burman parent prefers these arrangements, at any rate until the girls reach the age of twelve or thereabouts, and that there is no special demand for separate girls' schools. In the so-called girls' schools there is a little admixture of little boys."

Management.

816. The provinces differ considerably in the extent to which the provision of girls' schools is left to private management or is undertaken by public bodies.

In the CENTRAL PROVINCES, the PUNJAB and BOMBAY, the management of the schools is chiefly in the hands of public bodies, but in all other provinces it is chiefly undertaken by private managers. In India as a whole, about one-quarter of the pupils are in publicly managed schools and three-quarters in privately managed schools. There are only three provinces in which the local Governments themselves maintain girls' schools to any appreciable extent, *viz.*, the Central Provinces, in which 64 per cent. of the pupils are in departmental schools, the United Provinces and Madras. The particulars are given in tables 181 to 184 in vol. II.

817. There is, however, a general tendency towards a greater exercise by provincial Governments of direct management over female schools. In Madras the number of schools so managed has been increased, and the scale of expenditure upon them all has been increased. In Bengal, the United Provinces, Burma and Eastern Bengal the movement has taken the form of the establishment of 'model' schools by the provincial Government to the number of 57 in Bengal (where however, though financed by the provincial Government, they are ranked as aided schools), 35 in the United Provinces, 21 in Eastern Bengal and Assam, and 6 in Burma. The 'model' schools are not intended to be different in type from other primary schools for girls, but, being maintained by Government on a liberal scale, are intended to be of a better quality and to assist in raising the standard of female education by their example and increasing its popularity by their success. Mr. Sharp writes of those in Eastern Bengal and Assam, where 13 of the 21 are maintained by the provincial Government and 8 by district boards, that their working is satisfactory and an increase in their number highly desirable. In Burma, the Director does not comment upon the success which they have obtained. In the United Provinces and Bengal, the Directors speak unfavourably of the results which they have at present brought forth. "Model schools have so far had but a brief career," writes Mr. de la Fosse, "and it would be unfair to judge them too strictly. There cannot be in them the same rigidity of discipline or regularity of attendance as can be enforced in a boys' school, neither is it reasonable to expect a high standard in tuitional results, but the title 'model' school is one to which they have no claim and is certainly inapplicable to the greater number." In Bengal, Mr. Hornell states that the pay offered has been insufficient to attract competent female teachers, and that "the verdict which must undoubtedly be passed on the working of this experiment is that as models of what primary schools should be these institutions have not yet by any means been successful."

818. In the CENTRAL PROVINCES, all girls' schools were transferred in 1903 from the local boards to the Education department. The reason for the transfer was the indifference of the local bodies towards female education and the hope that their direct control by the department would add to their credit and popularity. The department now maintains 175 girls' schools with 8,600 pupils. The progress of female education in these provinces during the quinquennium is favourably reported upon by the Director and inspectress, and part of the credit for this is attributed to the change in the management of the schools.

Grants-in-Aid.

819. The systems on which grants-in-aid are made to girls' schools are usually the same as to boys' schools, with a distinction in favour of girls'

schools in respect of easier conditions, and in some cases of higher grants. The abandonment of the system of payment by results for boys' schools has already been described in the chapters on secondary and primary schools, and the account there given of the systems which have replaced it is applicable also to girls' schools.

820. In MADRAS the rates upon which the old results grants used to be paid were higher for girls than for boys, but now that attendance grants and grants for teachers have been substituted, the same rates are offered for girls' schools as for boys'. The Director, however, remarks that this has checked the growth in the number of pupils during the last year of the quinquennium, and that it may be necessary to revert to the old policy.

821. BENGAL is the only province in which the systems of assessing grants to girls' schools and boys' schools are different. The local Government in 1904 passed rules by which girls' schools in and near Calcutta are eligible to receive grants at rates prescribed for each class separately according to the number of children in it, with a second grant for efficiency, also separately assessed for each class.

822. In the other provinces the relaxations or concessions which the grant-in-aid rules contain for application to girls' schools relate to the requirements of number or regularity in attendance, the collection of fees, or additional grants for qualified women teachers, or books, or contingencies. The comparative liberality of the departments towards aided girls' schools will be seen from tables 192 and 194 in vol. II.

Curricula.

823. All except about 35,000 of the girls under instruction in vernacular schools are in lower primary stages, *i.e.*, they are in the infants' class or in the two classes above that. In the lower primary stage of instruction the only subjects which can be taught are reading, writing, arithmetic and needlework, varied, enlivened and enforced by songs, games, Kindergarten occupations and object lessons. The only differentiation between boys and girls in the lower primary stages is that the girls learn needlework and the boys do not, that the drill of the boys differs from the physical exercises of the girls, and that the games in which the girls take part and the stories told to them are different, except in schools where girls and boys are taught together. Above the lower primary stage the curriculum for boys and for girls shows a little more difference, the boys' curriculum being adapted for girls by the omission of manual training, agriculture, *patwari* papers and science, and the relaxation of standards in mathematics; instead of which the practice of needlework and drawing is continued, and some attempt is made to introduce subjects of domestic economy and hygiene. The only changes to be noted during the quinquennium respecting the curriculum of girls' schools are the abolition of a fixed curriculum in Madras, and the modification in Bengal of the ambitious scheme of Froebelian teaching, promulgated for boys' and girls' schools in the year 1901. In Madras, the curriculum of each school is to be drawn up under the guidance and control of the inspectresses, subject to general instructions to be issued by the department. In Bengal, the revised girls' curriculum was at the end of the quinquennium again undergoing revision at the hands of a committee.

824. There is only one province, *viz.*, Bombay, in which the reading books used in primary schools by girls differ from those used by boys. This differentiation was made in the recent revision of vernacular reading books over which Mr. Covernton presided. Here, as formerly, boys and girls use for the first three years of their school life the same reading books, but after that the girls will be provided with a set of reading books for three years, which will be different from those used in boys' schools. They are in four sections, historical, geographical, teaching of natural phenomena, and miscellaneous. The following account of them is taken from a report by Mr. Covernton:—

"Taken as a whole the girls' readers are simpler in general treatment and narrower in the range of subjects than the boys'. The wider topics of history, literature and

Reading
Books.

science are of little concern to vernacular girls, for whom (apart from the practical demands of domestic economy) biographies illustrating the good deeds of great and virtuous women, accounts of their native land and its most distinguished sons, ethical stories and lessons inculcating modesty and sobriety of conduct and demeanour, together with poems of a moral and natural religious tendency, are held by native public opinion to be more fitting pabulum. Such have been provided, but the committee has also introduced geographical lessons dealing with important natural phenomena, with the authorities of the presidency and India, and with the British Empire. Lessons, too, on the King-Emperor and his Consort and family, as well as on Queen Victoria, have not been forgotten. In the historical sections sketches of such heroines as Sita, Savitri, Mirabai, Chandbibi, Nurjehan are given; and of such rulers as Asoka, Ahmedshah, Akbar and Shivaji; with some account of the rise of the British power and of the system of British Government in India. The lessons on domestic economy, common objects, etc., are intended to be *reading*, not object lessons, and will supplement, reinforce and possibly suggest practical demonstrations in their various subjects. The bulk of them handle themes belonging to domestic economy. That is, they treat of food substances and their preparation, of cooking, of the cleanliness of the house and of clothes, of furniture, of household management, of dress, sewing and so forth. They also include lessons on elementary physiology and hygiene, as well as others on common articles and objects."

Fees.

825. In girls' schools under public management no fees are charged, except in Madras and Bengal where there is provision for remitting the fees when required. "Parents would in most cases," writes the Madras Director, "rather not have their girls educated at all than pay even a small fee." The schools under private management nevertheless levy fees, which reach an appreciable amount in Madras, Bombay, Bengal and Burma. The total amount of fees levied in girls' primary schools other than schools for Europeans is Rs. 82,286, or about one-twentieth part of their total expenditure. The particulars are given in tables 196 and 197, vol. II.

Teachers.

826. The statistical tables give no information about the pay and qualifications of teachers. The following taken from different provinces may serve to illustrate the condition of affairs:—

MADRAS.—In the reorganisation of the schools of the northern circle, three quarters of the schools were provided with either three or four teachers. In the schools with three teachers the rates of pay were settled at Rs. 12, Rs. 10 and Rs. 10 a month, and in those with four teachers the rates of pay are Rs. 14, Rs. 12, Rs. 10 and Rs. 10 a month.

In BOMBAY, the Director quotes the rates of pay in one division as averaging for a trained head-mistress under a Local Board Rs. 19-2 and under a municipality Rs. 21-6-5, and considers these rates inadequate.

In BENGAL, the model schools were based on an estimate that there would be one female teacher in charge, whose pay would be Rs. 12 to Rs. 15 monthly.

In the UNITED PROVINCES, in a sample model school with 75 children in attendance there are two female teachers drawing Rs. 22 between them.

In BURMA, the pay of the female teachers of the model primary schools is Rs. 50 for the head-teacher and Rs. 40 for the assistant.

In a typical aided school in ASSAM, the teachers are a superannuated master drawing Rs. 15 pay as addition to his pension, and his wife, in charge of the school, at a salary of Rs. 30.

In the CENTRAL PROVINCES, the pay of teachers has been improved with the transfer of the schools to the management of the department, but there are still 52 head-mistresses drawing less than Rs. 10 a month, and the highest pay drawn is Rs. 30.

In the absence of statistics it is not possible to speak with certainty, but the probability is that female teachers in girls' schools are paid better than male teachers of boys' primary schools, and this conjecture is borne out by the fact that the average expenditure on female primary schools is Rs. 6 per pupil, as compared with Rs. 3-8 per pupil in boys' primary schools.

827. Although the salaries are not high, yet it would be a mistake to suppose that the scarcity of female teachers is merely the result of low pay, or

Scarcity of
teachers for
girls' school

that it could be remedied if higher salaries were offered. The fact is that in many parts of India women teachers are not obtainable at all, and that there is no part of India in which the supply of well-qualified female teachers is sufficient. "The question of the supply of teachers," writes Mr. de la Fosse, Director in the United Provinces, "is indeed the crux of the whole matter. It is not merely a question of getting good teachers, but of getting any teachers at all. Till this problem is solved, female education can make no real progress; and as long as early marriage is universal and the position of unmarried women considered dishonourable, the prospect is not hopeful. Meanwhile it is not much use persuading parents to send their children to school, if the school cannot provide a mistress capable of teaching them. The situation is tersely summed up by the Chairman of Bulandshahr. 'Female education is a failure chiefly because no women teachers of the proper stamp are available.'"

Male
teachers.

828. In this scarcity of female teachers, men are employed in all provinces, usually superannuated school-masters, but here again we have no exact figures to show the extent of their employment. In one of the divisions of Bombay, in which there are 235 primary schools for girls, there are only 189 female teachers, of whom 72 are trained. In Bengal, Mr. Hornell says that the salary offered at model schools was for the most part only capable of attracting male teachers of low qualifications; and in the Central Provinces, where there is a graded service of teachers of Government girls' schools, there are 118 male teachers out of a total of 224. Men are only employed in the absence of properly qualified women, but the Director in the United Provinces remarks that "it is a fact that the best taught girls' schools are those maintained by superannuated board school male teachers"; and one of the inspectresses in Bombay remarks of the Northern division, "the schools are staffed almost exclusively by women, a feature in itself desirable and one which makes for the popularity of the school, but, at the present stage of women's education, does not make for efficient teaching."

The training schools which are established in all provinces and which are doing something to improve the quality and supply of female teachers are dealt with in another chapter.

829. The work which is done by missionaries in conducting girls' schools is also mentioned with appreciation, as for instance by the Bombay inspectress quoted above, who writes:—"The Mission schools have generally the advantage of a European superintendent, who is often a lady of high professional qualifications. Under the continued direction of such a superintendent these schools become very efficient." In the Punjab, where the inspectress remarks that "the shortness of the supply of teachers still remains the greatest obstacle in the way of female education," a system was introduced to increase the supply by noting for special recommendation those male teachers whose female relatives interested themselves in opening girls' schools or teaching therein; but time has not yet shown either what is the practical form in which these recommendations are acknowledged, or their effect in increasing the supply of teachers.

Inspectresses.

830. The inspection of girls' schools by male inspecting officers still remains a necessity in some parts of the country, but the number of inspectresses employed has increased considerably. All the provinces except Burma and Eastern Bengal and Assam now employ inspectresses, who are ladies of English education and are ranked, except in the Punjab, as members of the Indian Educational Service. Madras has three, Bombay and Bengal two each, the United Provinces and the Central Provinces one each, making nine inspectresses in the Indian Educational Service, besides two in the Punjab who are ranked in the provincial service. Under the inspectresses there are twenty-four assistant inspectresses, ranked in the provincial and subordinate services, and recruited partly from natives of India and partly from the domiciled community. The province with the strongest female inspecting staff is Madras, which has three inspectresses, three assistants and seven sub-assistants (included in the total of 24 mentioned above). The duties of the

inspectresses are not only to visit schools but also to use their influence in spreading the demand for female education. The number of these useful officers seems likely to increase further.

831. The Director in the UNITED PROVINCES remarks with reference to the need for more inspectresses of girls' schools:—

"This chapter would be incomplete without a reference to an obstacle at present in the path of female education which, unlike the dearth of teachers and scholars, is in part immediately removeable were funds forthcoming. I refer to the difficulties connected with the inspection of girls' schools. In the early part of the quinquennium there were four inspectresses, to correspond to the number of circles in the plains, and their duty, as already pointed out, was not only to supervise and inspect schools but also to do all in their power to spread education by encouragement and persuasion. Since that time the number of inspection circles has been increased to six, but the number of inspectresses remains unchanged. They are on the average each in charge of twelve districts. Meanwhile their work has enormously increased. The number of schools under their control has multiplied, and this has involved more office work, correspondence and administration, quite apart from inspection. The inspectress of the Moradabad circle has 250 girls' schools in her circle, though of this number 99 are inaccessible to her. The question of appointing more inspectresses and strengthening their office establishments is therefore now under consideration. When it is remembered that so many teachers are incompetent, that not a few are unreliable, that examinations behind the *pardah* are frequently untrustworthy and that registers are sometimes fictitious, it is most important that nothing should stand in the way of frequent inspection. District boards are empowered to appoint paid inspectresses and honorary inspectresses to supplement the work of circle inspectresses; but so far nothing has been done. One other difficulty connected with the inspection of girls' schools is the inaccessibility of many of them to inspectresses. The range of an inspectress is limited by metalled roads and staging bungalows, and where schools are not situated in the vicinity of these she cannot reach them and return before nightfall, yet camping with tents, in view of the paucity of rural girls' schools, would mean the waste of most of the days spent on tour in merely travelling from one school to another."

832. The Director in BURMA has also some observations to offer on the need of a female inspecting agency in that province:—

"In a province where female education has developed in the way that it has done in Burma, it may be argued that an inspectress would prove an unnecessary and expensive luxury, if not an actual set-back. On the other hand, there are many things in this regard that a woman dealing with women can do better than a man. A well qualified assistant inspectress, for instance, would certainly be in a better position to promote a knowledge of hygiene, domestic economy and needle-work of all kinds. She would also be able to furnish valuable advice on the various physical and psychological problems involved in the general subject of female education."

Expenditure.

833. The cost of female education as a whole should include the cost of the education of girls in boys' schools, an item which cannot be given.

The annual cost of public institutions for girls has grown since five years ago from 34 to 44 lakhs of rupees. Thus an increase of forty-seven per cent. in the number of girls in attendance at these schools has been accompanied by an increase of about thirty per cent. in their cost. The increase of cost has taken place in all provinces. The statistical tables do not contain full returns of the sources from which the expenditure is met; but they show particulars for secondary and primary schools. In these, the increased cost has chiefly been met from an increase in the charges on public funds, provincial and local, although there is also an increase shown in the fees (chiefly in secondary schools), and in the amount contributed from private sources. The particulars of the expenditure by provinces will be found in tables 190 to 192 in vol. II.

Home Teaching.

834. The great difficulties which prevent the progress of female education are, as has been said above, the reluctance of parents to send their girls to school, their reluctance to keep them at school after a very tender age, and the great scarcity of qualified women teachers. Home teaching meets the first of these difficulties, and might probably have a much wider extension than at present if sufficient teachers could be found. "I find," writes Miss Brock, inspectress of schools in Bengal, "no prejudice against the education

of girls, but strong feeling against any relaxation of the purdah system for high caste girls." In Burma there is no occasion for zenana teaching except among the Indians domiciled there, but in every other province zenana teaching is carried on either by missionary agencies or by associations of Indians or by both. The extent to which it is practised is not statistically recorded and would be difficult to tabulate, owing to the different forms in which it is carried on; it is therefore difficult to say whether at any given time it is progressing or the reverse. In some parts of India, for instance, the starting of classes during recent years might be taken for a sign of progress unless it were also observed that similar classes had existed in these very places twenty years ago and had died out. There are several instances of the sporadic appearance and disappearance of this kind of teaching. Upon the whole it may be estimated with comparative certainty to have advanced in the provinces of Bengal and the Punjab, but whether it has advanced or receded in other provinces there is not sufficient evidence to show.

835. In BOMBAY, Mr. Prior, the inspector of schools, regards home classes as perhaps the most promising means of extending female education in that part of India. "Missionaries," he says, "have for years carried on the system, but they are of course regarded with some suspicion by orthodox people. It is difficult for the department to check the results in the absence of assistant inspectresses, but something might be done by empowering some of our higher trained mistresses to examine the progress achieved year by year." These remarks express the view generally held. The work which is done by missionaries in home teaching meets with full appreciation, but its limits are also recognised; and the extension of the alternative system of home teaching, supervised and promoted by native Indian bodies, has been urged by two responsible committees which were convened during the quinquennium to discuss the expansion of female education, one in the United Provinces and the other in Bengal. Owing to the lack of properly qualified teachers the system of peripatetic governesses recommended by the committee in the United Provinces has not yet been started, but in Bengal some progress has been made, although here the poor quality of the teachers and the scant supply are great obstacles to its success. There were in Bengal five years ago no less than ten missions, which were not only conducting schools for Indian girls but also providing instruction in the zenanas. Government offered to increase the grants already paid to these missions if they would extend their work, and upon these terms six missions in Bengal are now drawing enhanced grants. It is stated by Mr. Hornell that thirty-two missionary ladies are working at zenana teaching, twenty-eight as peripatetic governesses and four at centres of instruction. Independent of mission agency, there is a system of paying grants in Bengal both for peripatetic governesses who go from house to house and for central classes in homes managed by native Indian committees. The peripatetic governesses receive Rs. 30 a month, and the centres of instruction receive a grant of Rs. 30 a month, of which Rs. 20 goes to the teacher. The centres of instruction are not visited by any male inspecting officer. Under this scheme there are twenty-three peripatetic governesses at work and eight mistresses at home centres of instruction; and taking the missionary and other agencies both together it is estimated that 1,200 girls and women are under instruction. The Director refers to the want of adequate superintendence of this teaching as one of its defects. Miss Brock, the inspectress, writes:—"There is a growing demand for zenana teachers both in towns and districts, and it is a matter of great regret that the supply of teachers is not equal to it. The teacher must of necessity be an orthodox Hindu or Muhammadan woman. The salary of these zenana teachers is far higher than that of teachers in schools, but their qualifications are very meagre. Great dissatisfaction is being felt everywhere at the kind of teacher employed, but unless the problem of training these women is seriously taken up by the department in a training college, I do not see how any improvement is to be made . . . The ordinary type of zenana teacher cannot do more than read and write at the most. On testing her, it becomes evident that she is absolutely unable to compose a simple letter in her own tongue, has almost no knowledge of arithmetic, and a very slight knowledge of needlework."

836. Committees have also been formed in Behar for teaching Muhammadan girls. "The intense feeling on the part of the respectable classes of the Muhammadan community that girls should be strictly secluded from a very early age" causes zenana teaching to be, if not the only, at any rate the most practicable form of instruction for Muhammadan girls, and at a conference of Muhammadan gentlemen which was convened in Calcutta in 1907 a syllabus and a list of books was drawn up, and Government undertook the expense of preparing suitable readers for Muhammadan girls and of a primer of hygiene and domestic economy for teachers. It is intended to give to any competent Muhammadan lady teacher employed in giving instruction in Muhammadan houses a stipend of Rs. 5 and a capitation grant of four annas a month for every girl and woman attending her regular tuition, and also to appoint if possible a lady superintendent to train these teachers and to supervise their work.

Education of Muhammadan girls in Behar.

837. In the PUNJAB the figures given of pupils receiving zenana instruction are not complete, but so far as they go they show that a considerable amount of work is being done; for instance, 522 girls are said to be attending home classes in one inspector's circle and 407 in another, 257 in the city of Lahore itself and 184 in another circle. This work is chiefly in the hands of missionaries. The numbers quoted are in excess of the aggregate number of women receiving this form of instruction in the province five years ago. The Lahore inspector is quoted as expressing the opinion that "women belonging to high castes and those living in purdah would be greatly benefited by the opening of home classes in suitable streets of large towns under Government supervision, and by the appointment of itinerant female teachers on good salaries."

Zenana instruction in the Punjab.

838. In EASTERN BENGAL AND ASSAM it is stated that zenana classes exist in two divisions only, those of Dacca and Chittagong, and that in both these divisions they have been instituted during the past five years. The numbers of pupils recorded are 38 and 105 in the two divisions respectively. The teachers in Dacca receive Rs. 50 a month, besides Rs. 25 a month allowance for conveyance. One hundred and nineteen of the pupils were Hindus and twenty-four were Muhammadans, and Mr. Sharp, the Director, writes:—"The experiment was thus distinctly hopeful in the case of Hindus, and in the case of Muhammadans not altogether hopeless. The provision of a staff of trained teachers and the appointment of one or two inspectresses to guide and encourage these classes will probably lead to still better results." Mr. Sharp adds, however, that there is good authority for supposing that home education among women of the higher castes is already widely spread; and Dr. Chatterjee, the inspector of Rajshahi, declares that, "there is hardly any respectable Hindu household where the girls have not received some kind of education. This however cannot be said with confidence about Muhammadan households." Mr. Sharp comments:—"The system of zenana teaching can be thoroughly beneficial only when carried out by the most enlightened agency, which will not stop short at the imparting of the mere rudiments or forms of knowledge, but will proceed to the inculcation of higher social ideals and a wider conception of the duties of the sex. And it can be successful only when popular sentiment sanctions such a course."

Zenana instruction in Eastern Bengal and Assam.

CHAPTER X.

EDUCATION OF EUROPEANS.

Institutions and Pupils.

839. THE greater number of the Europeans and Eurasians who receive instruction in India receive it in institutions specially intended for them. There are for this purpose 401 institutions, consisting of 350 schools giving a general education and 34 training schools and technical or industrial schools teaching handicrafts. There are also attached to the schools for general education fifteen college departments giving a so-called University education, but only four of these are affiliated nominally to a higher standard than the Intermediate in Arts, and none, in fact, amounts to more than being the top class of the school, in which a little special teaching is given for the University Intermediate examination. It is extremely doubtful whether the Universities will permit the continuance of the affiliation of these classes, especially as in the majority of these schools the college departments contain no pupils. The other two institutions are professional colleges.

Europeans may attend any of the schools in India which are primarily intended for Indians, and if they wish to obtain in India any professional or technical education, or any education of a kind other than that provided in the institutions for Europeans above-named, they must seek it in the schools or colleges or technical institutions attended by Indians. In a few such institutions, *e.g.*, Engineering colleges, there are some classes expressly reserved for Europeans, but usually this is not the case.

840. The statistics do not enable us to state with precision the number of Europeans who are being instructed in institutions reserved for Europeans or in the common institutions of the country respectively, but they enable us to form some estimate. The total number of Europeans and Eurasians under instruction in the several classes of institutions in 1907 was as follows:—

Arts Colleges	150
Professional Colleges	338
Secondary* Schools	25,043
Primary Schools	4,088
Special Schools	1,307
Normal Schools	188
Private Institutions	16
TOTAL	31,130

The number of pupils who at that time were receiving instruction in institutions specially intended for Europeans was as follows:—

Arts Colleges	59
Professional Colleges	29
Secondary* Schools	24,650
Primary Schools	3,968
Special Schools	1,176
TOTAL	29,882

Thus there must be at least 1,248 Europeans and Eurasians receiving instruction side by side with Indians in Arts colleges, professional colleges and schools attended by Indians. But the number of Europeans studying in schools for natives must be greater than this, because there are in the schools for Europeans a certain number, limited to a maximum of 15 per cent., of natives. The number of Europeans and Eurasians under instruction shows now no tendency to increase. In 1879 the Government of India estimated

* High and middle.

that the number of European children requiring instruction was 26,000. In 1892 this number was almost reached; in 1897 the number of Europeans and Eurasians under instruction in India was 29,176, and the present figure (31,130) shows no material increase upon that.

841. Meantime the number of European and Eurasian children in India must have increased, but has yet effected no corresponding increase in the number of such children found in schools in India. There has been some increase in the tendency of Europeans of the middle class in this country to send their children home to England for education, as those of the higher classes invariably do; but this cause cannot have operated sufficiently to balance the increase in the total number of children, and the probable conclusion is that a greater proportion of Eurasians of the lower class are growing up outside the reach of our school system than was the case ten and fifteen years ago. Mr. Hornell calls attention to the existence of poor Eurasians in Calcutta of whom it is said that "they remain at present almost unreachd, and some would say unreachd."

"One phase, then, of the problem of European education in India is what may be called specifically the Eurasian question; a question the most lurid aspect of which, as far as this province is concerned, is presented by the Eurasian slum population of Calcutta. A well-known Calcutta gentleman has recently investigated the conditions under which the lowest half-castes of that city live, and the following is an extract from his account of some of the most frequented Eurasian quarters:—

"The usual accommodation per man or per family consists of one room, often partially subdivided, containing a water tap and built in *pukka*, *i.e.*, brick. An alternative to this is the occupation of a building in tenements. . . . Proceeding northward, the conditions rapidly deteriorate. *Kutcha* houses rapidly replace *pukka* habitations in greater and greater numbers, until finally the conditions of life in the lowest class on the borders of 'Chinapara' (or the Chinese quarter) are in a large measure hardly distinguishable from those found in the lowest *bustis* in Calcutta. To see the lowest of them all, leave Bow Bazar by Phear's Lane, follow this till it meets Hide Lane, and then take the latter and wander round the maze of crooked narrow streets until you reach Tiretta Bazar. Here live in the so-called *Kintals* (another word for almost pure *busti* life) the lowest class of Eurasians in Calcutta. Here you may see the greatest mixture of type of face and form that I have known anywhere; here you may find conditions of promiscuity and immorality quite unnameable; here you may see children, bright children too, growing up cursed from their birth and practically without a helping hand, predestined to become loafers in the streets or worse."

842. The report of the Director of Eastern Bengal and Assam also calls attention to the existence in Eastern Bengal of numerous Roman Catholic Christians with European (chiefly Portuguese) names.

"To this class of Christians, numbering in all 15,415, the term 'Feringhi' is applied by the Bengalees, who assert that all are converts from Hinduism. This is probably true as regards those resident in the Dacca district, and the Dacca Feringhis are certainly indistinguishable whether in dress, means of livelihood or language from the ordinary Bengalee. They make no claim to be of European descent and (most important of all), in spite of the European names they bear, they are regarded by their priests as Native Christians. In some other districts, however (chiefly Chittagong and Noakhali), trousers are worn by the men when attending Mass, and a definite claim to European descent is made. Of the 2,050 reported by the Bishop of Dacca to be now claiming, or likely to claim, to be Eurasians, about 1,500 (*i.e.*, most of those in Noakhali and Chittagong; about 200 in or around Dacca; and a certain number of those in Bakarganj) appear from an inspection of the figures of the last Census Report to have returned themselves as Eurasians in 1901. As, by an order of a previous Lieutenant-Governor of Bengal (Sir John Woodburn), the Chittagong and Noakhali Feringhis were recognised as Eurasians, their children now form the bulk of those reading in the two European schools at Chittagong, in addition to supplying a good number of pupils to St. Gregory's, Dacca. It is, therefore, unnecessary to discuss to what extent their claim to European descent is justified; but the important point to be noticed is that the recognition of these 1,500 Christians with European names inevitably converts the remaining 14,000 into potential Eurasians. The present policy of the Roman Catholic Church is undoubtedly to treat them as Bengalees, but this does not, even now, prevent sharp boys from being occasionally sent to St. Gregory's, Dacca, where they naturally pass into the class of recognised Eurasians. Let this process for any reason be accelerated, or let the community (which is treated by Bengalees as a low caste) be seized by one of those waves of desire for advancement that continually agitate the lower caste of Eastern Bengal, and the department will be faced with the task of arranging for the education of over two thousand extra Eurasian children."

843. The educational problem of providing instruction for Europeans and Eurasians here becomes merged in the wider questions relating to the classification of inhabitants of this country as Eurasians or as Indians. The remarks quoted above are sufficient to show that the term European, which is defined in the European Schools Code as signifying "any person of European descent, pure or mixed, who retains European habits and modes of life" does not signify a community with any sharp dividing line, and that it is not possible to state at any time with scientific precision what is the total number of Europeans and Eurasians who ought to be found in the schools, or for whom school accommodation ought to be provided.

844. The European schools in this country, therefore, exist for the instruction of a class of the population which is not exactly defined either at the top or at the bottom, but which contains a wide range of social strata, including public servants and professional and business men who are unable to send their children to England for a whole or part of their education, and including at the other end of the scale a very poor population whose claim to European descent is distant and doubtful.

845. The term European school, however, has a quite definite meaning, signifying that the school is recognised by the department as a European school and is subject to the departmental code and regulations respecting that class of schools. There are 384 of these schools, excluding 15 Arts colleges and two professional colleges, with 29,794 pupils; and they are thus distributed amongst the provinces:—

Province.	Number of schools.	Number of pupils.
Madras	95	7,443
Bombay	47	3,723
Bengal	72	7,949
United Provinces	73	4,306
Punjab	33	2,339
Burma	22	2,274
Eastern Bengal and Assam	6	425
Central Provinces	36	1,335
TOTAL	384	29,794

They are situated chiefly in the large cities and along the railway lines; there are also a considerable number of boarding schools in the hills.

Nearly all of these schools are under private management, the exceptions being the Lawrence Military Asylums for boys and girls, two large hill schools for boys and girls maintained by the Bengal Government at Kurseong, one small hill school maintained by the Government of Eastern Bengal and Assam at Shillong, and one hill school recently established by the Government of Burma at Maymyo. The majority are denominational in character and are connected either with station churches or missions or endowments belonging to religious denominations; but some are undenominational, including several schools managed by railways and the large endowed Martinière schools for boys and for girls at Calcutta and Lucknow. Of the schools connected with missions some of the largest and most successful are maintained by Roman Catholic bodies and provided with teachers who belong to teaching orders and receive no salaries.

846. The schools are graded as high, middle and primary according to the standard to which the instruction is carried; primary schools representing on the whole the stage of instruction from the age of 8 to 12, the middle schools containing both boys of these ages and also older boys up to the age of about 15, and the high schools retaining them until the age of 18 or 19. There are 121 high schools, 140 middle schools and 89 primary schools.

847. The chief events by which European schools were affected during the past quinquennium were the adoption in all provinces of a separate code of regulations for European schools, framed after one model, but modified to suit the local requirements of each province; the appointment of inspectors

specially charged with the inspection of European schools in each province; the establishment of some special provision for the training of teachers in European schools, and an assignment by the Government of India of about 2½ lakhs annually in aid of provincial revenues for the special purpose of increasing the financial assistance given to European education. To these measures may be added the establishment of an annual State scholarship of £200 a year to enable pupils who have attended a European school to proceed to an English University, and also some exceptional steps taken by the local Governments in the North of India to maintain a few boarding schools in the hills with a stronger staff than finances have hitherto permitted.

The full effect of these measures has not yet been felt but has already contributed considerably to the improvement of the schools. At the same time it must be observed that the increased attention which has been paid to European schools has served to bring to notice more clearly than formerly their defects, which are almost entirely due to their poverty and to the very great difficulty of providing, with their present financial resources, a sufficient supply of properly qualified teachers.

European Schools Code.

848. The adoption of a common code for European schools was the outcome of a suggestion made by the Directors of Public Instruction when assembled for the Simla Educational Conference held in September 1901. Formerly a special code for European schools existed only in Bengal, the United Provinces and the Punjab; and in 1901 a committee was appointed to revise this code in such a way as to make it suitable for adoption in other provinces also.

The draft code which it prepared was circulated to all local Governments for their opinions, and was then promulgated by the Government of India in August 1905, to be adopted by the local Governments with such further modifications as the circumstances of each province might require. The final steps necessary for putting it into effect had been completed by some provinces, but not by all, before the end of the quinquennium. Since the close of the quinquennium the restriction upon the power of the local Governments to amend the code without reference to the Government of India has been removed, except in reference to such alterations as may in their opinion constitute a fundamental departure from the principles upon which the code is constructed.

849. The principal features of the code are as follows.

RECOGNITION OF SCHOOLS.—All European schools, whether they receive aid from Government or not, are brought under inspection and are required as a condition of recognition to show that they are necessary, that their financial stability is assured, that they have a properly constituted managing body, that they are efficiently conducted, and that they abstain from unfair and injurious competition in respect of fees. Schools which refuse inspection or fail to comply with these conditions cannot be recognised, and are thereby debarred from sending up pupils for departmental examinations or receiving scholarship holders, and from any other benefits which are obtainable by recognised schools.

850. TEACHERS.—A register of qualified teachers is maintained by the department, and only qualified teachers may be employed. The employment of pupil teachers except as supernumeraries is abolished. A low standard of qualification is at present accepted; certificates are given to existing teachers of five years' approved service, and for new teachers the lowest standard accepted is the passing of the middle school examination, followed by two years' teaching in school and a written examination in the art of teaching. Teachers so qualified are permitted to teach in primary departments, and similar persons who have passed the high school examination are permitted to teach in middle departments.

It is required in aided schools that every paid teacher shall be engaged under a written agreement with the governing body, terminable on either side with reasonable notice. The power of suspending the teacher rests with the head master, the power of his dismissal rests with the govern-

Number
of European
schools.

Grading of
schools.

ing body, and for teachers who consider themselves unjustly dismissed there is an appeal to the Director of Public Instruction. When such appeal is made the governing body defer final action until receiving an expression of the view of the Director.

851. FINANCIAL CONDITIONS.—No grants-in-aid are made to schools which are conducted for private profit. The scale of fee which is to be collected from the pupils is not prescribed by the code, but each school in applying for aid must state the scale of fees class by class, and it is open to the department to raise objections. An exact record must be kept of the fees collected, and submitted annually to the inspector, with a brief statement of reasons for any reductions which have been made. The penalty for unfair and injurious competition in respect of fees is loss of grant and loss of recognition.

The accounts of schools must be audited annually. In the Punjab a special auditor for European schools has been appointed temporarily, and similar action has been proposed in Bengal.

852. GRANTS-IN-AID.—The ordinary grants are made upon the basis of the number of children in attendance in each of the four sections of the school separately, styled infant, primary, middle and high sections, and the principle adopted is to pay in each of these sections a grant at three rates as follows:—

	Rs.
<i>A.—Infant Section—</i>	
First ten scholars	25 each.
Second ten scholars	20 "
Remainder	15 "
<i>B.—Primary Section—</i>	
First twenty scholars	35 "
Second twenty scholars	25 "
Remainder	20 "
<i>C.—Middle Section—</i>	
First twenty scholars	50 "
Second twenty scholars	35 "
Remainder	25 "
<i>D.—High Section—</i>	
First five scholars	70 "
Next ten scholars	50 "
Remainder	35 "

To the amounts calculated upon these scales an addition of ten per cent. is made.

853. These rates are higher than were previously paid under the European schools code, and wherever they are insufficient for the proper maintenance of a school they may be increased by supplementary grants, to be fixed at the discretion of the department, upon the condition that such grants shall not be applied to the reduction of fees or of voluntary subscriptions. In place of ordinary or supplementary grants thus computed, the department may compound with the schools by fixed grants which are settled for a term of years. The code also provides for special grants to schools in places where there is a small or poor European population, or to schools newly established, or for the purpose of school furniture or libraries or appliances for manual instruction and other special subjects, and for the teaching of such subjects, or for any other reason which the local Government may consider sufficient. Grants are given for cadets at the rate of Rs. 6 for those who are certified as efficient and Rs. 8 for those certified as extra efficient. Building grants are made for the erection or enlargement or extensive repair of school buildings and for acquiring land. It is required in such cases that the schools shall be held in trust under proper trustees and that the plans, estimates and specifications shall have been approved, and such grants are limited to one-half of the total cost of the building operations. The code also offers grants for night schools.

854. Thus the system of grants-in-aid is most elastic and provides for a wide discretion on the part of the department to render assistance to all ordinary and extraordinary expenditure, as indeed is necessary in a code applicable to schools whose circumstances are widely divergent. The following remarks are made by some of the Directors in their quinquennial reports.

MADRAS.—“An important feature of the new code is the liberal scale, compared with that previously in existence, upon which the grants for aiding European schools are calculated. For several reasons it was found undesirable for the present to introduce in this presidency the system of ordinary grants depending upon average attendance; the alternative system of fixed grants was adopted, and grants were allotted for the triennium beginning with April 1st, 1906, with reference to the character and needs of the various institutions, the total amount of which considerably exceeded that assigned in previous years. The scale of special grants for boarding, cadets and buildings payable under the new code is higher than that prescribed under the previous grant-in-aid rules, and the aided schools have benefitted accordingly.”

In BOMBAY the revised code has not yet been introduced.

In BENGAL the revised code has not yet been introduced, but the grant-in-aid rules contained in it have been issued and are now in force.

“An important addition has been made to the conditions under which building grants are sanctioned. Under the revised rules school managers are required, when applying for a grant, to forward a certificate testifying to the fact that the funds at their disposal will, when added to the grants, be sufficient to meet the full cost of the work. Had this condition been insisted upon before, much financial embarrassment would have been avoided in the case of certain schools.

“It has already been explained that Government is now spending on European education considerably more than it has ever spent previously. During 1906-07 the grants-in-aid paid to European schools both on current and capital account amounted to Rs. 3,29,080. In 1901-02 the amount paid in the present area of Bengal amounted to Rs. 1,25,079. The Government contribution to aided European schools has increased by just under 62 per cent. during the quinquennium under review, and this in spite of the fact that in assessing the maintenance grants for 1906-07 the revised rules were only partially introduced.”

UNITED PROVINCES.—“The abolition of grants for free day scholars has been a heavy blow to several day schools for poor children, in which many of the children pay no fees and few or none pay adequate fees; and the relatively small increase in the rates for ordinary grants has produced considerable disappointment. Schools which have to pay their teachers at the market value, in fact all those that cannot rely upon the missionary spirit of self-sacrifice, still see no hope of keeping out of debt, if they attempt to provide efficient instruction.”

EASTERN BENGAL AND ASSAM.—“The effect of the new grant-in-aid rules will be that the total grant to this province will be nearly doubled when the provisions of the new code are brought fully into operation, and that Government will practically pay the entire cost of the tuition of Europeans. They will, however, come into force in Eastern Bengal and Assam only during the next quinquennium, and the result of the change will not be perceptible until then.”

In BURMA, the grants-in-aid are still paid upon the system which was in force before the revision of the code and which is based upon salary grants, supplemented by grants to cover the difference between income and expenditure calculated upon a standard of prescribed minimum fees.

CENTRAL PROVINCES.—“Under the new code the grants have been re-assessed and increased, made annual, and fixed for a term of years. Supplementary grants were also given for buildings, furniture and salaries. The Bishop's High School, Nagpur, is still financially very weak and is only kept in existence by a liberal special grant.”

855. COURSE OF STUDIES.—The code, as it was prepared by the committee and as it was circulated by the Government of India, lays down a list of subjects which are compulsory and optional in the primary and middle standards, and describes either by means of a syllabus or by prescribing text books the progress to be made in each of the seven standards which are included within this range. For the instruction above the middle standard the schools are directed to prepare for the high school examination or for such other examinations as have been recognised by the local Government for this purpose. The compulsory subjects in the primary and middle standards are English, mathematics, geography, history, object lessons, drill, and, for girls, needlework. Kindergarten is also prescribed in the primary standards. The optional subjects are Latin, French, German, vernacular, physics, physiology, drawing, singing by note, manual instruction. The regulations for the high school examination require that candidates shall take English and arithmetic as compulsory subjects. They are given a list of eighteen optional subjects from which they may choose not more than seven, subject to the condition that boys must take Euclid, algebra and a second language, and girls must take domestic economy.

856. The Government of India gave only a provisional approval to this part of the code, and requested local Governments to consider more in detail what curricula would be appropriate for different grades of schools. The defect of the course of studies as prescribed by the code is that it contains insufficient guidance to the managers of schools in constructing complete courses of study for high schools, that it leaves individual pupils free to offer chance combinations of subjects from a wide list, and that it makes no allowance for the difference in the course of studies proper to be pursued by pupils who are to leave school at 15 and those who are to continue till 18 or 19. These defects were probably unavoidable in drafting rules which were to be applicable to all classes of schools in all provinces. At the same time the rules are wide enough to permit schools with well selected curricula to work within the four corners of the code. The Government of India indicated their view that it would be necessary to amend the code in the different provinces after considering the needs of typical groups of schools. The local Governments have responded to this suggestion, and much careful consideration has been given to the reclassification of European schools according to the standard at which they can aim and according to the curricula which local circumstances require. The matter had not been quite decided at the close of the quinquennium, but practical conclusions were already in sight. A forecast of the proposed alterations in grading and curricula in Bengal is offered by Mr. Hornell in his Quinquennial Report :—

“The conference which met at the beginning of 1906 laid down two courses of study, one for elementary, and the other for secondary, schools.

“According to these proposals, an elementary school is to consist of an infant section and six classes. The curriculum of the infant section is to comprise reading, writing, arithmetic, nature observation lessons, Kindergarten occupations, lessons on geometrical form and music. The curriculum of the classes is to comprise the English language, including reading, composition and grammar, poetry and literature, handwriting, arithmetic, nature observation work, geography, history, drawing, an Indian vernacular, handwork, music and needlework (for girls only). Supplementary courses are also provided for.

“Each complete secondary school is to be divided into three sections, (a) the preparatory school, (b) the general school and (c) the upper school. All secondary schools are to teach the same curriculum up to the age of 16, and after that considerable latitude is to be allowed. As regards the preparatory school, the curriculum of the infant section will be the same as that suggested for elementary schools; in the classes above the infant section the following subjects are to be taught :—Arithmetic, English, history, elementary nature study, leading to geography, drawing, a modern European language or an Indian vernacular and practical geometry. The curriculum of the general school is to consist of the following subjects :—English, Latin (optional for girls' schools), a modern European language or an Indian vernacular, mathematics, history, geography, science, elementary botany leading to elementary physics and chemistry, elementary physiology (including hygiene), drawing, manual instruction and needlework (for girls only). Considerable latitude is to be allowed in the curriculum of the upper school.”

857. EXAMINATIONS.—Formerly there were departmental examinations held at three stages of the school course, *viz.*, at the conclusion of the primary, middle and high stages. All pupils in the course of their school career were obliged to enter for these examinations, the results of which determined promotion in the school and also the award of scholarships.

This system has now been altered. The primary examination has been discontinued, except for scholarships, the middle school examination has been discontinued except for scholarships and as a leaving examination for those who are not proceeding to the high stage, and the high school examination alone has been retained. The promotion of scholars throughout the school is determined by the teachers and managers, subject to the general approval of the inspector. The inspector is not debarred from using examination as one of the means of inspection, but there are no longer any public departmental examinations of the schools, except the high school examination held at the conclusion of the school course. The scholarships which are awarded at the conclusion of the primary stage need not necessarily be awarded by means of examination. In order to prevent the primary scholarship examination and the middle scholarship examination from being so used as to retain the system of public examinations under another name, no lists are published of the results of these examinations except the names

of the successful candidates, which are communicated to the managers of the schools. The value of scholarships awarded at the end of the primary, middle and high stages respectively are Rs. 8, Rs. 12 and Rs. 20 per mensem, and they are tenable for three, two and two years, the maximum ages of competitors being twelve years, fifteen years and seventeen years, respectively. The scholarships awarded at the conclusion of the high school course, termed high school scholarships, are tenable for two years by students pursuing a recognised course of study in any institution approved for this purpose by the local Government.

Schools are allowed to substitute for the high school examination other examinations approved by the department, and for this purpose the Cambridge local examinations are obtaining some vogue in this country.

858. The reduction of the pressure of the examination system upon schools clears the way for the improvement of teaching by setting good teachers free to develop their own methods, and to group the scholars for teaching according to the system which may be most convenient in the school; but it does not of itself improve teaching, and it is a familiar fact that the relaxation of the examination system is often at first followed by complaints on the part of managers and teachers that a stimulus has been removed, and complaints upon the part of parents that the progress of their children in school is no longer certified by recognised standards of examination to which they were accustomed. The Europeans have proved no exception to this rule.

In BOMBAY, Mr. Covernton, the inspector of European schools, “is doubtful as to the good effect of substituting inspection for examination. He is constantly assured by principals that teachers, even more than pupils, require the stimulus of outside examination to make them throw even a moderate amount of strenuousness into their work.

“Hitherto the Matriculation examination has been regarded as the leaving examination of these schools. But during the last three years the Cambridge local examinations have been increasingly popular. These examinations are useful as affording a means of judging Indian schools by English standards. On the other hand, if the three Cambridge examinations are taken in three successive years, there is considerable danger of overstrain. The popularity of the Cambridge Preliminary threatens to revive the primary school examination in a more advanced form.”

859. In Bengal Mr. Hornell writes :—

“The Cambridge senior local examination is now recognised by the Government of Bengal as equivalent to the high school or Matriculation examination. . . . It is expressly stated that this permission will not entitle a school to send up candidates for the Cambridge junior local examination. These are the standing orders on the subject. Many of the best schools in the province have now definitely abandoned the high school examination in favour of the Cambridge senior local examination.

“Five schools sent up candidates for the Cambridge University local examinations of 1906. The results obtained were as follows :—At the senior examination nine candidates appeared and eight passed; at the junior examination 21 candidates appeared and 17 passed; at the preliminary examination 23 candidates appeared and 22 passed. These results are very satisfactory. The success of the Diocesan Girls' School, Darjeeling, calls for special mention. This school sent up 18 candidates and passed every one of them, gaining also one second class honour in the junior examination and five second class honours in the preliminary examination.”

860. A conference of managers and others interested in European schools in Bengal has expressed itself in favour of the total supersession of the departmental high school examination by the Cambridge University senior school certificate examination. Mr. Hornell remarks :—

“The decisions of the conference were undoubtedly wise, and the abolition of the code examinations will certainly not be a matter for regret.”

Inspection of Schools.

861. Formerly a special inspector for European schools existed only in Bengal; elsewhere, the schools were inspected by the local inspector of the circle in which they were situated. During the quinquennium a special inspector of European schools, a member of the Indian Educational Service, has been appointed for each province. Bombay and the Central Provinces share one such inspector between them. In those provinces and in Bengal the inspectors of European schools have no other duties; in Madras and Burma they inspect training schools

also; in the United Provinces and the Punjab they are also in charge of the general inspection duties of three districts each, and in Eastern Bengal and Assam, where the number of schools is small, a circle inspector inspects the European schools in addition to his other duties. In Madras, the boys' schools only are inspected by the inspector of European schools; the girls' schools are inspected by the inspectresses in whose territory they are situated. One Director remarks of this change that the appointment of a special inspector has permitted a more general survey than was previously possible; and another writes:—"The benefit of the change has been marked; European schools get that individual attention and expert advice which the former system could not guarantee."

Training of Teachers.

862. After many years of discussion a beginning has been made in the training of male teachers for European schools. Formerly no separate establishment existed for this purpose, and the only training provided in this country for such teachers was at the training institutions for Madras which have been attended occasionally by a few male European students. An attempt was made some years ago to start a class for training European teachers in connection with the Government school at Kurseong, but no male European students resorted to it, and it was first diverted to other purposes and then discontinued. The real difficulty in the way of training men for the profession of teachers in European schools in this country is that the salaries paid in the schools are insufficient to attract men to the profession, and that European boys educated in India have comparatively easy access to more lucrative careers. In the expectation, however, that an increase in the public funds available for the assistance of European schools would enable a general improvement to be made in the salaries, it was decided in 1906 to establish a class for the training of European male students, and with the concurrence of the Punjab and other local Governments the Lawrence Military Asylum at Sanawar was chosen for its location. The arrangements are tentative, and the final success of the experiment depends upon the trained students finding employment at adequate salaries. Sanawar was chosen partly because accommodation could be provided there without any considerable expense being incurred in new buildings. The class is under the general superintendence of the principal of the Asylum; and the staff consists of a vice-principal of the training class, appointed from England in the Indian Educational Service, and an assistant. An assignment of Rs. 10,000 annually to the revenues of the Punjab Government was made by the Government of India, in order to assist in the maintenance of the class. Students are admissible from all provinces, and receive stipends of Rs. 40 a month, paid by the Governments of the provinces from which they come. The educational qualification for admission is the European high school examination, or its equivalent. The course for such students is of two years' duration, but graduates and experienced teachers are admitted for a course of one year. The course of study combines technical training with some continuation and revision of general studies. There is accommodation for about fifteen students. The arrangements were completed during the period under review, and the class opened in April 1907.

Training of
female
teachers.

863. There are in all provinces except Madras separate training institutions for female teachers in European schools, and these have been increased during the period under review by the establishment of two such institutions at Simla, one connected with the Convent of Jesus and Mary, styled the St. Bede's College, and the other connected with the Auckland House School for girls. Both these institutions give a two years' course of training to girls who have passed the high school examination. Students so trained readily find employment. There are about twenty students in training at St. Bede's and about ten at Auckland House.

864. The provision for the training of women teachers of European schools has also been improved in Bengal. A training class has been established at the Dow Hill School for girls at Kurseong, under the supervision of the head mistress of the school, assisted by two mistresses exclusively

employed in the training class; and of these one is especially qualified to train students in Kindergarten methods. The course is for two years, and the class contains about twenty students.

865. An attempt to carry on a separate training class in Calcutta for Kindergarten teachers was made from 1904 to 1906 but was not successful and has been abandoned. "It is doubtful," writes Mr. Hornell, "whether there is much opening in European schools in Bengal for teachers who are purely specialists in Kindergarten methods; but the greater part of the teaching of young children of both sexes is in the hands of women, and it is, therefore, essential that the great majority of girls who intend to become teachers in European schools should know something of the principles which underlie the modern developments of infant school teaching, and have had some experience of their practical application." The following excerpts from the Quinquennial Reports of the Directors of Public Instruction will show the present condition of the European schools in respect of teachers:—

MADRAS.—"The teaching staff was not in general as good as it might be. The difficulty of securing European graduates is very great, as the number of Europeans who graduate in the Indian Universities is limited, and they have better openings than the teaching profession can afford; the cost of employing graduates specially brought out from Europe is beyond the resources of most of the schools.

"The consequence is that the assistant staff is generally composed of Europeans of the F.A. and lower standards, many of whom have not been trained as teachers, with a native graduate for special subjects such as mathematics and science. The comparatively low qualifications of the staff naturally impair the efficiency of the teaching, and the reports of the inspector and inspectresses indicate that the methods of teaching employed are too often mechanical and unintelligent. . . . The increased aid given to the schools will allow the managers to improve the pay and prospects of the teachers and will, it is hoped, attract Europeans of higher attainments into the profession of teaching, but the process will take time. . . . The teaching in the primary school sections is mainly in the hands of women, a considerable proportion of whom have been trained as teachers, and is fairly efficient. In the middle sections the teaching is less satisfactory. Mr. Stone, after his first year of inspection of European schools, reported thus of the teachers of the middle sections: 'The teachers are greatly hampered by the want of a wider culture than preparation for the Matriculation examination and a year's subsequent training afford. They seem to be completely the slaves of the school text-books. They can add nothing to them and they dare not depart from the formal arrangement of the subject-matter to be found in them; they constantly miss opportunities of using the pupils' out-of-school knowledge and experience.' Since Mr. Stone wrote in 1905 some improvement has been noticed in the teaching of some subjects, especially in drawing and object lessons."

866. BOMBAY.—"The number of mistresses in these schools exceeds that of masters four times. It is difficult to get men to work on the salaries offered. But, though women are the best teachers for infants, yet discipline is relaxed and the instruction in many subjects is poor, when they are put in charge of higher classes. The number of trained teachers is little more than one-sixth of the whole, and the training of many of them has been very inadequate. To the trained teachers are to be added 23, mostly women, who have passed the examination in the theory and practice of teaching for the Bombay Secondary Teachers' Certificate. Sixty-six teachers have not even studied the full high school course. They are employed only in primary standards, but such skill as they possess is but the fruit of their own experience. Native teachers are employed only for special subjects, but they find it difficult to control European boys."

867. BENGAL.—"Four hundred and sixty teachers are returned, which means that there is on an average one teacher to every 16 pupils. This is satisfactory, but a scrutiny of the qualifications discloses a state of affairs which suggests serious misgivings. Of the teachers returned, 23 only, or less than 5 per cent., are graduates, and only 42, or just over 9 per cent., have had any kind of training; while 95, or over 20 per cent., possess no qualifications whatever, and 58, or only 12 per cent., have no other diploma than that of the middle school examination."

868. UNITED PROVINCES.—"Least of all can young men of parts be expected to seek a career in the teaching profession in which, in European schools at any rate, prospects are extremely poor. This is the real reason why so few Europeans study for a University degree. Collegiate education for women, on the other hand, is more hopeful, because the teaching profession, in which the possession of a degree is highly advantageous, has more attractions for them."

869. PUNJAB.—"Owing to their lack of financial stability many of the schools suffer from a lack of well qualified teachers. A certificate of having passed the middle or high school examination seems to have been generally regarded in the past as a sufficient qualification for a teacher. As already indicated, this state of affairs is being slowly but decidedly changed."

870. BURMA.—“The inspector remarks upon the difficulty of obtaining suitable teachers, and the comparatively low qualifications of most of those actually employed. He suggests that higher salaries are needed to attract better men and that a European training college is required for Burma, any institution in India being too remote to be of much advantage to this province. One curious result of the dearth of well qualified masters is that many boys' schools are largely staffed by mistresses. In order to stimulate a desire for further study on the part of European teachers, the inspector organized very valuable courses of lectures, in various subjects.”

871. CENTRAL PROVINCES.—“The number of teachers has slightly increased and there are more than twice as many women as men: but 65 per cent. of the pupils are in the primary stage, during which stage the inspector considers that women are by far the most efficient teachers. The inadequate qualification of teachers was pointed out in the Government Resolution of 1904 as one of the main defects of the European school system. Out of 115 teachers in these provinces, only 8 are graduates and only 7 in any way trained, except a few Sisters with the French Brevet. As regards the general standard, it can only be improved by recruiting from outside, and this simply cannot be done on the present scale of salaries. The income of assistant teachers ranges from Rs. 100 down to Rs. 20, and the average pay of the head mistress of a primary school is only Rs. 70 with free quarters.”

State Scholarships for Europeans.

872. The committee which was appointed in the year 1901 to revise the code of regulations for European schools reported in favour of the establishment of scholarships of £200 per annum tenable for three years in England. The local Governments, when consulted upon this proposal, were upon the whole in favour of it, though not unanimously. The chief justification for the proposal was to be found in the fact that the State does not at present provide in India any college classes for Europeans or Eurasians which are really worthy of the name, except at the colleges which are also open to natives. The need of domiciled Europeans and Eurasians for separate school education is recognised and provided for, but if after completing their school course students from these schools wish for a University education, they have to adapt themselves as best they can to the Indian University system, which is primarily intended for the benefit of Indians. During the last twenty years only one European and one Eurasian, statutory natives of India, were successful in obtaining any of the State scholarships which are assigned to the Indian Universities. On the other hand, as will be seen from the chapter in this Review dealing with technical education, several Europeans have been awarded technical scholarships. The Secretary of State approved the establishment of one scholarship a year, to be awarded to European and Eurasian candidates in order to enable them to pursue University education in the United Kingdom, and at the same time the State scholarships which are awarded on the recommendations of the Indian Universities were restricted to Indian candidates. The establishment of the new State scholarships for Europeans was announced in March 1907. Each local Government is invited to nominate annually a candidate, and the choice is made by the Government of India after considering the merits of all the applications submitted. Candidates must be of not more than 22 years of age and must for the preceding two years have been pupils of recognised schools or colleges in India and have passed the European High School examination, or be graduates of one of the Indian Universities. The scholarships are of the value of £200 per annum for three or four years, as circumstances may require, and are tenable at any University in the United Kingdom or, with the special sanction of the Government of India, at a foreign University.

Imperial Grant.

873. In May 1906 the Government of India made an annually recurring grant of Rs. 2,56,000 from Imperial funds in aid of European and Eurasian education in India, with effect from the year 1906-07. The objects upon which they recommended that additional expenditure might be most profitably incurred were:—

- (i) an improvement of the pay and prospects of teachers,
- (ii) an enhancement of the grants made in aid of the equipment and maintenance of schools, and
- (iii) the provision of scholarships on a more generous scale.

The distribution was made in proportion to the amounts which the provinces were already spending out of provincial funds upon aided schools for Europeans, and was as follows:—

	Rs.
Madras	40,000
Bombay	35,000
Bengal	65,000
United Provinces	50,000
Punjab	37,000
Burma	12,000
Eastern Bengal and Assam	5,000
Central Provinces and Berar	12,000
TOTAL	2,56,000

As the assignment was made only in the last year of the quinquennium, its full benefit has not yet been felt.

Income and Expenditure.

874. The total expenditure of the European schools for the year 1907 is returned as Rs. 53,03,000, which shows an increase of Rs. 8,71,000, since the year 1902, when the number of pupils was substantially the same. The increase is thus accounted for:—

	1902.	1907.
Unclassified	54	...
Public funds	9,02	17,00
Fees	15,90	18,41
Other sources	18,86	17,62
	44,32	53,03

875. The increase in the expenditure from public funds upon these schools and the increase in the fees collected may be regarded as accurate or nearly so, but the figures of their income from private sources cannot for several reasons be regarded as probably correct. The whole of the apparent decrease in the receipts from private sources is located in Madras and Bengal. In Madras the amounts returned in 1902 as receipts from private sources include, while the figures for 1907 exclude, nominal sums entered as salaries of professors and teachers belonging to religious orders. In Bengal the following extract from Mr. Hornell's report will show that neither the 7½ lakhs of rupees entered in 1902 nor the 5½ lakhs entered in 1907 as received from private sources can be treated as substantial items, representing hard cash from the pockets of private subscribers or from the interest on endowments:—

“The unreliability of the returns has been emphasised in the last two annual reports on public instruction in Bengal. In the report for 1904-05 it was explained how, when the figures for 1902-03 were scrutinised, it was found that the total amount returned as expenditure from private sources had probably been overstated by about 2½ lakhs. In the report for 1905-06 it was pointed out that the expenditure under ‘boarding charges’ had declined by Rs. 1,59,302, although no material change of circumstances had in fact occurred. The circumstances were practically the same during 1906-07, but the boarding expenditure for that year shows an increase of over Rs. 67,000 on the expenditure for 1905-06.

“It is well known that European schools have, practically speaking, to rely on fees and Government grants. The Martinière colleges and the Calcutta Free School are practically the only institutions which are endowed; and a very small amount is ever raised by subscriptions, even towards capital expenditure. It is, therefore, practically impossible that so large an amount as Rs. 5,66,213 should have been realised from subscriptions and endowments during 1906-07, but this is the sum returned. The fact is that the finances of large boarding schools, which turn over annually a considerable amount of money, and of groups of schools belonging to various religious and other bodies and financed more or less from a common fund, are of so complicated a nature, that an annual return showing accurately what is being spent on the education of Europeans and the sources from which the money spent is being derived is never likely to be produced, until the whole matter is examined by an experienced accountant, and explicit directions issued, with reference not only to the keeping of school account books, but also to the form of returns and the compilation of statistics. The problem has two aspects. In the first place, the Education department should know accurately

the financial condition of each European school which is aided by Government. In the second place, the annual expenditure of each school should be returned in such a way that the inspector of European Schools could prepare from the returns submitted a general statement which would show clearly what was being spent and the sources from which the money was being derived. Proposals with reference to this matter have recently been submitted to Government."

Hill Schools Committee.

876. A committee was appointed by the Government of India in September 1903 to enquire into the financial condition of the hill schools for Europeans in Northern India. The repeated applications for extraordinary assistance from hill schools in Northern India, the closure of an important school at Mussoorie which had been maintained from an endowment raised by Bishop Cotton after the mutiny, the total disappearance of the endowment of another of the schools included in Bishop Cotton's scheme, and the alarming growth of debts at others, showed that hill schools were rapidly approaching a financial crisis, and that those which depended upon the employment of salaried masters were in danger of being annihilated.

877. The committee found that girls' schools were in no great financial distress, the reason for this being the comparatively low scale of salaries at which efficient mistresses can be obtained to work in the hills; but the following passage from their report will show the substance of their conclusions respecting boys' schools:—

"Allowing for the causes which have been mentioned above:—The insecurity of the trusts and their lax administration; mismanagement; the greater accessibility of schools in England; the fluctuations of the rupee; the 'closing of careers' in India, and competition between schools, we are of opinion that the chief explanation of the difficulties of the Church of England schools is that the theory upon which the grant-in-aid system was founded, that it would evoke private effort, has broken down. In all the Church of England schools in the hills, there are no resources beyond the fees of the scholars, the Government grant (assessed on the expectation that local effort would supplement it), and, in one school only, the income from endowment. The endowments were insufficient to meet the cost of carrying on the schools; there was no provision for renewing the premises from time to time; there was no reserve fund to tide over temporary difficulties; the cost of living and of wages has gradually grown; of late years, owing to the revision of the code in 1895, the amounts of the Government grants have been diminished (an effect which was not intended by the revisers); and consequently the schools have had an impossible task to struggle with. They have been trying to provide secondary education and have not had nearly enough money for the purpose. They have escaped complete collapse by living on their capital, by borrowing, by obtaining occasional subventions of an exceptional kind from Government, and by reducing expenses below the minimum required for efficiency.

"We know of no means by which the obligation to collect funds for the maintenance of efficient secondary schools can be laid upon any persons in this country. Those who are active in collecting funds for educational purposes regard secondary education as an inappropriate object for which to solicit small and regular subscriptions, and they devote to orphanages or 'charity schools' the monies which they can, with some trouble, collect.

"It appears that there are three possible courses to pursue in regard to the secondary education of boys of the class who now frequent the non-Catholic schools in the hills:—

- (1) to make grants to the schools upon a scale which is only sufficient to maintain them in efficiency if considerable voluntary subscriptions are forthcoming;
- (2) to supplement these by occasional and exceptional grants when the schools are *in extremis*;
- (3) to discard the dependence upon voluntary subscriptions, and to secure, as a matter of public policy, the provision of such education as may be suitable.

If the first of these courses be adopted, St. Paul's School, Darjeeling, will collapse very soon; Bishop Cotton School, Simla, cannot be maintained on its present basis; other schools will suffer, and the education of the boys concerned will fall to such a level that there must be a progressive deterioration in the capacity and prospects of the class to which they belong.

"The second course, of making exceptional grants to these schools when *in extremis*, is upon the whole the policy which has of late years been followed. It has the disadvantages which are usually attached to spasmodic action. Before the pecuniary assistance is given, the credit of the school has been shaken, its permanence has been threatened, and its efficiency has sunk to a low ebb; the more pressing financial difficulties

are tided over, other evils remain; and since the assistance is given as an exceptional measure, Government does not probe the causes which have brought the applicant for relief into penury, nor assume that degree of control which may be a necessary security against the recurrence of the trouble.

"We have endeavoured to count the cost of the third course, and, discarding the dependence upon subscriptions or endowments, to answer the question how in existing circumstances the hill schools which are in difficulties may best be enabled to provide suitable education."

878. The recommendations of the committee were accepted by the Government of India and commended to the local Governments concerned, with, however, an expression of hope that private effort might be forthcoming upon a larger scale than at present to assist the schools.

There is at present no sign of any response to the call for increased private effort in support of the schools, but by the action of the local Governments the chief hill schools in the north of India have been rescued from a state of threatened insolvency, their boards of management have been reconstituted, and grants, which according to the standards hitherto prevailing appear considerable, have been made to them in order to provide for the employment of a staff of teachers at a reasonable minimum of salary, qualification and number.

CHAPTER XI.

EDUCATION OF MUHAMMADANS.

Introductory.

879. IN the area covered by this Review there are according to the census of 1901 54,297,000 Muhammadans in India, being 22·6 per cent. of the inhabitants. Muhammadans form the bulk of the population of the North-West Frontier Province, three-fourths of that in Sind, rather more than half in the Punjab and Eastern Bengal and Assam, about one-seventh in the United Provinces, and smaller proportions in the remaining parts of India. They are but little behind the rest of India in respect of the proportion of their numbers who are under instruction, but this result has not been attained without the offer of special inducements and facilities; and in respect of the proportion receiving higher education, they are very far below the average. Their backwardness is attributable partly to poverty, partly to indifference, and partly to their educational wants not being the same as those of the remainder of the population amongst whom they live. They require their children to learn the Koran by rote at an age when other children are beginning to make progress in secular education, and they have a preference for the use of Urdu as a medium of instruction, even when it is not the vernacular language of the locality. Both these causes operate to make the common schools less attractive to Muhammadans than to members of other creeds and also to make it more difficult for Government to provide schools suited to their special needs. The special measures taken by the local Governments in order to overcome these difficulties follow two lines:— (1) to make the common schools attractive to Muhammadans, and (2) to bring the indigenous Muhammadan schools within the influence of the department and so to raise the standard of education therein imparted. Along the first of these paths lies the provision of scholarships for Muhammadan pupils at schools and training colleges, the provision of Muhammadan hostels attached to colleges and schools, and the appointment of Muhammadan inspectors. Along the second lie efforts which have been and are being made to add secular instruction to the curricula of the schools which are known as Mullah schools, or rote schools, or Maktabas, and also to introduce or extend the teaching of English into the Madrassas which exist in some parts of India for teaching oriental studies to older Muhammadan boys. The chief advance which is recorded during this quinquennium, *viz.*, an increase in the number of Muhammadan pupils attending primary schools in the Bengals and in Bombay, is connected with the efforts which have been made in these provinces to induce the teachers of Maktabas and Mullah schools to add secular education to the teaching of the Koran. The improvements which are taking place in Muhammadan education are doubtless due, in some degree, to the special measures taken by Government to provide and assist in the provision of suitable facilities, but they are due even more to the gradual change which is taking place in the feeling of the Muhammadan community towards education. Amongst the contributory causes of this change a high place must be assigned to the propaganda carried on by public-spirited leaders, such as the late Nawab Mohsin-ul-Mulk, and to the Muhammadan educational conferences annually organised by them and held during the past quinquennium at Delhi, Lucknow, Karachi, Dacca and Calcutta. Among the symptoms of the change in feeling may be mentioned the fact that the movement towards education among Muhammadans, though it still has to struggle against inertia, meets with less opposition than formerly within the community itself. An instance of this is found in one of the provincial educational conferences held during the quinquennium at Vellore, which had the countenance and active co-operation of Maulvis holding a high position in the religious world of Islam.

Institutions and Pupils.

880. The number of Muhammadans under instruction in public institutions in 1907 was 923,901, as compared with 732,005 in 1902. This is a greater increase than has ever been recorded within a similar period; and it is proportionately a slightly

greater increase than has taken place among the other classes of the community: consequently the gap between the school attendance of the Muhammadans and the average school attendance in India is being gradually closed up. The following table gives in the first column the proportion which the Muhammadan population of each province bears to the population of the province as a whole; in the second and third columns the proportion borne in 1902 and 1907 respectively by the Muhammadan pupils of public institutions to the total number of pupils in such institutions:—

PROVINCE.	Muhammadan population.	Muhammadan Pupils.	
		1902.	1907.
	Per cent.	Per cent.	Per cent.
Madras	6·5	9·7	8·8
Bombay	18	17·3	16·4
Bengal	17·2	25	13·9
United Provinces	14·1	15	14·6
Punjab	53·2	37·7	39·1
Burma	3·6	2·5	3·0
Eastern Bengal and Assam	57·9	18·8	48·7
Central Provinces and Berar	4·2	9	9·1
Coorg	7·6	3·4	4·4
North-West Frontier Province	92·1	64·4	63·2
TOTAL	22·6	18·8	19·5

If the Muhammadans attended school in proportion to their numbers the Muhammadan pupils would be 22·6 per cent. of the whole.

The areas of Bengal and Assam were readjusted during the quinquennium; the figures for the combined area of the two provinces are as follows:—

Proportion of population who are Muhammadans	33·2
Proportion of Muhammadan pupils, 1902	24·5
Proportion of Muhammadan pupils, 1907	27·1

881. Thus there are three provinces, *viz.*, Madras, United Provinces and the Central Provinces, in which the number of Muhammadan pupils is more than proportionate to the number of Muhammadans in the province. In Madras, Bombay and the United Provinces the Muhammadans have not contributed their share towards the increase in the number of pupils, and consequently the ratio of Muhammadans to the total number of pupils has declined; but this slight falling off is more than compensated by the increase which has taken place in the two Bengals, so that over the whole of India the Muhammadan pupils now form 19·5 per cent., as compared with 18·8 per cent. five years ago.

882. Again, the increase in the school-going tendency of the Muhammadans may be illustrated by the following table, in which the first column states the proportion of the male population of school-going age of all creeds, in the province as a whole, who are at public institutions, and the second and third columns show for 1902 and 1907 respectively what proportion of the Muhammadan male population are attending school:—

PROVINCE.	School attendance of males of all creeds, 1907.	Muhammadans.	
		1902.	1907.
	Per cent.	Per cent.	Per cent.
Madras	25·7	33·6	35·5
Bombay	28·1	23·2	24·8
Bengal and Assam	28·2	19·3	24·4
United Provinces	13·6	10·1	14·2
Punjab	12·8	7·5	9·9
Burma	21	10·5	17·5
Central Provinces and Berar	22·1	41·9	50·5
Coorg	21·9	11·7	14·3
North-West Frontier Province	9	5·2	6·7
TOTAL	22·7	16·3	20·2

The details upon which these percentages are based are shown at tables 231 and 232. The difference between the lowest and the highest rates of school attendance, viz., 6·7 and 50·5, is remarkable, and it is worthy of notice also that the highest rates of school attendance on the part of Muhammadans are found in the two provinces where they are a small minority of the population.

883. The deficiencies, however, of the Muhammadan population in respect of higher education are considerable, as will be seen from the following table. The figures in this table relate to India as a whole, in which the Muhammadans form 22·6 per cent. of the population, and consequently there would in each class of institutions be 22·6 per cent. of Muhammadans if Muhammadans attended these institutions in proportion to their population.

Percentages of Muhammadan pupils to the total number of pupils in the various classes of public institutions.

	1901-02.	1906-07.
Arts colleges	7·3	8·1
Professional colleges	6·4	7·5
Secondary schools	14·4	14·8
Primary schools	19·7	20·0
Total in public institutions	18·8	19·5

It is true that the figures of 1907 show a slight improvement upon those of five years ago, but they are striking evidence of the neglect by the Muhammadan community of their opportunities of higher education. The details are given in table 238.

884. It will be seen that the number of Muhammadans in Arts colleges has risen from 1,259 to 1,469, the principal increase (261) occurring in the United Provinces, where the Aligarh College continues to attract a large number of students. The numbers have fallen in Madras by four, in the two Bengals by 100, in the Central Provinces by three, and in the North-West Frontier Province by one. They have risen in Bombay by twenty-eight, including one female student, in the Punjab by twenty-six, and in Burma by three. The students in Professional colleges have increased by 123. The secondary schools contained 70,614 pupils in 1906-07, as compared with 55,487 in 1901-02. There was an increase from 21,419 to 35,375 in the number of Muhammadans attending middle vernacular schools, and an increase from 645,711 to 787,173 in the primary schools. In all these cases, only the returns from public institutions have been taken into account. The most noticeable increases in secondary school pupils occurred in the two Bengals (over 7,000), and the United Provinces (about 4,500). In the middle vernacular schools, the United Provinces show a remarkable increase of over 9,000 pupils, the figures being 1,844 and 10,922 respectively: in the Central Provinces also the numbers have risen from 123 to 3,372. The largest increase in the total of Muhammadan pupils in primary schools occurred in the two Bengals, where the rise exceeded 97,000.

Muhammadan Colleges.

885. The only colleges which are maintained solely for Muhammadan students are the Government Madrassa at Calcutta, the aided Muhammadan Anglo-Oriental College at Aligarh in the United Provinces, and the Anjuman-i-Himayat-i-Islam Institution at Lahore.

886. The Calcutta Madrassa is divided practically into two departments, the Anglo-Persian department, which is a high school teaching up to the Matriculation standard of the Calcutta University, and the Arabic department, which teaches a school and college course extending altogether over 11 years. Those students of the latter department who desire to take up University courses are reckoned as students of the Madrassa, though they actually receive their instruction at the Presidency College. There were 42 such students on 31st March 1907. Out of 30 candidates sent up for the F.A. examination 11 passed, one in the first division.

887. The Aligarh College is by far the largest institution for the education of Muhammadans in existence in India, though it is open also to students of every creed and race. At the close of the quinquennium it had 409 students taking the University courses. Of these no less than 370 reside in hostels. The accommodation has been increased by one boarding house after another, but is still insufficient. A new system for the superintendence of the hostels was introduced in 1906-07, and is thus described by the principal:—“The boarding house is now divided into ‘sides’, each under a tutor, whilst a senior tutor directs the working of the whole under the supervision of the principal. Under the tutors are the assistant tutors, and many of the details of daily and weekly routine are carried out by house monitors.” Two European professors have recently been added to the staff, one to teach Sanskrit and the other Science. A good start is said to have been made in the teaching of the latter subject. The college aspires to be affiliated to the D.Sc. standard, and the provision of improved laboratory accommodation is recognised as one of the most urgent needs of the future. Towards the close of the period under review the college received a donation of Rs. 20,000 from His Majesty the Amir of Afghanistan, and the promise of an annual grant of Rs. 6,000.

888. The Islamia College, Lahore, is maintained by the Muhammadan community with the object of imparting to youths of their creed a liberal education combined with theological instruction, and bringing higher education within reach of those young men who would otherwise be unable to afford it. It prepares students for the Intermediate, B.A., and M.A. examinations of the Punjab University. The subjects taught in the F.A. classes are English, mathematics, philosophy, physics and chemistry, history, Arabic, Persian and theology; those taught in the B.A. are English, applied mathematics, pure mathematics, history, Arabic, Persian, philosophy and theology. In the M.A. classes only Arabic and theology are taught. There is a school maintained in connection with the college; and the rapid expansion of the former during the quinquennium rendered it necessary that the college should be shifted from its premises in the city. It was housed at the end of the period in a temporary building, but it was anticipated that it would be moved before the end of 1907 to new buildings specially erected by the Anjuman, by a sub-committee of which society the college is managed. The present hostel, of which a part lies in the college premises and the rest is located in the vicinity, can afford accommodation for more than 50 students. It is under the superintendence of the principal, and a senior member of the staff resides in it as Honorary Superintendent. The number of students on the rolls at the end of the quinquennial period was 89.

Muhammadan Schools.

889. MADRAS.—The only high schools for Muhammadans in Madras are the Government Madrasa-i-Azam, and the Harris High School managed by the Church Missionary Society. The former was provided in 1903-04 with a commodious building and spacious playing grounds, and a hostel was built for the accommodation of students coming from the mufassal. The efficiency of the institution is said to have improved during the last two years and its strength received a large accession in 1906-07. The number of boys in high school classes has increased by 22 per cent. in the quinquennium. The number and strength of Muhammadan primary schools fell during the first four years of the quinquennium, but there was a recovery in 1906-07, and their total strength at the end of the period stood higher than at the beginning. Twelve thousand Muhammadan girls were receiving instruction in public institutions and were almost entirely in the primary stage of instruction. Out of these twelve thousand, nearly five thousand were attending public schools for Muhammadan girls, and the remainder were in other public schools. There has been a considerable increase in the number of Muhammadan girls receiving instruction during the quinquennium, but scarcely any of them proceed beyond the 4th standard. There are three training schools for Muhammadans, two for masters and one for mistresses, and three industrial schools, two for boys and one, a school of embroidery, for girls. There is an important industrial school in Madras, which receives an annual grant of five thousand rupees from Government and which usually has 100 boys on the roll. The number of

Muhammadans under training as teachers continues to be very small, and it is said to be always a matter of difficulty to find qualified teachers for Muhammadan schools. Great difficulties continue to attend the efforts made to encourage the education of the Mappillas. Both the number and strength of Mappilla public schools have decreased in the quinquennium, and the local Government have recently placed the community in the list of backward classes, which renders them eligible for free education in elementary Mappilla schools under public management and entitles managers of aided schools to receive capitation grants at 50 per cent. above the ordinary rates.

890. BOMBAY.—In Bombay, there has been a very small increase in the number of Muhammadans attending secondary schools, but a more satisfactory increase has occurred in the numbers receiving primary instruction. One of the greatest difficulties is to provide trained Muhammadan teachers, though there has been a slight increase in the number of pupils in the training college situated in the Southern division.

891. In Sind, the number of Muhammadans receiving secondary education has more than doubled. The inspector of schools remarks:—“The special efforts and perseverance of the Revenue and Educational officials has made a distinct impression upon the mass of Muhammadan apathy and lethargy and even antipathy towards English education, and well-equipped, well-staffed special institutions for Zamindars' sons in the mufassal and for the urban Muhammadans in the towns are springing up in various parts of Sind.”

The development of the aided primary schools for Muhammadans in Sind deserves special mention. The following interesting extract from the inspector's report with regard to these schools and other unrecognised schools in Sind is worthy of quotation:—

“Those indigenous schools in local board areas, commonly styled ‘Mullah schools’, have greatly decreased in number during the quinquennium, and greatly increased as an educational asset of the province. The paradox is explained by the statement that most of the 823 aided schools of 1901-02 were schools only in name, inasmuch as no attempt was made by them at secular education, while the 699 schools of 1907 are *de facto* schools teaching Arabic-Sindhi, and the three R.'s (at least), and steadily feeding the local board schools at the same time. In like manner, the decrease in the number of pupils from 27,887 to 26,364 is distinctly satisfactory and commendable, inasmuch as the 1,500 boys constituting the deficit have left the Mullah schools, to swell the number returned as attending the local board schools.

“In no department of educational endeavour has this quinquennium witnessed a more radical and fundamental change, and incalculable improvement than in this; and the wise, far-sighted and able policy of my predecessor, Mr. A. G. Wright, has created an educational system, and a real and solid educational asset, out of a fraudulent farce. For such the Mullah system was. A rude and ignorant rustic gathered together a herd of children into a filthy shed, or the bare backyard of his mosque; and, squatted on the ground, and without books or slates or any kind of scholastic apparatus, they droned unintelligible extracts from the Koran—when not engaged upon the intimate domestic business of the Mullah. There was absolutely no mental, moral or physical development of any sort in the pupils of these schools, (and it would be less easy to show that there was not decided retrogression).

“The first great step in the advancement of these *soi-disant* ‘schools’ was taken in the year 1902-03, when the bold and drastic course of striking from off the registered list every Mullah school teaching only the Koran, and refusing to teach Arabic-Sindhi and secular subjects, was adopted; while it was made clear to every Mullah whose school remained that his grant depended upon the quality and nature of the secular education he imparted. A policy of encouragement and conciliation was further adopted towards the remnant left (after the excision of the more ignorant, suspicious and fanatical minority), under which the experiment was tried of giving the Mullah a double grant for those boys who were sent by him to the local board school for secular education after he had ministered to their spiritual needs. Further, the framing of the ‘Mullah standards’ in 1902 and their imposition upon the Mullah schools has served both as a check upon their work and as a condition of grant, while the award of local board grants-in-aid to Mullahs who have passed certain rural standards and taught the same in their schools has been another lever in the external machinery used for their reformation, or rather regeneration. (More potent still will be the influence of recent orders of Government, by which Mullahs will be enabled to earn an enhanced maximum grant of Rs. 150. For this will induce Muhammadans in local board areas who have passed the vernacular school Final Examination, or some other qualifying test, to open schools in which the work will naturally be more efficient by reason of the higher qualifications of these teachers. But this is at present matter of conjecture and prophecy only.)

“The result is that it is difficult adequately to describe the improvement in the condition of this class of school, the best of which now approximate to the local board schools, and the worst of which are at any rate schools (which none of them were a few years ago). It is very creditable to the deputy inspectors and their assistants that they have succeeded in showing this very difficult, suspicious and wrong-headed type of person that his material advantage lay along the line of secular education, and that to-day, in each district, there is a keen emulation and rivalry for the possession of the ‘lungis’ awarded to those whose work has been adjudged the best in the past year.

“It is also gratifying that the bitter hostility of the Mullah towards the local board school has almost completely died away, and that his change of interest and outlook has replaced antagonism by a feeling of friendship towards the institution which represents his means of increased income, inasmuch as the attitude of the Mullah towards education will slowly but surely influence the attitude of his parishioners.

“It may confidently be prophesied that the next quinquennium will see many of these—once worse than worthless—Mullah schools, put on the aided list (under Chapter II of the Grant-in-aid Code), though this should not be done with undue haste, lest that standard should be lowered. Thus will the Mullah school gradually work out its salvation and rise to the level of the local board school, and the local board school will have to look to its laurels, an infinitely more desirable state of affairs than would have resulted from the policy of attaching the ignorant Mullah to the local board school staff as a sort of scripture-master, and so rather tending to bring the local board school downward to the Mullah school standard and level, instead of bringing the Mullah school upwards to the level of the local board schools.

892. “These are schools quite out of the pale of the Educational department. They are small schools—specially Koran schools, in which no secular work is done, and they exist only for ministering to the religious needs of the villagers (Muhammadans in almost all cases). They are never observed by the officers of the Educational department during their annual peregrinations in their sub-divisions. They exist in out-of-the-way places, through which the inspecting officers never have any occasion to pass. The figures as regards these schools are supplied by the Mukhtiarkars, and the returns are never reliable. These schools move with the villagers, whose place of residence is determined by circumstances absolutely beyond their control—rain, inundation, etc., etc. They are, in fact, nomadic. It is therefore absolutely impossible to expect correct returns.

“They are divided into two classes:—

1. Advanced.
2. Elementary.

“In the case of the former there were 13 schools with 148 pupils in 1901-02, but in 1906-07 they have been returned as 36 and 620 respectively.

“The elementary schools were 751 with 11,024 pupils in 1901-02, and in 1906-07 there were 770 schools with 10,508 pupils.

“There is very little to say about these schools, except that they partake of the nature of Mullah schools, and when the managers raise them up to a certain standard of efficiency, they are taken on as ‘aided indigenous schools’, and receive a grant from Government.

“The maximum grant hitherto offered to this class of schools has not been sufficiently alluring. But the recent decision of Government, whereby the maximum grant has been raised from Rs. 72 to Rs. 150, will, I believe, offer sufficient inducement to these schools to qualify themselves for a ‘reward’ from Government, and the next quinquennium will witness a revolution in these schools in point of efficiency.”

893. BENGAL.—There has been a steady rise in the number of Muhammadans receiving instruction of all kinds. The Muhammadan increase has been proportionately higher than the general increase. Muhammadans, however, are still proportionately far less numerous in the higher stages of education. Muhammadan pupils in primary schools represent 13.9 of the total, but the percentage of Muhammadans in secondary schools is only 9, and there has actually been a falling off in their number. More Muhammadans are attending the ordinary primary schools and a greater number of Muhammadan primary schools (maktabas) are imparting an education which enables them to be classed as public institutions. In the matter of secondary, professional and collegiate education very little progress is apparent even during the last decade.

894. In addition to the Hooghly Madrasa and the Nawab's Madrasa at Murshidabad, there are sixteen privately managed Madrasahs with 907 students, which are returned as public institutions. Of these seven are aided and nine are unaided. Mr. Hornell traces the successive steps taken in Bengal, which have resulted in the classification of *maktabas* into three kinds,—(1) those which teach the Koran and the ritual of Islam through the Urdu language and nothing else; these receive no grant but a registration fee in return for the submission of annual statistics. (2) *Maktabas*, which in addition to the above (or without it) teach

Urdu or Persian and Bengali and arithmetic up to an elementary standard : these receive grants as primary schools. (3) *Maktab*s teaching the full departmental curriculum up to the upper primary standard in the vernacular and adding thereto Urdu or Persian : these schools receive an addition of 25 per cent. to the ordinary grant for primary schools. The system was promulgated in the year 1905. An annual allotment of Rs. 14,750 for additional grants-in-aid to *maktab*s has been distributed among the various districts of the province, and model *maktab*s have been established and inspecting *Maulvis* appointed in the following six districts :—Bhagalpur, Patna, Gaya, Shahabad, Muzaffarpur, Darbhanga. Arrangements are now being made to bring the arithmetic and vernacular courses prescribed for *Maktab*s of class (2) into line with the requirements of the revised syllabus for the infant section and standards I and II which was lately sanctioned by Government. Proposals for further increasing the amount available for grants-in-aid are also under consideration.

It is early to look for results, but there seems to be a consensus of opinion among divisional inspectors that the scheme is working well.

Khan Sahib Maulvi Muhammad Ibrahim, Inspector of Schools, Burdwan Division, records in his quinquennial report the following observations with reference to the *maktab* scheme :—

“The importance of *maktab*s as the first seminary of Muhammadan rudimentary education being admitted, it is desirable that some provision should be made for the inspection of *maktab*s and training of their teachers. With this end in view I would take the liberty to propose the appointment in each district of an inspecting *Maulvi*, fully equipped with the resources of original learning to be able to command the confidence and respect of the stubborn *mianis* of *maktab*s, and sufficiently acquainted with English and Bengali to be able to convey, as necessary, the instructions issued to them from time to time by the department. Without some such provisions there is no means of knowing that grants to *maktab*s and *madrasahs* are not abused. With the existing officers this work cannot be performed.”

896. UNITED PROVINCES.—In the United Provinces, the Muhammadans in 1901-02 formed 20·7 per cent. of the pupils of all creeds and races receiving instruction, and at the end of the quinquennium they formed only 18·7 per cent. The number attending private institutions has fallen off less rapidly. Though the Muhammadans are steadily losing their lead, they still have more children in proportion to the population undergoing education than the Hindus. The percentage of children under instruction to those of school-going age is 11 amongst the Muhammadans, and only 7·87 amongst the Hindus. The Muhammadans are better represented in secondary than in primary schools. In the former they constitute 22 per cent. of the total number, in the latter only 13 per cent. In the matter of female education the Muhammadans have made little progress.

897. PUNJAB.—In the Punjab, the number of Muhammadans attending public schools of all classes has increased by 23,085 ; the numbers attending private institutions have decreased by 201. The number of Muhammadan teachers has been largely increased in Government institutions, as also the number of inspecting officers belonging to that community. In the Delhi circle the increase in the number of boys, especially in the Anglo-vernacular secondary school stage, the improved results of the Matriculation and the vernacular middle examination, and the opening of a new Anglo-vernacular primary school with four branch schools in the Delhi circle, show that Muhammadan education is making some advance. In the Jullundur circle it is said that there are clear indications that the Muhammadan community have been making steady advance in education and realising the importance of educating children in public schools in preference to private schools. Two high schools specially maintained for Muhammadans in the Amritsar circle show signs of growth and improvement. In the Lahore circle it is said that the record of the quinquennium is very favourable, as far as the number of Muhammadan scholars attending various public institutions for males and females is concerned. This is generally due to the opening of new primary schools in places where the Muhammadan population predominates. The record of the results achieved by them at the various institutions is taken as indicating that the day is not very far off when the Muhammadans of the Punjab will rise to the same educational level as the other communities there. In the Multan circle the number of Muhammadan boys under instruction has risen largely. In the only public industrial school for boys nine-tenths of the pupils are Muham-

madans and in the normal schools Muhammadans have increased by 76·9 per cent. and the Hindus by 47·8.

898. BURMA.—The circumstances of Muhammadan education in Burma differ widely from those prevailing in other parts of India. “Ignorance,” the Director remarks, “there may be and inertia, but the one is not aggressive and the other appears to be gradually yielding to example. The Muhammadan has never been the ruler of the country (except in Arakan) and the general Buddhist tolerance and inclination toward letters has afforded him an exemplar which, if he has not enthusiastically adopted, he has, at least, not fanatically shattered or rejected. Fanaticism indeed hardly exists. Muhammadans adopt Burman names and Burman dress and marry Buddhist wives, and Musulman boys will attend Burman schools without prejudice or objection.” * * *

899. In these conditions it is not surprising that there has been a slow but steady increase in the figures of Muhammadan education, the total under instruction having risen from 8,193 to nearly 11,000, 62 per cent. of whom attend public institutions. The percentage of those under instruction to the Muhammadan population of school-going age has risen from 16·09 to 21·5. The total of schools has also gone up, and the number of public institutions as opposed to private ones (most of the latter being Koran schools only) has increased by 64 per cent. The number of Muhammadans learning English is 1,821, as against 1,166 in 1901-02, and seven attend Arts colleges. By far the largest number of Muhammadan schools and pupils belongs to Arakan. The Inspector of Schools, Western Circle, in whose charge the division lies, presses for the appointment of a Muhammadan sub-inspector for the Akyab district. A special Muhammadan deputy inspector who will visit all Muhammadan schools in the province has been appointed, and should be of much use in developing and improving Muhammadan education. His charge however is large and a Muhammadan sub-inspector would no doubt be of special benefit to the Musulman population in Arakan.

900. The Inspector of Schools, Central Circle, remarks that the education of Muhammadans has prospered in his circle, perhaps more than elsewhere, and lays special stress on the fact that over three-fourths of the pupils are in public schools, while, though the purely Muhammadan schools are all primary, a good number of Muhammadan scholars pass the higher standards in ordinary schools. The Inspector of Schools, Eastern Circle, considers that the main difficulty in improving the Muhammadan schools in his circle is the dearth of trained Muhammadans. He suggests the utilization of certificated Burman teachers who have learnt some Urdu under a Moulvi. Musulman pupils in the Northern Circle are comparatively few, and many of the Muhammadans under instruction there attend ordinary lay vernacular schools.

901. Muhammadan female education is undoubtedly very backward, especially in Arakan. The Inspector of Schools, Western Circle, reports that there are no schools specially for girls and that, though the number of girls attending school has risen, it is very low and practically no girls go beyond Standard II. The total number of Muhammadan girls under instruction is 1,919 against 1,404 in 1901-02, and these attend schools for boys.

902. In EASTERN BENGAL AND ASSAM the Muhammadans have made slower progress in education than the Hindus. The percentage of Muhammadan pupils to the total number of pupils of all creeds amounted in 1901-02 to 44·4 and in 1906-07 to 48·6, whereas by population they should be 57·7. It is only in primary schools that Muhammadans have made any advance, or that their percentage anywhere approaches the percentage of Muhammadans to the whole population. In no other stage do they occupy a position which their numerical strength justifies. Whilst the primary school percentage is only about 6 per cent. less than it should be, judged by the criterion of general population, the Muhammadan pupils in secondary schools will have to be doubled before they can be brought up to the general level. Out of 1,119 candidates who passed the Entrance examination in 1906-07 only 95 were Muhammadans ; out of 278 who passed the F.A., Muhammadans numbered only twelve and out of forty-one passed in the B.A., their number was only one. The Director remarks that the existing system has not directed the Muhammadans up to the higher ranges of the educational course or induced them to persevere to the point at which studies impress real culture and fit young men

for success in life. Of the indigenous schools for the education of Muhammadans Mr. Sharp writes as follows :—

“The indigenous schools may be divided into (1) public, (2) private. In both, there is a preponderating number of institutions for imparting religious and other special instruction to Muhammadans. These may be divided into five classes :—

- I. Senior madrassas, containing nine or ten classes and affiliated to the Calcutta Madrasa.
- II. Smaller madrassas, which do not send up pupils to the central Madrasa examinations, but serve as feeders to the larger madrassas.
- III. Middle madrassas, which have been started, as an experimental measure, in the Dacca division, on the recommendation of the Conference on Muhammadan education held at Barisal on the 19th December 1905.
- IV. The so-called madrassas, which are little better than maktabas, teaching a little of Arabic and Persian.
- V. Koran schools, where the sole instruction given is the recitation of the Koran.

903. “The most important of the schools specially intended for Muhammadan are the Madrasas. These are the only institutions in the province specially established for the higher education of Muhammadans in their classical languages.

The number of these institutions has risen from 10 in 1896-97 and 33 in 1901-02 to 160 in 1906-07, and the number of their pupils from 1,800 and 3,535 to 10,431. This abnormal increase was apparently due to the fact that, although they had been in existence previously, they only began to be included under the “public schools” about the year 1900. Of the total number of institutions in 1906-07, 3 were under Government, 94 were aided and 63 were unaided, but under inspection. The large increase during the quinquennium in the number of aided institutions is specially noticeable. The expenditure, which amounted, in 1906-07, to Rs. 81,342, has increased by 158.0 per cent. since 1896-97 and by 81.1 per cent. since 1901-02.

904. “The senior madrassas in the province are seven in number. Of these, two, namely, the Larger Madrasas, madrassas at Dacca and Chittagong, are Government institutions. (That at Rajshahi, though a Government institution, is only a junior madrasa.) Other senior madrassas, not Government institutions, are those at Serajgunj, Sitakunda, Ahmadiya (at Noakhali), Ahsania (at Dacca) and Hussamia (at Comilla). But the Serajgunj Madrasa has not its full complement of classes. In Sylhet, there is a large madrasa of some reputation at Phulbari.

905. “A full senior madrasa consists of nine or ten classes, of which the first four are affiliated to the Central Board of the Bengal Madrasa examinations, and are considered as equivalent to the four college classes of a first grade college, while the lower six correspond to a school course in oriental languages. The course of study, which, in the case of senior classes, is prescribed by the department, and, in the junior classes, is left to the option of the school authorities, consists mostly of Arabic and Persian Literature, Arabic grammar, history, rhetoric, theology, logic, law, and like subjects. Science, geography, etc., find no place in the prescribed course. English has been introduced as an optional subject in the senior and junior classes, in some cases with moderate success. An examination is held for the senior classes of all madrasas under the supervision of the principal of the Calcutta Madrasa, while junior classes are examined by the teachers of the institutions. In the Central Madrasa Examination, 62 passed out of 112 candidates who appeared in 1901-02, and 54 out of 88 who presented themselves in 1906-07.

906. “Of these madrasas, the most important are those at Dacca, Rajshahi and at Chittagong. They were all established in 1874, and are maintained out of the Mohsin Fund.

“The Dacca Madrasa, which is managed by a committee with the Divisional Commissioner as president and the principal of the Dacca College as the secretary, contains an Arabic Department, in which English is taught as an optional subject, and an Anglo-Persian Department, which is simply a high school teaching up to the Matriculation. The former consists of four junior and four senior classes, which latter are affiliated to the Central Board of the Bengal Madrasa Examinations. The two departments are located in two buildings in the same compound which are well adapted for school purposes; but the equipment is insufficient. Besides the superintendent, a drawing and a drill master, the staff consists of eight maulvis and two English masters for the Arabic Department, and of eleven teachers (two of whom are graduates) for the Anglo-Persian Department. The Anglo-Persian Department shows a steady decline in pupils, from 310 in 1901-02 to 265 in 1906-07, but the Arabic Department increased from 288 to 320. The number of boys reading English in this department rose from 159 in 1901-02 to 333 in 1905-06, but fell to 216 during the last year of the quinquennium, owing, it is reported, to the examinations and promotions being stricter and to the teaching of English being more systematic than formerly. The total cost of the Madrasa and of the hostel, which is an endowed

institution, holding 34 boarders, was Rs. 16,283, of which Rs. 8,414 was supplied by fees and the rest from the Mohsin Fund. The general examination results in the Arabic Department were fair, 41.8 per cent. of the pupils having passed the standard against 38.8 per cent. in 1901-02; as also were the results in the Anglo-Persian Department, six out of fourteen candidates having passed the Entrance examination. There are six scholarships of the value of Rs. 8, Rs. 6, and Rs. 4 reserved for the Arabic Department, and twelve of the value of Rs. 5, Rs. 4 and Rs. 3 attached to the Anglo-Persian Department. Besides these there are some free and half-free studentships for pupils of both the departments. A fine new hostel has just been erected at a cost of Rs. 45,500 (Rs. 30,500 having been raised by public subscriptions and Rs. 15,000 contributed by Government), but has not yet been occupied.

907. “The Chittagong Madrasa is similarly constituted. Both departments show a decline in enrolment—the Arabic from 352 in 1902-03 to 289 in 1906-07, and the Anglo-Persian from 144

to 123. The decline in the former was due to the gradual attempt made in recent years to exclude the class of boys whose object is not to undergo a regular course of training, but to acquire a little knowledge in theology and law, and go back to their homes as *Mollas*; and that in the latter to the frequent changes of teachers. The building, though on one of the finest sites, is not quite suitable for school purposes. Both departments are held in it—an arrangement which is said to be unpopular with guardians—and an endeavour is being made to remove the defect. In the meanwhile, a new building, which has just been erected at a total cost of Rs. 11,000 for the junior classes of the Arabic Department, is being used to accommodate the Anglo-Persian Departments temporarily. The staff is sufficient but requires strengthening in both the departments. English is taught both to the senior and junior students of the Arabic Department, and the number learning this language has increased. There is a library containing a good collection of Arabic and Persian books. A hostel and a branch madrasa are attached. The hostel is situated on a good site near the madrasa, but accommodation is insufficient. Examination results in the Arabic Department were on the whole satisfactory. Though the percentage of success last year was only 51.01, a student of the madrasa headed the list in the Final Central Examination. The Entrance examination results have, however, been generally lamentable, though they now show slight improvement. There are eight scholarships of the value of Rs. 5, Rs. 4 and Rs. 3, tenable in the Arabic Department, and a similar number of the value of Rs. 6 and Rs. 4, tenable in the Anglo-Persian Department of the madrasa. The cost was Rs. 14,539, of which Rs. 2,718 was met from fees and the rest from the Mohsin Fund. Contributions from this fund increased during the quinquennium by about Rs. 2,000.

908. “The Rajshahi Madrasa, which is also maintained out of the Mohsin Fund, though long established, has lagged behind the others in development. In the year 1883 the Government of Bengal ordered it to be closed entirely, but, in deference to local Muhammadan feeling, it subsequently permitted the retention of the junior classes as an adjunct to the college. It is, therefore, a junior madrasa now. The staff consists of four maulvis including the head maulvi and an English teacher. The number on the rolls at the end of 1906-07 was 66, against 75 in the previous year. The total expenditure, excluding Rs. 120 paid from provincial revenues as the remuneration of the superintendent of the hostel, was Rs. 4,496, of which Rs. 251 was paid from fees and Rs. 4,245 from the Mohsin Fund. The rate of fees is only four annas. Eight appeared at the last Final Examination of the Madrasa, all of whom passed. There is a hostel attached to the madrasa.”

909. The smaller mufassal madrasas serve partly as feeders for the larger madrasas at Dacca, Chittagong and Calcutta, but the majority of the boys after a few years in them return to their villages as *Mianjis*. There is said to be little or no organisation in these institutions. They are nearly all of them insufficiently staffed and poorly equipped. They do not in all cases follow the full course of studies prescribed for the corresponding classes at the larger madrasas, and the education they impart is never such as will help a pupil in practical life. Provision is, however, being gradually made for the teaching of the vernacular primary course in most of them. The examinations in these madrasas are conducted by teachers and promotions awarded by them. No public examinations have hitherto been prescribed or suggested. The provision of some sort of public examination for these institutions was under consideration at the end of the quinquennium.

910. MIDDLE MADRASAS.—Regarding these institutions the Director writes as follows :—

“These institutions are virtually middle English schools, with the addition of Urdu in Standards I to VI, and Persian in Standard IV. All of these have Arabic departments in which instruction is supposed to be given up to a sufficiently high standard. There were 16 such institutions on the 31st March 1907, against four on the corresponding date in the previous year. They had altogether 1,885 pupils in them, 1,584 being Muhammadans, and the rest Hindus. Of the Muhammadan boys, 1,332 were reading in the middle English and 252 in the Arabic

Department. The Inspector of Dacca reports that to the opening of these madrassas is due by far the greatest proportion of the increase in Muhammadan boys that has occurred during the last year in middle English schools in the Dacca Division; while from the Bakarganj middle madrassas six boys have already been sent on to the Barisal Zilla school.

"Lower primary maktabas are allied to lower primary schools in nearly the same way as are middle madrassas to middle English schools. Almost all of these institutions were originally Koran schools that have, under departmental encouragement, developed into primary schools. To retain the sympathy of Muhammadan parents they still, however, continue to teach the recitation of verses of the Koran as an extra subject, to which, in some cases, an Urdu book on the rituals of Islam is added. These institutions are generally very popular with the Muhammadan masses, and a good proportion of them are reported to be doing satisfactorily as lower primary schools. As regards the teaching of the Koran, however, the method is as mechanical as in a Koran school. It need hardly be added that, in giving aid to these schools, the condition of the vernacular side alone is taken into consideration."

911. CENTRAL PROVINCES.—The number of Muhammadans receiving instruction in the Central Provinces declined until 1905, since which year however there has been some progress. The percentage of Muhammadan boys at school compared with those of school-going age is twice as high as among Hindus. The following extract from the Director's report indicates the progress made in the education of Muhammadans both in the Central Provinces and Berar:—

"The chief difficulty which besets the education of Muhammadans in the Central Provinces is the necessity for the provision of separate schools. The Muhammadans are numerically so inconsiderable that they are usually compelled to read in Hindi or Marathi schools. For instance, in Nagpur Circle, where there are over 3,000 Muhammadans being educated, the special Urdu schools number one English middle and some six primary schools, which certainly do not total over 500 boys. But the provision of separate schools, which alone are of real value, for a community so small and so scattered, is naturally very expensive. This applies still more to Anglo-Urdu schools: and it is for this reason that the great majority of Muhammadan boys never go beyond the primary stage. In the five years before 1902 only 12 passed University Examinations, and even now there are only 11 at College.

912. "In Berar matters are better than in the Central Provinces. There are now 100 Muhammadan education in Berar. primary schools with 6,000 scholars, against 80 with 4,000 scholars at the beginning of the quinquennium. A separate deputy inspector of Hindustani schools was appointed in 1873, and also a Sub-deputy inspector in 1903. Provision is also made for training: the Training School at Akola has a Hindustani side, but as it has only one class and no practising school this is not by any means adequate. It should be put on the same footing as the Marathi side of the school. The trained masters moreover are paid low salaries when they go out into the schools, for these suffer badly from lack of funds, being sometimes left out in the cold in matters of finance. Apparently in Berar the Hindustani schools got no benefit whatsoever from the special grant made by the Government of India for the improvement of primary education. It would therefore be a great advantage if a separate budget provision were made for Hindustani schools. In Berar Anglo-Urdu education has made good progress: where there were four Anglo-Urdu schools with 135 scholars in 1902, there are now eight (five of them being Anglo-Urdu classes attached to Anglo-Marathi schools) with 261 scholars. Still this is not satisfactory when one takes into account the small effect produced upon the bulk of the Muhammadan population. Out of a total number of 6,000 boys at school, practically only one passes the Matriculation annually. This is ascribed to the difficulties experienced by Muhammadan boys in studying along with Hindus and under Hindu teachers in the two high schools of Berar. In other respects, Berar is doing fairly. Girls' schools have increased by 62 per cent. during the quinquennium and are becoming more popular. The establishment of Anjumans is also a hopeful sign of progress: and in general the appointment of Mr. Nizam-ud-din Ahmad as special Hindustani deputy inspector ten years ago has been amply justified by both an increase in schools and scholars and an increase in public interest in education."

Measures for the Special Encouragement of Muhammadan Education.

913. In most provinces special inducements are offered to the Muhammadan community with the object of promoting the spread of education among them, and in addition to the aid thus provided by the State, private liberality has done much towards encouraging progress.

MADRAS.—In Madras, in all institutions of all grades under public management, the Muhammadan student need only pay fees at half the rates charged in the case of other students, and institutions under private management almost invariably grant the same concession. In nearly all branches of education above

the elementary grade scholarships are either reserved for Muhammadans or they have a preference. In the case of the Mappillas, scholarships tenable in elementary schools are also awarded. Muhammadan students under training as teachers receive a higher rate of stipend. Nearly one-half of the total number of public institutions intended for Muhammadans are maintained directly from public funds, and over 70 per cent. of the rest are aided.

914. BOMBAY.—In parts of Bombay the children are admitted into primary schools at half the ordinary fee and, in some cases, are admitted free. Some of the high and special school scholarships are reserved for them, and they have also certain special scholarships of their own. Each district local board reserves scholarship for them with the intention that they should join a training college, and in the college also special concessions are made to them. The Muhammadan Native States also are liberal in their encouragement of education.

915. BENGAL.—In Bengal there are three madrassa graduate scholarships of Rs. 20 a month, tenable for 1½ years at any college in Bengal, and there is also one Mohsin graduate scholarship of the value of Rs. 25 a month, tenable for one year. Of the junior and senior scholarships awarded in the province, six of the former and eight of the latter are reserved for Muhammadans. There are also scholarships which have been created for Muhammadan students from private endowments, viz., ten available at the Matriculation stage, five available at the Intermediate stage and five at the B.A. stage. In Government and aided middle and high schools pupils who pay no fees may not exceed five per cent. of the total roll number of the school; but in addition to pupils admitted under this concession Muhammadans may be admitted free up to eight per cent. of the number on the rolls, provided that the number of pupils admitted under this provision does not exceed twelve. A certain proportion of the fees of Muhammadan boys in schools and colleges is paid from the Mohsin fund.

916. PUNJAB.—In the Punjab there are certain scholarships, known as the Victoria scholarships, which are reserved for Muhammadans, and in addition special fee concessions are enjoyed. In the Delhi circle sixteen more such scholarships were current than in the earlier period; a number of scholarships and stipends were also awarded from the Nawab fund to Muhammadan students in the Anglo-Arabic high school at Delhi. In the Jullundur circle, the Muhammadan community is reported to have made consistent and increasing efforts to keep up the two Islamia high schools in a fairly efficient condition. Of the Lahore circle, the inspector writes,—"The special concessions allowed to Muhammadans in the way of free and half-free studentships continue to be utilised with advantage. The Victoria scholarships, of which eighteen were current at the close of the year, have also proved a great boon, while the increase of Muhammadan teachers in Government schools has encouraged Muslim parents to send their children to such institutions more freely." In the Rawal Pindi circle, it is reported that the measures sanctioned by Government to encourage education among Muhammadans by means of concessions in tuition fees and scholarships are a great boon and continue to be highly appreciated as such by the community. There were 53 Victoria scholarships current at the close of the year, against 45 in 1901-02. In the Multan circle, an influential section of the Muhammadan community has given liberal support to the cause of education.

917. EASTERN BENGAL AND ASSAM.—In Eastern Bengal and Assam a part of the income derived from the endowments made by Haji Muhammad Mohsin in 1806 has been allotted as the share of the province, the balance being applied to the furtherance of Muhammadan education in Bengal. Grants-in-aid to primary schools and madrassas in Eastern Bengal are made from this Mohsin Fund, as well as from provincial revenues and board funds, but no special favour is shown to these institutions in the allotment of pecuniary assistance from the two latter sources. In Assam, grants for secular education in *maktabas*, as well as in sanskrit *tols*, are now made from provincial, not from local, revenues. In this part of the province also special scholarships and special stipends are awarded annually on the results of examinations, which are called First and Second madrassa examinations. The large and important madrassas at Dacca, Rajshahi and Chittagong are maintained out of the Mohsin Fund. Special scholarships and free and half-free studentships are awarded. In addition to the measures already mentioned, special inducements are offered for the advancement of Muhammadan education,—(I) by the establishment of a graduated chain of reserved scholarships, leading from

the primary school through all intermediate stages up to the B.A. degree, (II) by a system of exemption in whole or in part from payment of fees, and (III) by the extended employment of Muhammadans in the Education department. The special facilities extended to the Muhammadans are thus described by the Director :—

- “(1) In Government and aided high schools of Eastern Bengal, free studentships are given to Muhammadan pupils, to the Special facilities for the encouragement of Muhammadan education limit of 8 per cent. of the school enrolment, not exceeding 12 in number in any one school. An important modification of this rule has recently been sanctioned, whereby 8 per cent. of Muhammadans (out of a total of thirteen per cent. for all classes of pupils) may read free, without limitation in Government and aided schools.
- (2) A portion of the Mohsin Fund is distributed partly in the shape of fee remission to the extent of half of the fees in schools and colleges, and partly in the shape of senior and junior college scholarships.
- (3) There are special Government senior and junior scholarships for Muhammadans.
- (4) A proportion of the middle and upper primary scholarships in each district has been reserved for Muhammadan boys.
- (5) A proportion of the stipends held in training schools has also been reserved for Muhammadan pupils.
- (6) Lower primary scholarships have been reserved for Muhammadan pupils by certain district boards.

“As for (III), special attention is given by the department to the proportion of Muhammadans on the inspecting and teaching staff, with a view to their pushing forward the educational advancement of their community. As a result of this policy, it is gratifying to record that the proportion shows an increase during the quinquennium in all the divisions.”

Attitude of the Muhammadan Population.

918. With regard to the attitude of the Muhammadan community itself towards the progress of education, Dr. Bourne remarks of MADRAS as follows :—“It is disappointing to find that these efforts on the part of the Government have so far evoked so little effective response from the community itself and that there has been so little progress in the education, especially the higher education, of Muhammadans. There has, however, been some progress, and in the last year of the quinquennium the signs were improving in one or two of the central and southern districts, where a demand for secondary education is beginning to make itself felt; and the members of the community have come forward with proposals for establishing and endowing high schools.”

919. BOMBAY.—The Bombay Director remarks that it is a hopeful sign that prominent and influential Muhammadans are awaking to the educational needs of their community. “It is by apathy and poverty,” he remarks, “that Muhammadan education generally has been retarded, but I cannot help thinking that there will soon be a move forward. I believe that in the leaders of the community a real ambition to take their proper place in society has at length been awakened, and that this coupled with the conviction that without education they can in the world of today accomplish nothing, will soon lead them to use more generally and more effectually their influence and their money to bring the children of their community into schools and colleges.”

920. BENGAL.—Mr. Hornell writes with regard to Muhammadan education in Bengal as follows :—

“Education in India is scarcely now regarded as the panacea which it was once hoped that it would prove, and it is by no means self-evident that the traditional studies of the Muhammadans, to which they cling so tenaciously, could not be developed and modified into a curriculum of an educational value at least approximate to that of the ordinary standards of English education in India. Generations of Englishmen have been brought up on Greek and Latin classics, and though it would be idle to assert that such a system of education was ideal, it would be absurd to deny that it had not some features which were sound. Granted that the traditional methods of *madrassas* and *maktabs* are of little intellectual value, that does not necessarily mean that out of the branches of learning to which the traditions of Islam incline, an educational system could not be evolved, which would equip the Muhammadans of India for the conditions of modern life. The situation is not without difficulty. Any widening of the line which separates the Muhammadan from other classes of the community is obviously to be

depreciated, but the adherence of Muhammadans to their traditional studies is a fact which cannot be neglected, and it would seem that the encouragement and development of those studies, with a view to securing that a sound intellectual training was imparted through them, was certainly the most likely way to raise that section of the community to the position which they ought to occupy. For all higher employment under Government a knowledge of English is essential, but the prejudice of Moslems against the learning of English seems to be now a thing of the past. It is not obvious that the course of study of the Arabic Department of the Calcutta *Madrassa*, if it included sound instruction in English, would not constitute a training for the public service as sound as a University course. This very important matter is now under consideration.”

921. UNITED PROVINCES.—In the United Provinces it is reported that the leaders of the Muhammadan community are endeavouring by speech and action, none too soon, to promote education and arrest the decline of their community.

922. PUNJAB.—With regard to the Punjab, it is reported in several circles that the Muhammadans have taken steps to endow and support schools for their community and that there are signs of a general awakening to the facilities for education provided by Government. In one circle it is, however, reported that, though the population mainly consists of Muhammadans, neither the peasantry nor the gentry are fully alive to the cause of education.

923. EASTERN BENGAL AND ASSAM.—With regard to Eastern Bengal and Assam, Mr. Sharp writes as follows :—

“The causes which have hitherto deterred the Muhammadans from taking advantage of the State system of education have often been debated even among themselves. While, as was noted by the Education Commission, some hold that the absence of instruction in the tenets of their faith, and still more the injurious effects of English education in creating a disbelief in religion, were the main obstacles; others, though a small minority, were of opinion that religion has little to do with the question. Some, again, contend that the system of education prevailing in Government schools and colleges corrupts the morals and manners of the pupils, and that for this reason the better classes would not subject their sons to dangerous contact. The small proportion of Muhammadan teachers in Government institutions; minor faults in the departmental system; the comparatively small progress in real learning made by the pupils in Government schools; the practice among the well-to-do Muhammadans of educating their children at home; the indolence and improvidence too common among many of them; the unwillingness felt by the better born to associate with those lower in the social scale; the widespread poverty of the community; the use in Government schools of books whose tone is hostile and scornful towards the Muhammadan religion and history: these and a variety of other causes have been put forward at different times by members of the Muhammadan community to account for the scant appreciation which English education has received at their hands. All such causes have no doubt combined towards a general result; but the most powerful factors which have up to now held them back will probably be found in their pride of race, memory of by-gone superiority, religious fears, a deep-rooted attachment to the religion of Islam, and the question of language. Were any evidence wanted to prove that these difficulties still hamper the progress of Muhammadans, we have only to turn to the utterances of the leaders of that community, to the resolutions passed by the various conferences from time to time, and to the ignorance in which the majority of this large and important class are still hopelessly sunk.

924. “In dealing with the question of Muhammadan education, we are faced by a threefold problem—historical, social and religious. When the control of the country passed from its Muhammadan conquerors to the British, when, later, Persian ceased to be the language of the courts, the Muhammadans, less nimble than the Bengalis to accommodate themselves to a new environment, less ready to seize its opportunities of Western education, hesitated to enter the lists under changed conditions, but sat apart, wrapped in the memory of their traditions and in the contemplation of their ancient literature and bygone systems of science. Their social habits, especially their strict insistence on the seclusion of women, and their meagre participation in the higher professional walks of life, further unfitted them for the fray. Finally, there are causes of a strictly religious and educational character which heavily weight them in the race of life. ‘In the case of a young Muhammadan,’ it has been well observed, ‘the teaching of the mosque must precede the lessons of the school. He enters school later than the Hindu. He must commonly pass some years in going through a course of sacred learning before he is allowed to turn his thoughts to secular instruction. The years which the young Hindu gives to English and mathematics in a public school, the young Muhammadan devotes in a *madrassa* to Arabic and the law and theology of Islam.’ And the fact that these subjects must be learnt through the medium of foreign tongues adds to the crushing disability implied in the compulsory acquisition of a plurality of languages. Persian and Arabic, moreover, do not possess the similarity of script or the etymological connexion which Sanskrit bears to the vernacular. These are, it is contended, the principal causes of an educational character which retard the prosperity of the Musalmans. The measures already taken and the measures proposed will no doubt go

a long way towards solving these difficulties ; and the Muhammadans will, it is hoped, show their appreciation of the special facilities offered to them by paying increased attention to education in general and to higher education in particular, in order that they may take their proper place in the general progress of the community at large. It will be a sore reproach to them if, as observed by the Education Commission, the pride they have shown in other matters does not stir them up to a course of honourable activity ; to a determination that, whatever their backwardness in the past, they will not suffer themselves to be outstripped in the future. At the same time the Director is most sensible of the caution which is required in the introduction of reform. The increase of scholarships and free-studentships and the introduction of hostels are naturally hailed with delight by the Muhammadan community. But the danger of pauperisation, considerations of finance and of the percentage of educational expenditure which may be legitimately devoted to such purposes, and the claims of other sections of the community demand a strict moderation. On the other hand, changes in curricula, and interference in the existing constitutions of madrassas and maktabas, from which the greatest benefit may really be hoped, must be introduced with the utmost caution, lest any violence be done to the conservatism of the Muhammadan masses, their religious susceptibilities and their attachment to classical lore. But that reforms must be pushed, however tentatively, is indisputable. Ignorance and backwardness in a large section of the population, especially at a time when social and economic changes are doubtless, though slowly, at work, cannot be regarded as other than a menace to public tranquillity and an obstacle to orderly development."

925. CENTRAL PROVINCES.—In the Central Provinces report the Director observes as follows :— "To the obstacles in the way of Muhammadan education already mentioned must be added the fact that the Muhammadans lay great stress on the teaching of the Koran and religion during the school-going age, and they carry this so far that they object to their children being taught even secular subjects by Hindu teachers. This makes it difficult for them to join Hindu schools and hence very little progress can be expected. In discussing the matter with Muhammadan leaders I have urged on them the necessity of having correspondents of their Anjumans in every place where a few Muhammadans are residents, to impress upon their co-religionists the advantages of higher education."

Education of Muhammadan girls.

926. The education of females amongst Muhammadans bears the same characteristics as that of males, but more strongly marked ; that is to say, the numbers in attendance at primary schools are below even the low average of India as a whole, and the number and attendance at higher institutions is extremely small. There has, however, been during the quinquennium a considerable increase of Muhammadan girls under instruction, for which Bengal and Eastern Bengal and Assam are chiefly accountable.

The number in 1907 in public institutions was 77,244, as compared with 48,506 in the year 1902. Nearly the whole of these were in primary schools. There was but one female collegiate student from the Muhammadan community, and only 140 students at secondary schools. The large number shown as attending "other schools for special training" were only attending maktabas, which have been wrongly classified under this heading in Bengal instead of under the heading of primary schools. The figures of Muhammadan female pupils are given by provinces in table 136.

CHAPTER XII.

EDUCATION OF BACKWARD CLASSES.*

Introductory.

927. IN the present section we have to deal with the aboriginal tribes of India, such as the Santals, Kols, Gonds, Korkus, Khonds, and Bhils, whose homes are mainly in the chains of the mountain systems of India, and in the forests and jungles which lie at their base, who are often wild or semi-civilized and who are educationally far behind the Hindu population. The native religion of these races is that "medley of heterogeneous and uncomfortable superstitions now known by the not entirely appropriate name of Animism." The essence of Animism is the employment of magic to ward off physical ills. As the animistic races settle in the plains, or otherwise come into close and continued contact with the Hindu population, they slowly fall under the influence of Hinduism and of Hindu manners and customs. There is thus no sharp line of distinction between Animism and Hinduism, the one merges by imperceptible stages into the other, and there are many elements common to both. In the Census returns a distinction is drawn, as well as circumstances will permit, between the followers of the two religions ; and the number of animists and the state of their education are shown separately in all provinces in which they are found. We are now concerned mainly with those tribes and sections of tribes which are still animistic, and therefore wild and uneducated ; but this is by no means exclusively the case, since large numbers of the Hinduised or semi-Hinduised aboriginals are far behind the rest of the population in civilization and education, and are therefore included in the provincial statistics on which the following account is based. Thus, for instance, the large tribe of Kolis are almost all Hindus, but are nevertheless dealt with as an aboriginal race by the Bombay Education department.

928. Nevertheless, the number of animists gives in most provinces some indication of the extent of the aboriginal population whose education is the subject of special treatment. The chief home of the tribes who still cling to their animistic beliefs is in the barren and sparsely populated tract of hill and jungle which lies across the centre of the Indian Peninsula ; the only other tracts where they are numerous are the Assam range and the hilly country which divides Assam from Burma. About 8½ million persons were returned as animists in the Census of 1901, of whom nearly one-third are found in Bengal, more than one-fifth in the Central Provinces, one-eighth in Assam, one-ninth in the Central India Agency, and one-thirteenth in Madras ; the only other tracts with a number exceeding 100,000 are Rajputana, Burma, Berar, and Baroda.

929. From the very nature of the case the education of the aboriginal races must be a problem of the greatest difficulty, and in fact it has proved to be so difficult that its solution appears to approach but little closer as one five years' period after another comes up for examination. The typical tribes live in the remoter jungles, some cultivate patches of land on the hill sides, others graze herds of cattle and buffaloes in the forest, others again live by the chase. "They are patient, inured to suffering and naturally truthful. But the most universal features in their character are their shyness and confirmed dislike of any settled occupation. Their poverty is extreme, and as they have little commerce with the villagers of the plain, and carry on their own simple transactions with each other by barter, there is no effective desire among them for the most elementary education. With them contact with the outer world must be the precursor of schools. Amidst such a population, separated as their settlements are by dense forests or steep mountains, the difficulties of pioneering education are extreme." Even when the aboriginal begins to mix with the Hindu population and adopts the Hindu religion, the

* The first six paragraphs of this chapter are repeated from Mr. Nathan's Quinquennial Review.

difficulty of educating him diminishes only in degree and not in kind. Though less remote, he is in many cases difficult of access and stands outside the ordinary educational life of his environment; though less destitute, his poverty is often extreme; though less completely cut off from the world, he is as a rule supremely indifferent to education.

930. Leaving aside Burma, where the conditions differ greatly from those which prevail in India, the proportion of males of the animistic religion who can read and write varies from 105 in 10,000 in Bombay to only 18 in 10,000 in Berar. In Bengal and Assam the corresponding figure is 89; and in Madras and the Central Provinces 47 and 40, respectively. Thirteen aboriginal females per 10,000 can read and write in Assam, and 4 per 10,000 in Bengal; in no other province does the proportion exceed 2 in 10,000.

931. Unsatisfactory as these figures are, they would be far worse but for the education given in the mission schools. It is among the aboriginal races that the missionaries have found the most fruitful field for their labours, and numerous mission societies send their agents to dwell among the homes of these wild tribes, where they supply an educational organization which it would not be possible to create in any other manner. Chota Nagpur, the Santhal Parganas, Madras, and the hills of Burma and Assam are the localities which have formed the chief theatre of mission labour.

932. The Government encourages the education of the aboriginal races in a variety of ways. In some places special schools are established, either by the Education department or through the agency of local bodies; in others, special privileges are offered to encourage the attendance of aboriginal children at ordinary schools located near their settlements; aboriginal children are usually exempted from paying fees, and they are awarded special scholarships; special facilities are offered for the training of aboriginal teachers; and, lastly, liberal aid is granted to mission societies who undertake the work of education, and to indigenous schools wherever these may be found to exist.

Aboriginal Races and Tribes.

Statistics of
Pupils.

933. The total number of aboriginal pupils included in the returns (Table 243) is 121,961, as compared with 90,785 at the close of the previous quinquennium. The increase has been most noticeable in Bengal, where the figures have risen from 30,203 to 46,236. There has been an increase of 10,000 in Burma, 4,500 in Bombay and of 3,000 in the Central Provinces and Berar; in Assam there has been a drop of nearly 3,000; and in Madras the figures have remained nearly stationary.

Khonds and others in Madras.

934. There has been a steady rise both in the number of schools for the aboriginal and hill tribes of the agency tracts of the Ganjam district, and in the pupils attending them. At the end of the quinquennium there were 205 such schools, of which 129 are intended mainly for Savaras, Khonds and Panos. Of the 5,924 pupils in these schools, 3,199 belonged to hill tribes. The Vizagapatam Agency schools for Jatapus, Kandadoras and Bagatas numbered 70, with 2,198 pupils, 20 per cent. of whom belonged to hill races; and in the Godavari Agency there were 21 schools with 887 pupils, 15 per cent. of whom only were members of a hill tribe—that known as Koyis. The total number of hill tribe children attending the Agency schools in these three tracts was 3,723, but in addition there were 761 aboriginals attending schools in the non-Agency parts of the districts, bringing up the total to 4,484. In the remaining districts of the presidency there were a few schools for hill or jungle tribes, but the number of pupils was less than 400. Taking into account all the scholars of the various aboriginal and hill tribes, the number has increased every year since 1902-03, and was higher by 46 per cent. at the end of the quinquennium than at the beginning.

Chatrapur
Conference,
1905.

935. In 1905 a conference was held at Chatrapur to discuss certain suggestions for the improvement of education in the Agency tracts of Ganjam and Vizagapatam. It was attended by the Director and a number of Politi-

cal and Educational officers. The most important numerically of the aborigines in these tracts are the Khonds, with regard to whose education Mr. Molony, the Special Assistant Agent, Balliguda division, wrote as follows in 1904:—

“I would wish to offer a few general remarks on the subject of the education of the aboriginal tribes, of whom the Khonds are, of course, the most important.

“The invariable question of the Khond is ‘What is the good of education: does it bring us food?’ It is useless to talk to a Khond of the benefits that accrue indirectly from the improvement of the mind. I have striven constantly to explain to these people that education is in a way an insurance against the frauds practised on the Khonds by Sondi money-lenders, who will lend a Khond Rs. 5 and get him to affix his mark to a document acknowledging the receipt of Rs. 20. A further illustration has been supplied to me by the way that the Khonds are fleeced by petition writers when they wish to communicate with me. But these illustrations of ‘negative’ gain to be acquired by education are of little use. I do not suppose that I have been the first to put them forward, and as yet education has secured no real hold among the Khonds. What the Khond requires is some palpable gain. Prize clothes are distributed, it is true, but clothes are not much appreciated by children or their parents, who habitually go about practically naked.

“I would suggest that a number of Khond scholarships of, say, Re. 1 per mensem be founded on the analogy of those already granted to the Savaras. The Khond stands quite as much in need of material encouragement as the Savara.

“Furthermore, the education given in the hill schools by schoolmasters, themselves ignorant men, is not really likely to lead to much of itself. A Khond boy goes to school—his parents probably are worried into sending him by the Patro, who is anxious to please the Government officials,—he learns to read, write and cipher a little. When at length he is released from school, he gladly shoots his load off his mind and returns to his original condition. Even if he be willing to build on the foundation thus laid, the want of means is, as a rule, an insuperable obstacle. I would therefore suggest the foundation of a limited number of scholarships for boys of the aboriginal tribes, who would be willing to proceed to the plains to prosecute their studies up to the lower secondary standard, or even further.

“I may add a word as to the instruments, *i.e.*, books, through which teaching is carried on. These books are no doubt good in their way, but they certainly cannot be called inspiring. The high water mark of education in the hills is reached when the boys can repeat ‘poetry’. The particular book out of which this poetry is at present learnt consists chiefly of moral precepts, written in a language absolutely unintelligible to these hill people. It is written in a learned style of Uriya perfectly distinct from the vulgar tongue of every-day life. When they are able to do so (which is not always), the teachers explain the meaning of these strange long words to their pupils. But this is profitless: what is the good of cramming a child with ‘dead vocables’, which he will never use as part of his own speech, even though he be told that such and such a long word is the learned equivalent for some common object of every-day life?

“Furthermore, I have tried to impress on the Khonds that if they really need their children to mind cattle, etc., they can send them for half a day to school. A few hours in the morning cannot possibly interfere with a child’s work; he can then be free for the remainder of the day. I have read in a recent report that this half-day system has been remarkably successful in other presidencies. It might attract some of the Kutiya Khonds, who at present absolutely refuse education. These people live in the jungle away from the central village where the school is carried on. They state that their children cannot go two or three miles to school in the morning, remain there all day, and return in the evening through jungles infested with wild beasts. Under this half-day system perhaps a beginning may be made.”

936. The following recommendations of the Chatrapur conference met with the approval of the local Government:—

- (1) Instruction to the hill tribes should be given orally through the medium of their own mother tongue, instead of through a foreign language. If a Savara knows both Uriya and Telugu, it would be advantageous to educate him in Uriya.
- (2) Evening classes should be opened wherever possible, the buildings in which they are held being also used for night schools for adults who should receive oral instruction. Magic lantern exhibitions might be arranged for occasionally, to make the classes attractive.
- (3) The concessional rates of results grants admissible to Savaras, Khonds, etc., under the Grant-in-Aid Code, should be also allowed for even such of the pupils of these communities as attend schools in the plains, thus placing a liberal interpretation on the words “Agency tracts” occurring in the Grant-in-Aid Code.

- (4) In order to meet in part the difficulty of finding qualified teachers, the establishment of an itinerating agency who could go round and look after the work of the schools is desirable. The increase in the number of superintendents of hill schools is the first step to be taken in this direction. In the selection of superintendents and other hill school establishments preference should be given to men educated in the hill schools.
- (5) Some suitable form of manual occupation may be introduced, wherever possible, into the day's work, and the schools supplied with the necessary tools. Increased grants might be given for anything original.

Bhils, Kolis and others in Bombay.

937. In Bombay considerable progress has been made in the education of aboriginal races. In the Central division, twenty-five separate schools have been opened for these classes, and the number of pupils has increased from 1,480 to 2,067. In the Southern division three schools have been started by the local board of Kolaba district for boys belonging to aboriginal and hill tribes, and two more are conducted by a missionary society. Several schools have been opened for children of the criminal tribe of Hurs in Sind. At these schools scholarships are given, and materials are provided free. In 1906 boys from these schools were permitted for the first time to present themselves for the vernacular Final examination, and of six candidates five were successful. There is no information available about the education of other aboriginal and hill tribes in Sind.

938. It is in the Northern division, however, that the most systematic and successful efforts have been made to cope with the difficulty of educating these classes. The following extracts from a report by Mr. Lory, the divisional inspector, indicate the difficulties met with and the progress made towards solving them. After enumerating the various tribes who are found in the division he continues :—

"The degree of backwardness of these different peoples varies considerably. To none perhaps could the term barbarous be justly applied. The wildest and most backward are probably the Bhils of the Panch Mahals and Rewa Kantha, and the hill Kolis of the Thana District, but many of the Bhils, particularly in the Broach District, have reached a fairly high stage of advancement, and everywhere new roads and railways are bringing these peoples into closer touch with civilization. At the other end of the scale are the Kolis of the Ahmedabad District and the Dharalas (Kolis) of the Kaira District. To many of these the term backward can only be appropriately applied for purposes of comparison with the more advanced Hindu castes; they are in many places intelligent and successful cultivators, and are far removed from the true aboriginal of the hills and forests.

"The question of spreading education among these classes of people is one which received careful attention. The children are everywhere admitted free, and during the last five years special schemes have been devised to further the end in view. These will be dealt with in detail below.

"The number of such children in all kinds of institutions rose from 8,221 to 10,093. The latter number however was considerably below that for the previous year, which was 11,693.

"More than a third of the total population of the Thana District belongs to these backward communities. In the year 1901-02, however, there were only 200 such children attending school. In the year 1903-04, Mr. J. P. Orr, then Collector of Thana, addressed Government on the subject; he pointed out that unscrupulous sávkárs, aided by the construction of roads and railways, had taken advantage of the ignorance prevalent among the people of these classes in the Thana District to rob them of their land and possessions, and urged the necessity of spreading education among them to enable them to protect themselves. He pointed out that the chief reason why the schools established for this class of people generally failed was that the masters employed were as a rule high caste Hindus. Such men were altogether out of touch and out of sympathy with the rude inhabitants of the hills and jungles, and they regarded being posted to schools in such parts as banishment, the inevitable result being that the schools languished and attendance fell so low that they had to be closed. This view of the cause of failure of such schools is generally admitted to be true; the object of the master who is sent to such a school is to get transferred from it on the first opportunity, and the surest means of securing this end is found to be to neglect the school until its condition becomes such that its existence has to be terminated. It is even stated that masters, in order to gain

their object, have been known to take active measures to prevent boys from attending their schools.

"Mr. Orr therefore proposed that a definite attempt should be made in the Mokhada Pethá, a hilly tract on the borders of the Násik District, where the people had hitherto through their inaccessibility been less exposed to the ravages of the sávkárs. He proposed that special encouragement should be given to every member of a backward community that could be found, if he had even the slightest pretensions to qualification as a teacher. He also proposed that some inducement in the shape of grain, and presents of cloth, caps, and other articles, should be given to the children to attract them to school.

"Masters, themselves belonging to backward communities, have been employed wherever it has been possible to do so, and in other cases teachers of other communities have been sent from other parts of the district, with an extra allowance of Rs. 5 per mensem.

"Rewards are given for regular attendance. These were at first given in the form of grain, but such an arrangement was found to be impracticable and money is now given. A sum of annas 6 is allotted to each child who has during the month attended school for 80 per cent. of the working days. Of this sum, 4 annas is given the child at the end of the month, and 2 annas are reserved, month by month, and only given in the event of the child passing the annual examination, when all the deferred sums due to him are given.

"There were in the year 1902-03 only 4 schools in the pethá, with 113 children on the rolls, of whom only 37 were studying under standards. In the year 1906-07 there were 14 schools with 761 children on the rolls, of whom no less than 439 were studying under standards. Of the latter 212 passed the annual examination.

"It will be seen that the scheme has been undoubtedly successful. On the other hand, the expenditure on the schools is considerable. In 1906-07 a sum of Rs. 1,646 was spent on the award of attendance scholarships, including the sums deferred to the end of the year. To this must be added the cost of the extra allowances given to the teachers. The board, however, are probably well advised in incurring expenditure for such a purpose, and it is hoped that in course of time, when a sufficient supply of local masters has been created, it may be possible to dispense with them. A beginning would probably be made by their discontinuance first of all in the Infant class.

"All the schools except the Mokháda school teach rural standards.

"The difficulty of maintaining adequate supervision over these schools is great, as is natural when the status of the teachers and the inaccessibility of the villages are taken into consideration. To meet this difficulty, the special duty of visiting all the schools in the Pethá has been imposed on the head master of the Mokháda school, who is a third year trained man and draws Rs. 30 per month. He is given a pony allowance of Rs. 8 per month, and is required to visit all the schools monthly, for the purpose of checking the attendance and instructing the teachers in the method of education. But the scheme depends even more largely on the local Revenue officer, with whom lies the task of persuading the people to send their children to school, and the success with which the scheme has already met is in great measure due to the exertions of the two previous Máhálkars of the Pethá.

"Side by side with this extension of the schools has been carried out the scheme of training boys to serve as teachers. There are now 11 boys in the Central Class at Mokháda, of whom 3 are in the VIIth standard studying for the Vernacular Final Examination, 5 are in Standard VI, and 3 in Standard V. These boys receive stipends of Rs. 3 or Rs. 4 per month, according as they are inhabitants of Mokháda or come from other villages. For the latter boarding arrangements are made by the head master, and special quarters are now about to be constructed by the district local board.

"Parts of the Surat District are largely or entirely populated by a class of people known as Kaliparaj, of whom there are several castes or divisions. There were 2,100 such children attending the schools, but a large proportion of these were in the towns and villages in the more advanced parts of the district. Some years ago the necessity of providing more special schools in parts entirely inhabited by people of this class was urged on Government by the Revenue authorities, and Government decided that additional expenditure should be incurred by the Board, and funds for this purpose were obtained by closing schools in more advanced parts of the district. At the opening of the quinquennium, there were 39 special schools for Kaliparaj children. The condition of these schools, however, has remained most unsatisfactory. In some few schools Kaliparaj masters were employed, but these were men with no qualifications and they invariably proved untrustworthy. In most schools however Ujaliparaj masters (i.e., men belonging to classes other than Kaliparaj) were employed; these however proved unsatisfactory for the same reason as that described in the account of the Mokháda Pethá scheme, even though the experiment of sending trained masters on Rs. 20 and Rs. 25 per month was tried. At the end of the quinquennium the number of special Kaliparaj schools had fallen to 32.

"It was therefore thought that the best means of improving the condition of these schools was to supply them with well qualified Kaliparaj teachers. For this purpose a central boarding school was opened in 1904 in the Mandvi Taluka, in the heart of the Kaliparaj country. Special buildings of a cheap and unpretentious character were

constructed, and the most promising Kaliparaj boys from various parts of the district were collected and placed under a specially selected 3rd year trained headmaster, in receipt of Rs. 35. The numbers were limited to 50, but the school has been full ever since its opening, and there are always more applications for admission than there is room for.

"The boys all board in the special quarters provided for them. Their messing arrangements are under the supervision of the head master; the average cost of board and living amounts to about Rs. 3-5-0 each per mensem.

"That the school has been an unqualified success is not open to question. It has been pronounced as such by all the officers of the Revenue department who have visited it, and the deputy inspector has given it as his opinion that the quality of the education, and the tone and discipline of the school, are in no way inferior to those of the best schools attended by children belonging to advanced communities.

"For the same purpose, namely to provide teachers for schools attended by Kolis, Bhils, and Talavias from among the ranks of those communities, a central class for boys of these classes was opened in the Broach district in 1905. The class is attached to a district local board school situated in a part of the district largely populated by people of these classes. It contains 15 students, who are in receipt of stipends of Rs. 4 per month. Arrangements are made for their board and lodging by the head master of the school. Of the 15 boys in the class 9 are Kolis and 6 Bhils.

"It will be seen from these results that the class, which was started in 1905, has met with marked success, and that we shall soon have a large supply of well qualified Kolis and Bhils who will take their place as masters in the village schools attended by children belonging to those communities. It is not only the learning they receive that so qualifies them; by far the more valuable part of their education and training is the discipline and order to which they are required to submit. Thus the deputy inspector reports that at first they were apt to be "rough and wild and did not take kindly to the system and order prescribed for their work, study, and diet." By the exercise of patience and kind treatment, however, they are now said to have become "a reformed set of people, disciplined into habits of regularity and diligence."

"All Bhil and Talavia children in the village schools are given scholarships of from annas 2 to Re. 1 per month. Though the actual number of the backward class children in all schools in the Broach district for 1906-07 was somewhat less than that for 1901-02 (1,249 against 1,353), the figures for the former year were unnaturally swollen by the doles that were given to the children in schools, that having been a year of famine. The numbers are showing a steady increase, and the clearest proof of a genuine improvement is shown by the fact that there has been a very large increase in the number studying under standards.

"In the Panch Mahals, which is a very backward district and is in parts inhabited entirely by Bhils, the numbers rose from 46 to 346. The former number, however, was abnormally low owing to the district having then recently passed through a time of famine. The condition of the schools is unsatisfactory, and education cannot be said to be progressing among these people.

"A central class for Bhils and Patelas has recently been opened, which is attended by 10 children. If this proves successful it is proposed to start a central school, on the lines of that for Kaliparaj boys in the Surat District.

"In the Rewa Kántha Agency, which adjoins the Panch Mahals, the number of such children has risen from 542 to 1,149. By far the majority of these are in the Rájpipla State. The State follows the wise and liberal policy of giving regular attendance scholarships of from two to four annas to children of this class. It also gives two scholarships of Rs. 4 per month to enable such boys to continue their education in the main school at Nándod, the capital of the State. During the past year three boys passed Standard VI and one boy Standard VII.

"The above remarks deal only with children studying in primary schools. Besides these, there were 3 boys studying in Anglo-Vernacular Schools. There were also 40 children (23 boys and 17 girls) in special schools. All of these were in the Mahajan Home Industrial School, Surat. This institution is maintained by private funds and is managed as a charitable institution by certain Hindu gentlemen. The children all belong to the Kaliparaj community; the boys are taught carpet weaving and dyeing, and the girls embroidery. The children are all boarded in the school. The industrial school and the primary schools (Boys' and Girls') attached to it receive grants from Government. The progress made by the children is reported to be highly satisfactory both in the vernacular schools and in the industrial school."

Santals and others in Bengal.

939. The returns for Bengal deal only with that portion of the population whose religion is described as animistic, and do not include such aboriginals as have adopted Christianity, nor those who have become Hinduised. The animistic population of Bengal numbered at the last census 2,148,407, and is distributed between the Chota Nagpur, Bhagalpur and Orissa divisions, the Orissa Tributary States, and the Birbhum and Bankur

districts of the Burdwan division. It represents 3.9 per cent. of the total population, and literacy among this section of the population is calculated to be 9.3 *per mille* for males and 3.4 *per mille* for females.

940. In the Bhagalpur division, the total number of aboriginal pupils rose considerably in the first year of the quinquennium, but since then there has been no further advance, and the tendency on the contrary has been towards decline. In the last year the number was 8,232, of whom 1,256 were Christians. In the Santal Parganas district there is a special staff of four sub-inspectors and two independent *Guru*-inspectors for the supervision of the education of aboriginals, and the C. M. S. entertains another *Guru*-inspector for the Mission and Paharia schools in the Godda subdivision.

941. In almost all the districts of the Orissa division special schools have been started for aboriginals, who are also allowed the privilege of free education in ordinary schools situated in their neighbourhood. Text books and slates are supplied free, and special scholarships are provided for them. The number of aboriginal pupils in the Tributary States has risen steadily during the period under review. The following extract from a report of the inspector describes the difficulties of promoting education among these tribes:—

"The difficulties of pioneering education amongst the aboriginal races of the forests are of a most serious character. Their isolation from the people of the plains, and their consequent imperviousness to the influences of Hindu civilization, their dislike of settled occupations, and their intense attachment to forest life, their want of a written language and the absence of a definite knowledge of the possibilities of their mother tongue, and above all their positive aversion to education, present difficulties of a stupendous character, which I am afraid cannot be solved off-hand. They call for the most strenuous efforts both on the part of the Government and that of philanthropic societies. As regards those aboriginal tribes, who have been living for generations in the vicinity of Hindu villages or Christian settlements, their adoption of a Hindu vernacular and their gradual submission to civilising influences have to a considerable extent facilitated the task of educating them."

942. In the Chota Nagpur division, the number of aboriginal pupils has increased from 13,401 to 25,727, chiefly through the efforts of the missionaries. Nevertheless the number under instruction represents but a small proportion of the total aboriginal population of the division. The reasons which render education so unpopular among these tribes are thus described by the inspector:—

"Any one acquainted with the home life and with the modes of thought of Santals, Oraons, Mundas and Hos will testify to the rooted antipathy which these people have for everything that appertains to aliens. In the interior they do not understand Hindi. They do not want to learn Hindi. If we wish seriously to attract them to our schools, we should have our school books written in the aboriginal languages. I would therefore urge, as the foundation of our educational work among the aborigines of Chota Nagpur, that we make it our business to provide them with books in their own languages. This can be done only through the assistance of the missionaries, and I would advise that they be approached on the subject, and be remunerated for their work. The missionaries, all of whom I have consulted, declare that it is quite feasible that the aboriginal books may be written in the Nagri character. This is in itself an advantage, as Hindi is the language of the courts."

943. This is no new question. The principle that children should in the early stages of their school career receive instruction through their own vernacular is unexceptionable. But as Sir A. Pedler, the late Director of Public Instruction, Bengal, pointed out in a letter to his Government in 1903, there are according to the census report 74 languages spoken in Bengal, and the opinions of Commissioners were invited by him as to how far the languages of the aboriginal people should be recognised as a means of instruction.

"It is generally acknowledged," he wrote, "that a good knowledge of the language of the people among whom these aborigines live (Bengali, Hindi or Uriya, as the case may be) is essential to them for the purpose of earning their daily bread, and for the transaction of the daily affairs of life. Whatever, therefore, may be the language adopted in the elementary stage of a child's education, it is clear that, in the higher stage, Bengali, Hindi or Uriya should take its place."

"Mr. Slacke, the Commissioner of the Chota Nagpur Division, says:—

"There seems a doubt whether suitable instruction could be imparted to the lowest classes in a school by means of an aboriginal language. Thus, in the case of Santali,

the Revd. D. Campbell, whose knowledge of that language and of that people is unsurpassed, says that, besides Santali, either Bengali or Hindustani must be used at the same time, since Santali admits of no system of arithmetic, and hence recourse must be had to a more advanced language.

"Coming to the consideration of the actual circumstances in various parts of Bengal, no special action appears to be necessary in the Chittagong, Patna, Presidency and Burdwan divisions, as the Tipperas of Chittagong understand Bengali, and so do the Santals of Midnapore and Murshidabad.

"In the Dacca division, the only aboriginal people are said to be the Garos and the cognate tribes. In their case, the Commissioner thinks that, while Bengali must be the language for reading and writing, oral instruction, in their own language, may be imparted in the first two years of the infant stage.

"In the Rajshahi division, the Commissioner is of opinion that, in places like Rajshahi, Bogra and other districts, where the number of Santals or other aboriginal people is small, the pupils should be taught in Bengali, but that, in Darjeeling, the Bhuttias should be taught in Tibetan up to a certain stage only.

"The only language that demands attention, in the Chota Nagpur and the Bhagalpur divisions, is the Santali, especially in Kholan in the former and in the Santal Parganas in the latter, in which the missionary bodies have already prepared books and are ready to prepare more books, adapted to the new scheme of vernacular education. The opinion of Mr. Slacke, as already stated, is not strongly in favour of any aboriginal language. But missionary opinion on this point is divided, and, on the whole, considering that the Santals form a fairly large part of the population of those parts, and that books already exist in that language, it seems desirable to allow Santali to be a medium of instruction up to the lower primary standard, among the Santals in Chota Nagpur and Bhagalpur.

"In the Orissa division, besides the Santals who mostly congregate in and about Mourbhanj, there are the Juangs, Kols and Bhuyans, who are reported to be generally familiar with Uriya, and on this point the Commissioner, Mr. K. G. Gupta, remarks:— 'As regards Kols, Juangs and Khonds, I do not think it will be advantageous, even if it were practicable, to teach them in their own tongues, though as regards those Khonds who still retain their own language, an attempt might be made to teach them in Koi.'

"I do not, however, think that Koi deserves a different treatment from the other aboriginal languages.

"To sum up, I think that we have only to recognise the Tibetan language in Darjeeling, and the Santali in those places, in Chota Nagpur and Bhagalpur, where Bengali or Hindi is not understood, and also in Mourbhanj, in Orissa, as the language for the instruction of pupils speaking these respective languages, up to the lower primary standard, i.e., Standard II of the new scheme.

"I also agree in the recommendation of the Commissioner of Dacca, that the Garos and other cognate tribes should have their oral instruction in the first two years of the infant standard, if possible, in their own native tongue. This principle may, I think, be extended by directing that lower primary pathshalas conducted by *gurus*, either belonging to the aboriginal classes, or fairly conversant with the language of the aborigines, who form a large part of the surrounding population, may be encouraged wherever such *gurus* may be available.

"While recognising some of the aboriginal languages, as the means of instruction up to the lower primary standard, it has at the same time to be laid down that the language which should form the medium in the higher stages should be introduced as a second language in Standards I and II."

The proposals contained in this letter met with the approval of the local Government.

944. An interesting account of education among the Santals, the largest and most important of the aboriginal tribes in Bengal, appeared in "Indian Education" for December 1904, written by Mr. J. M. Macphail. The following passages are quoted therefrom:—

"One of the chief difficulties in the way of even primary education among a people like the Santals is the absence of a demand for it and of any public sentiment in favour of it. Their instincts and ambitions are not literary. The children are sent out to the jungle to herd cattle at the age at which they should be beginning school-life. Early marriage is not so serious an obstacle to female education as it is among many other sections of the community, for, as a rule, marriage does not take place till puberty has been reached. But while very few Santal boys are sent to school, a Santal school-girl, except in a mission school, is practically unknown. Education is not merely looked upon as unnecessary, but even as a positive evil, unfitting the boys and girls for the life that awaits them as tillers of the soil. It is not so very long ago, however, that similar arguments were urged against the general education of the poorer classes in Britain. Even among those who have been led to desire education, it is found that there is a limit to the extent of their possible mental development. Many of the children

at first are quick to learn, and have no difficulty in performing feats of memory which would be almost impossible to many children in more highly civilised countries. But very few persevere till they reach the upper primary stage (corresponding to the Sixth Standard), and still fewer reach any higher limit.

"The first schools opened among the Santals have, as a rule, been boarding-schools. If a boy is to be educated, he must also be clothed, housed and fed, for his parents cannot be expected to be chargeable for him now that he no longer takes his share of the household work. This is, of course, merely a temporary expedient, and it is apt to aggravate the prevalent prejudice against education as a means of unfitting lads for the hard work of life. But the system has been necessary in order to provide Santal teachers who, it is hoped, will prove to be the apostles of education among their fellow-tribesmen, and through whom some of the ideas inculcated in the school will filter down to the villages. A really popular system of education, however, must have for its medium a widely distributed organisation of day schools, and it is in connection with such schools that the real difficulty has to be faced. Santal villages are small, remotely situated, and far apart from each other. This makes it difficult for a teacher to gather a sufficient number of children to gain Government recognition and grants-in-aid for the school, and it makes efficient supervision almost impossible. Ten is the minimum number of scholars usually insisted upon to entitle a school to a grant, and in not a few villages this number of children of school-age and able and willing to attend school cannot be found. Even when they can, it is necessary to adopt what is known in Europe as 'the half-time system.' It is out of the question to expect the children to devote the main part of the day to schooling. In most cases the school assembles during the mid-day hours when the cattle are brought in from the pasture lands. In other cases, the forenoon is occupied in ploughing, and the afternoon in lessons; or school again may assemble in the early morning hours in order that the boys may spend the rest of the day in hunting. This *pathsala*, which meets under the shades of a spreading tree, or in a disused cowshed or threshing floor, where the pupils chalk their letters on the hard-baked ground, or trace them with their fingers in the sand, is the very lowest rung in the educational ladder.

"Another plan, which has been adopted with a considerable measure of success in at least one part of the Santal country, is the night school. These meet for a couple of hours after sunset, and promise to be the most popular educational institutions we have. All, old and young, are free to attend, and not the least useful feature of this plan is that it affords those lads and men who have formerly learned a little in school an opportunity of adding to their meagre stock of erudition, or at least of preserving it from oblivion.

"Although the Santal shows little aptitude for literary education, he affords much more promising material for industrial training. He is clever with his fingers, and also with his toes; his jungle-life has trained his powers of observation and of physical endurance, and he is not handicapped by caste pre-possessions. He is a born engineer, with a perfect genius for the construction of tanks and roads. He has taken to carpentry, blacksmith work, bricklaying, silk culture, gardening, printing, etc., very readily and with good results. He makes a good domestic servant, and a good compounder or hospital dresser. Technical education is still in its infancy among the Santals, but it seems to be capable of great developments."

Shans and others in Burma.

945. The aboriginal and hill peoples of Burma comprise the Talaings, who have been absorbed in the Burmese population and are in no way inferior to the latter in point of literacy; the fairly civilised races of Karens and Shans; and certain wild hill-tribes of Tibetan or Mongolian extraction, such as the Kachins and Chins. The Talaings attend the ordinary Burmese schools; there are in addition 63 Talaing indigenous schools, as against 34 in 1901-02, at which however the medium of instruction is Burmese.

946. KARENS.—In the indigenous schools for Karens, most of which are managed by missionaries, the numbers have increased from 20,013 to 28,580. The pupils are educated usually through the medium of English or Burmese, the number learning the former having increased largely in the quinquennium. Some of the pupils go right through the Anglo-vernacular course, pass the Entrance examination, and take a college course. The number of Karen girls under instruction is noticeably high, and has risen during the quinquennium. Among the Taungthus, who are a sub-branch of the Karens, indigenous schools, both public and private, have become much more common, though they do not contain many pupils.

Special rules for the payment of certificated Karen teachers existed till 1903, when they were abolished and Karens were put on the same footing as Burmans. Educationally the Karens are not a backward race, and their

village communities organize regular contributions in kind, which with the Government grants are considered sufficient to support teachers without additional assistance.

947. SHANS.—Next to the Burmans, the Shans are the most numerous race in Burma. The educational opening up of the Shan country forms a marked feature in the work of the quinquennium. In 1906-07 there were forty special Shan schools, containing nearly 6,000 pupils, besides the Shans attending the ordinary Burmese schools. Two deputy-inspectors have been appointed for the Northern and Southern Shan States. A Government vernacular school has been started at Lashio and is flourishing, while another Government school for Shans exists at the headquarters of the Ruby Mines district. There are also eighteen schools kept by aided masters, towards the cost of building which Government has in each case contributed Rs. 500. There are aided mission Anglo-vernacular schools at the headquarters of the Northern and Southern Shan States respectively, and two unaided schools at Loikaw and Yawnghwe.

948. In 1904 the Burma Government addressed the Superintendents of the Northern and Southern Shan States on certain proposals which had been submitted by the Director for the extension of education, vernacular and Anglo-vernacular, in those States. Information was asked for particularly on the following points:—

- (1) As to the number of mission schools which the deputy inspectors, whom it was proposed to appoint, would inspect.
- (2) Whether such deputy inspectors could also usefully inspect indigenous Shan schools, and whether there were any indigenous Shan schools in which Burmese is taught.
- (3) Whether, in the event of any Government vernacular schools being established, Shan or Burmese, or both, should be taught.

949. It was ascertained in reply that there was only one mission school in the Southern Shan States, and only two in the Northern Shan States. Regarding the question of employing deputy inspectors to popularize education in these States, the Superintendent and Political Officer, Southern Shan States, wrote as follows:—

"My opinion is that the time has not yet come to introduce deputy inspectors of schools. Eighteen years ago, this country was lying waste, education was forgotten, and the monasteries for the greater part were in ashes. When the country settled down two facts were apparent, there were no monasteries, and, worse still, there were no teachers. The people have acted in a way which does credit to their religion and to their condition of civilization. On all sides monasteries have been built, and of late deacons have been sent to Burma to learn, with the intention of returning to teach. In order to advance the cause of education the first necessary step is for the Political Officers to persuade and encourage the Chiefs and priests to send down the young priests to learn in Burma, and to ensure that when they return they will be given the comfortable dignified monasteries which a learned man has a right to expect. When these trained men are found teaching it will be time enough to introduce the deputy inspectors and to offer the grants-in-aid: at the present moment the teachers do not desire the advice of the deputy inspector, or, even if they could earn them, the proposed grants-in-aid."

The Superintendent of the Northern Shan States reported that there was only one indigenous Shan school which was likely to welcome departmental inspection. The local Government, however, was unwilling to accept the view that deputy inspectors were not required.

"The description of the state of indigenous education in the Shan States," it remarked, "shows clearly enough that at first there would be practically no monastic schools for the deputy inspector to inspect. In that, however, the Shan States differ only in degree from other backward localities. At the commencement, the deputy inspector would not be merely, or even mainly, an inspecting officer. His duties would be to endeavour by suggestion and example to influence the monastic and lay teachers, if any, and to give them such instruction in educational methods as they may be willing to accept. He would make free gifts to them of elementary educational text books, such as are in use in vernacular schools elsewhere, and would do what he could thereby to gradually improve the methods of vernacular education. The deputy inspector would, in fact, at first be an educational missionary, and an itinerant teacher. The Lieutenant-Governor is advised that similar methods are being pursued in Karenni by a Karen deputy inspector, and that promising results are already shown. In some cases the monks come to appreciate the visits of the deputy inspector, they accept his assistance, and eventually consent to come under a regular system of inspection. If similar results

could be obtained in the Shan States, more genuine advance would be made thereby in the improvement of vernacular education in those States than by the opening of many Government schools. The Lieutenant-Governor is disposed to try the experiment, and would propose to appoint a deputy inspector as a temporary measure. It would probably be necessary that the officer appointed should be a Shan, or should at least be thoroughly conversant with the Shan language. At the end of a year the result of the deputy inspector's labours should be reported, and it could then be decided whether it was desirable to retain him."

950. On the question of language, the Superintendent of the Northern Shan States wrote:—

"As to the language to be taught in a Government vernacular school, the general opinion amongst Shans is that there should be instruction in both Shan and Burmese. If, however, only one language is to be taken, they are unanimous in preferring Burmese. The reason is that Burmese is more generally useful. Moreover, when a boy who speaks Shan as his mother-tongue has learned to read and write Burmese, it is an easy matter for him to learn to read and write Shan. He will, it is thought, acquire this accomplishment after he has left school. At any rate he will then have a working knowledge of Burmese, both colloquial and literary, and he certainly could learn to read and write Shan with very little trouble. On the other hand, the ability to read and write Shan is of no great assistance in the study of Burmese. If only Shan be taught, a boy will leave school ignorant of the language which would be of the greatest practical use to him, and which, in later life, he will probably only learn colloquially, if at all.

"In my opinion this reasoning is sound. It seems most desirable that both languages should be taught. But if there is only to be one, it should be Burmese. The idea of a purely Shan school does not greatly appeal to the Shan population, and it would be of no benefit to the Burmese settled here. In reply to an enquiry on this point, Saw Lon Saing, the President of the Buddhist Society at Hsi-paw, writes: 'At first our society proposed to teach English, Burmese, and Shan. But we find that the boys wish to learn English and Burmese, and the girls Burmese only. Thus Shan has been reserved as an optional subject, because we find that Shan can be learnt within a short time after we can read and write Burmese fairly.' It is perhaps not unreasonable to hope that some few of the Shan pupils will have an ambition to carry their studies beyond reading, writing, and elementary arithmetic. If so, they would be at a disadvantage if their education up to this point had been exclusively in Shan. But if they had been trained in Burmese they would be able to continue their studies at a Government school in Burma. I venture to think that it is open to question whether it is possible to employ the Western, or Burmese, Shan language as a medium for education beyond a very elementary standard. For all these reasons I advise that both Shan and Burmese be taught, but if it be impossible to provide instruction in both languages, that Burmese be selected rather than Shan."

951. The Superintendent of the Southern Shan States pointed out that the school language in the Myelat and the Central Division was Burmese, and that, though tuition was imparted in both the Shan and Taungthu languages in the monasteries situated in remote villages, Burmese undoubtedly predominated largely. Burmese was supplanting Shan, at least as far East as the Salween, beyond which, *viz.*, in the Eastern Division and in Kengtung, the time was not yet ripe for attempting to introduce an educational system. Such instruction as was given in the Eastern Division was in Shan, though Burmese was also used; and in Kengtung the medium was Hkun, and Burmese was not used at all. The local Government appears to have accepted these views as to the language of instruction.

952. KACHINS AND CHINS.—With regard to the less civilised hill tribes, the Director writes as follows:—

"The education of the wild and backward tribes is almost entirely primary, except in so far as English is forced upon them. The main difficulty in teaching is that of language and script. It being impossible to admit all their languages and dialects as media of instruction, Burmese is usually employed except with the newest comers. These are generally taught the elements in their own tongue, and (if it is fairly akin to Burmese) in their own script. If they have no script, Roman letters are sometimes used. At the same time they are pushed on into Burmese as rapidly as possible. If (as may happen) the teacher is ignorant of their language, an interpreter has to be used. If the conditions are considered, the progress seems sometimes astonishingly rapid. There is no special curriculum for schools or pupils of these classes, the standard Anglo-vernacular or vernacular courses being applied either in whole or in part. By way of encouragement, enhanced rates of results grants are paid to aided vernacular schools for Kachins and Chins, and the question of extending these to Shans and other races is under consideration."

The number of pupils in special schools for Kachins has risen from 77 to 233. None of them learn English. The Chins under instruction have increased from 252 to 400, and of these 71 learn English in mission schools. A Government vernacular school has been started at Falam, and mission schools exist at Haka, Thayetmyo and Sandoway.

Hill-tribes in Eastern Bengal and Assam.

953. In Eastern Bengal and Assam the only English high school for hill-tribes is at Rangamati, which is a Government institution giving free education to hill boys, as well as free board and lodging. But many Khasis and some Lushais study at the Government High School, Shillong. The number of hill boys attending this school decreased during the quinquennium from 83 to 72. Two middle English schools and one middle vernacular school were opened during the period, at the end of which the pupils numbered 90. There are a number of primary schools for hill tribes in each division. The numbers of pupils in the district board schools of Mymensingh, which are maintained principally for the benefit of Garos, Koches and Harjangs, remained practically stationary. In the Chittagong Hill Tracts the number of primary schools for hill tribes rose from 68 to 98 and the pupils from 1,156 to 1,515. In the Khasi and Jaintia Hills there are 362 schools, managed by the Welsh Mission, and containing 7,078 pupils. In the Garo Hills there are 110 schools with 1,987 pupils, under the management of the American Baptist Mission. There are 32 schools with 787 pupils in the Naga Hills: these are for the most part Government institutions. In the Lushai Hills there are 26 schools with 594 pupils, maintained by the Welsh Presbyterian and English Baptist Missions.

954. The Director writes as follows about the education of these tribes:—

"The system has some peculiar features:—(1) The very large part played in it by missions. (2) The system of grant-in-aid, under which lump grants for whole classes of schools are made over to the missionaries: this system is now being tempered by the gradual introduction of a capitation system, generally on slightly more favourable terms than are offered in plains schools; this change has been attended by difficulties, owing to the attitude adopted by several of the missions; these difficulties, however, are being smoothed over by mutual compromise. (3) The insistence on the preservation, so far as possible, of the tribal languages as the medium of instruction. (4) The production by Government, or by missions, of text-books in those languages, printed in the Roman script. (5) The optional introduction of English at an early stage. This is rendered easier by the use made in the vernacular text-books of the Roman script, and is justified by the necessity of some common tongue in the case of those who will secure appointments in the hill districts, or whose business is likely to bring them into contact with English-knowing dwellers in the plains. (6) The existence of special training schools for teachers in the Khasi, Lushai, and Naga Hills and at Tezpur for Cacharis."

955. The following extracts from a monograph on education among the hill-tribes, by Mr. Barrow, the Inspector of Schools, Assam Valley and Hill districts, contain an interesting account of the part played by mission agencies:—

"The distinctive feature of education among the hill tribes of the province is the part played in it by Christian missions. Missionaries indeed are not found in large numbers in the plains: but, if they were, their educational efforts would be confined to their own people, the organisation of schools and school officials under Government and local bodies being complete, and purely secular. Missionaries, however, apparently find hill tribes afford the most likely field for their labours. They attach extreme importance to education. And, roughly speaking, the plan generally adopted by Government, finding the missionaries on the spot, has been to give pecuniary aid, and leave the work to them.

"This statement needs to be qualified. Government, giving aid, imposes conditions; and its methods vary in different tracts according to the opportunities that offer, or the stages of development to which the mission schools attain. Thus, in the Lushai Hills, all schools are mission schools. In the Garo Hills, Government schools have recently been started, with the idea of affording a "healthy rivalry" to the American mission. In the Khasi and Jaintia Hills, practically all the schools are worked by the Welsh mission, a member of which, it may be mentioned, is in charge of the Government high school and training school. In the Naga Hills, after somewhat delicate negotiations, Government has taken over the village schools, leaving the missionaries in charge of the training schools, which are to supply the village schools with masters. The education of the Mikirs is in the hands of the American mission. In the Chitta-

gong Hill Tracts missionaries do not play so prominent a part. Generally, there has been a tendency on the part of Government during the past five years, by establishing Government schools, by defining more strictly the terms on which grants are given and by appointing deputy or sub-inspectors of schools, subordinate to the District Officer, to take a more direct share in education among hill tribes. Still it remains true that the history of education among them is in the main the history of work performed by missionaries.

"The difficulties under which this work has been started and is being carried on are fairly obvious. Most hill men are intelligent. Mr. Davis, who is I believe the best authority, says of the Angami Naga that it would be hard to beat him in general untrained intelligence. The Superintendent of the Lushai Hills says that the Lushais are distinctly an intelligent race, more so "than even the Khasias." The Garos in fact are the only hillmen who appear to have a reputation of an opposite kind. But this general intelligence is of an extremely practical nature, and is coupled, as a rule, with excessive indifference. The advantages that will accrue from education are not at present sufficiently obvious and tangible to prove attractive. *Vis inertiae* is the main hindrance; and in the hills, where communication is difficult, and a sparse population lives in isolated villages, that retain, in some cases (as a relic of head-hunting days) much mutual mistrust, passive resistance is as effective as need be. All books have to be produced by missionaries or their converts. The supply of competent teachers is always inadequate. Language constitutes, at any rate in the Naga Hills, where differences of dialect and variations in the same dialect are exceedingly numerous, a serious difficulty. In view of these and other obstacles, which suggest themselves, the results achieved have been in some cases rather remarkable. Judging by statistics, the palm is taken by the Khasi and Jaintia Hills, where the proportion of schools to population is the highest in the province. The proportion of girls who go to school is also distinctly high, viz., about 16 per cent. In fact, it is in the attraction of girls to school that missions in general have scored their most distinct success. In the Garo Hills nearly 25 per cent. of the pupils in mission schools are girls. Figures such as these are really striking. The absence of certain customs which constitute the main obstacle to female education in the plains is of course a most important advantage. On the other hand, girls in the hills become "hewers of wood and drawers of water" at an early age: and, while parents are languid on the subject of the education of boys, they are widely prejudiced against it in the case of girls. The success of the missionaries, therefore, in this respect must be attributed to their influence over their converts. This is an important argument in their favour.

"Missions are understaffed, and they are always faced with a dearth of qualified teachers. There appear to be then two lines of action possible for them; and I may take as typical the policy which has been followed in the Garo Hills, as contrasted with that of the Aborigines mission in the South Lushai Hills. In the Garo Hills the Baptist mission, while keeping up a school of some size in Tura, has endeavoured to supply every demand that has made itself heard for a village school, the village providing something to its support. The South Lushai mission, on the other hand, has definitely decided that the best policy is not to multiply village schools, but to employ most of the energy available in the central school at Lungleh (where free board is provided, as well as lodging and education). They only send out such men as they consider really well qualified to be teachers. Garo teachers, on the other hand, are in the main poorly qualified, and their schools have recently been subjected to a good deal of criticism. In both tracts, as with other missions, the village teachers are invariably Christians, and are expected to devote a certain proportion of their time to religious work.

"The plan adopted in the South Lushai Hills is producing excellent results. But the Lushais afford in many ways remarkably good material. They are fond of reading. There are now a considerable number of books in Lushai, which it is possible to sell at a reasonable price. Books to the value of Rs. 1,360 have been sold in the (North) Lushai Hills during the last 3½ years. Making all necessary allowances, the system in force in the Lushai Hills would seem to be less open to criticism than the other, though it involves catching your pupils at a reasonably early age, and entirely supporting them.

"Education in the hills is still in a very experimental stage. It has not yet acquired a definite tendency. Its aim is not defined. This is illustrated in some degree by the question of the languages taught in the curriculum. In the Naga Hills it was originally attempted to teach (besides lessons in the local vernacular) both English and Assamese. This was found to be too burdensome a course, and the Assamese was dropped. Now, this was found to be too burdensome a course, and the Assamese was dropped. Now, generally speaking, the languages of the plains are not taught, but there is a tendency to teach English in a more promiscuous manner, and at a less advanced stage, than in the plains. The hills are very isolated, and until the development of commerce increases communication between them and the plains, there would seem to be little demand for a knowledge of Assamese or Bengali. An exception is perhaps to be found in the Garo Hills, owing to the trade in cotton: and certain Bengali schools have been opened in these hills. On the other hand, the teaching of English to all and sundry can hardly be contemplated. It is, indeed, satisfactory to find that Mr. Davis, whom I have quoted above, is of opinion that "English Education" need not spoil the Naga. But other hillmen, for example the Lushais, appear to have a less stable character, and a

capacity for intrigue which does not require development. In any case there would appear to be little room or demand for a mainly literary education. The extremely practical nature of most hillmen has been insisted on by those whom I have consulted and who are best qualified to judge. Industrial schools are now being started in the Khasi and Jaintia and in the Naga Hills: and if education among hill tribes is to flourish, it must probably be upon industrial lines."

Education of the Children of Tea Plantation Labourers.

956. BENGAL.—The education of the children of labourers employed on tea-gardens has been attracting attention during the quinquennium. A conference of officials and representatives of the tea-gardens of the Darjeeling Hills and the Terai was held in 1906. The policy adopted was that Government should give liberal grants-in-aid, and that the tea-garden managers should be invited to provide the sites and school buildings, and keep the latter in repair. It has been arranged that Government should give Rs. 12 a month to any garden which will give a site, a building, and a contribution of at least Rs. 8 a month. By the end of the quinquennium the proprietors of 12 gardens had expressed their willingness to accept these conditions, and schools had been opened on their estates. Of the remaining estates, 11 were not yet prepared to start a school, 8 had offered sites only, and three others had offered sites and subscriptions somewhat below the rate proposed. In 48 other gardens there were either schools already in existence, or the children could attend schools in the neighbourhood. At the beginning of 1907, out of 8,428 children on tea-gardens, 803 were receiving instruction and 746 had left school.

957. EASTERN BENGAL AND ASSAM.—In Eastern Bengal and Assam, Captain Kennedy was placed on special duty to inquire into the existing condition of education upon the tea estates in that province. He found that the total number of Government and private schools on or near estates was 248 and 108 respectively. The number of children of school-going age was 68,424, the number who had acquired the rudiments of education was 3,423, while the number attending Government or private schools was 1,926. It was decided that fifty additional Government lower primary schools should be established on tea-gardens; and measures were under consideration at the end of the quinquennium to introduce the system of grants-in-aid adopted in Bengal, as a means of encouraging the establishment of more aided schools. Other conclusions arrived at were that, where the schools are not Government or aided schools, they should be entirely under the control of the managers of the gardens; that the instruction to be imparted in all schools should be of the simplest character and entirely in the vernacular, and that no fees should be charged and attendance should not be compulsory.

Depressed Classes.

958. MADRAS.—In Madras the Paraiyas and other cognate classes, who are regarded by caste Hindus as specially polluted, are termed Panchamas. Special encouragement is given by Government to these classes to obtain education, and takes the form of reduction of fees, enhancement of grants, and relaxation in certain cases of the departmental rules. Much work is done too by missionary bodies for the education of these classes. The Panchamas are said to be by no means wanting in intelligence or aptitude for learning, given favourable conditions. Both the number and strength of Panchama schools have risen steadily, and at the end of the quinquennium they contained nearly 27 per cent. more pupils than at the beginning. Most of these institutions are elementary schools. Of the public schools 11 per cent. were maintained from public funds, 67 per cent. were aided, and the remainder unaided. The percentage of unaided schools has been reduced, owing to the more elastic provisions of the new grant-in-aid code. Regular full-time attendance is generally impossible in rural tracts, and consequently half-day schools were permitted in 1906, providing two or three hours' work daily in compulsory subjects, and optional instruction in the other hours for boys who are able to attend.

959. BOMBAY.—In the Central division of Bombay the number of low-caste children under instruction has risen from 7,304 to 8,941. They are

admitted free into schools and receive presents in the form of books, slates, etc. Special schools have been opened by boards, and it is noticed that the children prefer them to the schools maintained by missionaries for their especial benefit. In Kathiawar only three children of the depressed castes are receiving education. In the Southern division there are 72 special schools or classes for them, most of which are under unqualified teachers. They are admitted free into ordinary schools, but cannot associate with the other pupils. Their progress is reported to be moderate.

960. BENGAL.—Special measures are taken in Bengal for the encouragement of education among the indigent classes, such as the lowest classes of Hindus, Muhammadans, and native Christians. The numbers under instruction at the end of the quinquennium were 41,450 Hindus, 22,886 Muhammadans, and 2,799 non-aboriginal native Christians.

Owing to difficulties of classification, Mr. Hornell observes that it is impossible to draw any accurate conclusion as to the progress which is being made, or even to estimate with any degree of precision how the depressed section of the community stand in the matter of education.

CHAPTER XIII.

EDUCATION OF DEFECTIVES.

Education of the Blind.

961. THE only provinces in which institutions at present exist for the education of the blind are Madras, Bombay, Bengal, the Punjab and Burma. In MADRAS, four such schools were at work during the period under review, two at Palamcottah,—one for boys and one for girls,—a boys' school at Pannaivilai, and a mixed school at Madras. The three former continued to be under the management of the principal of the Sarah Tucker College at Palamcottah. The number of pupils rose from 38 to 63. These schools give an elementary education up to the 4th standard, the text-books employed being of the embossed type of Dr. Moon's system. In arithmetic the Braille system is used. Instruction is also imparted in useful occupations, such as grass mat-weaving, chair cane-work, knitting and the like. A satisfactory feature of the history of these schools is that no less than thirteen of their old pupils are now engaged as assistant teachers in schools for the blind.

The fourth school in Madras is managed by the Christian Association for the Education of the South Indian Blind. It employs the Braille system and gives an elementary education to its pupils, as well as instruction in manual industries. All the four schools are aided by Government.

962. The BOMBAY report contains the following information regarding schools for the blind:—"During the quinquennium under report four schools have been started for the education of the blind, viz., (1) The American Mission Anglo-Vernacular School for the Blind, Sirur; (2) Miss Millard's School for the Blind, Bombay; (3) the Victoria Memorial School for the Blind, Bombay; and (4) the Zenana Mission School for the Blind, Poona; while there was none at the end of 1901-02. The total attendance in these schools was 102 at the end of 1906-07. The American Mission Anglo-Vernacular School, Sirur, is the only secondary school. It is attended by seven pupils and received a grant of Rs. 150 in 1906-07. Miss Millard's School and the Victoria Memorial School are attended by 48 and 39 pupils, and received grants of Rs. 2,000 and 1,500 respectively. Both the schools are mainly primary, but they teach some English also. The Zenana Mission School for the Blind, Poona, is a purely vernacular school, attended by eight girls, and received a grant of Rs. 200. The education imparted in these schools is on the Braille system."

963. There are two schools for the blind in BENGAL, the Kareya Blind School in Calcutta, and the Anglican Mission Blind School at Ranchi. The former in March 1907 had eleven pupils, who are taught to read by the Braille system and to write by means of holes bored on thick paper to symbolise letters. They are also taught cane-work, screen-making and music. The local Government and the Calcutta Corporation make small grants in aid of this institution. The Ranchi school had nineteen pupils at the end of the quinquennium. They are taught to read Hindi by the Braille system, and also learn certain manual industries. The school receives a little support from Government and from the local Municipality.

964. PUNJAB.—A school for the blind was opened at Lahore during the quinquennium. Two teachers are employed, and about a dozen pupils attend. The Braille system is in use. Reading, writing, and arithmetic were taught: the introduction of industrial training was under consideration. The cost of maintaining the school is entirely met from Provincial revenues.

In BURMA a small aided school for the blind is maintained at Moulmein. The pupils number twelve, and are taught to read the vernacular under the Braille system, and receive instruction also in cane and basket weaving. The school is still in the primary stage, but it is hoped that middle standards will shortly be added. It receives some support from the Municipality also.

Education of Deaf-Mutes.

965. The record of the school for deaf-mutes at Palamcottah is one of progress. This school had 105 pupils,—56 girls and 49 boys,—in March 1907.

It receives pupils from all provinces and from Ceylon. It provides an elementary education up to the 4th standard, as well as instruction in manual occupations. Classes for instruction in speaking and reading aloud have been revived, and the pupils are said to have made very satisfactory progress. Still better results could be obtained if children were sent earlier to the school, since in many cases their faculties have lain dormant too long to be successfully developed. The institution receives aid from Government and from such district boards as send pupils to it for instruction.

966. In the BOMBAY Presidency there is still only one school for the education of deaf-mutes, which is situated at Bombay. The attendance at this school has increased from 15 to 22. It is a primary school, but some English is taught.

967. BENGAL.—The Calcutta Deaf and Dumb School has also increased its numbers during the quinquennium. Its object is to teach deaf-mutes to understand what is communicated to them by observing the movements of the speaker's lips, and also to communicate their own thoughts by articulate sounds. The pupils are also taught drawing and tailoring, and there is a normal class for the training of teachers of the deaf and dumb. The school receives a little aid from Government and from the Calcutta Corporation.

968. Although the few existing schools for defectives have made some ^{General} progress during the period under report, and some new schools have been started in Bombay, the number of these institutions is still inadequate. In four provinces there is no institution for educating the blind, and in six provinces there is no school for deaf-mutes. The total number of pupils of both classes who are receiving instruction in India does not exceed 400, a figure which is disproportionate to the numbers of defective children scattered over the length and breadth of the continent.

CHAPTER XIV.
REFORMATORY SCHOOLS.

Introductory.

969. In the Fourth Quinquennial Review mention was made of an important change in the character of reformatory schools introduced by the orders contained in the Home Department Resolution dated 2nd September 1899, under which their control and management were transferred from the Jail department to the Education department. In Madras, the latter department had been entrusted ever since 1888 with the management of the school at Chingleput; but in other provinces the controlling agency had been, up till 1899, the Jail department; and it was not till towards the close of the quinquennial period 1897—1902 that the management of all reformatories was finally taken out of the hands of that department. The principal object of this change was to enable more attention to be paid to the reformatory training of the pupils, and to teach the boys self-respect and self-control and habits of care and industry in their work. The reformatories were to be made “schools for the education and reform of boys, and not jails for their punishment by long periods of incarceration.” It was thought that the department which has experience of the training of youth was likely to be more successful in the management of such institutions than the department which deals with the punishment of criminals.

970. Although a good deal had been done by the end of the previous quinquennium in the direction of improving the character of the reformatories on these lines, it was observed in the Quinquennial Review that the necessary reforms were still in progress and that several of the schools had not yet lost their jail-like appearance and traditions. In the succeeding sections of this chapter their further progress is described under various heads.

Objects of the Reformatory School system.

971. Reformatory schools have a double object,—the instruction and the reformation of the pupils. Under the former head may be included not only their literary instruction, but also their technical and industrial teaching and physical training. Under the latter head may be noticed their religious and moral training, and the inculcation of habits of discipline and self-control. The success of the instructional side may be gauged by the successes in examinations, the proficiency attained in industrial occupations, and the improvement in the physique of the boys. It is more difficult to estimate the degree of success which attends the task of reformation of character. To some extent it may be gauged by the conduct of the boys while at school, the discipline maintained, and the number of punishments inflicted; but the real test is the after-career of the pupils, their willingness and ability to find and retain honest employment, and the number of ex-pupils who revert to a life of crime or are again convicted by the criminal courts.

It will be convenient to notice briefly, in the first place, the progress that has been made during the period in the instruction of the boys in each of the reformatory schools, and, in the second place, the success or failure of the efforts which are made to reform their characters.

Literary Instruction.

**Reformatory
School,
Chingleput.**

972. The Reformatory School at Chingleput is conducted as an ordinary elementary school and an industrial school combined. It teaches from the infants up to the 4th standard. The results of the annual inspections have been uniformly satisfactory. In 1902, 18 pupils went up for the primary examination and all passed, nine of them in the first class. In the following year again all the candidates passed, with 50 per cent. in the first class. In that year the inspector remarked that in writing, reading and mental arith-

metic the boys were upon the level of other primary schools. In the last year of the quinquennium the inspector reported that steady progress was being maintained and that the general impression was, as in former years, very favourable. The results of the primary examination were also very satisfactory.

973. At the Yerrowda School, Bombay, the system of education consists of a general practical education in vernacular reading, writing and arithmetic. The annual reports on this institution show that the standard maintained by the pupils has been uniformly good, and the results of the examinations generally satisfactory.

974. At the Alipore School, reading and writing and arithmetic are taught to the upper primary standard, with Bengali or Hindi or English at the boys' option. In 1902 an attempt was made to introduce the kindergarten system of teaching, and the nucleus of a school library was also formed. Proposals for increasing the teaching staff and for a general reorganisation of the school department received the approval of the local Government. The results of the examinations held in 1902—1904 were fairly satisfactory, but there was a falling off in 1905, when only nine boys reached the lower primary standard and five boys the upper primary standard. In the following year the upper primary class was abolished and the boys reading in it were transferred to the drawing class; sixteen boys passed the lower primary examination as against nine in the previous year. The annual inspection disclosed defects in the teaching staff, and a thorough investigation was held into the matter, with the result that a scheme for the reorganisation of the teaching arrangements was prepared and was under consideration at the close of the quinquennium.

975. At the Hazaribagh School, class work is held for three hours daily, under a staff of four teachers. The transfer of the management to the Education department led to a marked improvement in the system of education of the boys. In 1902 nine candidates went up for the lower primary examination and all were successful, eight of them being placed in the first division. Similar figures are reported for the following year. In 1904 a fifth teacher was appointed on probation. Eight boys were examined by the school authorities, and seven proved equal to the lower primary and one to the upper primary standard. The figures increased largely in the next year, when twenty boys reached the lower primary and thirteen the upper primary stage. In the last year of the quinquennium the corresponding figures were twenty-three and seventeen. Proposals were under consideration at the close of this period for improving the general education of the boys on the lines suggested in the case of the Alipore school.

976. At the reformatory school in the United Provinces, which was re-
moved in August 1902 from Bareilly to Chunar, the attempt to work the
institution more on the lines of an ordinary school is reported to have been
attended with considerable success, but to have entailed additional expendi-
ture on the staff. All the boys receive instruction for two and a half hours
daily during the summer and for two hours during the winter. In 1902 the
result of the annual examination was fairly satisfactory and showed distinct
advance on previous years; but it was noticed that a class of 121 boys was too
large for one man to handle efficiently. In the following year the results were
on the whole better, and this was attributed to the entertainment of three addi-
tional teachers. An upper primary class (IV) was opened, this being the
highest class of the upper primary standard in which instruction may be given
to the boys of the reformatory. In 1905 the school was said to have improved
in every way; one boy passed the upper primary examination, and it was
proposed to give him a scholarship, or to depute him to a district training
school in order to enable him to qualify himself for the position of a teacher.
It was thought that his example would be a valuable object lesson to his late
school fellows in the reformatory. This proposal was given effect to in the fol-
lowing year and the boy's behaviour and work were said to be satisfactory.

He ultimately obtained an appointment as assistant teacher in a school. The results of the annual examination held in 1906 were again satisfactory. The last annual report deals with the calendar year 1907, the last nine months of which are outside the scope of the present review. The half-yearly examination is said to have indicated a marked improvement all round. The Director remarks that when the school was taken over by the Education department the standard of general education was very low indeed, but by thorough reorganisation of the work and the appointment of more and better qualified teachers a revolution has in this respect been effected; and the results of standard examinations compare not unfavourably with those of ordinary primary schools.

Reformatory
School,
Insein.

977. The Reformatory School at Insein teaches from the 1st to the 7th standard. Of 77 boys examined in March 1903, 72 passed; and the inspector remarked that the school had on the whole done satisfactory work. The following year the examination results were somewhat less satisfactory. In 1905, 54 boys passed out of a total of 64, the highest standard, however, being the 5th. In 1906 the results were most satisfactory, 60 boys passing out of a total of 61 examined, and the school was reported to have shown great progress. In 1906 all the boys passed, the highest standard being the 5th. Of the boys admitted during this period the majority were illiterate, as the following table will show:—

	Admissions.	Literate.	Illiterate.
1903	26	6	20
1904	17	4	13
1905	19	6	13
1906	24	6	18
1907	23	3	20

Reformatory
School,
Jubbulpore.

978. At the Reformatory School at Jubbulpore, the boys receive teaching in a modified primary school course. The results of the instruction imparted in literary subjects are said to be satisfactory on the whole, and the percentages of success in the annual examinations have been fairly good.

Reformatory
School,
Delhi.

979. A reformatory school was established at Delhi at the beginning of the quinquennium, with a superintendent on Rs. 400 per mensem. It was located in the vacated buildings of the old lunatic asylum, in close proximity to the jail, but no intercommunication between the two institutions is possible. All the original inmates were illiterate. The examination results of the first year were fairly satisfactory. There was no inspection in 1906, in which year the teaching was hampered by frequent changes in the post of second teacher, which was vacant for more than three months. Similar difficulties were experienced in the following year. Nevertheless, the results of the inspections held in 1907 were satisfactory. Of the 81 boys in the school, 4 were in class IV, 11 in class III, 16 in class II and 50 in class I.

Industrial and Technical Training.

Reformatory
School,
Chingleput.

980. At the Chingleput School all the pupils are taught one of the following trades,—carpentry, weaving, rattan, tailoring, blacksmith's and mason's work, the last having been introduced in 1906. A large number of the boys are in addition taught drawing. The school sends up pupils for the Government technical examination in drawing and the various industrial subjects, and often with much success. In 1906 only one boy failed out of 33 sent up. The carpenter's shop gained a bronze medal in the Fine Arts exhibition of 1907. Forges have been erected on the English system, to enable the boys who will afterwards obtain employment in the railway workshops to accustom themselves to that system. Considerable progress appears to have been made in industrial and technical training. All the pupils are also put to gardening on admission; the industrial class take their turn at gardening in the way of recreation and exercise, the boys who pursue stationary and sedentary trades being given extra gardening work. Instruction is also given in the

methods of agriculture by means of object-lesson plots, but the ground available for this form of instruction is very limited.

981. In the Yerrowda School all the pupils, besides being put through a course of manual training, are taught one or other of the following trades or industries:—carpentry, blacksmith's work, painting and varnishing, book-binding, vegetable gardening, flower gardening, or agriculture. In 1907 the net profit from manufactures amounted to over a thousand rupees. Of 106 boys engaged in the trades, 35 were practising gardening, 17 blacksmith's work, 21 painting, and 33 book-binding. The flower garden and market garden industries also showed a profit. Sixty-eight boys were engaged in gardening, of whom 17 were also learning flower-gardening.

982. At Alipore the list of trades at which the boys are employed comprises agriculture and market gardening, blacksmith's work, book-binding, cane and bamboo work, carpentry, cooking, dairy keeping, domestic service, painting, printing, shoe-making, tailoring and tanning. Examinations are held by experts in all the industrial subjects taught. In 1906 the profits from manufactures amounted to Rs. 2,755. This was a decrease upon previous figures, and was due to the fact that efforts have been more and more directed towards teaching the boys industries which may be useful to them in after life, and not towards making the industries remunerative.

983. At the Hazaribagh School the trades taught are blacksmith's work, carpentry, cooking, farming and market gardening, shoe-making, domestic service, tailoring and weaving. Good progress is said to have been made with the teaching of agriculture and market-gardening.

984. In the Reformatory School at Chunar more trade masters have been employed, in consequence of the introduction of new industries and newer methods, based on the experience gained in other reformatory schools. At the end of the quinquennium, ten trades were taught. Of the 138 boys in the school 23 were learning carpentry, 10 blacksmith's work and tin work, 12 cane work, 2 pottery, 7 stone cutting, 22 tailoring, 14 shoe-making, 17 weaving, 2 barber's work and 29 gardening. The industrial training of the boys is carried out as far as possible according to their hereditary trade. The carpenter's shop is stated to have turned out some excellent work.

985. At the Insein School the crafts taught are gardening, tinning, smithing, carpentering, and cane work. Examinations in the three last industries are arranged for by the Education department. The number of passes is generally very high, and the work is said to be well done on the whole. Shoe-making is to be added to the list of trades and industries. The majority of boys are employed either in carpentry or in tinning.

986. In the Reformatory School at Jubbulpore the boys are taught gardening, carpentry, blacksmith's work, tailoring, weaving, shoe-making, painting and cane weaving. They are examined annually by outside experts, with almost invariably favourable results. The most popular industries are gardening and agriculture.

987. In the Delhi School, the industries taught are tailoring, gardening and agriculture, weaving, carpentry and leather-work. Proposals for the introduction of cane-work for the employment of low-caste boys were under consideration at the end of the period under review. The school was not inspected on the industrial side in 1907.

Physical Training and Recreation.

988. At the Chingleput reformatory each boy receives three days drill and two days gymnastic training in the week, and on the other two days the whole school drills together. Much attention is given to the instruction in drill, at which the boys are said to be very efficient. The school team is very successful at football: the boys are said to display a "true sporting

spirit", and to play an unselfish game which enables them to hold their own against older and heavier teams. In the Yerrowda school the boys learn gymnastics and drill, and play cricket, football and hockey, as well as native games. At the Alipore school physical drill, gymnastics and games are carried on for an hour during the morning throughout the year. At Hazaribagh drill, gymnastics and football are taught by a qualified Army reservist. At Chunar the boys are allowed 2 hours daily for recreation and exercise, and they go through a course of *desi kasrat* for three quarters of an hour every day under the supervision of an instructor. The play-ground is said to be inadequate and to require enlargement. In the Insein school the boys get half an hour's physical drill daily : and four or five hours for "recreation" are said to be allowed them also. During the recreation hours they play marbles and native games, but no organised sports are attempted. In the Reformatory School, Jubbulpore, the boys all receive physical training and recreation. At Delhi drill and physical exercises are carried out, and instruction is also given in *desi kasrat* twice a week.

Reformatory Influences.

989. The next subject to be noticed is the result of the reformatory influences on the character and conduct of the boys, as indicated by the discipline maintained, the number of punishments inflicted, the religious and moral instruction afforded, and the after careers of discharged pupils. In all the schools the discipline, though not so severe as in a jail, is still necessarily stricter than that enforced in an ordinary school.

The following statement shows the number of punishments imposed in each institution in the last year of the quinquennium for which information is given :—

	Average strength.	Number of punishments.
Chingleput	191	93
Yerrowda	170	10
Alipore	214	52
Hazaribagh	180	149
Chunar	140	16
Insein	80	62
Jubbulpore	73	4
Delhi	78	19

The majority of offences for which punishments were awarded consisted of breaches of school discipline, including illicit possession of tobacco. At Delhi a monitor was murdered in November 1907 by one of the boys, who was sentenced to transportation for life. Theft was a fairly common offence. The punishments inflicted were birching, light caning, degradation, penal diet, and other minor punishments. The great variety in the ratio of punishments to the number of boys in the various schools must be due, in part at least, to differences in the methods of classifying punishments. The large number of punishments inflicted in the Hazaribagh school is attributed to the greater vigilance of the guards and to the presence in the school of bad characters received on transfer from the Alipore school. This explanation was not, however, regarded as altogether sufficient, and the matter was under consideration at the close of the quinquennium.

Escapes.

990. The following table shows the number of escapes during the last year under review :—

	Escaped.	Recaptured.	At large.
Chingleput	4	2	2
Yerrowda	4	1	3
Alipore and Hazaribagh	5	2	3
Delhi	1	1	...
	—	—	—
	14	6	8
	—	—	—

No escapes occurred in that year at the other schools.

991. In all the schools attention is devoted to the religious and moral training of the boys. At Chingleput moral training is said to be the most important aid in the work of reformation, and care is exercised to infuse a moral idea into the school. School opens daily with moral instruction, and a moral lesson is given every Sunday, bearing on every-day work and illustrated, when necessary, by a moral story. The Director, however, remarks that effective supervision and control of the play-ground are found to have more influence in the formation of character than direct moral teaching. At Yerrowda moral lessons are inculcated during the class hours, moral and religious poetry is recited morning and evening, and there is class reading from the Scriptures, and private reading of instructive books from the school library during leisure hours. In the Bengal schools moral and religious instruction is given, and at Alipore a "Sankirtan" party has been organised for the purpose of practising religious songs. At Chunar similar instruction is afforded, and a Pandit gives a lecture once a week. This subject receives no mention in the reports of the Insein reformatory. At Jubbulpore a moral lesson is repeated daily, and lectures are delivered three times a week. Hindu, Muhammadan and Christian boys are encouraged to attend their respective places of worship, and the boys spend a portion of their leisure in reading books from the school library. At Delhi every opportunity is taken to inculcate good principles into the boys. At most schools the endeavour is made to encourage good behaviour and to inculcate principles of self-respect by awarding good conduct marks or badges and by promoting the best conducted boys to the position of monitor, a position which carries with it certain privileges and entails certain responsibilities.

Surveillance over Discharged Pupils.

992. In 1905 the Government of India addressed local Governments on the question of the maintenance of a watch over boys discharged from reformatory schools. "The question of the maintenance of a watch over discharged boys," they remarked, "was one of the problems affecting the management of reformatory schools which the local Governments were invited to consider in paragraph 7 (4) of the Home Department Resolution No. 374-379, dated the 2nd September 1899. The Government of India were then disposed to think that a watch should be kept over discharged boys, both in their own interests and for the purpose of gauging the effects of the reformatory system. But though reference was made to the fact that reformatory schools would henceforth be controlled by the educational department, no precise directions were then issued regarding the manner in which the watch should be maintained, nor have any proposals relating to the matter reached the Government of India since that time....."

"The question is a difficult one, upon which the Government of India would be glad to receive the advice of local Governments. They recognise that there are forcible objections to any system of surveillance which hampers a boy in severing himself from a disreputable past; but if this objection can be surmounted they would be unwilling to forego a useful means of judging of the effects of the reformatory system. They would be glad to be furnished in the first place with information showing exactly how the present system of inquiry in each province is worked in practice. In particular they desire to know by what agency the information regarding the boys is obtained, and with what degree of frequency the boys are subjected to inquiry. It should be explained whether the present practice is found to have a discouraging effect on the boys themselves, and how far it can be said to be successful in its object of obtaining complete information regarding them."

993. After considering the replies to this letter, the Government of India in September 1906 issued another letter on the subject. They observed that "the consensus of opinion is that some supervision over the after careers of boys leaving reformatory schools is desirable, as a means of gauging the value of such schools. Although the local Governments are not unanimous as to the effect of the system of surveillance on the boys, the Government of India conclude from the various reports received that its prejudicial effect, if any,

Religious and moral training.

is not in itself a sufficient reason for abandoning a system which in other respects has considerable advantages. They are therefore in favour of continuing the system, and they do not consider it necessary either to modify or to discontinue statement II attached to the annual report on reformatory schools. They do not desire that the system of surveillance should be uniform in all provinces, and subject to the following observations, they leave it to each local Government to adopt whatever method may be considered best suited to local conditions.

"The two main objects which Government have in view are :—

- (1) To watch the careers of the boys in order to ascertain how far the reforming influences of the schools have achieved their purpose. If this information is to be of real value the surveillance must be thorough.
- (2) To help the boys to earn an honest living.

"In the opinion of the Government of India the principles which should govern the system of surveillance are as follows :—

- (a) police agency should never be employed;
- (b) the surveillance should be as unobtrusive and as little inquisitorial as possible;
- (c) in order to make the system a source of actual benefit, efforts should be made to keep every boy in view under all circumstances.

"Where the officer charged with the duty of surveillance ascertains that a boy is out of employment, he should not be content merely to report the fact, but should use every effort to find him employment.....

"As regards stipends, the Government of India leave it to local Governments to adopt any system that they may consider advisable."

After Careers of Discharged Pupils.

994. Tables 263 and 264 show the occupations of such of the discharged pupils as have been kept in sight. The figures in these tables relate to the six years, 1901-1906 inclusive. Owing to the method in which these statistics are shewn in the annual reports on reformatory schools, it is impossible to give the exact figures for the quinquennial period. Excluding the boys who have been lost sight of or have died, there are altogether 1,216 discharged pupils whose after careers have been watched. Of these, 292 were engaged in agriculture, 224 in the trades or handicrafts taught them at school, and 433 in other industries which they did not learn while in the reformatory; 105 are returned as unemployed or living with friends. 138 boys, or 11·3 per cent. of the total, were reconvicted, and 24 others are reported to be of bad character. It is a matter for regret that nearly 25 per cent. of the boys discharged have been lost sight of; but since information is generally supplied to the superintendents of reformatories whenever an ex-pupil is again convicted by a criminal court, it is perhaps safe to assume that few if any of this number reverted to a life of crime after their discharge. If this assumption is correct, the percentage of boys who had been reconvicted by the end of 1907 or are known to be of bad character is only 10 per cent. of the total number discharged during the six years. These figures are encouraging, and indicate clearly that the work of reformation is generally successful. The number of boys who after discharge follow industries other than those taught them in the school is double the number of those who are occupied in the industries or handicrafts in which they have been trained at the reformatory. In view of the Indian's strong bent towards his hereditary calling, this is not to be wondered at; and it may perhaps fairly be assumed that the habits of industry and application acquired in learning one occupation at school stand a boy in good stead when he takes up a different trade or calling after his discharge.

General.

995. Several additions were made during the quinquennium to the buildings of the Reformatory School, Chingleput, and the increased accommoda-

tion has allowed a greater number of convicted juvenile offenders to come under the influence of the school. The strength rose from 162 to 192 during the period. The Director of Public Instruction, Bombay, quotes the following extract from a report by the inspector on the Yerrowda school :— "Beyond the fact that boys are necessarily always more or less under supervision and are locked in at night, there is very little of the prison atmosphere about the place. The separate cells for night use are being replaced as fast as possible by dormitories, and the school games are heartily enjoyed; nor do I think that any one visiting the school would ever guess that the children are in any way different from those in an ordinary school." The system of licensing boys to private individuals was started in 1904, and 56 boys in all were sent out to work under private employers, not more than two being allowed to any one employer. The system was very little abused.

996. Mention must be made of the David Sassoon Industrial and Reformatory Institution in the City of Bombay. This is the only private school recognised under the Act. The number of boys is generally about 200. The pupils are reported to have done specially well in the Art examinations and to be good at drawing. The school has recently received a grant-in-aid for the first time from the Joint Schools Committee. The trades taught are carpentry, fitting and smithing. It is proposed to remove the school to more convenient and healthier quarters.

997. At the Chunar school the numbers have been steadily decreasing, from 256 to 138 in the five years. No explanation is offered of this decrease. The occasions for inflicting severe punishments are said to be growing less frequent and the general behaviour is improving from year to year. The licensing system has been tried, but has not proved very successful. Employers are said to prove rather exacting, and the boys prefer living among their companions at the school to the friendlessness and drudgery which they usually meet with when licensed out.

998. The Director of Public Instruction, Burma, observes that efforts have been made during the quinquennium to render the treatment of the boys in the school at Insein less penal in character and to develop the educational side of the management. The conditions obtaining in this school, however, still approximate more closely to those of a jail than in any other reformatory school in India.

David
Sassoon
Industrial
and Reform
tory Institu
tion.

CHAPTER XV.

PRIVATE INSTITUTIONS.

999. By private institutions are meant all schools which have not accepted departmental or University standards, and do not submit to any public test. These institutions are usually divided into three classes :—

- (1) Advanced institutions teaching (a) Arabic or Persian, (b) Sanskrit, and (c) other Oriental languages.
- (2) Elementary institutions, including (a) Koran schools, and (b) schools teaching a vernacular only or mainly.
- (3) Other schools not conforming to departmental standards.

The statistics relating to private institutions are necessarily unreliable. No returns can be demanded of the managers, and the figures voluntarily furnished are not always complete or accurate. So far as they can be trusted to indicate the progress of education in these schools, it would appear that the number of pupils of all classes and both sexes in the advanced institutions has declined from 62,137 in 1901-02 to 60,792 in 1906-07; and that the corresponding figures for elementary institutions show an increase from 573,270 to 583,360. The number of female pupils in advanced institutions has remained almost stationary, while in elementary institutions it has risen from 49,903 to 64,020.

Advanced Institutions.

Arabic and Persian schools.

1000. The same causes which operate to render the statistics of private institutions unreliable account for the general absence of definite information regarding their status and progress. In the Madras report mention is made of two Arabic schools of the higher class at Vellore, and of 56 Arabic middle schools, but nothing is known about the instruction given in them. The total number of pupils in 1907 was returned as 2,681. In Bombay there were 66 advanced schools with 2,661 pupils at the close of the quinquennium. The Arabic school at Deoband in the United Provinces is said to have maintained its reputation as a home of Arabic learning of the old type; it had 267 scholars on its rolls in 1907. In the Punjab the advanced schools have increased in numbers but declined in strength.

The schools in Eastern Bengal and Assam, which suffered a slight decline during the preceding quinquennium, are again on the increase. They are usually conducted by passed students of Government Madrassas, but the course of studies is not uniform, each school pursuing its own method and curriculum. The number of students was returned in March 1907 at 8,919 boys and 186 girls. The returns for the Central Provinces show four Arabic and Persian schools, with 49 pupils, but the report is silent as to their progress.

Sanskrit schools.

1001. The higher class Sanskrit schools in MADRAS, of which there are five, give an eight years' course in Sanskrit language and literature, logic and philosophy, which is extended to eleven years in the case of pupils preparing to become pandits. There are also 250 Sanskrit schools giving a less extensive course, which are classed as middle schools. A considerable number of these accept departmental inspection, and a few are aided. There were altogether 4,398 pupils on the rolls of these schools in 1907. In Bombay, three advanced Sanskrit schools were started during the quinquennium. In addition a private institution, called the Samertha Vidyalyaya, was recently established at Kolhapur, with the object of giving English education on special lines conceived by the promoters. There is to be a special syllabus, and most of the school subjects are to be taught through the medium of the vernacular. This institution had 63 boys on the rolls in March 1907.

1002. In BENGAL, the number of Sanskrit *tols* has declined by 146 and the pupils by nearly 1,300. On the other hand, a number of these institutions have conformed to departmental standards, and are therefore returned as public institutions, and this fact may be held to account for the apparent decrease. In the UNITED PROVINCES there has been a decline in the number of advanced Sanskrit

schools or *pathsalas*. There were altogether 321 such institutions in 1907, with 5,703 pupils. The most important are those at Pilibhit, Thakurdwara and Ballia. There has been a considerable drop in the number of Sanskrit schools in the Lahore and Rawalpindi circles of the PUNJAB. Altogether 1,496 students were returned as under instruction in these schools in 1907. In EASTERN BENGAL AND ASSAM the higher Sanskrit schools have shared in the general decline of all private institutions. They decreased from 604 in 1896-97 to 357 in 1901-02, and in the last quinquennium from 357 to 223. These *tols* are maintained by Brahmin pandits, generally at their own cost, and usually teach grammar, Smriti and Nyaya. They are said to impart a fairly high degree of education and, as such, to be of some importance. In the CENTRAL PROVINCES there are two advanced Sanskrit schools, with 49 pupils.

1003. Besides the advanced Arabic and Sanskrit schools, there are in the Bombay presidency a few private institutions giving instruction in other Oriental languages. These are the two schools which teach the Zend language to Parsi children and the four institutions which give religious instruction in the Magadhi language to Jain children. These six schools had altogether 284 pupils in March, 1907. No such schools are shewn in the returns from other provinces.

Advanced schools teaching other Oriental languages.

Elementary Institutions.

1004. In every province except the Central Provinces there are elementary private institutions teaching the Koran and little or nothing besides. The total number of these Koran schools is returned as 10,124, with 189,730 pupils on the rolls in March 1907. The corresponding figures at the close of the preceding quinquennium were 11,218 and 183,476. The decline in the number of schools has been continuous for the past 15 years; but the total of pupils increased. In view of the unreliable nature of the statistics it is not safe to draw conclusions from these figures. The efforts to improve these indigenous schools in the Bombay presidency have been fully described in the chapter dealing with Muhammadan education; and when such schools have been improved they cease to be reckoned as private institutions but are classed as belonging to the system of public primary schools. The decline in the total of Koran schools in BENGAL from 3,667 to 390 is of course chiefly due to the redistribution of territory included consequent on the partition. The figures for the whole territory included in the two Bengals and Assam are, 3,831 in 1901-02 and 3,328 in 1906-07. There has thus been a slight decline, which is probably accounted for by the growing tendency on the part of indigenous Muhammadan schools to adopt the departmental standards. In the UNITED PROVINCES the decrease in the number of Koran schools has been less noticeable than in the case of other classes of elementary private institutions.

The average number of pupils *per* institution is only 20. There has been a slight decrease in the Koran schools in the PUNJAB, where also endeavours have been made to transfer some of them to the list of aided schools. In EASTERN BENGAL AND ASSAM the numbers of Koran schools have fallen by nearly 50 % in the past decade. They are said to have little or no educational value, as the only instruction given in them is the recitation of verses from the Koran. They are generally started by a *Mianji* of the village, and are held in the morning or evening either in the mosque or in the outer house of a well-to-do Muhammadan gentleman.

1005. In addition to the Koran schools, there are altogether some 25,000 other elementary private institutions, teaching a vernacular wholly or mainly. The pupils attending such schools in 1906-07 were returned at 351,043. Of these nearly half are Burmans attending the indigenous monastic schools, which number nearly 15,000. There has been a decline in the total of these institutions in India from 27,173 to 25,108.

Other elementary vernacular schools.

1006. The numbers in the two Bengals have steadily declined, and in Eastern Bengal and Assam the Director reports that they are fast dying out. In the Punjab they have decreased both in numbers and enrolment. By far the most important of these institutions are the monastic schools in BURMA. The Director writes as follows regarding the elementary private institutions in that province :—

“The most remarkable thing about these educational establishments is the enormous number of them. They include no advanced institutions, and 97 per cent. of the pupils attending

them are Buddhists, the balance being mainly Muhammadans. Nearly one-half of the Buddhists under instruction still obtain their education in schools of this class. Since 1901-02 these schools have increased by 1,622, and the number of their pupils by 17,963. They are thickest in the Sagaing, Meiktila, Mandalay and Minbu divisions, i.e., where Burmese monasticism has had most scope for development, but they have likewise largely increased in the Irrawaddy division. In Arakan they are comparatively few and have competitors in the numerous Muhammadan schools: yet here too their number has risen, while that of the Muhammadan institutions has diminished. In Pegu, though the number of schools is not so large as in the case of some other divisions, that of the pupils is high and exceeds the Mandalay figure, which is also passed by the Irrawaddy total of scholars. Returns are shown this quinquennium for the Northern and Southern Shan States and for the Chin Hills, which have only recently come within the department's pale, though monastic schools appear to have existed in these areas for some time past.

"It is to be feared, however, that the figures for these institutions are not altogether reliable. The figures are collected by deputy inspectors either personally or through their sub-inspectors and itinerant teachers. These officers visit as many unregistered schools as they can, and endeavour to collect the necessary data for the statistics from the teachers. Where however no regular registers are kept and attendance is intermittent, it is impossible for them to ascertain the exact numbers that these schools serve. Nor is it likely that no unregistered schools are left unvisited and unaccounted for.

Education in the unregistered *kyauungs*.

"The bulk of these schools belong to the Buddhist monastic order. The education given in the *kyauungs* has been already described, but three particular points remain to be emphasized in the present context. The first is that the untrammelled monkish educator teaches the things of this world only *per accidens* and in so far as they pertain to the Way that leads from Illusion to Salvation. Thus reading and writing are taught as gates to the knowledge of the sacred texts, but arithmetic savours of baser, vainer ends, and its teaching is a concession to human frailty. The position is well summarized by the Inspector of Schools, Central Circle:—

"In some places there is a strong prejudice against both the grant and secular teaching altogether: they lead to worldliness and obstruct the path of virtue. Boys are sent to these schools simply to learn 'the religion'. Reading and writing are taught with this object; if the *pongyi* happens to be energetic there may be a little arithmetic, taught as in the days of Gautama:—

After him the child
Named digits, decades, centuries, nor paused
The round lakh reached, but softly murmured on."

Attendance in unregistered *kyauungs*.

"Secondly, the *pongyi* will take no responsibility whatever for teaching. If the village folk will send their children to learn what he has to teach, well and good, but it is no business of his (as more than one has told me) to hale reluctant infants to school or to scold the parents if their offspring fail in punctuality or regularity. The result is that few pupils save the *koyins* (or novices) can be considered as more than 'half-timers,' and that of a very fitful kind, liable to be lured away by the distractions of festal seasons and of agricultural operations.

Influence of the *kyauungs*.

"The third point is that monastic schools, especially those that still follow the ancient order, influence the religious and moral character of the people (whether for good or ill) in a way that no other system can approach. Other religious creeds are alien and the Government system is non-religious. The establishment of a counter-influence has only been rendered possible by the discouragement of Pali, the exaltation of English at the cost of the vernacular, and the exclusion of nearly all that was distinctive of the people's traditions, literature and faith from the books permitted in the elementary schools. The result is the present hybrid system of education and its amorphous product. Given a simpler vernacular course more suitable to rural needs, less aggressively modern and occidental, and more reminiscent of all that is best in the national religious and moral creed, together with perhaps some very simple educational training and a form of grant more tender of the susceptibilities and privileges of the Order, it should not be so difficult as in the past to gain the educational allegiance of these 'outside' schools, especially if inspection be discreet and examination neither too frequent nor too rigid."

Other Schools.

1007. Under the heading of "other schools" are classified all the remainder of the private institutions which have not already been mentioned. Their numbers, according to the provincial returns, have risen during the quinquennium from 465 to 1,893, and the pupils from 10,991 to 42,604. The most noticeable increase occurred in Madras, where the schools numbered 96 in 1901-02 and 1,082 in 1906-07. There have been increases in every province except Burma; and in the United Provinces 92 such schools are returned for the first time.

In Sind the majority of these schools are known as Ojha schools. The following extract from a report by the Inspector gives a description of their scope:—

"Of the indigenous schools in Municipal areas commonly known as 'Ojha' schools, to distinguish them from the 'Mullah' schools, there is little to be said. They are generally situated in noisome slums and consist of one unventilated filthy room which is occasionally school-room, latrine and lavatory combined. The children attending them are almost exclusively of the Bania class, and the one object of the school is to teach an indispensable minimum of purely utilitarian commercial arithmetic and book-keeping in the Hindu Sindhi character.

"A certain amount of improvement has been witnessed in this class of school during the quinquennium, chiefly sanitary—as the worst of them were simply unenterable by the inspecting officer—but the only hope of educational improvement is that they may be improved out of existence, as the use of the Hindu-Sindhi character is discouraged and diminishes. There is no room for expansion and improvement, as they are mere Bania-conveniences and of the very narrowest and most sordid aims, and the people who patronise them have no desire that their children shall do anything more than acquire, as speedily as possible, the art of Bania book-keeping."

1008. The increase of private elementary schools in Bengal is explained by Mr. Hornell as probably being due to a want of uniformity in classification in the past and present. All elementary schools containing less than ten pupils, even though they attempt to teach the curriculum of the Education department, are included in the returns of these institutions. Fourteen of the schools are for girls. There are five schools for teaching Hindu music: they are said to be meeting with some success and to be deserving of every encouragement. In the Punjab, *Lande Mahajani* schools continue to be popular with the money-lending and mercantile classes. They teach writing in Mahajani character and the native system of accounts; the course of study begins at an early age and lasts for about two years, after which the pupil becomes an apprentice in a shop or firm. The schools are open all day; the pupils come and go at irregular times, and the teachers expect presents, as well as fees. Under a successful teacher the attendance at a single school sometimes reaches 150. The Inspector of the Amritsar circle remarks:—

"Training in a Mahajani school, followed by practical apprenticeship, is reckoned to be a better investment than a laborious and expensive course of study in a high school. It ought not to be impossible to meet the demand for it by attaching Mahajani classes to ordinary primary schools, where the boys could be taught in consonance with modern methods, which fortunately include some regard for the health and physique of the pupil."

CHAPTER XVI.

EDUCATION DEPARTMENTS.

1009. THE Education departments in the several provinces have been increased in strength during the period under review, not by any one act of revision, but by numerous additions made as circumstances required. The sum of these additions in the superior branch of the service is thus shown :—

	1902. Number of posts.	1907. Number of posts.	Increase.
Indian Educational Service . . .	100	157	57
Provincial Educational Service . . .	215	265	50

The figures of the subordinate service for 1902 are not available, but in 1907 they stood at 6,025. Some figures which are available show that this total represents a large increase; for instance, in Madras there were 1,188 appointments in the subordinate service in 1902, and there are now 1,452.

Indian Educational Service.

1010. The distribution by provinces of the Indian Educational Service in 1902 and 1907 was as follows :—

Sanctioned posts in the Indian Educational Service.

Province.	1902.	1907.
Madras	20	23
Bombay	21	28
Bengal	29	35
United Provinces	11	19
Punjab	9	13
Burma	5	10
Eastern Bengal and Assam	..	6
Central Provinces and Berar	5	10
Chiefs' Colleges	..	13
TOTAL	100	157

The figures given above for the Indian Educational Service do not include the Directors of Public Instruction, who are considered to be outside the cadre, in consequence of the rule made in 1896 and since modified, by which others than members of the Indian Educational Service were eligible for such appointments. Their inclusion would bring the total of the members of the Indian Educational Service to 166, viz., 9 Directors, 36 inspectors, 26 principals of colleges, 49 professors, 13 principals and assistants in Chiefs' Colleges, 8 head-masters of high schools, 5 assistant directors, 9 inspectresses, and 11 other posts. The increase in the numbers of the Indian Educational Service, which is still continuing, has taken place in the following classes of officers :—

Inspectors	16
Inspectresses	6
Principals	2
Professors	11
Chiefs' Colleges	13
Headmasters	3
Assistant Directors	5
Training College posts	5
TOTAL	61

1011. These are additions made to the numbers; and the net increase is reduced to 57 by the transfer from the Education to the Agricultural department of two posts at the Agricultural College, Saidapet, and by the fact that the numbers given in 1902 included two posts of Director of Public Instruction, classed as inspectors. Some of the increases were caused merely by the transfer of existing posts to the cadre of the Indian Educational Service. Two professors at the Rurki Engineering College, not previously included in the cadre, are now included in it; and the transfer of the Rangoon College from the management of the Burma Educational Syndicate to the Government involved the transfer of a principal and professor to the cadre of the Indian Educational Service, besides an increase in the number of professors employed. The Chiefs' College service, now formally included in the Indian Educational Service, involves an addition of 13 to the stated cadre of the Indian Educational Service, but previously two of the posts in the Chiefs' Colleges were held by members of the Indian Educational Service lent for the purpose, and three other posts in the Chiefs' Colleges were held by gentlemen who, upon the reorganisation of the Chiefs' Colleges, were appointed to the Indian Educational Service. The remainder of the increase in the Indian Educational Service represents actual additions to the number of officers employed in educational work in India.

There has been some difficulty in recruiting a sufficient number of well qualified candidates from England to keep pace with this expansion of the cadre.

Furlough Studies.

1012. The Secretary of State approved, in the year 1902, a system by which officers of the Indian Educational Service are permitted to spend part of their furlough on special duty for the object of studying educational methods and developments in other countries. A few simple rules are laid down for this purpose. The period of study ordinarily does not exceed six months. The officer who wishes to take advantage of the system must make an application in good time, and must sufficiently define the scope of his intended inquiries. The Director of Public Instruction in the province where the officer serves, when receiving such an application, considers it both with reference to the needs of the province and to the fitness of the officer to carry out the inquiries, and the proposal, if approved, is submitted by the local Government to the Government of India. These conditions being observed, the Secretary of State obtains the necessary facilities, and the officers who have carried out these studies have gratefully acknowledged the assistance which has been rendered to them, at the request of the India Office, by the Education departments of the United Kingdom and other countries. During special duty of this kind an officer receives two-thirds of his ordinary pay and his actual travelling expenses, and the time which he spends in study is counted as service for pension, but not as service for furlough. On his return from study the officer submits a report of his proceedings and of his observations.

The system has proved most useful to those who have availed themselves of it, and the Education departments in India receive the benefit of the wider knowledge of educational problems which their officers thus acquire.

1013. During the period under review eighteen members of the Indian Educational Service have taken advantage of the system of furlough studies. The particulars are as follows :—

Officer.	Subj-ct.	Place.	Date.
An Inspector	Inspection, Training of Teachers, Object Lessons.	England and Scotland.	1902-03
A Professor of Physics	Physical Laboratories in Germany.	Germany . . .	1903
A Professor (since appointed a Director).	Systems of Great Britain, Switzerland and Germany.	Ditto . . .	1903

Officer.	Subject.	Place.	Date.
A Professor . . .	Agricultural Education, Higher Elementary and Half-time Schools.	England . . .	1903-04
Ditto . . .	Education system of Japan .	Japan . . .	1904
An Inspector . . .	Elementary Education in England.	England . . .	1904
Ditto . . .	Education at the St. Louis Exposition.	United States .	1904
An Inspector of Normal Schools.	Training Colleges of Scotland	Scotland . . .	1904
A Professor of Engineering .	Industrial and Agricultural developments in England and America.	England and America.	1904
A Principal of an Engineering College.	Engineering Institutions in England and America.	Ditto . . .	1904
A Professor . . .	Improvements in Laboratory equipment for applied mechanics	England and Scotland.	1905
A Deputy Director . . .	Elementary Education in Holland.	Holland . . .	1905
A Principal of a Secondary Training College.	Modern methods of teaching English in Germany.	Germany . . .	1905
A Professor of Chemistry .	Physical Chemistry . . .	Leipsic . . .	1905
An Assistant Director . . .	i. Inspection of Schools and ii. Training of Teachers.	England . . .	1905
A Professor of Chemistry .	Recent practical advances in Chemistry.	Oxford . . .	1906
An Inspector of Training Schools.	Training of Teachers . . .	England and Scotland.	1906
An Inspectress . . .	Teaching and organization in Girls' Schools.	England . . .	1906-07

Some of the reports submitted by these officers on their return have been printed and circulated for general information.

The Provincial Educational Service.

1014. The number of posts in the provincial service, distributed by provinces, was as follows in 1902 and 1907 respectively :—

Province.	1902.	1907.
Madras		
Bombay	35	39
Bengal	23	24
United Provinces	106	112
Punjab	25	36
Burma	20	29
Eastern Bengal and Assam	...	12
Central Provinces and Berar	...	...
	6	13
TOTAL	215	265

1015. The increase of the provincial service by 50 members is partly accounted for by the formation during the period under review of a provincial service in Burma, consisting of 12 posts. These posts previously existed in Burma, but the organisation of the department into provincial and subordinate educational services was introduced in 1904. The organisation of a provincial service in Eastern Bengal and Assam was in progress at the end of the quinquennium. The point reached then was that 26 out of the 112 posts shown above as existing in Bengal were to be transferred to the new province; and after the completion of this transfer a provincial service was to be organised in Eastern Bengal and Assam, consisting of these 26, together with an addition of six existing officers in Assam performing duties of a similar rank, and further additions of other posts consequent upon the expansion of the work of the department.

The Subordinate Educational Service.

1016. The numbers of the subordinate educational services were as follows :—

	1907.
Madras	1,452
Bombay	874
Bengal	1,599
United Provinces	360
Punjab	948
Burma	504
Central Provinces and Berar	288
Total	6,025

Here again it should be explained that a subordinate service is in formation in Eastern Bengal and Assam, and that the point reached at the end of the quinquennium was that of the posts shown above as belonging to Bengal 413 were to be transferred to the new province, viz., 99 in the subordinate service and 314 in the lower subordinate service.

1017. In all provinces during the quinquennium the pay of the provincial and subordinate services has been under revision. The maximum pay of the provincial service has remained at Rs. 700, as fixed in 1896, but some alterations have been made in the grading which are more favourable to the members of the service. The minimum pay has everywhere been raised to Rs. 200 where previously it was lower, viz., in Bombay, Bengal, Punjab and the Central Provinces; the only apparent exception being in the United Provinces, where a post on Rs. 150 not previously included in this branch of the service has now been included in it. In Bombay a change has been made in the classification of the provincial service. Formerly this consisted of two classes, rising to maxima of Rs. 500 and Rs. 700 respectively; now the service consists of two branches, called respectively collegiate and general, each rising to a maximum of Rs. 700.

1018. In the subordinate services the minimum and maximum pay has for the most part remained unaltered, but the numbers of posts in the different grades have been redistributed so as to be more favourable to the members of the service. In Bengal, a considerable improvement has been made by the conversion of a number of poorly paid teachers, formerly known as belonging to the ungraded service, into a "lower subordinate service."

Inspectors.

1019. Three causes have required the inspecting staff to be increased during the period under review. First, it was found in some provinces to have been allowed to sink to a strength inadequate for the performance of its duties; secondly, the abolition of the system of payment by results has required a stronger inspecting staff; and, thirdly, the increase of schools and pupil has called for some proportionate increase in the number of inspectors. The Secretary of State, on receiving some of the earlier proposals for an increase in the inspecting staff, requested that they might be considered with reference

Revision of pay of the provincial educational service and subordinate educational service.

Increases to Inspecting Staff.

to some common standard; and therefore, so far as the different circumstances of the several provinces permit, some principles have been tentatively put forward and acted upon for determining the standards up to which the strength of the inspecting staff in its higher and lower branches should be kept.

1020. Inspectors of schools in all provinces are in charge of defined areas, within which they carry out and control the inspection of nearly all schools. At the beginning of the quinquennium these areas were coterminous with Commissioners' divisions in the presidency of Bombay, and in the provinces of Bengal and the Punjab, but in all other provinces the areas assigned to inspectors were larger. The following table shows by provinces the number of Commissioners' divisions and the number of inspectors' circles, as in 1902 :—

	Commissioners' divisions.	Inspectors' circles.
Madras	...	4
Bombay	4	4
Bengal	9	9
United Provinces	9	5
Punjab	5	5
Burma	8	4
Central Provinces	4	3
Assam	2	..

1021. The principles adopted were, first, that the inspectors' areas might be reduced, wherever the local Governments thought fit, to the area of Commissioners' divisions, and the number of inspectors increased correspondingly; second, that the number might be further increased wherever the number of schools, especially high schools, within such area was in excess of the capacity of one officer; third, that the inspection of European schools in the province should be entrusted to a special officer. These principles have been applied thus :—In MADRAS, where there are no Commissioners, the number of circle inspectors many years ago was eight, but was reduced to four at the time when a new class of officer, named assistant inspector, was created. This number has now been increased to six circle inspectors, and one inspector of European schools. The number of circle inspectors has, however, been found insufficient.

1022. In BOMBAY, the number of inspectors remains at one for each Commissioner's division, and an inspector of European schools for Bombay and the Central Provinces jointly has been appointed.

In BENGAL, the area of the Commissioners' divisions has been retained as the unit, but owing to the number of schools requiring inspection a second inspector has been sanctioned for each of these divisions. This brought the number up to 18, and on the formation of the new province six of these posts were transferred with the three divisions. Thus the sanctioned number in Bengal is 12 inspectors for six divisions; and the inspector of European schools (not a new appointment) makes the total 13. Up to the present, however, Bengal has not availed itself of the additions sanctioned, but has six circle inspectors and one inspector of European schools, total 7.

In the UNITED PROVINCES, nine inspectors have been sanctioned, the inspector of the Kumaon division being also charged with the duty of inspecting European schools. The full increase sanctioned has not yet been effected, and at present the province has six inspectors.

In the PUNJAB, the number of inspectors has been raised to six, which gives one to each Commissioner's division *plus* one for European schools, but the circles of inspection do not exactly correspond to the Commissioners' divisions, and the inspector of European schools also inspects schools in the Lahore, Montgomery and Simla districts.

In BURMA, it has not yet been found necessary to appoint an inspector for each Commissioner's division, but the number of inspectors was during the quinquennium increased to five, and a further increase was in contemplation. The province at present is divided into four circles, *viz.*, Central, Northern, Eastern, and Western, and there is also an inspector of European and normal schools.

In ASSAM, two new posts of inspector have been created, one for the Assam and one for the Surma valley; and six sanctioned posts for the three transferred divisions brings the total number of inspectors sanctioned for Eastern Bengal and Assam to eight. The few European schools in the province are inspected by the inspector of the Dacca division. At present the province has not availed itself of the three additional posts sanctioned in the transferred territory, and the actual number of inspectors in the province is therefore five.

In the CENTRAL PROVINCES, the number of inspectors was brought up to four, *viz.*, one for each Commissioner's division, and on the addition of Berar a fifth inspector was added. The European schools are inspected by a special officer appointed jointly for these provinces and Bombay presidency.

In the NORTH-WEST FRONTIER PROVINCE there is no inspector except the Inspector General.

1023. The numbers of inspectors therefore in 1907 stood as follows :—

	Sanctioned.	Appointed.
Madras	7	7
Bombay	5	5
Bengal	13	7
United Provinces	9	6
Punjab	6	6
Burma	5	5
Burma	5	5
Eastern Bengal and Assam	8	5
Central Provinces and Berar	5	5
TOTAL	58	46

It will be understood from the foregoing statement that the strength of the inspectorate is determined in the first instance, not by the number of high schools to be inspected, but by the number of Commissioners' divisions or other areas to be supervised, and that the number of high schools is an element taken into account in determining increases in the strength of the inspectorate beyond this minimum. It is clear that when the high schools in a given area grow beyond a certain number one officer will no longer suffice to inspect them; but the converse proposition, that when the high schools in an area fall short of the average, the number of inspectors can be reduced, is untrue. Subject to this preface, a table showing by provinces the average number of high schools falling to the charge of one inspector may be of interest. In this table the European inspectors and the schools they inspect have been cast out of the reckoning, and where there is a difference between the number of inspectors sanctioned and the number existing, the figure given is that of the sanctioned strength.

Table showing the average number of high schools falling to the charge of one inspector excluding European inspectors and the schools they inspect.

	High Schools.	Number of inspectors inspecting.	Average number of high schools inspected by one inspector.
Madras	159	6	26
Bombay	106	4	26
Bengal	390	12	32
Bengal	94	8	12
United Provinces	88	5	18
Punjab	24	4	6
Burma	212	7	30
Eastern Bengal and Assam	27	5	5
Central Provinces and Berar			
TOTAL	1,100	51	22

The existing arrangements with respect to the inspectors' areas are shown in the maps contained in volume II of this Review.

1024. The sanctioned posts of inspector are thus divided between the Indian Educational Service and the provincial Educational Service:—

	Indian Educational Service.	Provincial Educational Service.	Total.
Madras	5	2	7
Bombay	4	1	5
Bengal	7	6	13
United Provinces	5	4	9*
Punjab	3	3	6
Burma	5	..	5
Eastern Bengal and Assam	4	4	8
Central Provinces and Berar	4	1	5
TOTAL	37	21	58

* Subject to a different distribution *pro tem*.

Assistant Inspectors.

1025. The inspecting officers next in rank to inspectors are assistant inspectors, who are always natives of India, and are classed in the provincial educational service. This class of officer does not exist in Bombay nor the Central Provinces nor Assam. There is in those parts of the country no inspecting officer intermediate between the inspector, who inspects secondary schools besides being responsible for the inspection arrangements in his division, and the deputy inspector, whose chief duties are to inspect primary schools. Any assistance which the inspector may require in the inspection of primary schools in Bombay, the Central Provinces and Assam, is rendered by deputy inspectors. But in the other provinces there are assistant inspectors, whose general duties are to assist inspectors in the inspection of secondary schools and in the supervision of the deputy inspectors, and whose more specific duties are to inspect middle schools. The numbers of these officers have been increased in each province where they are employed, the total numbers employed being as follows:—

Province.	1902.	1907.
Madras	9	12
Bengal	6	12
United Provinces	8	11
Punjab	8	12
Burma	4	5
TOTAL	35	52

The numbers given here are those which have been sanctioned. In Bengal and Eastern Bengal the full numbers sanctioned have not yet been appointed and the staff at present consists of six assistant inspectors in Bengal and one in Eastern Bengal. It was not found possible to apply any common standard to the increase in the assistant inspectors, and their strength stands at the figure which, in the opinion of the local Governments, was necessary to afford the required assistance to the inspector. In Burma there is one assistant inspector to each inspector, and in Bengal at present there is one, in the Punjab there are two. At present assistant inspectors all have a definite geographical area assigned to them, consisting of a certain number of revenue districts, so that in an inspector's circle in which there is more than one assistant inspector one portion of the area is assigned to one assistant

inspector and another to a second. In Bengal, where the number sanctioned is equal to twice the number of inspectors' circles, it is not intended to assign two to each circle, but some circles will have four each and some will remain with one, according to the requirements of the work. Mr. Hornell writes, "When the additional assistant inspectors are appointed it is not proposed, to start with at any rate, in the case of those divisions which will have more than one assistant inspector, to assign a definite area to each officer. Later on probably some territorial distribution of the work will be made."

1026. In the UNITED PROVINCES the Director writes, "The assistant inspector's chief function till lately has been to exercise control over district inspecting officers, but the passing of the District Boards Act of 1906 has transferred the control to the district boards themselves. It is now proposed to employ assistant inspectors under the orders of inspectors upon much the same work as inspectors themselves, and thus to bring the two more in touch with each other, so that there may be closer co-operation between them. As the circles have been reduced in size it will be necessary to employ only one assistant inspector in each circle."

Deputy Inspectors and Sub-Inspectors.

1027. Over the greater part of India the unit for the inspection of primary schools is the district, but in Madras and in Assam smaller areas are taken, *viz.*, the taluk and the sub-division. The officer charged with the inspection of primary schools in a district is styled a deputy inspector in Bombay, Bengal, the United Provinces, Burma and the Central Provinces, and a district inspector in the Punjab. In Madras, the inspecting officer in a taluk is styled sub-assistant inspector, and in Assam the inspecting officer of a sub-division is styled deputy inspector.

1028. The deputy or district inspectors are assisted in the inspection of primary schools by subordinate inspecting officers, to whom smaller areas are assigned. These are termed in—

BOMBAY	Assistant deputy inspectors.
BENGAL	Sub-inspectors and assistant sub-inspectors.
UNITED PROVINCES	Sub-deputy inspectors.
PUNJAB	Assistant district inspectors.
BURMA	Sub-inspectors.
EASTERN BENGAL AND ASSAM	Sub-inspectors and assistant sub-inspectors.
BERAR	Sub-deputy inspectors.

1029. The numbers of inspecting officers of the grades mentioned in the last two paragraphs were as follows in 1902 and 1907 respectively:—

Province.	1902.			1907.		
	Deputies.	Sub-deputies, etc.	Total.	Deputies.	Sub-deputies, etc.	Total.
Madras	65	..	65	119	..	119
Bombay	25	51	76	24	83*	107
Bengal	52	212	264	58	356	414
United Provinces	47	57	104	48	104	152
Punjab	26	1	27	28	24	52
Burma	38	1	39	51	12	63
Eastern Bengal and Assam	5	23	28	64	206	270
Central Provinces and Berar	29	2	29	35	4	39
North-West Frontier Province	4	..	4	5	1	6
TOTAL	291	347	636	432	790	1,222

* Includes 8 assistant deputy inspectors and 6 other subordinate inspecting officers employed in Native States.

Thus there has been an increase of 144 in the officers of the rank of deputy inspector, district inspector and sub-assistant inspector; and an increase of 434 in the officers of the lower rank, or a total increase of 578.

These are the increases sanctioned; but in Bengal and Eastern Bengal and Assam the numbers existing in 1907 were—

BENGAL	Deputy inspectors, 47, sub-inspectors and assistant sub-inspectors, 287.
EASTERN BENGAL AND ASSAM.	Deputy inspectors, 38, sub-inspectors and assistant sub-inspectors, 126.

1030. The standard which has been tentatively laid down for an approximate estimate of the required strength of the inspecting staff of primary schools is an average of ninety schools to an inspecting officer, whether of the rank of deputy inspector or subordinate. This standard was adopted, not in the sense of local Governments having been required to strengthen the numbers up to it, but local Governments were asked to consider what increases were necessary; and it was found that three of them independently came to the conclusion that this number was a fair estimate of the average inspecting capacity of one officer, taking into consideration the number of days which he can spend on tour and the amount of inspection which the schools require; and thereafter any proposals to strengthen the staff up to this standard were considered to be *prima facie* not excessive. It will be observed that the figures of the inspecting officers in India as a whole in 1907 are about up to this strength, viz., 1,222 men for 102,865 schools, or one man to 84 schools. The figures for the several provinces are here given, subject however to the remark that in this as in most cases there are many reservations to be made before conclusions can be drawn as to the sufficiency or excess of the numbers in any one province from a comparison of averages.

Province.	Inspecting officers.	Number of primary schools for boys.	Average schools per man.
Madras	119	21,379	180
Bombay	107	9,485	88
Bengal	414	33,962	82
United Provinces	152	9,545	63
Punjab	52	3,151	61
Burma	63	4,950	79
Eastern Bengal and Assam	270	17,531	64
Central Provinces and Berar	39	2,645	68
North-West Frontier Province	6	217	36
TOTAL	1,222	102,865	84

It has been stated above that the unit of inspection of primary schools in most provinces is the district. But it is not to be inferred that there is a symmetrical system by which there is exactly one deputy inspector to a district. In Bombay, the United Provinces, and the Punjab this is indeed the case, and up to the present any increase in the number of schools to be inspected is there met by an increase in the number of inspecting officers subordinate to the deputy inspector. But in Bengal the adherence to this principle would have involved an altogether disproportionate increase in the number of sub-inspectors to deputy inspectors, and the increased needs of the province have been met by an addition to the number both of deputy inspectors and of sub-inspectors. Mr. Hornell however writes:—"As regards deputy inspectors, there is still only one officer who is *the* deputy inspector of the district. In a district such as Burdwan in which there are three deputy inspectors, one officer is styled the deputy inspector, the other two being called additional deputy inspectors. The question of the division of the district into areas over which each deputy inspector would have control is under consideration. Deputy inspectors are responsible for the control of middle and upper primary schools. They also supervise the work of sub-inspectors."

1031. In BURMA, where the districts are very large, some districts are in the sole charge of one deputy inspector and some are divided, each part being placed under a deputy inspector; and there is also a separate body of deputy inspectors for the inspection of Karen schools.

1032. In the CENTRAL PROVINCES, the organisation was formerly that of one deputy inspector to a district, assisted by sub-inspectors; but during the period under review the grade of sub-inspector has been abolished (it survives in Berar), and all inspecting officers below the inspector are ranked as deputy inspectors. They are still however organised within district boundaries, so that the smaller districts have one deputy inspector, and the larger districts are divided into two or more ranges, each assigned to a deputy inspector.

1033. The principle which prevails in all provinces except the United Provinces is that the inspection of primary education rests with the Education department. The deputy inspectors, in all provinces except the United Provinces, are appointed, paid, and controlled by the Education department. The sub-inspectors, and other inspecting officers named in para. 1028 above, are also departmental officers in Madras, Bombay, Bengal, Punjab, Burma and the Central Provinces. In Bengal, the sub-inspectors at present are the servants of the local boards, but their re-transfer to the department, whose servants they were in former years, is now proposed, as the experience of the attempt to carry out inspection by other than departmental agency has not been satisfactory. In Eastern Bengal a similar re-transfer was also under consideration at the close of the quinquennium.

1034. In the UNITED PROVINCES, the position formerly was that the deputy inspectors and sub-inspectors were the servants of local boards, but that they were controlled in their duties of inspection by the Education department. The rules made by the local Government in October 1906 under the United Provinces District Boards Act of that year fix upon each district board the responsibility for inspecting its own schools and all other primary schools within its area, except municipal board schools, and give the district boards control over deputy and sub-inspectors in their duties of inspection. The rules bearing upon the point are as follows:—

"In all matters affecting the nature of the instruction imparted in these schools, the board shall comply with the requirements of the inspector of schools. The board and its officers and servants shall observe the rules and orders contained in the educational code of the province, or otherwise issued by the Government, regarding inspection by Government officers, the furnishing of reports and returns, the direction of courses of study and method of tuition, time tables, physical education, the admission, control, and transfer of scholars, the regulation of private tuition by teachers, grants-in-aid, examinations and text books.

"The inspection referred to includes, besides inspection of schools, the inspection of the educational office or part of the office of the board itself. The control of scholars includes the enforcement of attendance.

"The board shall entertain for the inspection of its vernacular schools one deputy inspector, and so many sub-deputy inspectors as may be sanctioned by the Commissioner upon the advice of the inspector of schools, in accordance with the Government orders and with rules made under the Act.

"The duty of the deputy inspector is, under the direction of the board, to manage and inspect all vernacular schools in the district, to report to the board from time to time the localities where in his opinion more schools are needed, to establish such schools when authorised by the board and to control the work of the sub-deputy inspectors. The deputy inspector shall also comply with such rules or orders of the Government as may be issued imposing upon him duties with regard to provincial or University examinations, or to boys released from the reformatory school.

"The board may employ him to arrange for the construction, maintenance, and repairs of primary board school buildings and of such secondary school buildings as are not maintained for the board by the Public Works Department. But the board should first be satisfied that the deputy inspector is capable of doing the work and has time to do so.

"The deputy inspector shall write a report of his inspection, immediately on completing it, in the form prescribed for the purpose in the educational code, in a language that can be read in the school, and shall affix it in the school log book. He shall at the same time send an English version of the report to such member of the board as the chairman shall appoint for the purpose.

"A deputy inspector may correspond upon the following matters alone direct with the inspector or assistant inspector:—

(1) The arrangements for examinations and the admission of candidates to

- examinations, including the upper primary, the vernacular final, and the vernacular teachers' certificate examinations;
- (2) arrangements which the inspector or the assistant inspector desires to have made upon his tour;
 - (3) explanation or correction of figures in the returns for the annual educational report;
 - (4) changes in course of study;
 - (5) text books and school appliances;
 - (6) particular instructions regarding the methods of tuition, inspection and examination;
 - (7) indents for educational forms.

"All such correspondence shall be registered and retained in the educational office of the board, and shall be open to the inspection of the board. The deputy inspector shall not in any such correspondence profess to give the opinion of the board."

1035. Thus the position of the Education department in the United Provinces as regards the inspection of primary education is that the department frames the rules and the courses, that the district boards inspect the schools to see these rules carried into effect, and that the department has no agency except its inspectors and assistant inspectors to see how this work is carried out. The Director of Public Instruction remarks that it is still too soon to be able to judge the effects of the change.

Other Inspecting Officers.

1036. In four provinces the primary schools, besides being inspected by the deputy and sub-inspectors or their equivalents, are visited by men of a lower rank, styled in Madras supervisors, in Bengal and Eastern Bengal inspecting pandits, and in Burma itinerant teachers. These men can hardly be included in the inspecting agency, and they have no responsibility in recommending grants to schools. The Madras Director gives a description, which will serve also for other provinces, of their duties.

"The duty of the supervisor is to help the elementary school teacher with professional advice in organization and methods of teaching, to explain to him the various departmental rules and orders, to spread elementary education by starting schools or by bringing indigenous schools under departmental supervision, and to 'police' the schools under his care."

The numbers of these officers in 1902 and 1907 were as follows:—

	1902.	1907.
Madras	256	268
Bengal	494	354
Burma	169	215
Eastern Bengal and Assam	19	126
TOTAL	938	963

In Assam there were formerly nineteen of them, but they were abolished on the improvement of the inspecting agency during the period under review; and the Director speaks with satisfaction of the disappearance of an incompetent and ignorant body of men. The present number in Eastern Bengal and Assam represents those transferred at the alteration of the boundaries of the provinces.

1037. These officers are the servants of the local boards, except in Burma, where they were transferred to the Education department during the period under review; but in the performance of their duties they act under the directions of the inspecting staff of the department. The reports upon their work in Madras are upon the whole unfavourable. In Bengal Mr. Hornell writes:—

"It is a question whether, when the increased subordinate inspecting staff has been

appointed in full, these officers will be required at all, and, if so, what their duties should be. The question was discussed at the Commissioners' conference of 1906, but it was agreed that no decision should be arrived at until the full number of sub-inspectors and assistant sub-inspectors had been appointed. There seems to be a general feeling among inspecting officers that inspecting pandits should as soon as possible cease to do inspecting work, but that in their capacity of instructors of *gurus* they are and will be still required."

In Burma the Director writes:—"Their qualifications in the majority of cases are not adapted to the rôle of pioneers, and the scope of their duties indicates that their utility lies rather in the maintenance and repair of the humbler portions of the educational edifice than in its extension or elaboration. Even so, they require constant supervision and direction, which cannot always be forthcoming, and it is very questionable whether the money spent on the large additions to the lowest grade of this cadre would not have been better devoted to an increase in the ranks of sub-inspectors."

In Eastern Bengal the Director writes:—"In view of the increase now sanctioned in the inspecting staff, it will probably be found desirable to dispense with the services of these men. The better qualified of them may perhaps be provided with teaching or clerical employment."

Inspectresses.

1038. With the exception of Burma and Eastern Bengal and Assam, all provinces have now inspectresses, whose duties are to inspect girls' schools and to assist in the organisation and spread of female education. The number employed is not yet sufficient to cope with all the work that is to be done, but it has been increased considerably of late years. The staff in 1902 and 1907 stood as follows:—

Province.	1902.				1907.			
	Inspection-tresses.	Assistant Inspection-tresses.	Sub-Assistants.	Total.	Inspection-tresses.	Assistant Inspection-tresses.	Sub-Assistants.	Total.
Madras	3	..	6	9	3	3	7	13
Bombay	..	..	..	..	2	..	..	2
Bengal	1	..	..	1	1	6	..	7
United Provinces	1	..	..	1	5	..	..	5
Punjab	1	..	..	..	2	2	..	4
Central Provinces	..	..	..	..	1	2	..	3
TOTAL	6	..	6	12	14	13	7	34

1039. In the United Provinces the five members of the female inspecting staff are all styled inspectresses, but one of them is chief inspectress. In Madras, Bombay, Bengal and the Central Provinces the inspectresses are members of the Indian Educational Service, in the United Provinces the chief inspectress is a member of the Indian Educational Service, and in the Punjab both inspectresses are in the provincial service. Thus the number of inspectresses in the Indian Educational Service is eight. The following descriptions of the arrangements under which the female inspecting staff work are taken from the Directors' reports:—

MADRAS.—"For the purpose of female education the province is divided into three circles, each of which is the charge of an inspectress; each circle is divided into three or four ranges. The total number of ranges is ten, three of which—one in each circle—are assistant inspectresses' charges, and the remaining seven are in charge of sub-assistants to the inspectresses. The inspectress is in general charge of female education in the circle, and directly supervises higher education and special education for females, and all European female education; the assistants and sub-assistants, between whose duties there is no distinction in kind, are more especially concerned with elementary female education. In addition to the work of inspection, the inspectresses and their subordinates manage the Government girls' schools and the Government training schools for mistresses. Though the cadre of the female inspecting agency was increased from nine to thirteen in the quinquennium the work is still heavy."

BOMBAY.—"In the City of Bombay alone the inspectress inspects all Anglo-vernacular schools for girls, besides visiting some of the municipal and aided primary girls' schools every year, as the time at her disposal allows. She does similar work in the

Northern division, besides taking part in the examination of the Female Training College. The inspectresses are given no administrative powers. Their position is that of expert advisers to the department. They possess high educational qualifications and the value of their advice will rise with their growing knowledge of the country."

BENGAL.—"The present staff consists of the inspectress of schools, with headquarters at Calcutta and jurisdiction over the whole province, and an assistant inspectress in each division. An additional inspectress has been sanctioned, but she has not yet arrived from England. When the second inspectress arrives an arrangement will probably be made by which the Bengali-speaking portion of the province will be assigned to one inspectress and the Hindi-speaking portion to the other."

"The functions of the inspectress and the assistant inspectresses have not yet been very definitely defined. Practically, the inspectress is the responsible adviser of the department in all matters pertaining to the education of Indian girls and women. All girls' schools are inspected either by her or one of her assistants, and though the responsibility of the divisional inspecting staff in respect of these institutions has not been nominally curtailed, the actual control and guidance of the work of schools in which the visit of a male inspecting officer would be resented—and there are many such, especially in Bihar,—is in her hands. The work of all training classes for female students is entirely in the hands of the inspectress, and she exercises such control as she can over zanana work. The rules regulating the functions of the female inspecting staff have recently been under consideration. Now that the staff is being increased, more actual control over girls' schools will probably be made over to the inspectresses."

UNITED PROVINCES.—"At the commencement of the quinquennium there was only one inspectress for the whole of the United Provinces. Her time was in consequence mainly devoted to the inspection of the scattered English schools for native girls, and vernacular schools received hardly any attention. In 1902 it was recognised that the first step towards progress was the appointment of inspectresses, not merely to inspect schools but to use their best endeavours to encourage the opening of more schools and to persuade parents to have their girls educated. For this pioneer work three more inspectresses were appointed, and the results, though not perhaps remarkable, have at any rate justified the step. The proper supervision and systematising of their work has hitherto been a difficulty; for the circle inspectors under whom they have been placed have not been able, owing to the strictness of the *parda* in most girls' schools, to check their inspections properly. On the recommendation of a conference on female education, held in 1905, it was decided to place the inspectresses under a head inspectress, and the Secretary of State's sanction was obtained later to the creation of a post of inspectress in the Indian Education Service for this purpose. In March 1907 Miss E. M. West was appointed from England to fill the post, and the reorganisation of the inspectorate of girls' schools is now proceeding."

PUNJAB.—"At the time of the last Quinquennial Report, the Punjab was, for the purposes of the inspection of girls' schools, a single circle under one inspectress. Since that date the North-West Frontier Province has been separated from the Punjab, and the Punjab itself has been divided into two separate circles, the Eastern and the Western, each under an inspectress, and an assistant has been provided for each inspectress."

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