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---

PROGRESS

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---

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# PROGRESS

OF

## EDUCATION IN INDIA

1897-98—1901-02.

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### CHAPTER I.

#### INTRODUCTORY.

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##### **Quinquennial Reviews on Education.**

1. THE practice of preparing Quinquennial Reviews dealing with the progress of education in India arose out of the discussion on the Report of the Indian Education Commission of 1882. The first Review was written by Sir Alfred Croft, K.C.I.E., who was at the time Director of Public Instruction in Bengal; it was divided into two parts, the first of which dealt with progress during the period 1881-82 to 1884-85, and the second with the state of education in 1886. The Resolution of the Government of India on Sir Alfred Croft's Review gave the more important statistics for the year 1886-87, and the second Quinquennial Review took up the story from the end of that year and covered the period from 1887-88 to 1891-92. It was prepared by the late Mr. A. M. Nash, a Professor of the Presidency College, Calcutta. The third Review, for 1892-93 to 1896-97, was compiled in England by Mr. J. S. Cotton. The present, or fourth, Review deals with the years 1897-98 to 1901-02.

##### **Scope of the Review.**

2. Broadly speaking, the Review deals with education throughout British India but does not attempt to describe the educational systems of the Native States. It is necessary to qualify this general statement by explaining that the Native States under the political control of the Government of Bombay, the Chhatisgarh Feudatory States of the Central Provinces, the Tributary States of Orissa, and Cooch Behar, are included in the statistical statements, whilst, on the other hand, British Baluchistan, the District of Ajmere-Merwara, the Civil and Military Station of Bangalore, and the Andaman Islands are omitted. The State of Manipur in Assam, and the Shan States and Chin Hills of Burma, which are included in the Provincial Statistics of the Census of 1901, are excluded from the figures on which the present Review is based.

3. The area with which we are specially concerned includes the six major provinces of Madras, Bombay, Bengal, the United Provinces, the Punjab, and Burma; the five minor provinces of the Central Provinces, Assam, the North-West Frontier Province, Berar, and Coorg; and the Native States of Bombay, the Central Provinces, and Orissa. The total area exceeds one million square miles, and the total population numbers more than 240 million persons; nearly one-third of this population belongs to the single province of Bengal.

In a few chapters, such as those dealing with collegiate and technical training, we have sometimes travelled beyond the limits stated above and have taken notice of institutions situated in other parts of India.

### Arrangement of the Review.

4. The arrangement follows in the main that of previous Quinquennial Reviews, and the order of subjects is as follows :—

- (1) educational agencies, their inspection and control ;
- (2) general education, beginning with its higher and proceeding to its lower grades ;
- (3) training of teachers ;
- (4) professional and technical education ;
- (5) education of special classes ;
- (6) miscellaneous subjects, such as text-books, educational conferences, and physical and moral training ; and
- (7) finance.

We have departed from previous practice in relegating the statistical tables to a separate volume. The collection of tables is divided into two parts. The first part contains the general statistics prescribed by the Government of India, they deal with the area as a whole and refer to the official year 1901-02 ; the second part contains more detailed tables, gives figures for the provinces separately, and compares the figures of 1901-02 with those of 1896-97 and earlier years. The tables in the second part are arranged to correspond with the several chapters of the Review. In the same volume there are four sets of maps illustrating educational progress, and a series of time-tables of typical colleges and schools.

### Outline of the Educational System.

#### Introductory.

5. For those who are not acquainted with the Indian system of education, the following outline of its more characteristic features will serve as a guide to the detailed account. Subject to the general control of the Imperial Government, the Local Government of each province administers its educational policy and therefore (apart from the small provinces) eight systems have to be described which differ considerably from one another. The matter is further complicated by the widely varying characteristics of the different sections of the population, which materially affect their needs and the measures adopted to foster education amongst them. But in spite of these complicating factors there are certain broad aspects of the system which are more or less general, and if these be rightly apprehended the details and modifications will fall readily into their proper places and assume their correct proportions.

#### Organization.

Education  
not  
compulsory.

6. In the first place it must be understood that education in India is not compulsory. There is no Act requiring Indian parents to send their children to school, and no machinery for detecting and dealing with the truant. Seven-eighths of the children of school-going age do not attend a school of any kind, and the bulk of the population is far removed from the conditions which render compulsory education practicable. Through a long series of years effort has been made to bring education within the reach of all classes of the population and to instil among them an appreciation of its benefits, but once the facilities are provided it rests with the good sense of the parents to make use of them.

Educational  
agencies.

7. When the State assumed the responsibility for the education of the people of India, it had to face a position to which no European country can furnish a parallel. The population was as large as that of all the European States that had adopted an educational system ; it presented at least as many differences of creed, language, race, and custom ; and it was to receive an instruction foreign in its higher branches to the ideas and traditions of the people. The magnitude of the task was such as to make it impossible of achievement by any direct appropriation of the resources of the Empire ; and educational progress has been in the main achieved by guiding and aiding the various private agencies which were available for the task. All institutions which give secular instruction are admitted into the State system and are classed as "public" institutions,

provided they conform to the standard of efficiency prescribed by the Government and follow an approved course of instruction. Only one-fifth of the total number of public institutions are under direct public management, the balance belong to the various private agencies which have been incorporated in the State system.

8. The Government itself maintains nearly one thousand colleges and schools; these are for the most part institutions for imparting higher education and professional and technical instruction, or for the education of backward classes. Where elementary instruction requires to be provided by direct public agency its immediate care is entrusted to the Municipal and rural Boards which have been established all over the country to supply the local needs of the population. Last on the list of public agencies come the Native States, among which only those of Bombay, the Central Provinces, and Bengal come within the scope of the present Review. Public agencies.

9. The various private agencies range themselves under three main heads—indigenous agencies, mission societies, and native agencies working on western lines. Private agencies.

10. When India passed under British rule the Government found a more or less widespread system of indigenous education. Most of the indigenous schools gave a very rudimentary instruction, and they existed in much greater numbers in some parts of the country (notably in Bengal) than in others. When the system of public instruction was organized in the early part of the second-half of the nineteenth century, the indigenous schools were sought out, and an endeavour was made by the offer of pecuniary aid and official advice to induce schoolmasters to improve their methods and to follow a system of education approved by the State. This endeavour has met with a degree of success which has varied greatly from place to place and from time to time; on the whole it has succeeded in bringing a very large number of indigenous schools within the system of public instruction. The village schools of the Hindus were in general of a secular character, whilst the Muhammadan schools were primarily devoted to religious instruction; the former have proved more readily amenable to the influences brought to bear upon them than the latter. Indigenous schools.

11. Next we may mention the mission schools. From a very early date missionary societies have played a prominent part in the development of Indian education and they maintain a large number of institutions. Their efforts have been specially valuable in that they have been to a considerable extent concentrated on the low castes, the aboriginal races, and the female population, all of whom are educationally backward and only reached with difficulty by the ordinary educational agencies. But the missionaries also maintain institutions which are attended by more advanced sections of the population, and among these institutions are included some of the oldest and best known of the Indian colleges. Mission institutions.

12. As the desire for western education spread the natives of the country began to found colleges and schools on the State or mission model; many institutions of this character now exist and are often maintained by, and for the benefit of, some particular section of the local population. Other schools conforming to the regulations of the Government and the Universities are managed by native proprietors who follow the profession of teaching as a means of livelihood or profit. Native institutions of western type.

13. Institutions under private management which receive pecuniary assistance from the State are classified as "aided." The grant-in-aid rules of the Local Governments have two main aspects: in the first place they lay down the conditions which must be fulfilled by an institution which seeks State assistance, and in the second place they prescribe the manner in which the amount of the grant is determined. When the system was first introduced aid was usually given, in accordance with English precedent, on the results grant system; that is to say, the award was adjusted automatically according to the number of pupils who passed examinations held in accordance with various prescribed standards. Aided institutions.

This mechanical system proved to be in some respects injurious, and of late years it has been to a considerable and increasing extent supplanted by other tests based on considerations such as the needs and merits of the institution and the amount of private funds forthcoming. The principle has been laid down that the State should not ordinarily aid institutions for higher education unless the interest of the people is evinced by the contribution of a reasonable amount of financial support, but the same condition does not apply to elementary institutions for the education of the masses who are not, as a rule, in a position to value education or to pay much towards its development.

Unaided institutions.

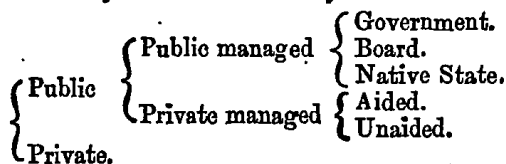
14. A certain number of institutions conform to the Government or University regulations without receiving State aid; they are styled "unaided" colleges or schools. Some of them are unable to fulfil the conditions on which the grant of aid depends, and are either waiting to be admitted to the aided list, or, perhaps, have been excluded from it. Others are modelled on the State system and seek the advice of the inspecting agency; others again wish to receive Government scholarship holders or to send up their pupils to the Government examinations.

"Private" institutions.

15. Finally there is always a fringe of schools which lie outside the State system and are classed as "private" institutions. Many of these schools are mainly for religious instruction, and give so little secular teaching that the State cannot take account of them; some are more or less advanced institutions for the study of oriental learning which do not wish for State supervision or aid; some are rudimentary vernacular schools which do not approach the State standards.

General classification.

16. The inter-relation between the various classes of institutions which have now been mentioned may be illustrated by the following diagram:—



#### Direction and Inspection.

Organization.

17. Each Local Government has its Department of Public Instruction, the functions of which are two-fold: in the first place, it provides the principals, professors, head masters, and teachers of the Government institutions, and in the second place it supervises the various classes of public schools. At the head of the Department is the Director of Public Instruction, an officer immediately subordinate to the Local Government. The unit of the inspecting system is in most provinces the same as the unit of executive administration, that is to say the District. The educational affairs of each District are under the care of an officer styled the Deputy Inspector; he is assisted by a number of subordinate inspecting officers whose main functions lie with the lower grade schools. The work of the Deputy Inspectors is supervised by Inspectors who are the principal educational representatives of the Government in the circles under their charge. The circle of the Inspector comprises a group of districts and is often conterminous with the administrative Division. The actual arrangements differ considerably from province to province, but the above summary is typical of the general system.

Duties of inspecting officers.

18. The inspecting officer is required to take note of the surroundings, buildings, equipment, and sanitary arrangements of the schools; to see that the attendance and other school registers are properly maintained; to investigate and improve the quality of the teaching; to test the attainments of the pupils; and to see that a reasonable standard of discipline is maintained, and that due provision is made for physical exercise. He is also expected to discuss with school managers, local officials, and private persons interested in education, the educational problems of the locality, and to exert his influence to induce all to join in extending and improving educational facilities. He must further visit and encourage the "private" schools, and endeavour by counsel and the offer of assistance to bring the more useful of them within the State system,

General Education.

19. Public institutions for general education comprise arts colleges, secondary schools, and primary schools. The arts colleges train students for the degrees of the Indian Universities, the secondary schools give the complete school education either in English or in the vernacular, and the primary schools give elementary vernacular instruction to the mass of the population. Grades of public institutions for general education.

20. There are five Universities in India: those of Calcutta, Madras, and Bombay founded in 1857, that of the Punjab founded in 1882, and that of Allahabad founded in 1887. The local limits of each University are primarily the province in which it is situated and the neighbouring Native States; Calcutta has in addition Burma, Assam, and Ceylon; whilst the Central Provinces, and the Rajputana and Central India Agencies, are divided between Calcutta and Allahabad. All the Universities grant the degrees of Bachelor and Master of Arts, all except Madras grant the degree of Bachelor of Science, and some grant the degree of Doctor of Science. Degrees or diplomas in law, medicine, and engineering are granted by the Universities; Bombay and Madras also have degrees in agriculture and teaching, respectively. The student matriculates by passing a qualifying examination styled the entrance or matriculation examination of the University. He must then study for four years before he can graduate in arts or science. For the first two years the course is of a general character and it leads up to the intermediate examination. After passing this examination the under-graduate goes through another two years' course of more specialized study and may then enter for the Bachelor's examination. The English language takes the foremost place in the curriculum, and Sanskrit, Arabic, and Persian are the principal classical languages. The Master's degree is granted on the result of a further examination, the preliminary conditions for which vary in the several Universities. Students who wish to follow a professional course must usually first undergo the two years' general training and pass the intermediate examination. The ordinary age for matriculation is about 14 to 17, and some pupils enter the University at an even earlier age; it is thus not uncommon for a boy to graduate at the age of 18 or 19. University education.

21. In most cases the student reads for the intermediate and Bachelors' examinations in a college affiliated to the University in which he proposes to graduate. A college seeking affiliation is required to produce evidence with regard to matters such as management, equipment, teaching staff, and the need for its services; in practice the privilege of affiliation has been granted very easily and the colleges vary greatly in character and efficiency. Many of them have grown out of schools and have school departments attached to them, or may themselves be regarded as college classes attached to schools. They are divided into colleges of the first and second grade according as they give instruction for the full Bachelor's course or only for the first two years' preliminary instruction. Some of the large colleges have as many as six or seven hundred students and are provided with excellent buildings, equipment, and staff; some of the smaller up-country college classes are in every way inferior to them. Most of the colleges are non-residential, their students living with their friends, or in lodgings, or in students' messes; but the system of college boarding-houses is gaining ground and adds greatly to the value of the training. Instruction is given by means of lectures which are much more numerous than in an English University; on the other hand, most colleges afford little or no tutorial assistance to their pupils. Colleges.

22. The school course is divided into the following stages:—

Secondary	{	High	.	.	English.
	{	Middle	.	.	{ English or Vernacular.
Primary	{	Upper	.	.	{ Vernacular,
	{	Lower	.	.	}

School course.



23. Beginning from the bottom, the primary stage includes the course of instruction given in primary schools, or in the primary departments of secondary schools which correspond in standard to them. It is subdivided into an upper and a lower stage, and the great majority of the primary school pupils do not read beyond the latter. The middle vernacular stage completes the education of those who aspire to carry their schooling in the mother-tongue somewhat beyond the primary course. The secondary English stage brings the pupil to the end of the school course of English education, and it is subdivided into high and middle stages, the latter of which corresponds in standard to the middle vernacular stage. Many pupils do not read beyond the middle English course.

Grades of schools.

24. There are schools corresponding in grade to each of the stages enumerated above, and the various classes of schools may therefore be defined as follows:—

- High schools.
- Middle English schools.
- Middle vernacular schools.
- Upper primary schools.
- Lower primary schools.

A school of any particular grade may include lower departments of all grades, or it may only receive pupils who have already read up to a certain standard. Thus the typical high school of Bengal contains high, middle English, upper primary, and lower primary departments, and its course extends from the kindergarten occupations of the infant class to the subjects for the matriculation examination. In Bombay, on the other hand, the secondary schools have no primary departments, and the pupils join them after receiving a grounding in a primary school.

Length of stages and age of pupils.

25. The duration of the various stages varies from province to province; the following is about the average:—

- Infant stage—one year.
- Lower primary stage—three years.
- Upper primary stage—two years.
- Middle stage—three years.
- High stage—three years.

This gives twelve years for the complete course, but promising pupils are often given double promotion, and, as we have seen, boys commonly matriculate between the ages of 14 and 17. The bulk of the children of the poorer classes, who do not read beyond the lower primary stage, leave school at the age of about 10 to 12.

Secondary school courses.

26. In the high stage pupils are usually prepared for the matriculation examination of one or other of the Universities. Instruction is given through the medium of English, and the course is of a literary character. The general subjects of instruction are:—

- (1) English.
- (2) A classical or vernacular language (either European or oriental).
- (3) Elementary mathematics.
- (4) History and geography.

In some cases elementary science is added. The course is fixed by the University, but many of the students who follow it never enter a college. The certificate of having passed the matriculation examination is used as a passport to employment, and the scope of the examination is much wider than that of a test for fitness for a University career. Of late years an endeavour has been made to introduce the alternative of a school final examination of a more practical and modern character, but the new courses have not, on the whole, been popular. The middle English course leads up to the high school course. The vernacular middle school course is similar in character to the corresponding English course, but English as a subject assumes a less prominent position or is altogether omitted. The course in the primary departments of secondary schools is sometimes the same as in primary schools proper, and sometimes differs from

it. The present tendency is to assimilate the course to that prevailing in urban primary schools, and to drop the study of English where it formerly formed part of the curriculum at this early stage.

27. The Indian secondary school is in the majority of cases a day school, and it is only in the United Provinces and the Punjab that considerable progress has been made towards the establishment of boarding schools. The system of discipline is very similar to that which obtains in a day school in England; Indian boys are orderly in character, and discipline is easily maintained. Characteristics of secondary schools.

28. The type of lower primary schools varies from the primitive village *pathsala* to modern institutions in which little children are educated in accordance with approved European methods. Speaking generally, the Board schools are better built, equipped, and managed than the indigenous institutions which have been brought into the State system. The course of study includes the 3 R's and a little simple instruction in history, geography, native accounts, mensuration, natural objects, and the like. The kindergarten system is being used to an increasing extent. In several provinces the courses and methods in rural schools have been differentiated from those used in the towns with a view to bring them into closer touch with the life of the people. The book-learning which may be suitable enough for the urban population, is so far removed from the narrow experience of the Indian peasant that he cannot appreciate it, nor can his children assimilate it. In the rural schools of the Central Provinces the children of the agriculturists attend school for only half the day in order that they may not lose touch with their agricultural work. The "half timers" are taught reading, writing, arithmetic, kindergarten occupations, drawing, geography, agriculture, and simple facts about physical science. The easy lessons in each of these subjects are based, as far as possible, on the familiar objects and incidents of village life. The upper primary school is a more elementary edition of the vernacular middle school. Primary school courses.

29. The 100,000 public colleges and schools which exist in the area dealt with in this Review give employment to an army of teachers. There are about 1,000 college professors, about 30,000 teachers of secondary schools, and more than 100,000 teachers of primary schools. The college professors are usually graduates of Universities of the United Kingdom or India; the school teachers are sometimes graduates, but more usually possess general educational qualifications represented by the certificate of having passed the University intermediate or matriculation examination, or some equivalent or lower examination held by the Education Department. A considerable proportion of the school teachers are trained in Government, or (more rarely) mission institutions. The proportion of trained teachers is greater in the Government and Board schools than in the schools under private management. For the training of secondary school teachers several colleges and classes are maintained which give theoretical and practical instruction in the principles and methods of teaching; the course in these institutions extends over one year, and the students are graduates or have passed the University intermediate or entrance examination. For the training of vernacular school teachers each province has normal schools, the course in which includes both instruction in general subjects, and theoretical and practical instruction in the art of teaching. Teachers.

30. The control of text-books is one of the measures by which the State maintains supervision over the vast body of public schools. Text-books for the University examinations, including the matriculation examination, are prescribed by the University authorities; for other courses the books are prescribed by the Local Governments who are aided in the performance of this duty by Provincial Text-book Committees. For Government and Board schools the books are absolutely prescribed, for aided schools a longer list is prepared from which managers may choose, unaided schools select their own books, but the Government exercises a right of veto. Text-books.

31. Examinations have played a prominent part in the history of Indian education. The practice of holding repeated public examinations has fallen to a considerable extent into disrepute, but at the end of the quinquennium under Examinations.

review some provinces still retained the complete set. The full series from the infant class to the M. A. Degree runs as follows :—

School	}	1. Lower Primary.
		2. Upper Primary.
		3. Middle School (English or Vernacular).
	}	4. Matriculation or School Final.
College		5. Intermediate.
		6. Bachelor of Arts.
		7. Master of Arts.

The extent to which, and the purposes for which, the school examinations are held vary from province to province. The following may be enumerated among the objects which they fulfill: they are school-leaving examinations for the pupils who complete their education at the end of each successive stage of the course; the certificate of having passed one or other of them forms the entrance qualification for various special courses, and sometimes for Government or other employment; they are used for the award of scholarships and also for the award of results-grants where the results-grant system is in force; and sometimes they regulate promotion from one grade of the course to another. As a rule the examinations are central examinations with written papers, but sometimes they are held by the inspecting officer *in situ*.

#### Professional and Technical Education.

Classifica-  
tion.

32. The principal subjects of professional and technical training in India are law, medicine, engineering and surveying, agriculture, veterinary science, forestry, commerce, art, and industry. For the most part the instruction is given in Government colleges and schools; the most important exceptions are the law classes attached to private managed colleges, and the Board, mission, and other private managed industrial schools. Many of the students of the Government institutions are trained for the public service and receive stipends while at school or college.

Law.

33. In Madras, Bombay, and the Punjab, the teaching of law is concentrated, wholly or mainly, in the Government law college situated at the capital of the province; in Bengal and the United Provinces law classes are attached to a number of arts colleges. The great majority of the pupils read for the University degree of Bachelor of Laws; in the Universities of Madras, Calcutta, and Allahabad, the course for this degree extends over two years, and the student must graduate in arts or science before he begins it. The Bombay and Lahore arrangements are somewhat different.

Medicine.

34. The higher teaching of medicine is concentrated in four large Government colleges, situated at Calcutta, Madras, Bombay, and Lahore, and teaching of a lower grade is given in eleven Government schools. There are also some private managed schools, but they are of much less importance than the Government institutions. The principal function of the colleges is to train students of the Assistant Surgeon class for employment in the State hospitals and dispensaries, and similarly the schools train students for the lower, or Hospital Assistant, class for similar employment. All the students do not enter the public service; some find posts under large employers of labour, and others practise privately.

The principal departments of the colleges give instruction for the medical degrees of the corresponding Universities; each of the Universities of Calcutta, Madras, Bombay, and the Punjab grant the degree or diploma of Licentiate of Medicine, and, except Bombay, they also grant the degree of Bachelor of Medicine. The course extends, as a rule, over five years, and the preliminary qualification is usually the University intermediate examination. The school course for Hospital Assistants extends over three or four years.

Engineering.

35. The institutions for the training of engineers give instruction in the three main branches of civil engineering, mechanical engineering, and electrical engineering. The principal institutions are the Government colleges at Rurki (in the United Provinces), at Sibpur (near Calcutta), at Poona, and at Madras. There are also a number of schools (both Government, Board, and private managed) which give instruction which is usually of a lower grade. The principal courses of the engineering colleges, and most of the large engineering schools, are arranged with a view to the recruitment of the various branches of

the Public Works Service; the higher departments of the colleges train candidates for the Engineering or the Upper Subordinate Establishment, and the lower departments of the colleges and the schools for the Lower Subordinate Establishment. Rurki arranges for the examination of its own students; Sibpur, Madras, and Poona send up their students for the University degrees or diplomas in engineering. In the highest or Civil Engineering Department of the colleges the course extends over three years (4 in the case of Sibpur), and at Madras and Sibpur it is followed by a further year's practical training. The preliminary qualification for entering on the Civil Engineering course is usually the University intermediate examination.

36. Some instruction in agricultural subjects is given in ordinary primary Agriculture. and secondary schools; there are also several technical colleges and schools of agriculture. The principal of these are the College of Agriculture at Saidapet near Madras, the agricultural branches of the engineering colleges at Sibpur and Poona, and the agricultural schools at Cawnpore and Nagpur. The three colleges require a more advanced general education than do the two schools, and they give more advanced scientific instruction; on the other hand the practical training is well developed in both of the schools. The Poona college trains students for the degree of Licentiate in Agriculture which is granted by the University of Bombay. The agricultural colleges and schools have been, for the most part, frequented by candidates for Government employment, but the landholding and agricultural classes are beginning to make use of them.

37. There are veterinary colleges at Bombay, Calcutta, and Lahore, and Veterinary science. veterinary schools at Rangoon and Ajmere; the colleges give a longer and more advanced course than the schools. Both colleges and schools train students for the subordinate ranks of the Government Civil Veterinary Department; for employment by Local Boards, Municipalities, and Native States; and for private employment. A veterinary hospital is attached to each institution, and a good course of theoretical and practical training is given.

38. The principal school of forestry in India is the Imperial Forest School at Forestry. Dehra Dun, on the lower slopes of the Himalayas, which trains subordinates for the Government Forest Department. It gives a higher course in English and a lower course in the vernacular: each course extends over two years and is largely of a practical character. A forestry department is attached to the Engineering College at Poona, and a Government school of forestry has recently been established at Tharawaddy in Burma.

39. There is very little commercial teaching in India of an advanced cha- Commerce. racter. A number of schools teach short-hand and type-writing, and a smaller number give a more or less elementary instruction in book-keeping, correspondence, commercial geography, and kindred subjects. They are mostly under private management. The most important school of commerce is a Parsi institution at Bombay, which gives a two years' course in commercial subjects, and sends up pupils for the London Chamber of Commerce senior certificate.

40. The Government maintains schools of art at Madras, Bombay, Calcutta, Art. and Lahore. These schools are old established institutions, and their special function is to restore, develop, and improve the application of oriental art to industry and manufacture.

41. There are two classes of industrial schools—the technical schools which Industry are established with a view to improve local methods and processes, and the industrial orphanages and mission schools, the object of which is to train poor children to earn a livelihood. Technical schools are maintained by Government, by Boards, and by private persons and societies; only common trades, such as carpentry, metal work, and cane work are taught in most of them, but in some of the larger institutions the instruction is more varied. It is doubtful whether the majority of the technical schools have done much towards furthering the object with which they were founded; there has been little co-ordination between the course of instruction and special local industries, and the teaching has in many cases not been calculated to raise the standard of local work; it has been necessary to attract pupils by means of stipends, and the stipend holders are often boys of non-industrial classes who attend merely for the sake of the literary instruction which is combined with the industrial training.

#### Education of Backward Classes.

42. The reports of the Directors always make special mention of certain classes of the population who are educationally backward, and with regard to whom special measures are needed. These classes are : females, Muhammadans, low-caste Hindus, and aboriginal tribes. Social customs and traditions render the diffusion of education among the women of India a problem of the gravest difficulty, and the proportion among them who receive anything more than rudimentary instruction is still insignificant. The Muhammadans of India have taken less kindly to western education than their Hindu fellow-subjects, and it is in the higher branches of education that their relative inferiority is most marked. Part of the backwardness of the low-caste Hindus is due to their poverty and to the low position which they occupy in the social scale ; in former days these disadvantages were exaggerated by the attitude which the higher castes assumed towards the admission of low-caste pupils to public schools. The aboriginal tribes are in many cases still not far removed from barbarism, and they live for the most part in sparsely populated jungles and forests where it is difficult and expensive to maintain an adequate supply of schools.

The State assistance takes various forms ; special Government or Board schools are maintained, aid is granted to private managed schools on easy and liberal terms, fees are remitted or reduced, and special scholarships are awarded. Missionary labour has been active among the women, the low castes, and the aboriginal tribes of India, and these backward classes owe a great deal of such education as they have received to State aided mission schools.

#### Finance.

**Funds.** 43. About one-third of the expenditure on public instruction is met by the fees of the pupils ; the balance is defrayed from funds which correspond to the various educational agencies. The following table shows the percentage which the contributions from different sources bear to the total expenditure :—

Provincial revenues . . . . .	26
Municipal and local funds . . . . .	18
Native State revenues . . . . .	3
Fees . . . . .	32
Endowments, subscriptions, and other private sources . . . . .	21

**Fees.** 44. In primary schools fees yield a comparatively small portion of the total ; the bulk of the peasantry cannot be expected to pay much in the way of school fees, and where Board schools exist the contributions of the agriculturists towards the local rates are regarded, in whole or in part, as a substitute for the payment of fees. In secondary schools and colleges the Government encourages the levy of adequate fees ; the State schools set the standard and the private managed schools are expected to follow at a reasonable distance.

**Scholarships.** 45. State scholarships form an important feature of the Indian system of public instruction. In each province the Local Government offers a series of scholarships, awarded on the results of successive examinations, which lead from the lower primary school to the highest University degrees, and which afford a clever lad of humble origin an opportunity of entering the public service or the learned professions. A scholarship (worth perhaps ₹2 a month), gained in the village school, will enable him to enter at the nearest high school, and fresh scholarships (rising in value) may be obtained at the end of the upper primary and middle school courses and will carry him through his school career. A junior scholarship secured at the University entrance examination, and worth perhaps ₹10 or ₹20 a month, will take him to college ; a senior scholarship awarded on the result of the intermediate examination, and a graduate scholarship offered for competition at the B. A. examination, will give him the opportunity of pursuing his studies as far as the system of public instruction extends.

#### Statistics.

46. General statistics relating to institutions and pupils are collected together, for convenience of reference, under the head corresponding to this chapter in Volume II. It is unnecessary to subject them to separate analysis at this point,

since the conclusions which may be deduced from them are explained in the succeeding chapters.

### **Current Reforms.**

47. It is stated at the beginning of this chapter that the period with which we are dealing extends down to the end of the official year 1901-02. The system as it existed at that time is undergoing extensive reform in consequence of measures initiated within a few months of the close of the quinquennium, but the present Review, which is based on the official reports of the quinquennium, does not attempt to give an account of the changes which have taken place since its close. In the month of March 1904 the Government of India issued a Resolution reviewing the whole subject of educational reform in its various aspects, pointing out the defects that require correction in each of its branches, and indicating the remedies which, in their opinion, ought now to be applied. The Resolution is reprinted as an appendix to this volume, and whilst the Review itself describes the old order, substantially as it stood at the beginning of the present era of reform, the Resolution will explain to the reader the principles on which the new order is based.

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## CHAPTER II. CONTROLLING AGENCIES.

### Managing Agencies.

General statistics of managing agencies.

48. Of the 104,622 institutions for public instruction which were in existence at the end of the year 1901-02, 22,250 were under public, and 82,372 under private, management. The institutions under public management comprised 979 directly under Government, 17,661 under Local and Municipal Boards, and 3,610 managed by Native States. Of the institutions under private management 62,747 were aided by the State, and 19,625 were unaided, but were in most cases subject to some degree of State inspection and control. The 104,622 institutions included 145 arts colleges, 46 professional colleges, 5,493 secondary schools, 97,854 primary schools and 1,084 special schools. The arts colleges are mainly under direct Government or under private management—in 1901-02, 26 arts colleges were managed by Government, 5 by Municipal Boards, 3 by Native States, and 111 were under private management. The principal professional colleges are all managed by Government, and 29 were under Government management in 1901-02. The balance comprised the law sections of one Municipal and 16 private managed colleges. Of the secondary schools, 1,518 were under public, and 3,975 under private, management. The former included 296 Government schools, 1,050 Board schools and 172 schools belonging to Native States. Of the primary schools, 20,391 were under public, and 77,463 under private, management. The former included 412 Government schools, 16,559 Board schools, and 3,420 schools belonging to Native States. The total number of special schools is made up of institutions of various characters, such as normal schools, professional and technical schools, and reformatory schools. In 1901-02, 277 of these schools were under public, and 807 under private, management. Of those under public management, 216 were Government schools, 46 Board schools, and 15 Native State schools. The private managed schools are mostly of a miscellaneous character and are entered in the statistical returns under the head "other schools." There are also private managed normal and industrial schools, many of which are maintained by missionary societies.

These general statistics show that the bulk of the institutions for public instruction are under private management, and that of those which are under public management the Government commonly maintains the colleges and special schools, and Local and Municipal Boards the schools for general education. The private managed institutions include the indigenous schools, institutions belonging to missionary societies, institutions maintained by native associations, private proprietary schools and colleges, and other miscellaneous institutions. The majority which are aided are more intimately connected with the general system of public instruction than the minority which do not receive State aid. This aid is given both by the Local Governments and by Municipal and Local Boards. In addition to the above classes of institutions the returns include the Native State schools of Bombay, the Central Provinces, and Orissa, and a few in other States.

Scope of the chapter.

49. In giving an account of the controlling agencies we have therefore to consider, *first*, the Government in its dual capacity of the general controlling authority and as a direct manager of colleges and schools; *secondly*, Municipal and Local Boards in their relationship to their own schools and to the private schools which they aid; *thirdly*, the Native States in so far as they come within the scope of this Review, and *lastly*, the various forms of private agency.

Managing agencies in different provinces.

50. A brief examination of the relative part played by the various agencies in the different provinces will facilitate the consideration of these matters.

In MADRAS most of the arts colleges are under private management, and the Government maintain four, and Municipal Boards three, colleges. The large proportion of Municipal colleges is a special feature of the Madras system. The

majority of both secondary and primary schools are under private management. The public managed secondary schools for boys, both high and middle, are for the greater part managed by Municipal and Local Boards; but all except one of the public managed secondary schools for girls are Government institutions. Of the total number of 412 Government primary schools, 301 belong to Madras; but even in this province the proportion of Government to Board schools is only 1 to 8. Most of the girls' schools maintained by Municipalities and Local Boards have been transferred to Government. The task of aiding private managed secondary schools is divided between the Government and Municipal and Local Boards, and the bulk of the expenditure is derived from Provincial Revenues. In Municipalities the upper secondary (high school) forms are aided from Provincial Revenues, and the lower secondary (middle school) forms from Municipal funds; outside Municipal areas the Government aids both upper and lower secondary forms, and Local Boards only the primary forms of secondary schools. On the other hand, Local Boards take the first place in aiding private managed primary schools, and contribute more than half the total State aid granted to this class of institutions.

51. In BOMBAY, the province typical of the State school system, Local Boards are in general responsible for all public managed primary schools within their jurisdiction. They have little concern with secondary schools, the majority of which are situated in the towns. The Municipal Boards form the principal educational agency in the towns; they are bound by law to make "adequate provision" for primary education, and they also maintain a number of secondary schools. In 1901-02, the secondary schools under public management (apart from schools managed by Native States) comprised 28 Government schools, 70 Municipal schools and only 5 Local Board schools. On the other hand whilst the number of Government primary schools was only 13, there were 3,940 Local Board schools, and 717 Municipal schools of this class. Among secondary schools, the total number under private management is nearly three times as great as that under public management (excluding schools managed by Native States); but private managed primary schools form only one-third of the total (again excluding schools managed by Native States). Local Boards have very little, and Municipal Boards not very much, to do with the aiding of these institutions—the bulk of the grants are made from Provincial Revenues. The figures for 1901-02 were as follows:—

	₹
Secondary schools—	
Provincial and Imperial Revenues . . . . .	2,31,000
Municipal funds . . . . .	13,000
Local Board funds . . . . .	4,000
Primary schools—	
Provincial Revenues . . . . .	1,06,000
Municipal funds . . . . .	19,000
Local Board funds . . . . .	3,000

52. In BENGAL, the schools under public management, whether secondary or primary, form a small minority of the total, and the control and aid of private institutions are matters of the first importance. District Boards are in general responsible for the maintenance and management of all primary and middle schools under public management within the District, and may also maintain any other class of schools. Municipalities are also empowered to maintain all classes of educational institutions, but under existing orders of the Local Government they are required to spend 3·2 per cent. of their income for the primary education of half the number of boys of school-going age, or at the rate of 10 annas per head of the number of boys of school-going age, and until this duty is fulfilled they may not devote any part of their income to secondary schools. There is one Municipal college in Bengal, that at Midnapore. The secondary schools under public management (260 excluding those managed by Native States) form only about one-ninth of the total. Seventy-six are under Government and 176 under Local (District) Boards. Secondary education in the towns is so largely provided for by private institutions that there are only 8 schools of this class under Municipal management. Of the Local Board schools, 3 are high schools, 25 middle English schools, and 148 middle vernacular schools. Apart from schools in the Orissa Tributary Mahals, only an insignificant proportion of



the primary schools are under public management—26 out of a total of nearly 48,000. Of these 26, 8 are Government, 9 Local Board, and 9 Municipal, institutions. The Local Government takes the first place in the aiding of secondary schools, the figures for 1901-02 being: Provincial Revenues, R2,82,000, Local Board funds, R1,71,000, and Municipal funds, R13,000. Of the Local Board contribution R1,11,000 was for middle English schools, R55,000 for middle vernacular schools, and R5,000 only for high schools. The major portion of the grants for primary schools is given by the Local Boards; the figures for 1901-02 are: Provincial Revenues, R1,75,000, Local Board funds, R6,21,000, and Municipal Funds, R63,000.

53. In the UNITED PROVINCES nearly two-thirds of both secondary and primary schools are under public management. Out of 303 middle vernacular schools existing at the end of 1901-02, 284 were Local Board schools, 4 were Government schools, and 15 were under private management. Local Boards do not manage any English schools. Municipalities had one high school and 14 middle English schools, against 10 Government schools of the same class. As regards primary schools under public management 23 were under the direct control of Government, and 4,575 were Local Board or Municipal schools—about 1 in 30 belonged to the latter class. Aided vernacular middle and primary schools in the districts are in general under the supervision of the Local Boards, and grants-in-aid are usually made by, or after reference to, the Boards. Municipalities take a considerable share in the distribution of aid to both secondary and primary schools in towns. In 1901-02 the figures were as follows:—

	R
Secondary schools—	
Provincial Revenues . . . . .	1,27,000
Municipal funds . . . . .	27,000
Local Board funds . . . . .	81,000
Primary schools—	
Provincial Revenues . . . . .	11,000
Municipal funds . . . . .	13,000
Local Board funds . . . . .	97,000

54. In the PUNJAB more than half the secondary schools and considerably more than two-thirds of the primary schools are under public management. The devolution of the management of State schools to Local Self-Government Boards has been very complete, and the Government has retained in its own control only 11 secondary and primary schools. Local Boards control the majority of the primary and middle vernacular schools, whilst most of the English schools are Municipal institutions. In 1901-02, 71 vernacular secondary schools were under Local Boards, and 44 under Municipalities. In the same year Municipalities controlled 66, and Local Boards 13, English schools. There is one Municipal college—a high school which opened college classes in 1888. Among primary schools 1,610 were managed by Local Boards and 187 by Municipalities. Local Boards had one, and Municipalities two, industrial schools. Local Boards take little share in the grant of aid to secondary schools; in 1901-02 the contributions from Provincial Revenues amounted to R1,30,000; from Local Boards funds to R5,000; and from Municipal funds to R19,000. For the aid of primary schools Local Boards contributed R29,000; Provincial Revenues R11,000; and Municipalities R9,000.

55. In the NORTH-WEST FRONTIER PROVINCE the Government does not directly manage any schools and colleges. The 17 secondary and 135 primary schools which are under public management are all maintained by Municipal and Local Boards. There are also 11 secondary and 27 primary schools under private management. The former receive grants mainly from Provincial Revenues; the latter from Provincial, Local Board, and Municipal funds in nearly equal proportions.

56. In BURMA there are only 20 secondary and primary schools under public management; the vast majority of the institutions are managed by indigenous or missionary agency. There are no Local Boards in Burma (although there are local funds distinct from the general revenues) and the management and control of schools outside the towns is therefore performed directly by the Education Department. In most of the towns of Lower

Burma the general control of educational affairs is entrusted to the Municipal or Town Committee under the guidance of the officers of the Department. In Upper Burma Municipalities have not hitherto taken any part in the management of educational matters. The Department maintains three high schools; of the remainder of the English schools, a certain proportion in Lower Burma are maintained from Municipal funds, but the majority are maintained by missionary bodies receiving assistance from Provincial Revenues. A considerable number of vernacular middle schools are kept by private persons, who receive aid from Provincial, Local, and Municipal funds.

57. In the CENTRAL PROVINCES nearly two-thirds of the secondary and more than half the primary schools are under public management. The Government have retained 12 English secondary schools, and only 4 vernacular secondary schools and 31 primary schools. Middle and primary schools under public management are controlled by local bodies, except those in the Mandla District\* and the Sironcha tahsil, and the English middle school, Sironcha, the primary school, Pachmarhi, 4 vernacular branch schools at Kamptee, and the Cantonment branch school, Saugor. Board schools within Municipal limits are managed by Municipal Committees, and in rural areas by District Councils. Municipalities have 25 English schools, District Councils have 3. Among middle vernacular schools, 87 are under District Council, and 16 under Municipal management. District Councils have 792, and Municipalities 108, primary schools. District Councils contribute only a trifling sum towards the maintenance of secondary schools under private management. In 1901-02 Provincial Revenues gave R32,000 and Municipal funds R7,000 for the purpose. In the same year the contributions for the aid of primary schools were as follows: Provincial Revenues, R59,000; District Council funds, R27,000; and Municipal funds, R6,000.

58. In ASSAM there are 23 high schools, of which 10 are under Government management, 6 are aided by the Local Government, and 7 are unaided. The majority of the middle schools are private institutions aided by fixed grants which they receive from the Local Boards. Out of 78 middle English schools, only 2 are Government schools; 57 are aided, and 19 unaided, private schools. Out of 45 middle vernacular schools, 15 are maintained by the Education Department and 4 by Local Boards, 25 are aided, and one unaided. There is only one Government upper primary school; of the remainder 4 receive aid from Provincial Revenues, 92 from local funds, and 7 are unaided. The lower primary schools in the plains districts are mainly managed or aided by Local Boards. In the hill districts, and among the Kachari population of Darrang and the Mikirs of Nowgong, education is promoted by missionary societies who receive grants-in-aid from the Education Department, or from the Local Boards. The most important of these agencies is that of the Welsh Calvinistic Methodist Mission in the Khasi and Jaintia Hills, which receives a grant-in-aid of R6,000 a year.

59. In BERAR there are 28 secondary schools, of which 26 are maintained by Government, and 2 are unaided. Of the primary schools 640 are under public, and 464 under private, management. All the public managed schools are maintained by Municipal and Local Boards. The 400 aided schools mostly receive their grants from Government Revenues.

60. In COORG there are 2 secondary schools under Government management, and 74 primary schools, of which 64 are under Local Board and 6 under Municipal management, and 4 are aided. The newly constituted District Board was entrusted with the charge of primary education in rural areas with effect from the 1st April 1901.

### The Department of Education.

61. The Department of Education is conducted on the system which prevails generally throughout the public services. In each province it is administered by the Local Government and the general control of the Imperial policy lies with the Government of India in the Home Department. The Government of India are assisted by an advising officer styled the Director-General of Education. The appointment is of recent creation and the first holder arrived in India in March 1902. In each province there is an Education Department, and at the head of it an inspecting and controlling officer named the Director of

\* Where there are no Local Boards.

Public Instruction. He is directly subordinate to the Local Government, and, except in the Punjab, the Local Government transacts business with him through one or other of the branches of its Secretariat. In the Punjab the Director of Public Instruction is an Under Secretary to the Local Government. At the end of the period under review there was a Director of Public Instruction in each of the following provinces: Madras, Bombay, Bengal, the United Provinces, the Punjab, Burma, the Central Provinces, Assam, and Berar. In the new North-West Frontier Province, which was constituted on the 9th November 1901, the Punjab Director at first held general charge of the Department of Education under the control of the Chief Commissioner. In July 1903, His Majesty's Secretary of State sanctioned the appointment of an Inspector General of Education and Archæological Surveyor for the North-West Frontier Province and Baluchistan. The supervision of the schools in Coorg, which was formerly under an Inspector, has been transferred to the Director of Public Instruction, Madras, subject to the general control of the Chief Commissioner. The Directors of Public Instruction are at present all members of the Educational Service. In Madras, Bombay, and Bengal the pay of the appointment is R2,000—100—2,500 a month, in the United Provinces R2,000, in the Punjab R1,500—100—2,000, in Burma and the Central Provinces R1,250—50—1,500, and in Assam R1,250.

The educational services.

62. The Education Departments of the Local Governments which are under the control of the Directors comprise the managing and tuitional staff of the Government institutions and the inspecting staff. Members of the Government establishment are also occasionally lent to local bodies.

The Educational Services were organized on their present basis by a Resolution of the Government of India of the 23rd July 1896. The system introduced by that Resolution is fully described on pages 53 to 58 of Mr. Cotton's Review of the Progress of Education in India for 1892-93 to 1896-97. On the present occasion it will suffice to state briefly the position as it now stands. The main result of the re-organization of 1896 was to bring the Education Departments into line with the general system on which the public services in India are based. The scheme applied to all the Provinces dealt with in this report except Burma, Assam, Berar, and Coorg. The North-West Frontier Province was formed at a later date than the re-organization, and its educational staff was derived from the Punjab. In accordance with the principles which have been adopted for the Judicial and Executive services and some other departments, the Education Department has been broadly divided into (a) the Superior Service, and (b) the Inferior Service. The former consists of two branches: one including all posts filled by persons appointed in England, called the "Indian Educational Service"; and the other including all posts filled by recruitment in India and called "the Provincial Educational Service" (of Madras, Bombay, Bengal, and so forth).

63. The officers of the Indian Service are mainly employed as Inspectors and as Principals and Professors of colleges. The officers of the Provincial Services are employed in similar posts and also as assistant Inspectors and Professors, and sometimes as head masters of collegiate, high, and training, schools, etc. The general principles upon which appointments recruited for in India are classed in the Provincial or Subordinate Service are as follows:—

(1) That the line between the two services shall be drawn rather according to the nature of the office held than according to pay;

(2) That generally Professors, Inspectors, and Joint and Assistant Inspectors are to be included in the Provincial Service, and Deputy Inspectors, headmasters of District schools, and officers of lower rank in the Subordinate Service;

(3) As regards other offices, that those carrying less pay than R200 a month should not, except for very special reasons, be placed in the Provincial Service; and that, on the other hand, offices on higher pay than R200 (such as the senior Deputy-inspectorships in Bengal) may, at the discretion of the Local Government, be classed in the Subordinate Service.\*

The general principles have not been rigidly followed. Thus a certain number of masterships of schools have been included in the Provincial Service, and in Bengal and the Punjab the grade of officers drawing R150 a month is included in the same service.

\* Resolution of the 23rd July 1896.

64. At the end of 1901-02 the total strength of the Indian Service was 90 and of the Provincial Services 215. These numbers have not changed greatly during the quinquennium under review—under the scheme of 1896-97 the corresponding figures were 92 and 207. Of the members of the Indian Service, 20 were employed as Inspectors, 58 as Principals and Professors of Colleges, and 12 in other appointments. Of the members of the Provincial Service, 49 were employed on inspection work ; 93 as Professors or Assistant Professors ; 37 as head-masters of collegiate, high, and training schools ; and 36 in other appointments.

65. Officers of the Indian Educational Service are, in general, appointed in England by the Secretary of State to fill vacancies as they occur in the establishments of the Local Governments. As a rule an officer serves throughout in the province to which he is first appointed, but he is liable to serve anywhere in India. Officers are appointed in the first instance on five years' probation ; at the end of this period they may be confirmed in the service. During the probationary period the rate of pay is R500 rising by annual increments of R50 to R750 a month. During the next five years the salary continues to rise by annual increments of the same amount, the maximum of R1,000 a month being attained at the end of ten years from the date of first appointment. A special allowance of R100 a month is granted after fifteen years' service to officers whose total salary does not exceed R1,000, and who are considered by the Local Government to merit this increase of pay. Additional allowances are granted to a limited number of senior Principals and Professors of colleges and senior Inspectors of schools. Certain of these allowances are sanctioned for each province ; in some instances they are attached to particular appointments, in others they are given to the senior among the holders of specified posts. The allowances are divided into two grades, the higher is at the rate of R250—50—500, and the lower at the rate of R200—10—250 a month. Officers of the Indian Educational Service are granted leave under the general rules for European Services (Chapter XIII of the Civil Service Regulations), and their pensions are regulated by the ordinary Superior Service Pension Rules (Chapters XVIII and XIX of the Civil Service Regulations). The probationary period reckons, on confirmation, towards leave and pension.

66. Officers of the Provincial Service are in general appointed by the Local Government on the recommendation of the Director of Public Instruction. Their pay varies from R150 or R200 to R700 a month. This maximum is common to all provinces. The constitution of the Provincial Service varies. In MADRAS there is a general list with ten grades on different rates of pay varying from R200 to R700 and including inspecting and tutorial appointments. In BOMBAY the Provincial Service contained until recently two classes, one with 14 appointments on R200 to R700, and the other with 9 appointments on R150 to R200. The first class included an Inspector and a number of collegiate appointments ; the second class was composed mainly of head-masters of high schools and Principals of training colleges. This constitution has been altered since the close of the quinquennium. In BENGAL the system is similar to that which obtains in Madras ; there is a general list with eight grades of pay varying from R150 to R700. In the UNITED PROVINCES there are separate graded lists for different classes of appointments, but an officer may be transferred from one class to another. The various classes are : Inspectors and Assistant Inspectors (R200 to R700) ; Professors and Assistant Professors (R200 to R400—also two Law Lecturers on R150) ; and head-masters of high schools (2 grades, on R350 and R400, respectively). The PUNJAB Provincial Service comprises a general list of 20 appointments divided into a higher and a lower section. In the higher section the rates of pay vary from R400 to R700, and in the lower section from R150 to R350. In the CENTRAL PROVINCES there are only 7 Provincial Service appointments : 5 Professors on R150 to R400, an Inspector on R500—40—700, and the Principal of the Rajkumar College at Raipur (Rs. 500—1,000). The leave and pensions of officers of the Provincial Service are regulated in accordance with the ordinary rules for the non-European services.

In most provinces there are a certain number of appointments of the same status as those of the Provincial Service which are of a more or less special

character and are not included in its general cadre. Thus in Madras there are various appointments in the Law College and the College of Engineering; in Bombay there are appointments in institutions for teaching law and medicine, and some miscellaneous posts; in the United Provinces there is the staff of the Rurki College and certain posts in normal and special schools.

The Subordinate Educational Service.

67. Below the Provincial Service there exists in all provinces a considerable number of appointments of a miscellaneous character, and carrying rates of pay which extend over a wide compass. The list includes appointments such as the subordinate grades of the inspecting staff, and head-masters and mistresses and teachers in secondary and primary schools for boys and girls, and in normal and various classes of technical and special schools. To take one instance, the Madras cadre at the end of the year 1901-02 included the following appointments:—

Number of Posts.	Class of Posts.	Range of pay per mensem.
		R
65	Sub-Assistant Inspectors of schools (including probationers)	75 to 150
41	Masters and teachers in secondary schools for boys . . .	6 to 175
178	Mistresses and teachers in secondary schools for girls . . .	4 to 60
232	Masters in primary schools for boys . . .	3 to 20
311	Mistresses and teachers in primary schools for girls . . .	4 to 15
142	Teachers in training schools for masters . . .	10 to 75
32	Mistresses and teachers in training schools for mistresses . . .	7 to 150

In addition there are a number of masters, teachers, and subordinate instructors belonging to the College of Engineering, the Teachers' Colleges at Saidapet and Rajamundry, the School of Art, the School of Commerce, Calicut, the Reformatory School, and other institutions. Other provinces show similar lists, the length and variety depending on the nature of the inspecting agency and the extent to which the Government takes direct part in the system of educational management. These miscellaneous posts are not treated in the same manner in all provinces. In some the whole or the great majority are included in the Subordinate Service; in others only a portion belong to that service and the majority are unclassified. The widely differing character of the posts themselves, of the qualifications required for them, and of the rates of pay attached to them, preclude the holders of them all being formed into a graded service with promotion from grade to grade, and everywhere a considerable number of individual posts or groups of posts have their own rates of pay attached to them, whether or not they are included in the Subordinate Service. The available information regarding the constitution in the different provinces is not very complete. In MADRAS the Subordinate Inspecting Officers and the teachers in the various classes of schools appear to be all regarded as belonging to the Subordinate Service, but the Sub-Assistant Inspectors have four grades of their own and the pay of the teachers in the different classes of schools is fixed with reference to the duties and the qualifications required in each case. The arrangement in BOMBAY appears to be similar to that which exists in Madras. In BENGAL the minority of the appointments are formed into a graded Subordinate Service which includes both inspecting and teaching posts, and the remaining appointments are unclassified and carry their own rates of pay either individually or by groups. In June 1903 the Subordinate Service included 437 appointments arranged in eight grades on rates of pay varying from R50 to R250. There were also 1,022 ungraded appointments, the pay of which ranged from R6 to R50—only 16 were on pay of less than R10. In the UNITED PROVINCES both the subordinate inspecting staff (Deputy and Sub-Deputy Inspectors) and head-masters and teachers of schools are included in the Subordinate Service. The position is anomalous, for although these officers are regarded as belonging to the Subordinate Service, yet they are servants of the District Boards and not of the Government. They are divided into 7 grades on pay varying from R100 to R300. The cadre of masters of general and special schools is a comparatively small one. In the

PUNJAB all Government posts below the Provincial Service are included in the Subordinate Service. The Service is divided into six classes and each class contains several grades carrying different rates of pay. The appointments in each grade are specified. The pay of the highest grade of the first class is R160, and of the lowest grade of the sixth class R14. The total number of appointments is 188, they include 30 District Inspectorships, and teacherships and subordinate instructorships in a variety of different classes of schools. In the CENTRAL PROVINCES the arrangements appear to be similar to those of Madras and Bombay. At the end of 1901-02 five grades of Deputy Inspectors (R80 to R200) and two grades of Joint Deputy Inspectors (R50 and R60) were included in the Subordinate Service, and apparently also the various classes of masters and mistresses whose pay depends upon their appointments.

68. Appointments to the Subordinate Service are usually made by the Director, sometimes on the recommendation of the Inspector of the circle. Officers of the Subordinate Service, like those of the Provincial Service, are eligible for leave and pension under the general rules for Indian Services. The holders of the unclassified posts are also, in general, permanent Government servants entitled to leave and pension, and they are usually appointed by the Director, but sometimes, in the case of minor posts, by the Inspector.

69. BURMA, ASSAM and COORG were omitted from the general scheme of 1896 because the number of superior appointments in each was not sufficient to allow of its being conveniently introduced. The Education Department in BURMA is under the control of the Director of Public Instruction, and in addition there is a body styled the Educational Syndicate consisting of official and un-official members. The Syndicate provides for the conduct of public examinations, and advises the Government on educational affairs; it does not, however, exercise any executive control. It bears some resemblance to the old Councils of Education of the three Presidencies. It formerly managed the Rangoon college and collegiate school, but in February 1902 the Secretary of State sanctioned the transfer of the administrative and financial control of both college and school from the Syndicate to the Government. There are four Inspectors who are members of the Indian Educational Service, four Assistant Inspectors on R250 a month, and a staff of graded Deputy Inspectors (on R100, R150 and R200 a month) and a Sub-Inspector. Education in Burma is so largely under private management that the staff outside the inspecting agency is small. The staff of the Rangoon college was under the Educational Syndicate at the close of the quinquennium. There were also 26 masters of secondary schools (on R30 to R250 a month) and the staffs of the engineering school at Rangoon, the survey schools, and the reformatory school. In ASSAM the Director of Public Instruction is an officer on the Bengal list of the Indian Educational Service. He is assisted by a staff of Deputy and Sub-Inspectors. At the end of 1901-02 the teaching staff comprised 167 masters of secondary schools, and the establishment of the Cotton College and the training and survey schools. In BERRAR the supervising agency consists of a Director and seven Deputy, and two Sub-Deputy, Inspectors. The principal officers on the teaching staff are the head-masters of the Amraoti and Akola high schools, and the principal of the training college. For administrative purposes the COORG schools are placed under the Director of Public Instruction, Madras, subject to the control of the Chief Commissioner, and the inspecting officers of the Madras Educational Department are entrusted with the direct supervision of the public schools in the province. The head-mastership of the Mercara high school is also borne on the graded list of the Provincial Educational Service of the Madras Presidency.

70. It is not necessary in the present section to give an account of the work of the Educational Services in so far as it is concerned with the conduct of the Government colleges and schools; that portion of the subject is dealt with sufficiently in the chapters describing the various classes of institutions. We may now, therefore, proceed to the examination of the inspecting agency and its functions.

### Inspection.

General statistics of the inspecting staff.

71. Table 26 shows the inspecting staff as it stood at the end of the year 1901-02. It comprised 35 Inspectors, 6 Inspectresses, 36 Assistant Inspectors, 299 Deputy or Sub-Assistant Inspectors, and 347 Subordinate or Sub-Deputy Inspectors. The Inspectors, Assistants, Deputies, and Sub-Deputies rank in the order named, and each grade is in general subordinate to that above it. In addition there were 14 Superintendents of Hill schools in Madras and Assam, and a subordinate agency (933 strong) for encouraging and inspecting primary education in the four provinces of Madras, Bengal, Burma, and Assam. Omitting the latter class, whose functions are somewhat different from those of the general inspecting agency, the total strength of the staff was 737. This figure gives one inspecting officer to every 162 public institutions and to every 5,300 public scholars. Making the same calculation by provinces the result is as follows:—

	No. of institutions per inspecting officer.	No. of pupils per inspecting officer.
Madras . . . . .	239	8,513
Bombay . . . . .	119	7,111
Bengal . . . . .	184	5,509
United Provinces . . . . .	66	3,123
Punjab . . . . .	73	4,446
Burma . . . . .	101	3,463
Central Provinces . . . . .	75	4,460
Assam . . . . .	88	2,846

Description by provinces.

72. The system differs somewhat from province to province and the statistics for British India as a whole afford little information. The following is a brief description of the staff and its duties in each of the provinces.

73. MADRAS.—For the inspection of boys' schools the province is divided into four "circles" each under an Inspector, and these again into nine "divisions" each under an Assistant Inspector, and into 53 "ranges" each under a Sub-Assistant Inspector.\* The number of circles and divisions is the same as at the beginning of the quinquennium, but the number of ranges was increased from 51 to 53 in January 1902. The four circles are: the Northern Circle (5 districts), the Central Circle (7 districts and Bangalore), the Southern Circle (5 districts), and the Western Circle (5 districts and Coorg). The head-quarters of the four circles are Rajamundry, Madras, Tanjore, and Coimbatore. For Muhammadan and Mappilla schools there is a separate staff of five Sub-Assistants, whose five ranges cover the whole Presidency. In March 1900 a special Sub-Assistant was appointed who inspects all Sanskrit schools. For girls' schools there are three circles each under an Inspectress, the third circle having been created in February 1902; these circles are divided into six ranges, two were under female and four under male Sub-Assistants. Besides the above staff which performs all inspections for grants, there are six Superintendents of hill schools working in the Agency Tracts of the Northern Circars, and 256 (one more than on the 31st March 1897) supervisors of primary schools, each holding charge of a "sub-range." These officers were formerly called inspecting schoolmasters, but in 1900 the name was changed as it did not correctly indicate their duties. Although all but three of the supervisors are appointed and paid by Local Boards and Municipalities, they work mainly under the Sub-Assistant Inspectors. Of the whole number of supervisors 166 were trained men, 72 were men of inferior qualifications having passed only the lower secondary or primary examination, and 2 were unpassed men.

Inspectors are required to inspect and examine second grade colleges under Board and private management, upper secondary schools and departments, secondary training schools, technical, industrial, and art schools, and schools for Europeans. Similarly, Inspectresses of girls' schools are required to examine secondary schools for girls, home education classes, training schools for mistresses, schools for European girls, and special and technical schools for girls. The tour programmes of Inspectors and Inspectresses (and also of Assistant Inspectors) must provide also for the occasional inspection of schools, the regular inspection of which is assigned to subordinate officers. Inspectors are ordinarily required (except in the Central Division) to be out on tour for 8 months, and Inspectresses for 7 months. The following extract is taken from the general instructions for the guidance of Inspectors and Inspectresses: "Inspectors and Inspectresses are the

\* The designation 'Deputy Inspector' was changed into 'Sub-Assistant Inspector' in 1888.



chief executive officers of the Department and shall, as such, acquaint themselves with the condition and requirements of education in all its stages within their respective local jurisdictions. They shall make it a part of their duty to confer with officials and non-officials interested in education, on matters of general interest, and to give advice and assistance to all who may address them. They shall encourage all *boná fide* private enterprise in education by their support and by promise of liberal treatment. Being the ordinary channels of communication with the Department, they shall, subject to the approval of the Director, be the enforcers and the interpreters of its regulations, and the exponents of the educational policy of the Government." Assistant Inspectors are required to inspect and examine lower secondary (middle) schools (Madras City excepted), primary training schools, and primary schools in Municipalities and in the head-quarters stations of the subordinate executive officials. Sub-Assistant Inspectors of boys' schools inspect and examine primary schools in the City of Madras and in the districts outside the limits assigned to Assistant Inspectors, and sometimes lower secondary schools. Sub-Assistant Inspectors and Inspectresses of girls' schools are entrusted with primary, and sometimes with lower secondary, schools. Primary and lower secondary schools in which instruction is given in Hindustani, Persian, or Arabic come within the scope of the Sub-Assistant Inspectors of Muhammadan schools. The inspecting officers are directed to hold conferences among themselves, to pay special attention to physical, manual, and moral training, and to the text-books in use. They are to encourage educational associations and needle-work, art, and industrial exhibitions. Inspectors and Inspectresses are *ex-officio* members of the Board of Examiners for teachers' certificates, and Assistant Inspectors and Sub-Assistants are members of the primary examination Boards. The duties of Supervisors of primary schools and Superintendents of hill schools are to endeavour to improve existing primary schools by instructing and training the teachers, giving model lessons, etc., to start new schools where they may be needed, and to assist the inspecting officers when required. In 1901-02 the Supervisors visited 3,292 villages without schools, started 1,991 new schools, and brought 1,928 unaided schools on to the aided list, and 2,394 private schools under inspection.

74. BOMBAY.—For the working of the Education Department the Presidency is marked out into four divisions, coinciding with the Revenue Divisions (Northern, Central, and Southern Divisions of the Presidency proper, and Sind). Each division is under an Inspector. He is responsible, directly or indirectly, for all kinds of education in his division, personally inspects all the larger institutions, and such of the smaller and primary schools as he can visit in his tours. There is no class of officer in Bombay corresponding to the Assistant Inspectors maintained in other major Provinces. Below the Inspector come the Deputy Inspectors (25 in number), one of whom is allotted to each district. The Deputy Inspector is responsible to the Inspector for the schools maintained by the Local Boards. As will shortly be seen, the District Boards pass the budgets, and the *Taluka* Committees decide the opening and closing of schools, the rate of fees, and free admissions, but otherwise the Deputy Inspector administers the schools. He therefore holds a most responsible position and on him depend, to a great extent, the prosperity of the village schools and the contentment of the masters. Besides his direct administrative work, the Deputy Inspector is the adviser of Municipal Boards which administer their own schools, and of other aided agencies, and he is responsible for the efforts made to improve unaided schools and to bring them on the aided list. According to the size of the district, the Deputy Inspector has below him two or three Assistant Deputies. These are examining officers and do not administer. They divide the annual examination work of the district with the Deputy Inspector in such a manner that each officer may by degrees become acquainted with the whole of the district in which he is employed. They are usually well educated men, able to help in the examination of English as well as of vernacular schools, but a few are specially selected vernacular masters. No inspecting Pandits or school-masters are employed in the Bombay Presidency. The experiment was tried years ago, but it was found that the school-masters selected usually neglected their own schools, and tyrannized over the masters whom they were supposed to assist. There are no Inspectresses of Schools in the Bombay Presidency, but arrangements have been made for the appointment of two Inspectresses to be recruited in England and to be borne on the list of the Indian Education Service.



During the quinquennium no change was made in the numbers of the inspecting staff in the British India districts of the Presidency; but there was a reduction in the total of 1 Inspector, 3 Deputy Inspectors, and 2 Assistant Deputy Inspectors owing to a change in system in Kathiawar. In 1900 the educational inspectorship in Kathiawar was abolished, and the Inspector was replaced by a Deputy Inspector, who is an agency officer: at the same time the subordinate posts mentioned above were abolished. The change was made in consequence of the transfer of the management and inspection of schools in the first and second class States to the State administrations. Two-thirds of the schools in Kathiawar passed by this arrangement from under the control of the Education Department.

The arrangements for the management and inspection of schools in Bombay are peculiar to that city. The Joint Schools Committee administers its own primary and secondary schools, and supervises and pays grants to aided primary schools out of the lump Provincial grant sanctioned for the purpose. The three Deputy Inspectors are largely paid by the Municipality.

75. BENGAL.—At the end of the year 1901-02 the Department comprised 9 Inspectors of schools (one for each of the administrative Divisions), 1 Inspector of European schools, 1 Inspectress of schools, 6 Assistant Inspectors, 52 Deputy Inspectors, 212 Sub-Inspectors, and 494 Guru Instructors. The Sub-Inspectors and the Guru Instructors are servants of the Local Boards (except in localities where the Local Self-Government Act is not in force), but they are under the control of the superior inspecting agency and form part of the regular official hierarchy.

The system of inspection underwent some change during the quinquennium. Instructions were issued by the Director in April 1901, with the sanction of the Government of Bengal, by which the duties and methods of work of the inspecting officers were clearly defined. The system is one of territorial subdivision. The Inspector has jurisdiction of a Division, the Deputy Inspector over a District, the Sub-Inspector over a certain area of a District, and the Guru Instructor over a smaller area, namely, a *thana* or portion of a *thana*.\* The Inspector, while he has jurisdiction and supervision over the whole Division, takes under his special care the Government and other high schools, and the first grade training schools. The Inspectress of girls' schools devotes attention to girls' schools in Calcutta, and to such of them in its neighbourhood and in the Burdwan and Chota Nagpur Divisions as are under missionary management. Subject to the control of the Inspector of Schools, Presidency Circle, the Inspectress has also to arrange for, and conduct the examination in, the special standards for girls. The areas of jurisdiction of the six Assistant Inspectors are co-extensive with those of the Inspectors under whom they work. The Assistant Inspectors have special charge of middle schools and of training schools of the second and third grades. They may be allowed to devote a certain part of their time on tour to the inspection of high English schools, because it is considered advisable that they should be acquainted with the condition of higher education, and also because Inspectors are frequently recruited from their ranks. Each district (excepting Darjeeling, the Chittagong Hill Tracts, Angul, and the Tributary Mahals of Orissa) is under the charge of a Deputy Inspector. There are six Additional Deputy

† Burdwan.  
Midnapur.  
24-Parganas.

Dacca.  
Mymensingh.  
Faridpur.

Inspectors in districts † in which there are more secondary schools than can be properly inspected by one Deputy Inspector.

There is also a Special Deputy Inspector of Schools in the Sonthal Parganas, for the purpose of fostering the spread of education among the Santhals. The town of Calcutta has a Deputy Inspector of its own. The Deputy Inspectors are the chief executive officers of the department in their districts, and they are primarily responsible for the conduct of middle and primary schools. They are not ordinarily allowed to visit high schools without the sanction of the Inspector, but they are required to inspect second and third grade training schools, and to carefully supervise the work of the Sub-Inspectors under them. The first duties of Sub-Inspectors are in connection with primary and indigenous schools. They are allowed, when authorized by the Inspector, to visit middle schools. Inspecting Pandits are directly under their supervision. The duties of Inspecting Pandits (Guru Instructors) are confined to primary and indigenous schools. Their chief work is to instruct Gurus, to show them how to teach, how to manage a school, how to maintain discipline, how to drill pupils, and how to keep

\* Police Circle.

registers, etc. Almost all the divisional reports state that the work of this class of officers is not as satisfactory as it should be. The Director remarks that this may be due either to the wrong class of persons having been appointed, or to want of proper supervision on the part of the Sub-Inspectors.

During the quinquennium, the number of Inspectors was increased by four in order that one officer might be appointed to each division. The abolition of the posts of the two Muhammadan Assistant Inspectors and of the Assistant Inspectors of Chittagong and Rajshahi has diminished the number of this class of officers by 4. The number of Deputy Inspectors increased by 4, the number of Sub-Inspectors by 2, and the number of Guru Instructors by 15.

76. UNITED PROVINCES.—For purposes of educational administration the province is divided into five circles, each under the charge of an Inspector. The first Inspector has the Agra Revenue Division and the districts of Hamirpur, Banda, Jalaun, and Jhansi (including Lalitpur); the second Inspector has the twelve districts in Oudh; the third Inspector has the Benares and Gorakhpur Revenue Divisions and the Districts of Cawnpore, Fatehpur, and Allahabad in the Allahabad Division; the fourth Inspector has the Meerut and Rohilkhand Revenue Divisions; and the fifth Inspector has the Kumaun Revenue Division and the inspection of European schools throughout the province. No change was made in the number or constitution of the circles during the quinquennium. The Inspectors inspect and report upon all State and aided English schools, and visit as many recognized and unrecognized English schools as they can. In the course of their cold weather tours they are required to inspect vernacular middle schools at the head-quarters of districts and such village primary schools as they meet with on the way. They are in general control of all schools, whether for special or general education, within their circles. There is also an Inspectress of female schools who inspects English schools for girls, and some vernacular schools, including those which are closed to other inspecting officers. Subordinate to the Inspectors are eight Assistant Inspectors who are directly concerned with the inspection of vernacular instruction and the supervision of the district inspecting staff. They inspect, examine, advise, and report. In the year 1896-97 there were 9 Assistant Inspectors, but in the following year the appointment in the Kumaun Division was abolished. The district inspecting staff consists of a Deputy Inspector, assisted generally by one or more Sub-Deputy Inspectors. The Deputy and Sub-Deputy Inspectors are servants of the Local Boards by whom, subject to certain rules as to qualifications, etc., they are appointed; they are, however, subject to the control of, and are subordinate to, the higher grade inspecting officers of the Government. They are directly responsible for the progress of the vernacular schools in their districts; and they are required to visit every school in their charge at least twice a year. There were 47 Deputy Inspectors and 57 Sub-Deputy Inspectors during the year under report, and there has been an increase of 26 Sub-Deputy Inspectors during the quinquennium. The inclusion of a number of indigenous primary schools in the system of public instruction necessitated a considerable addition to the subordinate inspecting staff.

77. PUNJAB.—There are five educational circles, each under an Inspector. The number of circles remained unchanged during the quinquennium, but in November 1901 the constitution of the circles was re-arranged in consequence of the separation of the North-West Frontier Province and the constitution of the new Mianwali District. At the end of the quinquennium the circles were as follows:—

*Delhi Circle.*—Delhi, Hissar, Karnal, Rohtak, Gurgaon, Ferozepore, Umballa, and Simla.

*Jullundur Circle.*—Jullundur, Ludhiana, Kangra, Gurdaspur, and Hoshiarpur.

*Lahore Circle.*—Lahore, Amritsar, and Montgomery. The Inspector of the Lahore Circle is also Inspector of European Schools throughout the province.

*Rawalpindi Circle.*—Rawalpindi, Jhelum, Gujrat, Shahpur, Gujranwala, and Sialkot.

*Multan Circle.*—Multan, Muzuffargarh, Jhang, Dera Ghazi Khan, and Mianwali.

Subordinate to the Inspector there are two Assistant Inspectors in each of the Delhi, Jullundur and Rawalpindi Circles, and one Assistant in each of the remaining circles. Every district of the province, except Simla, has a District

Inspector who corresponds to the Deputy Inspector of other Provinces. At the end of the quinquennium the few primary schools in the Simla District were inspected by an assistant teacher of the Municipal School. The Deputy Inspector is under the orders of the Deputy Commissioner of the district, but is responsible to the department for the proper discharge of his duties. Sialkot is the only district in which the District Inspector has subordinate assistance. There is also an Inspectress, who visits girls' schools in municipal towns and cantonments. Other girls' schools are inspected by the Inspectors and their assistants.

In addition to the general control of the educational business of the circle, the Inspector visits during the course of his winter tour every secondary school within his jurisdiction and such primary schools as he may come across. In the summer he pays surprise visits to high schools. The Assistant Inspector must inspect during the winter every primary school and all primary departments of secondary schools which lie within his jurisdiction. He also does such inspection of secondary schools as the Inspector may require of him. During the summer he pays a surprise visit to every English middle school, and to such high schools as the Inspector cannot visit. The District Inspector must pay two visits to every Board middle and primary school, and one visit to every indigenous school, in his jurisdiction within the year; he also tours with the superior inspecting officers. The Director states that the work of the District Inspectors is on the whole praised in the reports. Each normal school receives one visit during the year from the Principal of the Central Training College at Lahore, and another from the Inspector of the Circle within which it is situated. Technical schools are inspected on the general side by the ordinary inspecting staff, and on the technical side by the Principal of the Mayo School of Art.

78. NORTH-WEST FRONTIER PROVINCE.—The five districts of this province are inspected by an Assistant Inspector transferred from the Punjab, with headquarters at Peshawar. In four districts there are District Inspectors whose functions are similar to those of the corresponding officers in the Punjab. The fifth district (Kohat) was inspected during the quinquennium by the head-master of the Board school at Kohat.

79. BURMA.—For purposes of inspection the province is divided into four circles, the Eastern, Western, Central, and Northern, each under an Inspector of schools, with his head-quarters in the case of the first three at Rangoon, and of the fourth at Mandalay. The Inspectors are responsible for the inspection of schools of all grades, and for testing and checking the work of the Deputy Inspectors. It is also the duty of the Inspector to see that the conditions on which grants are given are fulfilled. The number of Inspectors was increased from three to four during the quinquennium. There are four Assistant Inspectors whose particular duty it is to supervise vernacular education. This class of officers was created in 1898-99, when three were appointed. The number was raised to four in 1900-01. For the special supervision of indigenous primary schools the circles of inspection are divided into sub-circles (corresponding usually with civil districts), each of which is placed under a Deputy Inspector. The number of Deputy Inspectors was 33 in 1896-97 and 38 in 1901-02. Of the latter total, 33 are for Burmese schools, 4 for Karen schools, and one for Tamil and Telugu schools. In 1896-97 there were five Sub-Inspectors, these appointments were abolished during the quinquennium except one retained for Talaing schools. To spread primary education and to teach those managers that either wish to register, or to raise the grade of, their schools, there is a class of Itinerant Teachers who are trained men from the normal schools and who work under the Deputy Inspectors. Itinerant Teachers were first appointed in 1896-97; in that year they numbered 159, and in 1901-02, 169. It is their special duty to assist the Deputy Inspectors in finding out new schools, in bringing them under registration, and in extending primary education in rural areas.

The Director has recorded the following remarks on the work of the inspecting staff in his Report for 1901-02 :—

I can only repeat what I said in the Report for 1900-01. We have done our utmost to bring primary and secondary education, vernacular and anglo-vernacular, under systematic inspection, to improve its tone, and to improve the general teaching in schools. The system of inspection is very thorough and reaches every grade of school. It has been a rule, in this province, that Educational Officers shall leave a school or district the better for their inspection. The general instructions to inspecting officers and the Inspection Manual (Chapter XIV

of the Code) show what we have all along aimed at. The officers of the Department of every grade, from Director to Deputy Inspectors, are teachers as well as inspecting officers and they can, at their inspections, not only point out what is wrong, but show how it can be put to rights, whether it be matters of discipline, school management, handling of classes, or the teaching of the subjects in the Code. The great change and advance in education, and the greatly improved methods of teaching, are due to the care we take in the matter of training teachers; to the increase in the inspecting staff; to the employment of men of good education and special training; and to the very thorough way in which the inspecting staff have done their work.

80. **CENTRAL PROVINCES.**—The Central Provinces are divided into three educational Circles, the Northern (seven districts), the Southern (eight districts), and the Eastern (three districts). The Inspector of the Southern Circle also visits the European schools of the whole province and of Central India. The Feudatory States form another circle under the charge of a fourth Inspector paid by the States. There has been no change in the number of Inspectors during the quinquennium. The Inspectors visit colleges (except the Government College which is visited by the Director) and normal schools twice a year, and anglo-vernacular and high schools once a year. They also tour through their districts and see all the vernacular schools once in three or four years on an average. There are 29 Deputy Inspectors of Schools for British districts, besides those employed in Feudatory States. A Deputy Inspector holds charge of the whole or a portion of a district. He is in immediate charge of all vernacular and second grade anglo-vernacular schools. He keeps the District Councils informed of the state of education, helps them in establishing schools when required, and makes suggestions from time to time to them regarding their schools. He is under the general control of the Deputy Commissioner of the District, but is subject to the immediate control of the Inspector. In the Report for 1901-02 the Director praises generally the work of the inspecting officers.

81. **ASSAM.**—At the end of the year 1901-02 the Director was assisted by 5 Deputy and 23 Sub-Inspectors. There is one Sub-Inspector for each administrative sub-division, and two each for the sub-division of Gouhati and the District of Nowgong. There was no important change during the quinquennium. As a general rule the Director himself inspects second grade colleges, high schools, training schools, and technical schools. Middle schools are left to the Deputy Inspectors and primary schools to the Sub-Inspectors, but the Director inspects a sufficient number of the lower class of schools to satisfy himself that the work of inspection is being satisfactorily performed. The Deputy Inspectors are held responsible that the Local Boards observe the grant-in-aid and other rules laid down by the Government. Below the Sub-Inspectors are 19 Inspecting Pandits who are employed by certain Local Boards in the inspection of primary schools. They do not hold charge of specified areas but are sent out by the Chairman of the Board to inspect schools at his direction. They are required to devote special attention to the method of teaching and the maintenance of discipline. There are also 8 Superintendents of hill schools.

82. **BERAR.**—The Director of Public Instruction himself examines high schools and training schools with the assistance of other officers of the Department; and he inspects as many of the middle and primary schools as he can. He is assisted by 7 Deputy Inspectors who are placed in charge of English schools and assist local bodies in the management and examination of primary schools. The Deputy Inspectors of Akola and Amraoti are assisted by Sub-Deputies.

83. **COORG.**—As already explained, the inspection of Coorg schools forms a part of the duty of the Madras Department. The Madras officers are assisted by a local officer styled the Deputy Inspector.

84. We may now notice the salient features of the systems which have been evolved in the several provinces. The first point to remark is that the staff is organized on a territorial basis and not on an estimate of the number of schools to be inspected. The unit of educational, like that of administrative, organization, is, in most provinces, the district. There is one inspecting officer, usually called a Deputy Inspector, but in the Punjab called a District Inspector, to each district, in all provinces except Madras and Assam. In Madras the districts being exceptionally large are not taken as the basis, but smaller areas called 'ranges,' which are under the charge of Sub-Assistant Inspectors. In

Summary.

Assam, where the unit of Local Self-Government is the administrative sub-division, and not (as in other provinces) the district, the sub-division is also taken for the unit of educational inspection, and each sub-division is under an inspecting officer hitherto styled a Sub-Inspector. In the Central Provinces the organization is based on a system of district charges, but the increase of work has been provided for by splitting up some of the districts, and there were at the end of the quinquennium 29 Deputy Inspectors as compared with 18 districts.

85. Just as the districts are formed for administrative purposes into groups styled divisions each under the charge of a Commissioner, so the areas under the jurisdiction of several Deputy Inspectors or other similar officers are formed into 'circles' each under the charge of an Inspector. In Bombay and Bengal the jurisdiction of the Inspector is conterminous with that of the Commissioner. In Madras, where there are no Commissioners, the circles of the Inspectors contain from five to seven districts; the United Provinces have nine Commissioners and six Inspectors; Burma has eight Commissioners and four Inspectors; in the Punjab and the Central Provinces the number of Inspectors is one less than the number of Commissioners. In Bengal there is a special Inspector of European Schools; in other provinces, at the end of the quinquennium, the inspection of European Schools was performed by the general staff—in some cases each Inspector looked after the European schools within his own jurisdiction, in others one of the Inspectors visited European schools in addition to performing other duties. The following table shows the average number (*a*) of public male institutions of all classes, and (*b*) of high schools for boys, which the arrangements described above allotted on an average to an Inspector in each province:—

Provinces.	Average number of public institutions for males <i>per</i> Inspector.	Average number of high schools for boys <i>per</i> Inspector.
Madras . . . . .	4,945	39
Bombay . . . . .	2,176	26
Bengal . . . . .	4,908	53
United Provinces . . . . .	1,473	20
Punjab . . . . .	528	19
Burma . . . . .	1,090	4
Central Provinces . . . . .	743	7

The actual charges are in many cases much above or below the average.

86. In all the provinces except Bombay, the Central Provinces, and Assam there is a grade of inspecting officer next below the Inspector, called Assistant Inspector. In Madras, as already explained, there is no grade of educational officer in charge of an area conterminous with the civil district. The Assistant Inspector is there upon a territorial basis, having charge of what is called a 'division,' which is intermediate between the circle of the Inspector and the 'range' of the Sub-Assistant Inspector. In the other provinces in which Assistant Inspectors exist, they are intermediate between the Inspector and the Deputy or District Inspector. In Bengal there are Assistant Inspectors in six of the nine Inspectors' circles, with an area coinciding with that of the Inspectors' jurisdiction. In the United Provinces there is one Assistant Inspector for each division of the province. In the Punjab three of the Inspectors' circles have two Assistant Inspectors each, and the other two circles have one each. In Burma there is one Assistant Inspector under each Inspector.

87. The Deputy Inspectors, calculated, as a rule, at one per district, are not able by themselves to inspect all the schools in their area, and there is therefore a lower grade of inspecting agency in most provinces. These are called Assistant Deputy Inspectors in Bombay, Sub-Inspectors in Bengal, Burma, and Assam, Sub-Deputy Inspectors in the United Provinces, and Assistant District Inspector (there is only one) in the Punjab. The amount of assistance which Deputy Inspectors require in the shape of Sub-Inspectors (to use one name for the whole class) roughly depends on the number of middle and primary schools, but is also governed by local limits, as the Sub-Inspectors can conveniently be appointed, not for a certain number of schools, but for a certain

area. The following table shows the average number of primary and middle schools under the inspection of a Deputy Inspector with his Sub-Inspectors in each of the principal provinces :—

Madras	300
Bombay	112
Bengal	181
United Provinces	69
Punjab	93
Burma	109

At the bottom of the scale come the Madras Supervisors of primary schools, the Guru Instructors of Bengal, the Itinerant Teachers of Burma, and the Inspecting Pandits of Assam. These subordinate officers instruct the village schoolmasters and aid generally in the efforts made to diffuse primary education.

88. For the inspection of girls' schools there were, at the end of the quinquennium, three Inspectresses in the Madras Presidency, and one each in Bengal, the United Provinces, and the Punjab; in Madras two of the Sub-Assistants for girls' schools were also females. The female inspecting staff suffices only for the supervision of a certain number of the schools, and the rest are visited by the male inspecting officers.

89. There has been little change in the organization and strength of the inspecting staff during the quinquennium under review. The principal incidents were the increase in the number of Bengal Inspectors and the revision of the instructions for the general inspecting staff of that province; the increase of the United Provinces subordinate staff; and the strengthening and re-organization of the staff in Burma. Since the close of the quinquennium the orders of the Government of India for the better management of schools, and in especial for the substitution of collective inspection *in situ* for individual examination, have added to the work of the inspecting staff, and several of the Reports for 1901-02 mention the increases in establishment which are now being made or which are still in contemplation. Increase of staff.

90. The Education Manuals and Codes of the Local Governments direct the attention of inspecting officers to a variety of subjects, such for instance as the following: school buildings and equipment; registers and returns; method of teaching and attainments of pupils; discipline; moral and physical training; class promotion; observance of the rules of recognition and aid; observance of inter-school rules; and fees and free students. They generally warn the officers against a mechanical method of examining the pupils, and sometimes instruct them regarding the defects in teaching for which they should watch and manner in which those defects may be cured. The following extracts from the rules of guidance in some of the larger provinces illustrate the kind of work which is expected from the inspecting staff :— Method of inspection.

MADRAS.—The inspection and examination of schools shall, ordinarily, be held in the school premises. When primary schools for boys are situated in a village or town within short or convenient distances from one another, inspecting officers may assemble and examine them together at one centre, provided that the managers acquiesce in the arrangement and that inspecting officers visit the schools prior to or subsequent to the examination to satisfy themselves as to the suitability of the accommodation, the sanitary arrangements and the appliances provided for the school.

The mode of examination should be varied from year to year so that it may not have a tendency to become mechanical. It should be such as to bring out the strong and weak points in the organization and discipline, and methods of instruction. The inspecting officers should carefully see that the teaching and discipline are such as to exert the right influence on the manners, the conduct and the character of the pupils.

At the inspection and the examination of each school, whatever be its grade, inspecting officers shall satisfy themselves that sufficient attention is paid to physical and moral training. They shall arrange to see the pupils of secondary and large primary schools at drill or some other physical exercise, and in all towns and large villages containing a number of schools, they shall advise the managers and masters to arrange for holding annual sports under the auspices of the leading residents of the place. Whether proper discipline is maintained in each school shall be particularly looked into. Laxity in discipline and tone must be repressed with firmness, and managers and masters must be made to understand that State aid may be withdrawn or reduced in amount, and State recognition may be suspended or withdrawn, for a low level of discipline and moral tone.

**BOMBAY.**—When the examination of a school is over and the children have been dismissed, the inspecting officer should take the opportunity of conferring with the master and his assistants. The results of the examination; the inspection of the school-records; the state of the school-building, furniture, and apparatus, and the improvements or additions needed; the work of the teachers during the past year and their method of teaching; their relations with the school committee and with the inhabitants of the place generally; their difficulties both in the school and with the parents of the pupils; the qualifications and performances of the younger assistants (especially pupil-teachers or masters who have recently entered the service) and their selection for further training;—these and other kindred subjects will afford much important matter for discussion and for the Deputy's instructions and counsel. It is of vital importance to the masters of primary schools, many of whom occupy very isolated positions in the midst of an illiterate and indifferent population, that they should become personally acquainted with the Deputy Educational Inspector of their district, and should regard him as an instructor and friend as well as an official superior.

**BENGAL.**—The proper scrutiny of a school consists of two principal parts, *viz.*, inspection and examination. By inspection is meant the process of seeing a school at work during its ordinary routine, noting the suitability of the building, the sanitary conditions, the arrangement and organization of classes, the furniture and apparatus, how the accounts and registers are kept, the organization, order and discipline, the relation between teachers and scholars, and especially the method of teaching. By examination of pupils (when on inspection) is meant the process of testing the pupils so as to see if the instruction and the mode of instruction are sound; and, further, to see whether faults detected by failures in public examinations have been or are being corrected; also to see how far subordinate inspecting officers have made suitable reports. In order to arrive at a fair knowledge of the condition of a school, both inspection and examination are necessary. Inspection, or at least part of it, should usually come first, and the examination of pupils afterwards.

**UNITED PROVINCES.**—The Inspector is required to ascertain the state of the tuition, discipline and general management of the school; to scrutinise the accounts and registers; to report how far departmental orders are carried out; to note the state of the premises and boarding-house, and the condition of the school appliances; and to advise the manager or headmaster regarding the management of the school. The Inspector examines as many scholars in each of the classes as may be necessary to ascertain what progress the class has made, to test the method of teaching, and to enable him to advise as to the further instruction of the class. Special notes are drawn up regarding physical education, discipline, and conduct of scholars. In the case of village schools the inspecting officer is in addition to the above required to see that every scholar is furnished with the authorised text-books and the teacher with bound copies of the same. All schools are inspected *in situ* at least once, and District Board primary schools twice, during the year.

**PUNJAB.**—The following is given as a specimen of how the inspection of a school should proceed:—

- (1) Inspect the Registers, with special reference to attendance and fees. Observe here whether the roll has risen or fallen since the previous inspection. If the latter, why? Is the attendance satisfactory? Notice Hindu and Musalman numbers compared with the population and with the returns of the previous year. How many of the scholars are agriculturists? Check the monthly statistics and see that all the necessary books are properly and neatly kept up.
- (2) Examine the classes. First see that there is no undue stagnation in the infant class. Observe whether or not the numbers in the higher classes increase. Examine by preference from below upwards. Take assistance from the teachers or otherwise. Examine individually only where prescribed standards have to be passed. Jot down your impressions against each subject in each class, and note the name of the teacher responsible for each subject.
- (3) Note the arrangement of the classes, the distribution of work among the teachers, the bearing of the master, the expression, quickness, and intelligence of the pupils. Do they seem self-reliant? Is the general tone good? Is there evidence of thoughtful discipline and work? Are the teachers prompt to detect moral faults, where these exist? Are the pupils, however poor in dress, clean and neat in person?
- (4) Physical Training.—How far are the rules for physical training followed? What games or other exercises beyond those prescribed are pursued? Are gymnastics taught, or school drill?
- (5) Building, Furniture, and Sanitation.—Is the building adequate for the attendance, well lighted and ventilated, and kept clean? Has it the necessary furniture and apparatus? Are the sanitary arrangements satisfactory?
- (6) Libraries.—Where these exist, how are they used? How kept up?
- (7) Boarding House.—Is the building suitable, well ventilated, and not over-crowded? Are the rules for boarding-houses generally complied with?

### Madras Examination Organization.

91. It will be convenient to mention at this point the organization for the conduct of examinations in the Madras Presidency, which is a special feature of the Madras system. At the head of the organization is an officer designated the Commissioner for Government Examinations\* who is in general charge of the

\* The appointment was held by the Director of Public Instruction during the quinquennium.



arrangements and controls the various Boards, Superintendents, etc., who hold the examinations. He issues a calendar every year in which the regulations for the various examinations are set forth, and the results of the year's examinations are published. The following is a list of the examinations which come within the sphere of the Commissioner :—

Names of the examinations.	Principal objects of the examinations.
Primary examination .	To promote and encourage primary education, and also to test the fitness of candidates for the public service, etc.
Lower secondary examination.	The leaving certificate examination for lower secondary education.
Upper secondary examination.	For the purpose of encouraging, improving, and widening the scope of secondary and technical education. It is the leaving certificate examination for upper secondary education in the case of those students who do not enter for the matriculation examination.
Hand-writing and dictation test for undergraduates.	A public service examination for candidates who have passed the matriculation examination.
Special test examinations .	For the purpose of testing the fitness of candidates possessing the required educational qualifications for the special duties appertaining to particular departments or offices of the public service. The list includes précis-writing, translation, accounts, judicial, revenue, jail, and salt and Abkari Department, tests.
Salt and Abkari Department competitive examination.	For the purpose of selecting candidates for the higher grades of the subordinate branch of the Salt and Abkari Department.
Government technical examinations.	For the encouragement of scientific and technical instruction, and for the purpose of testing the qualifications of persons seeking employment (whether public or private) in which scientific or technical knowledge or proficiency is needed.
Medical entrance examinations.	For testing candidates of various classes for entry into the Government Medical College or school.

### Functions of District Officers and their Assistants,

92. In former days the control of education was to a very large extent in the hands of the District Officer and his subordinates. The formation of Departments of Education with an extensive inspecting and directing agency curtailed his functions, and his direct control was further lessened by the general transfer of the maintenance of schools to Local Boards. As Chairman of the District Board the Collector or Deputy Commissioner has still important functions to fulfil towards education, and apart from this the principle is universally recognised that it is the duty of the District Officer and his subordinates to encourage the progress of education, and especially of primary education, and to inspect educational institutions. The duty, indeed, is a very important one, since the District Officer, owing to his influence with, and his intimate knowledge of, the people, is in a position to render the most valuable aid to the cause of education. The Education Commission were fully alive to the importance of this aspect of the educational system, and they recorded the following recommendations :—

Previous history of the subject,

That it be recognized as the duty of the Revenue officers to visit the schools within their jurisdiction; communicating to the Executive officers or Board to which each school is subordinate any recommendation which they may desire to make.

That voluntary inspection by officers of Government and private persons be encouraged, in addition to the regular inspection of departmental and revenue officers.\*

93. The Government of India laid special stress on the subject in paragraph 5 of the Resolution of the 28th October 1899 which commented on Mr. Cotton's Review. They said as follows :—

Revenue officers are in no way relieved of that duty (*i.e.*, inspection) by the transference of schools from their charge to the charge of Local Boards. The District Officer has many a burden laid on him but village schools' inspection is a very necessary duty and must be insisted on. The duty of inspection is all the more incumbent on him, where his direct charge of the schools has ceased. And this duty is especially incumbent on him in respect to primary schools, inasmuch as the gentlemen who compose these Local Boards belong in many cases to the classes which naturally (with comparatively few exceptions) take little interest in the education of the humbler classes, or in the diffusion of purely primary education. Where Revenue Officers cease to interest themselves in the cause of education, the administration of the Boards is (as Mr. Cotton says of Bengal) 'not generally attended with success.' Local Governments must see that this duty is not neglected, and should specially notice how far it is performed.

\* See paragraph 389 of the Report of the Commission.



Present position by provinces.

94. The following abstract of the information available for the different provinces affords some indication of the extent to which effect has been given to the above instructions of the Government of India.

95. MADRAS.—In a letter, dated the 2nd August 1900, the Government of Madras said: "In the Inspection Code of this Presidency Inspecting Officers are enjoined 'to enlist the sympathy of members of Local Boards and Panchayats, Civil Officers, Managers of schools and other persons of light and leading, in the cause of education by conferring with them generally or by inviting them to be present at their inspection, when convenient, especially when such examinations are held in durbars.' Collectors are *ex-officio* Presidents of Local Boards, and they not infrequently visit, and at times inspect, the schools within their districts, while all reviews of the inspection reports are sent to them for information. The Subordinate Revenue Officers of the districts, both European and Indian, also understand that it is expected of them to visit schools in the course of their tours, and to some extent do so. The Collector in almost every district is so much occupied with his regular official duties that, beyond occasional attendance at prize-givings, he cannot be expected to do much in the way of inspection and examination. More, however, might be done by many Divisional Officers\* in the direction of showing the people that they are interested in their education."

96. BOMBAY.—In the Education Report for 1896-97 it was said that: "The Revenue Officers systematically visit the schools, write minutes in the visitors' book, and send copies to Inspectors. Of all non-departmental control, this is by far the most valuable, both on account of the influence of the officers and the real and living knowledge they possess of the state of the people and their wants." In the Report for 1901-02 the Director merely quotes the statement of one of his Inspectors that: "The Collectors, Assistant Collectors, and Mamlatdars visit schools and give effective help by making valuable suggestions."

97. BENGAL.—The Director writes as follows in the Report for 1901-02: "In all the districts a number of schools, both secondary and primary, were inspected by Magistrates or Deputy Commissioners and Sub-divisional Officers. The figures for all the Divisions have not been received, but it appears from these reports that all these officers took considerable interest in the inspection of schools." In districts in which the Local Self-Government Act is not in force the District Officer has a more direct relationship with the Education Department.

98. UNITED PROVINCES.—The Director writes as follows in the Report for 1901-02:—"The district inspecting officers are servants of the District Boards, with whom rests the final control of the schools maintained at their cost. Much, therefore, depends on the interest which Collectors and Deputy Commissioners show in the educational advancement of their districts. The Department has to acknowledge the valuable assistance rendered in this way by many of these officers."

99. PUNJAB.—It is laid down in the Punjab Education Code that Deputy Commissioners and other Civil Officers are required to use their influence for the promotion of education, and to visit and inspect the schools within their districts, as occasion may offer. It is their duty, when defects are brought to their notice, to see that local bodies carry out properly the educational rules and orders. Whenever a Tahsildar or Naib-Tahsildar visits a village in the course of his ordinary duties, he is required to inspect any school, supported or aided by public funds, which is located therein. It is expected that such inspections should be made at least once, and generally twice, during the year. In the Report for 1901-02 the Director says that the Deputy Commissioners have generally taken a warm interest in all educational matters, but that the large majority of Tahsildars and Naib-Tahsildars continue to take practically no interest in schools.

100. BURMA.—As there are no Local Boards in Burma the position of the Deputy Commissioner towards the educational business of his district resembles that which formerly existed in India. It is laid down in the Code that the officers of the Civil Administration from Commissioners to Myoòks are responsible with the officers of the Education Department for the educational administration of the province. The Code quotes orders of the Government of India of the year 1868 laying the responsibility for the education of

\* The Divisions here referred to are the administrative sub-divisions of Districts.

the district on the Deputy Commissioner, and orders of the Local Government of the year 1881 emphasizing the earlier instructions. In the orders of 1881 it is said that "Civil Officers are as much concerned with the promotion of education in their district and sub-divisions as with the furtherance of roads, the administration of the police, or the conduct of any other branch of public business not immediately under their sole direction." District Officers and their subordinates are required by the Code to use their influence for the promotion of education and to visit and inspect the schools within the district as occasion may require. "Each District, Sub-divisional and Township officer should, when at his headquarters, inspect every school at his head-quarters not less often than once in two months, and every such officer, in his tours, should inspect the schools in every town and village which he visits, and should note the results of his inspection in the visitors' book." In a letter, dated the 1st October 1900, the Government of Burma said: "The necessity for co-operation between Educational and Administrative officers has been repeatedly insisted on. All Civil Officers are required to interest themselves in education and have been instructed to arrange when possible to tour in company with the officers of the Department." The Report for 1901-02 does not make any mention of the work done by the Civil Officers.

101. CENTRAL PROVINCES.—The following extracts are from a letter, dated the 10th April 1900, written by Mr. G. Thompson, an experienced Inspector of Schools, officiating at the time as Director of Public Instruction in the Central Provinces:—

With regard to paragraph 5 of the Resolution, the officers whom I have consulted are unanimous in the opinion that it is largely on the personality and assistance of the District Officer, and still more on his sympathy, that the success of primary education depends. This is no new opinion; it is well known in these Provinces that when the District Officer assumes a sympathetic attitude towards education, when he takes an interest in attendance and the equipment of schools, and especially when he looks to the educational work of Tahsildars, all goes smoothly. Tahsildars imitate the example of their superior officer, Local Board Members are roused to activity, and committees put forth fresh efforts to increase numbers and secure attendance. The duties of District Officers towards education have been repeatedly insisted on by the Chief Commissioner in the Reviews of Annual Educational Reports and in Circulars, and in 1893 the duties of Tahsildars were formulated with precision \* \* \*. It would be invidious in this report to mention District Officers whose attitude towards education has been everything that the Administration desire, but it is permissible to say that this helpful attitude is not universal, and, notwithstanding all that has been done to bring home to Tahsildars their responsibility in this respect, instances are by no means rare in which these officers discharge their educational duties in an unsatisfactory manner. Their inspections are often so hurried and perfunctory as to be merely nominal, and they sometimes make their influence felt by means repugnant to the people, and calculated to estrange them from the schools. Improvement, however, is visible in this respect among the younger generation of Tahsildars, many of them fresh from our colleges, who naturally value the educational system by which they themselves have profited. It will be seen, therefore, that the warning of the Government of India, contained in paragraph 5 of the Resolution under reference, is by no means unnecessary in these Provinces. What is wanted to secure the steady progress of education throughout the Province is for District Officers to bury their own ideas of the kind and extent of education suited to the people and loyally to assist in forwarding the system approved by the Administration. The District Officer is the main-spring of all local effort, and, in these Provinces at least, his attitude and example are sufficient to influence the whole series of controlling authorities from the Tahsildar to the newest member of the Local Board or Village School Committee.

In the Report for 1901-02, the Director says that the Deputy Commissioners, in spite of their multifarious duties and the heavy work which devolved upon them in connection with the famine, invariably did their best to encourage and promote education in their districts. With regard to Tahsildars the Director notices a marked increase in the number of visits paid in the Southern Circle, and an improvement all round in the Eastern Circle. He says that several of these officers worked hard to restore schools which had suffered in past years from the effect of famine.

102. ASSAM.—The views of the late Chief Commissioner of Assam are expressed in the following extract from a letter dated the 17th August 1900:—

It is very desirable that District Officers should interest themselves in the cause of education, and no doubt successful administration depends very much on the degree of interest they may show, but it is not necessary for this purpose that, in addition to their multifarious ordinary functions, they should be required to undertake the systematic inspection of primary

schools. Such work ought not, in Mr. Cotton's opinion, to be placed in the same category of duties as the inspection of jails, police stations, distilleries, tahsil offices, or tea gardens. Every active District and Sub-divisional Officer will be ready to encourage by inspection the *pathsala*, or village school, in the vicinity of his camp, but he cannot, without detriment to more important work, undertake duties for which a special and separate inspecting agency is provided. These officers should certainly show on every possible occasion and in every practical manner that they are anxious to encourage and foster the diffusion of purely primary education, but the Chief Commissioner considers that it would be a mistake to issue general orders insisting on their more systematic inspection of primary schools.

103. **BERAR.**—In a report, dated the 24th August 1900, the Director stated that the statistics of inspection by Civil officers exhibit a satisfactory interest in the schools, although some districts are not so well off in this respect as others. He says that all officers of the Department testify to the great benefit conferred on the schools by frequent visits from the District Officers.

### Local Board and Municipal Management.

General character of Local Self-Government institutions.

104. The statistics given at the beginning of this Chapter show that the Local Self-Government institutions, which in their present form are the outcome of the policy of Lord Ripon's Government, play an important part in the general system of public instruction. The powers and duties of these local corporations are laid down in a number of Acts of the Supreme and the Local legislatures, and by orders of the Local Governments issued under the powers conferred on them by those Acts. The institutions may be divided into two main classes: the Municipal Boards, Committees, or Councils who manage the affairs of the towns, and the Local Boards or Councils whose jurisdiction extends over rural areas. In most provinces the general system of rural boards comprises District Boards with authority over a district, and subordinate boards to whom they delegate certain powers and functions for smaller areas contained within the district. In the more advanced parts of the country the Municipal Boards have been allowed a large measure of independence and usually have a non-official Chairman. In rural areas, where the capacity for self-government is less developed, a smaller degree of independence has in general been conferred, and the District Magistrate is usually the Chairman of the Board. There are two principal aspects of the relationship of Municipal and Local Boards towards education—that of control and that of finance; the former is the subject matter of the present section.

Functions of Local Self-Government institutions towards education.

105. Speaking generally the first duty of Local and Municipal Boards is towards primary education, and in several provinces precise rules are laid down as to the proportion of the income of the Corporation which must be devoted to this object, or it is provided that until the due claims of primary education are satisfied money may not be spent on secondary education. But the functions of the Local, and still more of the Municipal, Boards are not confined to primary education. In accordance with the general Local Self-Government policy the maintenance and conduct of secondary schools has in a large measure devolved on Municipal and Local Boards, and the former have control of a few of the colleges.

Statistics.

106. At the end of 1901-02 the Municipal institutions comprised 5 arts colleges, 1 law class, 298 secondary schools, 1,558 primary schools, 1 training school for mistresses, 7 technical and industrial schools, 1 commercial school, and 6 miscellaneous schools. At the end of the same year the Local Board institutions were as follows:—752 secondary schools, 15,300 primary schools, 17 training schools, 1 medical school, 9 technical and industrial schools, 1 agricultural school, and 3 miscellaneous schools. Municipalities and Local Boards also contributed 21 lakhs out of the total of 46 lakhs granted from public funds in aid of private institutions.

Powers of local bodies and the exercise of Government control.

107. The powers of the Local and Municipal Boards and the nature and extent of the Government control exercised over them are defined by the various Local Board and Municipal Acts, by rules framed under the Acts, and by the Provincial Education Codes. Speaking generally the Board schools are

open to departmental inspection, and are required to conform to the general regulations for public schools regarding management, curriculum, standards, buildings and equipment, fees, etc., etc. In granting aid to private institutions the Boards are also required to observe the standing grant-in-aid regulations of the Local Governments. The following analysis will show that, subject to these general remarks, the powers entrusted to the Boards and the authority exercised over them by the Government vary considerably from province to province.

108. MADRAS.—Subject to a number of orders which have been passed on various special points, the general control of Municipal and Local Board schools is vested in the local authorities. They have the administrative control of all schools maintained from their respective funds, but they are required to consult the officers of the Education Department. In respect of their relations to institutions under private management, they are the sanctioning authorities in the matter of grants-in-aid. The Government exercises a considerable measure of general control through the annual budgets of the local bodies which, under the Acts applying to them, require the sanction of the Government, and grants are made to the local bodies for educational purposes on the recommendation of the officers of the department. The following are some of the more important rules which regulate the duties of the local bodies and the control of the department. First, with regard to Local Boards. No new school, other than an elementary school, may be established by a Board without Government sanction; but Boards may aid, or seek aid for, any school without special sanction. All applications for sanction to the establishment of new schools, other than elementary schools, or for any educational outlay in addition to that sanctioned in the budget for the year, must be submitted to Government through the Director after the local educational officers have had an opportunity of expressing an opinion on the proposal. Boards may close or transfer any school without the sanction of the Government, provided that at least three months' notice of their intention is given to the Inspector of the Division to allow, if necessary, of a representation on the subject being made to the Government. Local Boards must, as far as practicable, employ qualified teachers in their schools, and must generally administer them according to the principles of management adopted for State schools. It is the duty of the President of the District Board to consult the Inspector of the Division before nominating educational officers. It is provided in the rules framed under the District Municipalities Act that the Chairman of the Municipal Council should consult the appropriate officer of the Education Department before appointing masters to the various classes of colleges and schools, and before appointing inspecting school-masters, and that the same procedure should be followed before making promotions.

109. BOMBAY.—There is a marked difference in the system followed in towns and rural areas. Local Boards are concerned mainly with establishing, maintaining, transferring and closing schools. The administration of the schools themselves as regards teaching and discipline, the appointment, punishment and dismissal of masters, the fixing and payment of the salaries and pension contributions of masters, and the grant of leave of absence is conducted by the Education Department. The amount of the grant-in-aid to be given to a private school which a Local Board determines to assist is fixed by the Department according to the general Government rules. Under Section 58 of the Bombay District Municipalities Act, the management, control, and administration of Municipal schools vests in the Municipality, provided that the Local Government must prescribe the extent of the independent authority of the Municipality and its relations with the Education Department. The rules framed by the Local Government under this section leave to the Municipalities a large measure of independence in the control of educational matters. It is, however, provided that the principles and system of school management, the course of instruction to be followed, and the rates of salary to be given to the various grades of teachers, shall be in accordance with the general regulations of the Education Department. Various financial rules are laid down, and where qualified teachers are available, no unqualified person may be appointed on a salary of more than R10 a month. Subject to this condition, the appointment, dismissal, etc., of teachers rests with the Municipality.

110. BENGAL.—Section 62 of the Bengal Local Self-Government Act confers on Local Boards (subject to the general powers of control exercised by the Local Government) the functions of the construction and repair of school buildings, the appointment of masters and assistant masters, and the payment of salaries. The rules made by the Local Government under the Act confer the following additional powers :—

- (1) of deciding, subject to the sanction of the Department, where new schools shall be opened and the manner in which accommodation shall be provided;
- (2) of transferring or closing existing schools;
- (3) of fixing the class and standard of instruction;
- (4) of fixing, within limitations, the rate of fees.

The Board is required to notify to the Inspector all schools opened or closed, and all appointments of teachers on Rs 10 a month or upwards. Section 65 of the Bengal Local Self-Government Act empowers the Lieutenant-Governor to transfer funds to District Boards for the improvement of primary schools under private management, and the Board is then responsible for the proper distribution of the grants. Rules have been made to guide the Boards in the performance of this duty, and they are required to consult the Inspector before disposing of applications for grants, and in various other circumstances. Sections 32 and 69 of the Bengal Municipal Act confer a wide authority on Municipal Committees in respect of education, but the Municipalities of Bengal only maintain 17 schools for general education, and they exercise little executive control over the schools aided by them. The annual allotment for instruction is distributed by the Municipal authorities in consultation with the Deputy Inspector of Schools.

111. UNITED PROVINCES.—The Local Self-Government system which has hitherto prevailed in the United Provinces differs from that of the three older provinces in the circumstance that the Local Boards have very little financial independence; the administration of local expenditure on education in rural areas is therefore more directly within the authority of the Government than in the other provinces referred to. Local Boards exercise, however, a considerable measure of control over vernacular schools, both primary and middle. They appoint the Deputy and Sub-Deputy Inspectors and the school teachers, they allocate the schools, they establish and maintain boarding-houses, and they regulate scholarships and hold endowments. In purely tutorial matters the orders of the Director of Public Instruction are final, and a reference to the departmental authorities is required before any middle school is opened or closed. The general powers of Municipalities are greater than those of Local Boards, and they are exercised with much greater financial independence. Rules are laid down regarding the qualifications of teachers appointed to Municipal schools, and the Local Government declared in orders issued in 1900 that, wherever it can reasonably be required, compliance on the part of an aided school with these rules should be treated as a condition precedent to the continuance of a Municipal grant-in-aid.

112. PUNJAB.—Statistics given in an earlier section of this chapter show that the devolution of schools to local bodies has been very complete in the Punjab. The Punjab Education Code lays down numerous detailed rules to be followed by Local and Municipal Boards in the management of, and grant of aid to, schools. Local bodies are authorized to appoint school teachers, subject to the observance of rules relating to their qualifications and rates of salary. They may also punish and dismiss teachers, provided that a reference must be made to the Deputy Commissioner in certain cases. Some members of the establishment of local schools were in direct Government employ before the localization of schools, and separate rules are prescribed for this portion of the staff. Rules are also laid down regarding buildings and equipment, internal economy, fees and various other matters.

113. BURMA.—In the towns of Lower Burma the general control of educational affairs is entrusted to the Municipal Committees. It is stated in the Code that: "It is not intended that Municipal Committees shall relieve educational officers of duties for which they have been specially trained and appointed; but

committees are in the best position to judge of local feeling and local wants, and it is for them to represent these in the practical educational administration."\*

In Municipal schools the scale of establishment is determined by the Committee, subject to the standing orders of the Department. The grade of the school is fixed by the Department, according to the standard of instruction and the teaching staff maintained. All teachers are appointed by the Committee, subject to the rules of the Department; but, where the salary of the teacher is Rs 50 a month and upwards, the appointment is subject to the approval of the Director. The promotion and dismissal of teachers rests with the Committee, except in the case of Government officers whose services have been lent to a Municipality. The fee rates are prescribed. The recognition and aid of indigenous and other schools are regulated by the standing grant-in-aid rules. The selection of indigenous schools for aid in the form of salary grants for certificated teachers is made by the Director, and the refusal of aid to, or withdrawal of aid from, any school on other than financial grounds is subject to his approval.

114. CENTRAL PROVINCES.—Detailed rules have been laid down for the management of the District Council schools. No school may be opened or closed without the sanction of the Inspector and of the Deputy Commissioner. The rules laid down in the Education Manual regarding general management, curricula, text books, discipline, and moral and physical training as applicable to Government schools, apply equally to District Council schools. Subject to revision by the Deputy Commissioner, the appointment, promotion, transfer within the district, grant of leave of absence, punishment, and dismissal of teachers rests with the Council. Without the written permission of the Inspector, or as a purely temporary measure, no person may be appointed to be a teacher unless he holds the required qualifying certificate. Subject to appeal to the District Council, whose decision (subject to revision by the Deputy Commissioner) is final, the Deputy Inspector may fine and suspend within limits. The Director and Inspector have power to fine, suspend or reduce a teacher and the Director may also dismiss. The Inspector may transfer a teacher within the district and the Director may transfer to another district. Such transfers are made by, or in communication with, the District Council. The annual budget of the Council is considered along with a statement of the requirements of the schools of the district prepared by the Deputy Inspector. The regulations prescribed for Municipal schools are less detailed. No such school may be closed, nor may the gross expenditure of the Municipality be reduced, without the sanction of the Chief Commissioner. The general rules regarding management, curricula, etc., are similar to those prevailing in public schools generally. All Municipalities have voluntarily surrendered to the Department the power of appointment and transfer of masters in the English middle schools under their management. It is said that this change has improved the prospects of Municipal school-masters and the general tone of instruction in the schools.

115. District and Municipal Boards manage their educational affairs both directly and through the agency of the subordinate Local Boards (in rural areas) and of special educational committees.

Method of  
management  
by Local and  
Municipal  
Boards.

116. In MADRAS, where the system of rural Local Self-Government has attained the fullest development, there are three classes of Local Boards: The District Boards, the *Taluk* Boards and the Union *Panchayats*. The area under a *Taluk* Board is usually conterminous with an administrative division of the district. Important villages and groups of villages are in many cases formed into Unions for which *Panchayats* are appointed under the control of the *Taluk* Boards. District Boards are empowered to hand over the control of any school to the Board of the *Taluk* in which the school is situated, and similarly *Taluk* Boards may make over schools to Unions with the consent of the *Panchayat*.

117. In BOMBAY there are two grades of Boards, District and *Taluka* Boards. The powers of the *Taluka* Boards with regard to education are laid down in the Code of rules framed by the Local Government. Their powers extend to the opening, transfer and abolition of schools; the determination of the class of

\* Burma Education Code, 1901, Chapter II, Section 14.

school; the standard of teaching; fees; and free students. The Director quotes from one of the Inspectors as follows: "Every Local Board School has a Committee of its own, consisting of village officers and a few leading gentlemen of the village. The members of these School Committees have to give periodical visits to these schools under the orders of the Collector. These Committees are useful in supervising the regular working of the schools and in collecting contributions for buildings and improving the attendance." Another Inspector, on the other hand, says that the school *Panches*, which are elected in many villages of the Central Division, do not, taken all round, render any very effective assistance. Under section 28 of the Bombay District Municipalities Act of 1901, the Municipality may appoint a School Committee for the management of Municipal schools and the conduct of business in respect of aided institutions.

118. Under the BENGAL Local Self-Government Act of 1885, which has now been extended to all the districts in Bengal except the Sonthal Parganas, Singhbhum, Darjeeling, the Chittagong Hill Tracts, and Angul, the District Boards have general control over education outside the towns. The subordinate Local Board system prevails in 54 out of the 42 districts in which there are District Boards. The Union *Panchayat* system was also started in 1895-96 as an experimental measure. The experiment has not been very successful and only 56 such Unions were in existence in 1901-02. Every District Board has a Committee for dealing with education of which the Deputy Inspector of Schools is always a member. District Boards may transfer the management, control, or supervision of any school to a subordinate Local Board, retaining however a general power of supervision and control. Under this authority, subordinate Local Boards are in some districts entrusted with educational powers, chiefly relating to primary education. In the district of Bankura in the Burdwan Division, primary education is entirely in the hands of the subordinate Local Boards. They sanction stipends to primary schools, appoint, dismiss and grant leave to guru instructors, appoint centres of lower primary examination, issue pass certificates, and sanction the appointment of teachers in primary schools. As the Deputy Inspector is not a member of the Local Boards, there is frequent difference of opinion between him and these bodies, the members of which are jealous of his interference. Section 112 of the Bengal Local Government Act empowers Union Committees to maintain and manage all primary schools within the Union. Before the days of Local Self-Government the Bengal schools were under the general administration of District Councils of Public Instruction, composed of official and non-official members. Such Committees still exist in the Sonthal Parganas and Singhbhum. The Sonthal Parganas Committee met twice during 1901-02; the Singhbhum Committee has not met for ten years. Another form of educational committee, which exists in Bengal is the Joint Committee which the Lieutenant-Governor may appoint for the maintenance and management of any high English school situated within a Municipality. The Committee consists partly of members delegated by the District Board. The Barisal, Howrah and Monghyr Government high schools are under Joint Committees.

119. In the UNITED PROVINCES, the subordinate Local Boards have hitherto played a very small part in the administration of local affairs, and educational business is usually transacted directly by the District Boards and the Municipalities. In the PUNJAB subordinate Local Boards have been constituted in 11 out of 27 districts. Local bodies, both Municipal and rural, may delegate to any body, constituted out of themselves or subordinate to them, any of the duties in regard to any school or class of schools under their control. In rural areas the subordinate Local Boards are, in general, entrusted only with matters of minor importance such as the grant of, or the submission of recommendations for, leave, and the conduct of petty repairs. Every Municipality has its education Sub-committee which transacts minor business and lays more important matters before the general Committee. In the CENTRAL PROVINCES, the District Council is required to entrust the supervision of education within the district to a School Board consisting of certain of its own members who take special interest in education, and, if the Council thinks fit, of other persons likely to give useful advice and assistance in the management of schools. The names of the members are submitted to the Deputy Commissioner who may veto any appointment. All questions relating to teachers in the schools are, in



the first instance, decided by the School Board. The proceedings of the School Board are laid before the District Council and any member may raise a question as to the action taken by the Board. District Councils have been constituted in every district except that of Mandla and there are Local Boards subordinate to each Council. Subject to the control of the District Council, the subordinate Local Boards appoint School Committees, consisting of not less than five residents of the area for which the school has been established. The School Committee is required to visit the school collectively at least once a month, and a record of their proceedings is made in a book kept for the purpose. One of the members must visit the school at least once a week. The School Committee is required to take all possible measures to secure regularity of attendance, settle matters of discipline, and arrange questions connected with fees and free scholars. They are also required to bring irregularities connected with the management of the school, the want of suitable accommodation or equipment, the necessity for repairs, etc., to the notice of the Local Board. The Committee may grant casual leave to school-masters. Committees are also appointed for Municipal schools. Their appointment, powers, and functions are governed by the same rules as are laid down for the School Committees of District Council schools. In ASSAM Local Boards are constituted for the sub-division and not for the district. There is one for each plains sub-division, and in tea districts some of the non-official members are planters. The conduct of educational business lies in the hands of these Local Boards.

120. In criticising the educational administration of Local and Municipal Boards it must be borne in mind that the resources at their disposal have hitherto been slender. It cannot be denied that their administration has sometimes been marred by serious blemishes, but at the same time it may readily be admitted that they have done much good and useful work in popularizing education and extending educational facilities. The accusation most commonly brought against them is that they are apt to devote an undue amount of attention to secondary education and to neglect the instruction of the children of the poorer classes. They are also said to be sometimes lacking in zeal and interest, and to be dilatory and unpractical in the conduct of business. Their bestowal of patronage is occasionally open to adverse remark. The following comments on the educational work of the Boards during the year 1901-02 are derived from the Local Board and Municipal Administration Reports of the Local Governments, and from the Education Reports of the Directors of Public Instruction:—

Criticism of  
Local Board  
and Muni-  
cipal  
management.

121. MADRAS.—It is stated in the Municipal and Local Board Reports that the general work of District, *Taluk* and Municipal Boards was on the whole satisfactory. In the matter of education stress was laid on the considerable number of unqualified teachers in schools maintained and aided by the Boards; in non-Municipal schools the number of these unqualified teachers showed an increase.

122. BOMBAY.—The following quotations are from the Director's Report:—

The administration of (primary) schools, at least by the smaller Municipalities, is not altogether satisfactory. The Inspector of the Central Division says that although they are bound by law to observe the rules of the department, and although they generally consult and are guided by officers of the department, yet in matters of expenditure and patronage their action often leaves much to be desired. Masters often make *khatpat* with Municipal Commissioners to obtain pay for which in Local Board schools they would have to wait some years; and with one or two exceptions Municipalities are content to have their schools in hired private houses quite unsuitable for the purpose.

It is satisfactory to note that the proportion of trained to untrained masters in Board and Municipal schools is steadily rising, and the improvement in the quality of the work fully justifies the expenditure on the training colleges. The Inspector in Sind complains that the Municipal Commissioners at present regard schools "merely as convenient places for obtaining remunerative employment or promotion for their friends and clients."

123. BENGAL.—The Director states that "all the District Boards worked generally in harmony with the department. The suggestions of the Deputy Inspector, who is an *ex-officio* member of the District Board, were, in all important educational matters, duly considered and in most cases adopted. Complaints about the dilatoriness of District Boards in despatching business were not altogether absent, though they were few in number." In the Local

\* i.e., Subordinate Boards.

Boards Report it is said that "when Local Boards\* have been given charge of primary education, difficulties have arisen, and in the opinion of the



Lieutenant-Governor it would be well for District Boards to keep the control of this department in their own hands." The Municipal Report complains that adequate provision is not made for primary education in towns.

124. UNITED PROVINCES.—The Local Boards Report records a considerable improvement in the conduct of educational affairs during the year, and notices with special approval the extension of the grant-in-aid system in a large number of districts. Another satisfactory feature of the year's work is said to be the increasing interest which appears to be taken in female education. The report goes on to say that "it is noticed with satisfaction that the divisional reviews are generally more laudatory as to the part which has been played by the members of the Boards in educational work throughout the year; and the Government trusts that the important schemes which are now being carried out, with the special financial assistance of the Government of India, will be adequately supported by the influence of the members of the various Boards."

It is stated in the Municipal Report that not only was the total expenditure on education higher, "but it was, in a large number of cases, more judiciously allotted, the grants for primary education being increased. A further advance in this direction will be looked for during the current and ensuing years; and it is trusted that the Government will no longer be under the necessity of reproving Boards for adopting a policy under which secondary education receives the major part of the total educational allotment, and the education of the children of the poorer classes is neglected."

125. PUNJAB.—The Director gives a detailed criticism of the management of Local and Municipal Boards in the different educational circles of the province. With regard to Local Boards he observes as follows:—

At the close of the year there were 1,695 schools against 1,665 in 1896-97 under the management of the District Boards. In the Delhi Circle the schools in the Rohtak District continue to be efficiently managed. There is room for improvement, specially in Delhi, Gurgaon, and Karnal; in the last district the salaries of teachers were not regularly paid. In all districts of the Jullundur Circle, except Kangra, school and boarding-house accommodation is insufficient, and the supply of furniture and appliances is not well looked after. The Lahore Inspector observes:—"It is to be regretted that the District Inspector is not always properly listened to by the officer entrusted with the charge of education by the Deputy Commissioners, with the result that the educational work is hampered." School buildings and wants of schools have been neglected in all the three districts of the Circle, and a general deterioration has taken place in Amritsar. In the Rawalpindi Circle the management of these schools has been satisfactory on the whole, but not in the Rawalpindi District, where the suggestions of Inspecting Officers have little weight, and in the Gujranwala District, where prompt action is not taken on important questions. Throughout the Circle boarding-houses are wanted for most of the secondary schools in addition to a better qualified staff of assistant teachers.

He also makes the following remarks with regard to Municipal management:—

At the close of the year there were 300 schools under the Municipal Committees against 304 in 1896-97. In the Delhi Circle matters have improved in Hissar, Rohtak, and Umballa Districts; but the Committees at Hansi, Gohana, Rewari, Jagadhri, and Rupar have more or less neglected their schools, and the Delhi Municipality has been specially slow in introducing improvements which entail any additional expenditure. The Ferozepore Committee is very dilatory, and that at Dharamkot has assumed an unsympathetic attitude towards the middle school there. In the Jullundur Circle the management of the Committees is generally satisfactory, while that of the Municipal Board schools in the Gurdaspur District is somewhat improved. The Inspector, however, remarks: "The Ludhiana Municipal Committee disregarded the recommendations of the Inspector in the appointment and promotion of certain teachers, and that of Phillour set aside the well-considered recommendation of that officer in appointing an inexperienced head-master in whom the Talsildar, who happened to be the President of the Committee, was interested. The Jullundur Municipality has not yet constructed a proper school building and a boarding-house, though there was money for it." There are signs of retrogression in the Lahore Circle. The schools under the Amritsar Municipality are no longer so well looked after as they were some years ago. In the Lahore District the Municipal Committees are not so liberal as they used to be, and the Qasur Committee is much to blame for the unsatisfactory state of its high school. The management of the M. B. high school, Montgomery, is defective in many respects. The Inspector remarks: "It is to be regretted that in some instances, as at Qasur and Kamalia, the interests of education are sacrificed on the altar of individual considerations or caprice, which often stand in the way of selecting properly qualified teachers, and for an individual member to interfere with the internal management of a school is not unknown." There is considerable room for improvement in the management of Municipal Board schools in the Rawalpindi Circle. The Municipal Committees of Rawalpindi and Jhelum do not take sufficient interest in their schools; the management of all the Committees in the Shahpur District, *viz.*, Bhera,

Khushab, Miani, and Sahiwal, is unsatisfactory, notably the last, where nothing was done to supply the urgent wants of the school, though the income from fees exceeded the expenditure on staff and contingencies.

126. CENTRAL PROVINCES.—The Director says that District Councils have generally worked in harmony with the Department, and have, with few exceptions, cordially met and carried out the suggestions of educational officers. The educational work of the Municipalities has also been, on the whole, satisfactory. The main defect in most English Municipal schools is the lack of adequate accommodation to meet the increasing demand for English education. The Director records the following observations regarding School Committees and subordinate Local Board members :—

The School Committee is one of the most important factors in our educational system. Its co-operation is chiefly required in enlisting boys, securing regular attendance, levying and recovering fees, and maintaining discipline. They are sometimes entrusted with the work of construction of, and repairs to, school-buildings, the purchase of furniture, etc. In respect of the erection of school-buildings, the District Councils generally employ contractors, whose honesty is not of a high order. The buildings erected by them, as often as not, collapse a few months after erection, and I have urged District Councils to entrust the work of the erection of, and repairs to, school-buildings to School Committees as far as practicable. School Committees, in my experience, do the work more efficiently and at a cheaper rate than contractors. On the whole, these bodies have done much useful work in the furtherance of primary education, especially in the Bilaspur District, in which they are reported to have started, of their motion, as many as 25 schools.

The sympathies of Local Board members do not, as a rule, extend beyond the schools in their own villages. Their visits to schools in the local area are few and ineffective. As, however, education extends from the larger towns to the villages, and Local Board members become more enlightened, they will, doubtless, begin to appreciate the importance of educating others.

### Native States.

127. The general subject of education in Native States does not come within the scope of the present Review. The various large States have their own educational institutions and departments, and in some of the more advanced States great attention is paid to this branch of the administration. In some instances the States have, in a greater or lesser degree, taken advantage of the inspecting or directing agency of the Province with which they are connected, and the returns of the institutions in those States are incorporated in the statistics prepared by the Directors of Public Instruction on which the figures contained in this Review are based. This occurs in the Native States under the political supervision of the Government of Bombay; in the Feudatory States of the Central Provinces; and in the Tributary States of Orissa in Bengal. One secondary school in a Native State in the Madras Presidency is included in the returns, and also some schools in Cooch Behar and some schools (classed as Native State schools) in Chota Nagpur. The total number of educational institutions maintained by the Native States enumerated above amounted in 1901-02 to 3,610, and the number of pupils in them to over 164,000. Of this total, 2,400 institutions and 135,000 pupils belonged to the Bombay States, 293 institutions and 14,769 pupils to the Central Provinces States, and 918 institutions and 14,618 pupils to the Orissa and other Bengal States.

128. There are a large number of States under the political supervision of the Government of BOMBAY of varying size and importance. Their total area (including the settlement of Aden) is 66,000 square miles and their total population 7 million persons. The educational institutions maintained by the States in 1901-02 were as follows: 3 colleges, 116 secondary schools, 2,274 primary schools, and 5 special schools. The three colleges are the Rajaram College at Kolhapur, the Smaldas College at Bhavnagar, and the Bahauddin College at Junagadh. The last named was founded during the quinquennium under review. Secondary schools increased by 11 during the quinquennium, and primary schools diminished by 72 and special schools by 4. The primary schools were affected by the adverse conditions which prevailed throughout the Presidency. The total number of pupils diminished by nearly 19,000. The States usually follow the Government system of administration. The first and second class States in Kathiawar employ their own Inspectors, whilst the smaller States as a rule place their schools under the supervision of the Government staff. The minor States of Kathiawar are

administered by an educational officer of the Political Agency. The change in system in Kathiawar which took place during the quinquennium has already been noticed. In the Report for 1901-02 the Director makes the following remarks on education in Kathiawar:—

There was actual famine in the Province from 1899-1901, upon which cholera and fever supervened. This affected education adversely, but there has been improvement in the last year. In the five years under review the number of institutions has fallen by 6 per cent., and that of pupils by 2 per cent., but in the worst times the attendance of girls has risen and that of boys has fallen. There is at present in Kathiawar one school for boys to every  $3\frac{1}{2}$  villages, and for girls about four schools to every hundred villages. On the whole there has been during the last ten years a satisfactory rise in the proportion of pupils to population, in spite of occasional fluctuations due to unfavourable circumstances. In primary schools Muhammadans appear in excess of their proportion to the total population, and though the same cannot be said of them in regard to secondary schools and colleges, yet during the last five years the proportion in arts colleges has risen from 1.96 to 4.2, and in secondary schools from 5.57 to 5.97. Muhammadans are specially favoured in the matter of free studentships, and at the Mohobat Madrassah in the Muhammadan State of Junagadh secondary education is given to them quite free. As in British; so in Native territory, the number of Native Christians has greatly increased. They do not get beyond the secondary school, and none of them attend special schools. English and Eurasian pupils in Kathiawar are mostly the children of Railway employés. Provision is made for the training of masters and mistresses, and the leading States are anxious to have properly qualified teachers in their schools. The authorities are on their guard against the feminine tendency to overdo things. It was found that the young ladies who were qualifying themselves to be teachers worked too hard and ate too little, and I read with interest that "in the Barton Female Training College Hostel the boarders are now weighed at the beginning of each month and a record is kept of their weights. Those who lose in weight are compelled to take extra nourishing food until they recover their original weight." It would be well if a similar regard to health could be enforced in all the schools and colleges in India. I am convinced by experience that nine-tenths of the sickness and weakness of college students might be prevented by a very little common sense and care. Except in Gondal, where His Highness the Thakore Sahib has built a new high school and a college for his Girasias, indirect expenditure, not only on buildings, but on furniture and appliances, has declined. The average cost of educating pupils has increased. The cost of inspection has increased, because the leading States have now each to organise an inspecting staff of its own. There has been a very great increase in the expenditure on scholarships, especially for the pupils in primary schools. There are no professional colleges in the Province. The only two special schools are the training colleges. The industrial school at Vankaner has, as I have already stated, been closed.

Central  
Provinces.

129. There are 15 Feudatory States under the supervision or direct administration of the Chief Commissioner of the CENTRAL PROVINCES. They have an area of over 29,000 square miles and a population of nearly two million persons. In eleven of the States the inspection of schools is entrusted to the Agency Inspector, who is directly subordinate to the Political Agent. Of the remaining States, Sakti and Makrai have the services of the Deputy Inspectors of the Bilaspur and Hoshangabad Districts, respectively; Bamra has its own Director of Public Instruction; and Kanker makes its own arrangements for inspection. During the quinquennium, while the number of schools maintained by the States increased from 260 to 293 the number of pupils decreased from 14,839 to 14,769. Nine per cent. of the boys of school-going age were under instruction. The late Chief Commissioner, Mr. (now Sir Andrew) Fraser considered that progress during the quinquennium was satisfactory. His Resolution says:—

The number of pupils has remained practically stationary; but having regard to the severity of famine in some of the States, this can hardly be looked on as a matter for dis-appointment. The wild and inaccessible character of much of the country, the sparse population and the large proportion of aboriginals among the inhabitants, make progress a matter of peculiar difficulty. Added to these inherent disadvantages has been the scarcity of money, consequent on the presence of famine. One source of satisfaction is that there is every reason to believe that such progress as is shown has been real. Mr. Fraser has had the opportunity of visiting schools in the Feudatory States, and his inspection convinced him that they were not generally inferior to the rural schools in British territory. The buildings which he saw were cleanly and in good order, and discipline was well maintained.

Orissa.

130. The Tributary States of ORISSA have an area of over 14,000 square miles and a population of nearly 2 million persons. Figures for these States were not shown separately in the educational returns for 1896-97. In 1901-02 the States maintained 20 secondary schools, 860 primary schools and 10 special schools. These institutions as well as 374 private managed schools are under the general supervision of the Inspector of the Orissa Division.\*

\* The Bengal list of schools maintained by Native States includes also 13 Schools in Cooch Behar and 15 in Chota Nagpur.

### Private Agencies.

131. The main private agencies which assist the State in the control and management of educational institutions are the missionary societies, and various associations of native gentlemen formed for the promotion of education.

At a very early date the missionaries assumed an honourable and important position in the history of Indian education. In the days of Portuguese ascendancy on the Western Coast the Jesuit Fathers established a fairly wide system of education. When the scale turned in favour of British rule, the English missionaries were no less zealous. Although at first opposed by the authorities through fear of native hostility to missionary effort, they established a number of colleges and schools in which many pupils were instructed in the learning of the West, and some of which, such as the Christian College at Madras, the Wilson College at Bombay and the General Assembly's Institution at Calcutta, remain to the present day among the most important educational institutions of the country. Missionary societies of all denominations have contributed to the work, and at the present day missions connected with the Church of England, with the Roman Catholic Church, with the Church of Scotland, with the Free Church, with the Wesleyans, with the Lutherans, with the Baptists, and with other sects, have their schools for the instruction of Indian youth. The list includes American and Continental as well as English missions. In many parts of India missionary effort has been directed specially towards the aboriginal races, and a large number of the mission schools are therefore for children who are without the Hindu pale. To take one among many instances, missionary bodies are the chief promoters of education among the tribes of the hill districts of Assam. The missionaries have also paid special attention to the education of girls, and some account of their efforts in this direction will be found in the Chapter on Female Education. The mission institutions are in general open to all pupils of whatever race or creed, and, in conformity with the general principle of religious neutrality which is maintained by the Government, they are eligible for Government aid if they give secular instruction conforming to the departmental regulations. Unfortunately there are, in most provinces, no available statistics regarding the mission institutions and their pupils, and it is not therefore possible to give an account of the work of the mission societies as it stands at the present time. Some idea of their educational activity may be derived from the circumstance that in 1901-02 they maintained about 40 colleges affiliated to the Indian Universities. In Madras, where missionaries have perhaps exerted a greater influence on education than in any other part of India, the mission institutions numbered 3,778 at the end of 1901-02—more than one quarter of the total number of private managed institutions included in the public list of the province. The following table which compares the number of public institutions in the Madras Presidency of different grades and classes which were under mission and other private management is of great interest:—

Grade or class of Institution.	Mission management.	Non-mission management.
Arts colleges . . . . .	22	11
Secondary schools for boys . . . . .	182	208
Ditto for girls . . . . .	135	13
Primary schools for boys . . . . .	3,016	13,371
Ditto for girls . . . . .	371	281
Training schools for teachers . . . . .	24	...
Other special schools . . . . .	28	18
TOTAL . . . . .	3,778	13,902

132. There is also little information available regarding the native associations which assist in the maintenance and control of public education. From the time when the learned natives of Calcutta met at the house of Sir Hyde East to found an institution, which afterwards developed into the Presidency College, associations of native gentlemen have played a considerable part in the educational system.

Many of these associations have been founded for the promotion of education among a particular class or sect, and they have in general occupied themselves with colleges and secondary schools rather than with primary education. Of recent years associations of this character appear to have been more active in the Punjab than in the rest of India, and various Punjab religious societies have founded colleges and schools. Some of these institutions are very well conducted ; the Director, however, criticises the recently founded schools, saying that in most cases they are ill-housed and are provided with an inefficient staff and an insufficient equipment. The Punjab colleges founded by native sectarian societies, are the Dayanand Anglo-Vedic College, Lahore ; the Islamia College, Lahore ; the Hindu College, Delhi ; and the Khalsa College, Amritsar.

#### **Cost of Direction and Inspection.**

133. The total expenditure on Direction and Inspection during 1901-02 amounted to R25,45,000. In 1896-97 the corresponding figure was R24,37,000. Of the total for 1901-02 the expenditure on Direction was R3,92,000 and on Inspection R21,53,000. The distribution of the total by provinces and sources is shown in Table 27.

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### CHAPTER III.

## COLLEGIATE EDUCATION.

#### Collegiate Education before the incorporation of the Universities.

134. THERE are five Universities in British India situated at Calcutta, Madras, Bombay, Allahabad and Lahore. The first three were founded in 1857, the Punjab University in 1882, and the University of Allahabad in 1887. The earlier Indian Universities were modelled on the University of London, and their incorporation was one of the immediate results of the Education Despatch of 1854. But Indian collegiate education dates back many years before the foundation of the Universities, and it was the success of the early Indian colleges, and the facility with which their students acquired a higher education on western lines, which led the Government of India and the Court of Directors to believe that the founding of Universities would have a far reaching and wholesome influence on Indian education. Success of the early colleges.

135. The history of the early Indian colleges is one of special interest owing to the picture which it gives of the various agencies which created a system of higher education and the directions in which they tended. The earliest Indian colleges were founded at a time when the authorities favoured the oriental system of education, and they were designed for the encouragement of Hindu and Muhammadan learning. The earliest college of all was the Calcutta Madrassah, which was founded by Warren Hastings in 1782, and was for a time maintained at his expense with the aid of an endowment made by his friend, and former tutor, the Raja Nobkissen. The next Bengal College was the *Vidyalyaya* or Anglo-Indian College which was founded at Calcutta in the year 1817. The establishment of this institution illustrates the interest which the native gentlemen of Bengal had begun to take in English education. At a meeting of many of the learned natives of Calcutta held at the house of the Chief Justice, Sir Hyde East, it was resolved to found an institution for the education in English of the children of the higher castes; and the result was the establishment of the *Vidyalyaya*. Up to the middle of the nineteenth century there was no Government College in Calcutta for western education. In the year 1853 the Bengal Council of Education represented to the Government the need for a higher course of English education "open to all whether they happened to be Hindus of certain castes or not." The proposal was accepted, and in 1855 the Presidency College was opened and the Hindu *Vidyalyaya* was merged in it. In the year 1818 was established the first of the many Indian missionary colleges. It was founded at Serampore by the Baptist missionaries, Carey, Marshman, and Ward. The professed object of the institution was conversion, and to this end instruction in the tenets of Christianity was combined with the study of Sanskrit and Arabic literature. In 1820 a college was founded in Calcutta in honour of Bishop Middleton, the first Bishop in India. The institution was designed for the education of Christian youths, and was built and endowed from subscriptions raised in India. In 1824 the Bengal Committee of Public Instruction opened another oriental institution in Calcutta, named the Calcutta Sanskrit College. It was intended to give encouragement to Hindu learning similar to that which Muhammadans derived from Warren Hastings' Madrassah. It is worthy of note that Ram Mohun Roy, the founder of the Brahmo Samaj sect, and a numerous body of native memorialists, protested against the character of the institution, and asked that a college for the study of western learning might be established in its place. At a later date Sanskrit was abandoned as the medium of instruction in science and general knowledge, but the literary and philological study of the language was continued. Early colleges of Bengal.

The first Scottish Missionary College was established by Dr. Duff in Calcutta in the year 1830. It is known as the General Assembly's Institution of the Church of Scotland, and its object is to give literary, scientific and religious education through the medium of English. The Hooghly College (1836)

owed its foundation to the bequest of a wealthy Muhammadan gentleman of the Shiah sect, who died in the year 1806 and left a large estate to be devoted to pious uses. In 1816 the Government became trustees to this estate, the Mohsin Fund, and built and endowed the Hooghly College from a portion of the assets. The college comprised an English and an oriental department. Another missionary college was opened by the London Missionary Society at Bhowanipore in the suburbs of Calcutta in 1838. The division in the Scottish Church in 1843 led to the establishment of the Free Church Institution (called also the Duff College), while the General Assembly's Institution, temporarily closed in 1844, was re-opened in 1846. Three Government Colleges had been founded in the Bengal mofassal before the incorporation of the Calcutta University. The Dacca College was opened as a school by the General Committee of Public Instruction in 1835, and was raised to the status of a college in 1841. The Krishnagar College dates from 1845 and the Berhampore College from 1853. Three institutions for the education of European and Eurasian boys were affiliated to the Calcutta University at the time of its incorporation. The Doveton College, Calcutta, was attached to the Parental Academical Institution, a day and boarding school which was established in 1823 by a body of Christian parents who were anxious to secure for their children the benefits of a liberal education. A large bequest made to the institution by Captain John Doveton (an officer in the service of the Nizam of Hyderabad) enabled the Committee of Management to open a college department. The Martinière Institution, Calcutta, together with similar establishments at Lucknow and Lyons, were founded by General Claud Martin, a native of the last-named place, and an officer of the East India Company who entered the service of the King of Oudh. The school was opened in 1836. St. Paul's College was opened as a school in Calcutta in 1845; in 1863 it was transferred to Darjeeling in order to provide a good school for European children in the hills.

Early colleges  
of the United  
Provinces.

136. The second college established in British India was the Sanskrit College at Benares founded in the year 1791 by Mr. Jonathan Duncan, Resident of Benares. It was built and endowed from local resources and was designed to cultivate the literature and religion of the Hindus, and especially to supply qualified Hindu assistants to European Judges. For the first thirty years the college met with little success. Instruction was confined to the Sanskrit language and literature, only Hindus were admitted, and stipends were needed to attract pupils. Between the years 1844 and 1860 the college underwent a thorough reform under the principalship, first of Mr. John Muir, and afterwards of Dr. Ballantyne. English classes were opened and in time became the most important part of the institution. The Benares Sanskrit College classes still exist, and are held in the buildings of the Government Queen's College. Government collegiate schools were founded at Agra in 1822, at Delhi in 1824, and at Bareilly in 1827. The Agra and Delhi institutions gave from the outset a more practical course than the Benares College, and an English side was added at an early date and flourished; the system of stipends was then abandoned and fees were charged. The Agra College owes its foundation to the liberality of Ganga Dhar Sastri who, in 1818, bequeathed the rents of certain lands to the East India Company for the encouragement of education. The Delhi College was a more important institution. In olden times the capital of the Mughals was the seat of schools and colleges resorted to by students from all parts of the eastern world. These institutions decayed with the fall of the Empire. In 1792 an Oriental College, supported by private contributions from Muhammadan gentlemen, was founded at Delhi for the encouragement of Persian and Arabic studies, but it soon fell into poverty and neglect. When the Bengal Committee of Public Instruction was constituted in the year 1823, they felt that Delhi had special claims to their care, and they opened a collegiate school which in 1829 received a large bequest from Nawab Itmad-ud-Dowlah, the Prime Minister of the King of Oudh.

Early colleges  
of the Madras  
Presidency.

137. Higher education in the Madras Presidency began at a later date than in Bengal and from the outset was on a European basis. The present Presidency College was established in 1841 under the name of "the High School of the Madras University". This "University" was to consist of two Departments—



a college and a high school—and a number of provincial schools were to be connected with it by means of scholarships. The "University" was at first under the control of a governing body called the President and Governors of the Madras University. In 1845 the Madras Council of Education were entrusted with the control of the funds annually allotted by the Government for public instruction. Half of the sum of one lakh devoted to this purpose was apportioned to the "University" and the remainder to the establishment of public schools and the aid of private schools. The high school made good progress and collegiate classes were opened in 1853. The Madras Christian College and Free Church Institution was founded in 1837 by the Reverend John Anderson, the first Missionary of the Church of Scotland in Southern India. It was originally styled the "General Assembly's Institution," but as it remained in dependence on that section of the church which dissolved its connection with the State, it became known as the "Free Church of Scotland Missionary Institution". The College Department was not opened till 1865. In 1876 the basis of instruction was widened and other Christian bodies combined with the Free Church for its support; it then became known as the Madras Christian College. St. Joseph's College was founded in Negapatam in 1846 by the Jesuits of the Madura Mission. It was transferred to Trichinopoly in the year 1883.

138. In the Bombay Presidency the earliest colleges were of an oriental type. The Arabic College was founded at Surat in the year 1809 by Muhammadans of the Borah class. It had acquired considerable repute in 1824 and was then attended by 125 students, many of whom came from distant parts of the country. Thirty years later it still flourished, but it retained throughout its career a purely oriental type, and by the year 1880 it had fallen into complete decay. The Poona College, now called the Deccan College, was established for the encouragement of ancient learning by the Commissioner of the Deccan in 1821. A portion of the Dakshina Fund established by the Peshwas for the support of learned Hindus was utilized for the foundation of the college. The college had so small a measure of success that in 1823 it was proposed to abolish it. It was saved by Mountstuart Elphinstone. Afterwards the institution was remodelled; certain branches of Hindu learning were abandoned, the study of vernacular languages and English was introduced, and the college was opened to all classes. In 1851-52 the separate English and normal (vernacular) schools at Poona were amalgamated with the college, and thus was laid the foundation of the present Deccan College, which began its work in 1857 and was affiliated to the Bombay University in 1860. The Elphinstone or Presidency College had its origin in a fund raised in 1827 for the foundation of one or more professorships "to be denominated the Elphinstone Professorships, and to be held by gentlemen from Great Britain until the happy period arrive when natives shall be perfectly competent to hold them." Subscriptions were raised amounting to nearly four and-a-half lakhs, and the Court of Directors thereupon authorized the foundation of a college. The college was under the control of, and partly supported by, the Government of Bombay, but at first it did not flourish. In 1840 the college classes and the central schools of the Indian Education Society were united in one institution and placed under a Board of Education, and in 1856 the professorial element was again separated from the "Elphinstone Institution", and thereafter the Presidency College and the Elphinstone High School were maintained as separate establishments. The Wilson College, Bombay, originated in an English school for native youths founded by the Reverend John Wilson in the year 1834 and was at first dependent on local contributions. It was recognised by the Church of Scotland in 1835, and in 1843 passed under the control of the Free Church.

139. The above sketch of the early colleges shows that the main agencies which inaugurated and developed the system of higher education in India were the Government, the missionaries, and the enlightened among the educated natives who realized the advantages which their sons would derive from a good western education. At the outset the Government confined itself to the support of oriental studies, and it was left to the missionaries to show what could be done in the field of western education. But after the controversy between the Anglicists and the Orientalists was decided (in 1835) in favour of



English education, the Government began to found colleges of a western type, and its oriental colleges gradually assumed a more modern character. A number of the colleges originated as schools, and after the formation of collegiate classes one and the same institution continued to impart education from its primary to its higher stages, and "contained classes in which the alphabet was taught under the same roof with classes reading Shakespeare, the Calculus, Smith's Wealth of Nations, and the Ramayana."\* This combination of school and college in one establishment is still a characteristic of many Indian institutions.

Control of  
the pre-  
University  
colleges.

140. Before the incorporation of the Universities the various Government and aided colleges were under the supervision of the Councils or Committees of Education who were entrusted with the general control of public instruction in the three presidencies. The Committee which supervised public instruction in Bengal between 1823 and 1842 had a great influence on the development of higher education. It established several colleges; Government colleges and collegiate schools were under its direct control, and in general it guided the course of collegiate instruction. Although its members were at first Orientalists they gradually introduced European methods and English and vernacular instruction in the oriental institutions. When the Committee of Public Instruction gave way to the Council of Education a number of the Government colleges were removed from its superintendence, but several were afterwards restored to it. In 1843, after the formation of a separate administration for the North-Western Provinces, the colleges at Agra, Delhi and Benares were placed under the control of the Lieutenant-Governor. In Madras, the only Government institution for higher education which existed before the year 1857 was the so-called "Madras University." This institution was a high school rather than a college and was controlled by the Council of Education which was established in the year 1845. In Bombay, the Poona and Elphinstone Colleges were under the supervision of the Board of Education.

Examina-  
tions, fees, and  
scholarships.

141. The students of the Government colleges were examined by professors or other officers attached to the institution. The Government also held junior and senior scholarship examinations. In the senior examination a high level of attainment was required, and the complaint was afterwards made that the influence of this model induced the University authorities to fix the standard for the B. A. degree so high that very few of the under-graduates could pass the examination. Under the system inaugurated by Lord Auckland, the district high schools were connected with the central colleges "by attaching to the latter scholarships to which the best scholars of the former might be eligible." The students in Government oriental colleges received stipends, and a considerable portion of the funds devoted to higher education was absorbed in this way. In schools and colleges in which English and vernacular languages were taught the bulk of the students paid fees. This circumstance helped to open the eyes of the authorities to the undesirability of continuing a course of higher oriental education which was in so much less demand than a more modern system of instruction.

Employment-  
of students  
in the public  
service

142. From the outset there was a close connection between college education and Government service, and the hope that their sons would procure good posts under the Government operated as a strong motive in favour of that preference for English education which the educated natives of Calcutta displayed. In 1842, the Bengal Council of Education organized a fairly complete system of examinations with scholarships, both vernacular and English, for distinguished students, and endeavoured to provide that success in its examinations should directly lead to employment in the public service. In 1844, Lord Hardinge's Government issued a Resolution to facilitate and encourage the employment in Government service of persons educated in all classes of scholastic establishments. Returns of meritorious students were to be called for both from Government and other institutions, and lists of these students were to be printed and circulated among the Government offices. Situations were to be filled from these lists. The Resolution gave a great stimulus to English education, although, in the form in which they were issued, the regulations remained a dead letter.

\* Report of the Indian Education Commission, page 18.

143. In addition to the arts and oriental colleges several professional colleges had been established before the incorporation of the Universities. The Calcutta and Madras Medical Colleges were founded in the year 1835 for the training of subordinate medical officers. At about the same time medical classes were opened in the Poona College, in which European medical works were studied in conjunction with the more useful portions of the Sanskrit treatises which had originally formed the sole course of instruction. The Grant Medical College at Bombay was established in 1845 to impart medical instruction to the natives of the country. A large engineering college, the Thomason Civil Engineering College at Rurki, was founded in 1847 by Mr. Thomason, Lieutenant-Governor of the North-Western Provinces, for the purpose of giving theoretical and practical instruction in civil engineering to Europeans and Natives "with the view to their employment in the Public Works of India according to the requirements of the service and the qualifications of the candidates." In 1844 a class was added to the Elphinstone College, Bombay, for instruction in surveying and civil engineering, and a professor was specially engaged by the Court of Directors. No general system of higher legal instruction had been evolved before the incorporation of the Universities, and the University authorities found considerable difficulty in fixing the regulations and standards for the Legal Faculties. Examinations had, however, been held for legal practitioners and for the Subordinate Judicial Service, and some measure of legal instruction was given. In Bombay a subscription was raised in 1852 to found a professorship of jurisprudence as a memorial to Sir Thomas Erskine Perry, Chief Justice, who had been for nearly nine years President of the Board of Education.

Professional colleges.

### Inauguration of the Universities.

#### Calcutta, Madras, and Bombay.

144. In the year 1845 the Bengal Council of Education submitted a proposal for the establishment of a University at Calcutta on the model of the University of London. The Government of India supported the proposal, but the Court of Directors considered that it was premature. Nine years later, in the Despatch which organized the system of public instruction in India, they said as follows :—

Instructions of the Despatch of 1854.

The rapid spread of a liberal education among the natives of India since that time, the high attainments shown by the native candidates for Government scholarships, and by native students in private institutions, the success of the medical colleges, and the requirements of an increasing European and Anglo-Indian population, have led us to the conclusion that the time is now arrived for the establishment of universities in India, which may encourage a regular and liberal course of education by conferring academical degrees as evidences of attainments in the different branches of art and science, and by adding marks of honour for those who may desire to compete for honorary distinction.

The form, government, and functions of the London University were considered well adapted to the needs of India, and the Court of Directors decided that their model should be followed with such variations as might be necessary in points of detail. Each University was to consist of a Chancellor, Vice-Chancellor, and Fellows, constituting a Senate in which the general government was to be vested. The offices of Chancellor and Vice-Chancellor were to be filled by persons of high station who had shown an interest in the cause of education, and the Fellows were to include the Council or Board in which the administration of education had hitherto been vested, with additional members so selected as to give to all those who represented the different systems of education which would be carried on in the affiliated institutions a fair voice in the Senate. The function of the Universities was described as the conferring of degrees upon such persons, who, having entered as candidates according to the rules fixed in this respect and produced certificates of conduct and the pursuit of a regular course of study for a given time from an institution affiliated to the University, succeeded in passing at the University such an examination as might be required of them. The detailed regulations for the examination for degrees were to be framed with a due regard for all classes of affiliated institutions, and the standard for common degrees was to be such as to command respect without discouraging the efforts of deserving students. The standard for the senior Government scholarships was considered to be too high for the

purpose. For the examination for honours which, as in the London University, was to follow the examination for degrees, the Honourable Court said that such a standard was to be adopted as would afford a guarantee for high ability and valuable attainments. They also suggested the institution of professorships in connection with Universities for the purpose of the delivery of lectures in various branches of learning, for the acquisition of which, at any rate in an advanced degree, facilities did not exist in other institutions in India. They specially mentioned the subjects of law, civil engineering, and the vernacular and classical languages of India. The Government of India were directed to consider the institution of Universities on these principles at Calcutta and Bombay, and the Honourable Court expressed their willingness to sanction the creation of a similar University at Madras, or in any other part of India where a sufficient number of institutions might exist from which properly qualified candidates could be supplied. All such institutions might, they said, be affiliated to the Universities as were capable of supplying a sufficiently high order of instruction in different branches of art and science, and they named the Government and private institutions in the Bengal and Bombay Presidencies which, in their opinion, fulfilled this condition. Scholarships were to be attached to the affiliated institutions, and they were to be periodically visited by Government Inspectors.

Orders of the  
Government  
of India.

145. "In accordance with these directions the Government of India decided to establish Universities at Calcutta, Madras and Bombay, and appointed a Committee to work out the details of a scheme in accordance with the outline sketched by the Court of Directors. In order to secure uniformity in important matters of principle, the Governor General in Council directed that the Committee should frame a scheme for all three Universities. While recognising that local circumstances would necessitate modifications, the Government of India considered it essential that the legal status and authority of each University should be the same, and that at each Presidency town the same degree of acquirements in every branch of knowledge should entitle its possessor to the same kind of academical distinction and honour. The Court of Directors, to whom the Government of India reported their action, noticed these views with approval. The Committee was composed of the late Council of Education, with the addition of the gentlemen whom it was proposed to associate with them in the Senate of the Calcutta University, and the members of the Legislative Councils of Madras and Bombay. The Government of India suggested for the consideration of the Committee that two degrees should be granted in each of the subjects embraced in the design, namely, literature, science, law, civil engineering and medicine, and that students should have an opportunity of taking honours for each degree. They thought that one degree of the low standard contemplated by the Court of Directors would be of little value. They also left it to the Committee to consider what title should be assigned to the degrees, expressing a doubt whether it would be expedient to use the nomenclature which had from long usage become peculiar to the Universities of England. With regard to the question of University Professorships the Government of India said that the establishment of the General Presidency College rendered them unnecessary for Calcutta, but that there would be no objection to found such as might be required either at Madras or Bombay.

Report of the  
Committee  
for framing  
regulations.

146. "The Committee appointed under these orders confined themselves to the consideration of regulations for the holding of examinations and the conferring of degrees; and left aside, as without their province, matters relating to the constitution and government of the Universities. Sub-Committees were appointed to prepare regulations for each of the Faculties of Arts, Medicine, Law and Civil Engineering, and the schemes which they devised were submitted to the Governments of Bengal, Madras, Bombay and the United Provinces. After considering the criticisms made on the proposals, the Sub-Committees modified the draft rules and presented them to the General Committee. The latter made some alterations and then forwarded the scheme to the Government of India. Subject to remark on one or two points it was approved by the Governor General in Council and by the Court of Directors.

147. "The Government of India reviewed the proceedings of the Committee in a Resolution, dated the 12th December 1856. After approving the recommendations they proceeded to consider the steps to be taken for the speedy establishment of the proposed Universities. The draft of a Bill of Incorporation, which had been generally approved by the Governor General in Council, was placed in the hands of the Honourable Sir James Colville, Chief Justice of the Supreme Court in Bengal, who had been President of the Committee, and was afterwards first Vice-Chancellor of the Calcutta University, in order that he might take charge of it in the Legislative Council. In anticipation of the action of the legislature the Governor General in Council declared that the Governor General of India and the Governors of Madras and Bombay should be the Chancellors of the three Universities, and appointed the Vice-Chancellor and Members of the Senate of the Calcutta University. It was left to the Governors of Madras and Bombay to appoint the Vice-Chancellors and Fellows of these Universities. The newly appointed Calcutta Senate were directed to promulgate the rules proposed by the Committee and sanctioned by the Government of India, and to pass such other rules, and take such further measures, as might be necessary to give early and full effect to the scheme."\*

Subsequent  
measures.

148. The Acts incorporating the three Universities were all passed in the Council of the Governor General in the year 1857 and were similar in their terms. The preamble of each Act recites that in order to encourage the pursuit of a regular and liberal course of education, "it has been determined to establish a University at — 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."

Acts of  
Incorporation.

149. The spheres of influence of the Universities of Madras and Bombay included the corresponding presidencies and the Native States of Southern and Western India, respectively, whilst that of Calcutta extended over the rest of the Empire. Of the original Calcutta Colleges, five were situated in Calcutta and the remaining five in the province of Bengal, but before long Colleges were affiliated in many parts of India and in Ceylon.

Spheres of  
influence.

150. The Acts of Incorporation recited by name the degrees which the Universities might confer. It was afterwards found desirable to add others to the list, and in 1860 an Act was passed empowering the Senate of each University to grant such diplomas or licenses in respect to degrees as had been or might be approved by bye-law or regulation. In 1884 another Act was passed empowering the three Universities to confer the honorary degree of Doctor in the Faculty of Law.

Degree.

151. Immediately after its incorporation, the Calcutta Senate framed its bye-laws and its regulations for holding examinations and conferring degrees which were duly approved by the Governor General in Council. The regulations followed closely the scheme framed by the Committee. A similar course was followed by the Senates at Madras and Bombay. The bye-laws of these Universities followed the Calcutta model, and their regulations were based, with modifications, on the scheme of the Committee. The Calcutta University has kept its original bye-laws with few alterations, but in Madras and Bombay the bye-laws have been largely altered and expanded. The regulations have everywhere been the subject of frequent and important changes. The development of the three Universities has been in many respects on divergent lines, and the regulations and standards now differ largely both from the original model and from one another.

Bye-laws and  
regulations.

#### The Punjab University.

152. The Punjab University was incorporated by an Act of the Governor General in Council passed in the year 1882. It stands on a somewhat different footing from the other Universities. In the year 1869, in part fulfilment of the wishes of a large number of the Chiefs, nobles, and members of the influential classes of the Punjab, and with the aid of subscriptions contributed by them, an institution was established at Lahore, which was at first styled the Lahore

\* Report of the Indian Universities Commission, 1902.

University College and afterwards the Punjab University College. The special objects of the institution were declared to be to promote the diffusion of European science as far as possible through the medium of the vernacular languages of the Punjab, to improve and expand vernacular literature, to offer encouragement to the study of eastern classical languages and literature, and to associate the learned and influential classes of the province and the officers of Government in the promotion and supervision of popular education. It was at the same time provided that encouragement should be afforded to the study of the English language and literature, and that in all subjects which could not be completely taught in the vernacular the English language should be regarded as the medium of examination and instruction. The institution met with some measure of success, and in the year 1882 the University College was incorporated as the University of the Province. The statutes of the University set forth its objects in terms derived from those which regulated the scope of the University College.

153. The Punjab University differs from the older Universities in the following more important aspects:—

- (1) It has a Faculty of Oriental Learning, and confers the degrees of Bachelor, Master, and Doctor of Oriental Learning on candidates who have gone through a course of training analogous to that prescribed for the examinations for degrees in Arts, but through the medium not of English but of Urdu.
- (2) It confers oriental literary titles on successful candidates in examinations which it holds in Sanskrit, Arabic and Persian.
- (3) It conducts proficiency and high proficiency examinations in vernacular languages.
- (4) It grants native titles to students of Muhammadan and Hindu law and medicine.
- (5) It conducts various school examinations.
- (6) It maintains an Oriental College and a Law College, and it may maintain "such other schools and colleges as the Senate may from time to time direct."
- (7) The Senate advises on educational matters generally.

#### The University of Allahabad.

154. The question of establishing a University for Upper India was raised as far back as 1869, and in 1870 the Government of the North-Western Provinces submitted proposals for the establishment of a central college at Allahabad as the nucleus of a University for resident under-graduates. The Government of India sanctioned the establishment of the college, but without committing itself to any opinion as to the desirability of founding a University. The Secretary of State expressed the hope that the college might hereafter be extended into a University for the United Provinces and the Punjab.

Sir William Muir, Lieutenant-Governor of the United Provinces, having invited the co-operation of the Chiefs and Feudatories, opened the Central College in a hired building on the 1st July 1872. The foundation stone of the Muir College was laid by Lord Northbrook in 1873, and the College was opened by Lord Dufferin in 1886. In the meantime the Punjab had secured a University for itself, and in 1884 the Education Commission suggested that the time had come to establish a University in the United Provinces. The suggestion was well received. It was felt that Calcutta was too far distant, and that the regulations of that University were not altogether suitable to the development of higher education in Northern India. In especial, the Calcutta curriculum was considered defective in that it took too little notice of those purely oriental studies which had formerly flourished in the United Provinces. It was further hoped that the establishment of a local University would stimulate educational progress. An Act was accordingly passed in the Council of the Governor General in the year 1887 incorporating the University of Allahabad. The Local Government carefully considered the exact form the University should take, and in especial whether in addition to prescribing courses and conducting examinations it should maintain a staff of professors, and even of private teachers, after the pattern of the Universities of Germany. While recognizing the great value of a University of this type the

Lieutenant-Governor considered that, at all events at first, the University should "confine its operations to the direction of the methods and aims of instruction; adapting them to the needs, circumstances, provisions and predilections of the country, which is gradually recovering its place in the intellectual progress of India." The Act imposes no limitations on the scope and activity of the University, but hitherto Allahabad has conformed to the practice of the three original Universities and confined itself to conferring degrees on candidates who pass its examinations after following a prescribed course of study in an institution affiliated to it.

## Constitution and Functions of the Universities.

### Constitution.

155. The general government of the Universities is vested in the Senate, <sup>The Senate.</sup> which consists of the Chancellor, Vice-Chancellor and Fellows. <sup>Chancellors.</sup> The Governor General is Chancellor of the Calcutta University; the Chancellors of the Madras and Bombay Universities are the Governors of those provinces; the Chancellors of the Universities at Allahabad and in the Punjab are the Lieutenant-Governors of the United Provinces and of the Punjab, respectively.

156. The Vice-Chancellors of the Universities are appointed from among the <sup>Vice-Chancellors.</sup> Fellows; at Calcutta by the Governor General in Council, at Madras and Bombay by the Governor in Council, and at Allahabad and in the Punjab by the Chancellors. The Vice-Chancellor holds office for two years, and may be renominated.

157. In each University the Fellows form a numerous body of European and <sup>Fellows.</sup> native gentlemen. The original Fellows of the Calcutta University were enumerated in the Act of Incorporation, 9 by office and 29 by name. It was provided in the Act that the minimum number of Fellows should be 30 and that all the Fellows should be appointed by the Governor General in Council. Up to 1890 they were all appointed by direct nomination. In that year Lord Lansdowne, as an experimental measure, gave permission for the election of a certain number of Fellows by the graduates from among themselves. From that time onwards the following procedure was followed: on a review of the vacancies which had occurred during the past year it was decided how many new Fellows should be appointed and how many of these might be elected. The conditions of election were laid down, and the names of the gentlemen elected were subsequently submitted to the Governor General in Council for the purpose of being nominated by him. This system was continued till the year 1900 since when no further appointments have been made. On the last occasion, when two Fellows were elected to the Arts Faculty, candidates were required to be Masters of Arts or Bachelors of Arts who took their degree before the year 1867 (when the M. A. degree was introduced) and electors were required to possess similar qualifications. In 1896 the number of Fellows had increased to 205. It was recognized that this was too large a body for the efficient disposal of business, and appointments were stopped in 1900 with a view to reduce the total to more reasonable dimensions. At the end of 1901-02 there were 181 Fellows including the Vice-Chancellor and *ex-officio* Fellows, and of these 21 had been elected.

158. The Act of Incorporation of the Madras University enumerated 8 Fellows by office and 33 by name. It laid down 30 as the minimum number and provided for the nomination of Fellows by the Governor in Council. In 1893 permission was given for the election of a certain number of Fellows, the arrangements being on the Calcutta model. Rules for election were framed by the Syndicate, and the qualifications required from candidates and electors differ somewhat from those in force in Calcutta. Electors must be Masters of Arts or Law, Doctors of Medicine, or Bachelors of Arts, Law, Medicine or Engineering of twenty years' standing. It was considered desirable that the field from which candidates might be selected should be as wide as possible, and it was merely laid down that, should candidates happen to be members of the Madras or other Indian University, they must be graduates of the standard mentioned above as applying to electors. The number of Fellows increased to

201 in August 1901. At the end of 1901-02 there were 198 Fellows, 16 of whom had been elected.

159. The Act of Incorporation of the Bombay University named 28 Fellows. There were 333 in 1897-98, and 296 at the end of 1901-02. Since 1892, 2 candidates have been elected annually by graduates of certain standing for nomination by the Governor in Council. At the end of 1901-02 seventeen elected Fellows were holding office. Up to 1899 only those graduates who had obtained the highest existing degree in any Faculty or two degrees (one in Arts) were entitled to vote; since 1900, all graduates of ten years' standing have been granted the privilege. Candidates must be graduates of the Bombay University of the same standing as that of the electors.

160. In the University of Allahabad the Fellows are appointed on a somewhat different principle. Under Section 5 of the Act of Incorporation the Fellows are divided into three classes: (a) *ex-officio*, (b) nominated, (c) elected by the Senate. The total number must not be less than 30 and the number appointed under head (c) must not be greater than the number under head (b). The original Senate comprised 12 *ex-officio* and 32 nominated members. At the end of 1901-02 there were, in addition to the Vice-Chancellor, 112 Fellows classified as follows: 9 first Fellows, 17 *ex-officio*, 43 nominated, and 43 elected.

161. In the Punjab University the Fellows include the classes enumerated under heads (a), (b), (c), above, and in addition representatives of the Chiefs of Native States. The Act of Incorporation enumerated 20 members *ex-officio* and 105 by name. At the end of 1901-02, 41 held office *ex-officio* and 105 by name. Ten of these appear under both heads and the total strength of the Senate was therefore 136: of these only 8 had been elected.

Criticism of  
the Indian  
Universities  
Commission.

162. The Indian Universities Commission recorded the following criticism on the present constitution of the Senates: "The Senates of the three older Universities were, in their origin, intended to be bodies of persons qualified to advise and to exercise control in educational matters. But for some time past the notion has prevailed that a fellowship is a distinction which may be bestowed by way of compliment, without much regard to the academic qualifications of the recipient. The witnesses who have appeared before us are almost unanimous in holding that the existing Senates are too large, and that, if there is to be any improvement in the working of our Universities and Colleges, steps must be taken to reduce the number, to raise the standard of qualification, and to secure more regular attention to University business on the part of those who are appointed Fellows."

Functions of  
the Senate.

163. The Acts of Incorporation of the Universities of Calcutta, Madras and Bombay empower the Senate (a) to manage and superintend the affairs and property of the University, (b) to frame bye-laws and regulations relating to the examinations for the grant of degrees, the qualifications of candidates, the courses of instruction for the preliminary examinations, and all other matters regarding the University; and (c) to appoint and remove all examiners, officers, and servants of the University. All bye-laws and regulations must receive the approval of the Governor General in Council in the case of Calcutta, and of the Governor in Council in the case of Madras and Bombay. The Acts of Incorporation of the Allahabad and Punjab Universities empower the Senate:—

- (a) to manage and superintend the affairs and property of the University;
- (b) to provide for the appointment of a Syndicate;
- (c) to constitute Faculties;
- (d) to appoint and remove examiners, officers, professors, lecturers, and servants; and
- (e) to make rules regulating—
  - (i) the transaction of business,
  - (ii) the appointment, constitution, and duties of the Syndicate and Faculties,
  - (iii) the appointment, duties, remuneration, etc., of examiners, officers, professors, lecturers, and servants,
  - (iv) courses of instruction and examinations, and
  - (v) generally, all matters regarding the University.



In the University of Allahabad rules coming under clause (iv) above must be confirmed by the Local Government and sanctioned by the Governor General in Council, and other rules must be sanctioned by the Local Government. In the Punjab University the provisions are similar, but the sanction of the Governor General in Council is required only with regard to the examinations to be passed, and the other conditions to be fulfilled, by candidates for degrees; regulations dealing with diplomas, oriental titles, etc., require the sanction of the Local Government.

164. There are four Faculties in each of the Universities of Calcutta, Madras <sup>Faculties.</sup> and Bombay, *viz.*:—the Faculties of Arts (which includes science), Law, Medicine, and Engineering. The members of the Faculties are appointed by the Senate from among the Fellows, and every Fellow must belong to one, and may belong to more than one, Faculty. The Allahabad University has four Faculties—Arts, Science, Law, and Engineering—which are constituted on somewhat different lines. The maximum and minimum number of each Faculty is fixed; it comprises *ex-officio* Fellows and Fellows elected to it by the Senate; and every Fellow need not necessarily belong to a Faculty. The Punjab University has Faculties of Arts, Law, Science, Medicine and Engineering; they are constituted in the same manner as those of the older Universities. It also has a Faculty of Oriental Learning. The Faculties are advisory committees of the Senate and, except at Allahabad, they elect the Syndicate.

165. The executive government of each University is vested in a Syndicate <sup>The Syndi-  
cate.</sup> consisting of the Vice-Chancellor and a small body of Fellows—8 at Madras, 14 at Bombay, 10 at Calcutta, 19 at Allahabad, and 20 at Lahore; the newer Universities have larger Syndicates than the Universities of Calcutta, Madras, and Bombay. The members of the Syndicate are elected in certain proportions by the Faculties, except at Allahabad. In that University the Director of Public Instruction and six heads of colleges are appointed *ex-officio*, and the remaining places are filled by election by the Senate partly from among certain limited classes, such as inspectors of schools and principals of colleges, and partly by open election. Annual election is the rule except at Allahabad, where the period of service is three years. In the Universities which have no *ex-officio* members, the Director of Public Instruction is usually elected to the Syndicate as one of the representatives of the Faculty of Arts. At Calcutta and Madras no Fellow is eligible to serve on the Syndicate unless he resides in or near the University town. At Calcutta, Madras, and Bombay the Syndicate derives its authority from the bye-laws of the University, and at Allahabad and Lahore from the Act of Incorporation. In all Universities the functions of the Syndicate are exercised subject to the general control of the Senate.

166. All the Universities, except Bombay, have Boards of Studies, which deal <sup>Boards of  
Studies.</sup> in general with text-books and courses of study. In the Calcutta University the subjects comprised in the Arts Faculty are divided into ten groups, for each of which a Board of Studies is appointed by the Faculty of Arts. The duties of the Boards of Studies are to recommend text-books and courses of study, to advise the Syndicate on the appointment of examiners, and to consider any matters referred to them. In Madras there are 14 Boards, ten in the Faculty of Arts, one for the Faculty of Teaching, and one each for the Faculties of Law, Medicine, and Engineering. The Boards are appointed by the Syndicate from among the Fellows and are empowered to submit nominations of examiners, to recommend text-books, and to report on matters referred to them. At Allahabad there are seven Boards in the Faculty of Arts, elected by that Faculty for the various groups of studies into which the Arts subjects are divided; two Boards in the Faculty of Science, one for Physical Science and Chemistry and the other for Drawing and Surveying; and one Board for Mathematics. The Arts and Science Boards are elected by the Faculties of Arts and Science, respectively, and the Board of Mathematics by the two Faculties in conjunction. These Boards prepare lists of text-books and advise on matters connected with examinations and courses of study. In the Punjab University there is a Board of Study for each Faculty, the members of the Syndicate representing any Faculty form the Board, the members of the Science and Engineering Faculties forming a single Board. The duties of the Boards are to recommend text-books, to frame sample question



papers for the guidance of examiners, to consult with specialists and advise on questions referred to the Faculty for opinion, to revise courses of study, and to consider and determine objections raised by the principal of any recognized institution to questions set at any examination.

**Boards of  
Accounts.**

167. The Calcutta and Bombay Universities have Boards of Accounts consisting of three Fellows who may not be members of the Syndicate. The Board is appointed by the Senate. The Board of Accounts prepares the budget of the University examinations, audits the accounts, and performs in general the duties of the financial committee of the Senate. There is no Board of Accounts at Madras or Allahabad: a Finance Committee is appointed by the Allahabad Syndicate. In the Punjab there is a Board consisting of the Vice-Chancellor, three Fellows appointed by the Senate, and the Registrar as Secretary. The Act of Incorporation and Statutes of the Punjab University impose various financial duties upon the Registrar, and the functions of the Board of Accounts are mainly of a supervising and advisory character.

**The Registrar.**

168. The Registrar is the principal officer of the University and head of the University staff. He conducts the University correspondence and is the custodian of the records. He is appointed by the Senate except in Madras, where he is appointed by the Syndicate subject to confirmation by the Senate. In Madras and Allahabad the Registrar is at present a whole-time officer. In other Universities the post is held in combination with the principalship or professorship of a college in the University town. In the Punjab the appointment is combined with that of Principal of the Oriental College, which, it will be remembered, is managed by the University.

**Relationship of the Universities towards Collegiate Education.**

169. The Indian Universities exercise an influence over their undergraduates in three directions. In the first place they fix the courses of study; in the second place they test the students by a series of examinations, leading up to the various degrees and diplomas; and lastly, the undergraduates are required to study in institutions which are affiliated to the Universities, and for the general conduct and efficiency of which the Universities are therefore responsible. The sketch of the University constitution given above shows that the examination aspect of their duties has been much more carefully elaborated than the other aspect which has regard to the character of the training and instruction given in the colleges; and, as a matter of fact, the Universities have not, hitherto, exercised the degree of influence which they might and should over their affiliated institutions.

**University Finance.**

170. Speaking generally, the three older Universities and the University of Allahabad derive their income from examination fees and spend it on establishment and the conduct of examinations; the University of the Punjab stands on a different footing since it undertakes the direct management of the Oriental and Law Colleges. The aggregate fees charged to students for the series of examinations ending with the B. A. examination amount to R60 in the Universities of Calcutta, Allahabad, and the Punjab, and to R72 in the Universities of Madras and Bombay.

171. In the year 1900-01 the ordinary income and expenditure of the Universities, other than that of the Punjab, was as follows:—

		R
CALCUTTA	Income	2,44,644
	Expenditure	2,10,455
	Surplus	34,189
MADRAS	Income	2,18,353
	Expenditure	1,91,688
	Surplus	26,665
BOMBAY	Income	1,31,676
	Expenditure	1,15,541
	Surplus	16,135
ALLAHABAD	Income	52,763
	Expenditure	49,184
	Surplus	3,579

During the five years ending on the 30th June 1901, the average annual surplus of the Calcutta University was ₹30,128. The University was able to invest ₹67,646 during the year 1900-01 and at the end of that year had a funded reserve of ₹5,05,000. In the same year the University of Madras invested about ₹50,000 bringing the total of its balance in Government securities to ₹3,83,700. The reserve fund of the University of Bombay consists of ₹2,90,000. The University of Allahabad possessed at the end of the year securities to the value of ₹34,000.

172. The Tagore Law Professorship Fund of ₹3,00,000 is the only considerable private endowment for teaching purposes connected with any of the Universities. The other endowments, held in trust by the Universities, are mainly for scholarships and prizes, and consist mostly of small sums. Calcutta has the Premchand Roychand Studentship Fund with a capital of ₹2,33,000, and 40 other endowments with an aggregate funded capital of ₹1,64,000. Madras has 34 funds for scholarships, prizes, and medals with a capital of ₹1,50,400. Bombay has the much larger capital of ₹10,43,500 divided amongst 94 funds, mostly of small amount; the individual scholarships and prizes derived from the funds are often of trifling value and full advantage is not taken of them. Allahabad has only six scholarships and prize funds, with an aggregate capital of ₹17,300.

173. The University of the Punjab receives grants from Government in aid of its special functions, and is also permitted to conduct the middle school examination which yields a considerable profit. In the year 1900-01 the general income and expenditure stood as follows:—

<i>Income.</i>		<i>Expenditure.</i>	
	₹		₹
Subscriptions and interest . . . . .	12,062	Oriental College allotment . . . . .	21,880
Government grants . . . . .	29,380	Teaching . . . . .	19,629
Fees . . . . .	1,27,715	Examinations . . . . .	81,070
Other items . . . . .	2,425	University establishment and miscellaneous . . . . .	28,410
		Other items . . . . .	3,446
<b>TOTAL</b> . . . . .	<b>1,71,582</b>	<b>TOTAL</b> . . . . .	<b>1,54,435</b>

The surplus of the year was ₹17,147, and the balance at the end of the year ₹1,53,570. There is a general endowment fund of ₹1,89,600, the interest of which goes towards the expenses of the University, and special funds of an aggregate value of ₹2,97,100 which support a translatorship and various readerships in connection with the Oriental College, and endow a number of scholarships, prizes, and medals.

### Colleges.

#### Affiliation.

174. It is laid down in section 12 of the Acts of Incorporation of the Universities of Calcutta, Madras, and Bombay that, except by special order of the Senate, a candidate for a degree must present a certificate from one of the institutions authorized in that behalf by the Governor General in Council, or the Governor in Council as the case may be, to the effect that he has completed the course of instruction prescribed by the University. Express provision for recognition is not made in the Act of Incorporation of the Allahabad University; but the condition that the student must have followed a prescribed course of study in a recognized institution is introduced into all the examination regulations framed by the Senate. The Punjab University has no rules of affiliation, and college and private students are accepted indifferently for all its examinations. A large proportion of the students are, however, educated in colleges situated in the Punjab and its Native States; these institutions are included in the college register published in the University Calendar, and most of them are recognized by the Syndicate as competent to teach University scholarship-holders.

175. In the Universities of Calcutta and Madras colleges are affiliated by the Syndicate with the sanction of the Governor General in Council or Governor in Council as the case may be. In Bombay colleges are affiliated by the Senate

at the instance of the Syndicate, and with the sanction of the Governor in Council. At Allahabad affiliation is made by the Syndicate with the sanction of the Chancellor.

In the case of Calcutta the procedure is as follows. The authorities of the institution submit their application to the Syndicate of the University who forward it with their recommendation to the Governor General in Council; the latter accords or withholds his sanction after taking the advice of the Local Government of the Province in which the institution is situated.

**Conditions.**

176. No attempt was made in the Acts of Incorporation to define the conditions of affiliation, and the privilege has been granted too easily. During the past thirty years a large number of small colleges or collegiate classes have sprung into existence, and have sometimes been admitted into the University system without sufficient investigation as to whether they are in a position to give a sound education. The authorities of the institution applying for affiliation are required to submit particulars on subjects such as the character of the management, the facilities for instruction, the sufficiency of the buildings and equipment, and the financial position. The exact particulars to be supplied differ in the several Universities. Under the Calcutta regulations, when an affiliated institution already exists in the neighbourhood, the Syndicate must certify that the affiliation of the new institution will be in the interest of sound education and discipline, and in Madras a certificate to this effect must be given in all cases. The affiliation rules of all the Universities require the authorities of the college to submit an annual return of the teaching staff. Certificates and returns of this character, unaccompanied by any system of University inspection or supervision, have not proved very valuable aids to the maintenance of efficiency.

The rules of the Madras University were revised during the quinquennium in order to establish a closer connection between the University and its affiliated colleges. Conditions are prescribed relating to the managing agency, the residence of students, the maintenance of registers, the observance of inter-college rules, University inspection, the number and length of terms, and the grant of term certificates. These rules form an important step in a new direction, but up to the end of the period under review the Madras University did not possess an organization capable of bringing them into full effect. First grade colleges are affiliated only in such branches of the science division as may be approved by the Syndicate.

**Disaffiliation.**

177. If a college fails to maintain the standard in consideration of which it was accorded the privilege of affiliation, or if it breaks the conditions of affiliation, or if for any other reason it ceases to be worthy to be a college of the University, it may be disaffiliated. In Madras and Allahabad the order of disaffiliation may be passed by the Syndicate with the sanction of the Local Government. At Calcutta and Bombay, the power is vested in the Senate, on the recommendation of the Syndicate, and with the sanction of the Governor General or Governor in Council. At Madras a college may be disaffiliated if it sends no candidate to the examinations of the University for three successive years.

**Local Limits of the Universities.**

178. When the three older Universities were founded the spheres of influence of Madras and Bombay extended over the corresponding Presidencies and neighbouring Native States, and the Bengal Presidency with the rest of India was left to Calcutta. The establishment of Universities at Allahabad and Lahore narrowed the sphere of the Calcutta University, and at the end of the period under review the division was roughly as follows:—

Madras Presidency, Mysore, Hyderabad and other Native States of Southern India—Madras University.

Bombay Presidency and Baroda—Bombay University.

Bengal, Assam, Burma and Ceylon—Calcutta University.

United Provinces—Allahabad University.

Punjab—Punjab University.

The Central Provinces, Rajputana, and the Central India Agency—divided between the Universities of Calcutta and Allahabad.

The above division does not hold universally, and some colleges in the United Provinces are still affiliated to both Calcutta and Allahabad or Lahore.

#### General Statistics of Arts Colleges.

179. The founders of the Indian Universities were not disappointed in their anticipation that a noteworthy extension of higher education would soon be witnessed. Every decade saw a substantial increase in the number of colleges, and at the end of the year 1901-1902, 179 collegiate institutions were connected with one or other of the five Universities. One hundred and thirty-eight of these institutions were situated in British India, 32 in the Native States of India, and 9 in Ceylon. These numerous institutions vary greatly in size and character. Some of the larger, whether managed by the Government, by missionary societies, or by native committees or proprietors, are fine institutions, well housed and equipped, and with an adequate and well qualified staff. From these the scale descends until at the bottom are to be found small collegiate classes attached to schools in remote country districts in which a few students are given instruction in the first portion of the University course.

Growth of  
collegiate  
education.

180. Colleges are divided into grades according to whether they give instruction in the whole course of study leading up to a degree, or only in the more general preliminary course. The number of colleges of each grade stands as follows :—

First and  
second grade  
colleges.

	First grade.	Second grade.
University of Calcutta . . . . .	42	29
„ Madras . . . . .	15	40
„ Bombay . . . . .	10	1
„ Allahabad . . . . .	17	15
„ Punjab . . . . .	9	7
TOTAL* . . . . .	93	92

Of the now existing first grade colleges 16 were original colleges of one or other of the three older Universities or were affiliated to them shortly after their incorporation; 12 were original colleges of the Allahabad and Lahore Universities and all of these had been affiliated to Calcutta at an earlier date. Twelve first grade colleges were added during the years 1862-71, nine during the years 1872-81, thirty during the years 1882-91, and ten during the years 1892-1901. Four colleges of the second grade were affiliated during the period 1862-71, and fifteen, thirty-one, and forty, during the next three decades, respectively.

181. Of the 138 colleges in British India, 24 are Government institutions; 6 are institutions of a semi-official character managed by committees; 5 are governed by Municipalities; 38 belong to mission institutions; 42 are under native management; 11 are primarily for the education of European boys; and 12 for the education of females.

Management.

#### Arts Colleges of the Calcutta University.

182. Of the 42 first grade colleges of the Calcutta University 15 are situated in Calcutta, 14 in the province of Bengal, and 13 outside that province. Three of the Bengal colleges are in the Presidency Division, one in the Rajshahi Division, one in the Burdwan Division, three in Eastern Bengal, four in Behar, one in Orissa, and one in the State of Cooch Behar. Of the 13 colleges outside Bengal, two are in the United Provinces, three in the Central Provinces, one in Burma, one in Rajputana, two in Central India, and four in Ceylon. The figures include four colleges which are also affiliated to the University of Allahabad.

Location of  
colleges.

Five of the second grade colleges are in Calcutta, 12 in Bengal, and 12 outside Bengal. The Bengal Colleges are distributed as follows :—

four in the Burdwan Division,  
one in the Rajshahi Division,  
four in Eastern Bengal,

one in Chota Nagpur,  
one in Behar, and  
one in the French territory of  
Chandernagore.

\* Six colleges which are affiliated to two Universities are included twice over.

Of the 12 colleges outside Bengal, two are in the United Provinces, two in Assam, one in Burma, two in Central India and five in Ceylon. These figures include two colleges which are also affiliated to the University of Allahabad.

In all there are 20 colleges in Calcutta and 26 in the Bengal mofassal.

**Classification of first grade colleges.** 183. Excluding the Ceylon and Native State colleges and also the colleges affiliated to Allahabad, the first grade colleges of the Calcutta University may be classed as follows :—10 Government, 13 native, 6 missionary, and 3 for Europeans.

**Government.** 184. Of the Government colleges the Presidency, Hooghly, Dacca and Krishnagar colleges and the Sanskrit College, Calcutta, have already been noticed in the paragraphs dealing with pre-University education. Of the others three are mofassal colleges which have been raised from the status of schools, *viz.*, Patna (1862), Cuttack (1876), and Rajshahi (1878); the remaining two are the Rangoon College (1883), and the Calcutta Bethune Ladies' College (1888).

**Native.** 185. Two of the native colleges are institutions of a special character, The Berhampur College (1857) was originally a Government institution. In pursuance of the recommendation of the Education Commission that the Government should to some extent dissociate itself from the direct management of institutions for higher education, the Berhampur College was transferred to private management in the year 1887, and is now maintained by a family of Cossimbazar Zamindars. The Morris Memorial College at Nagpur, Central Provinces (1885), was established in memory of Sir John Morris, late Chief Commissioner, and is maintained partly out of the interest of money subscribed by the people of the Nagpur and Chhatisgarh Divisions and partly out of grants by the Local Government and the Nagpur Municipal Committee and District Council. The institution is managed by a council of officials and non-officials. Of the remaining 11, all but two were affiliated during the past twenty years. They were all originally schools, and in many cases have risen by gradation first to the status of second grade, and then to that of first grade, colleges. Many have both school and college departments; several have law classes attached to them, the fees from which help to support the arts section of the college. Five are situated in Calcutta and six in the mofassal. The earliest of the Calcutta colleges is the Metropolitan Institution (1879), which was founded in its present form by Pandit Iswara Chandra Vidyasagar. It was the first attempt to impart higher education in Bengal through a purely indigenous agency. The management of the college is vested in a committee which is composed mainly of professors of the college. The City College (1881) was established by a private Hindu founder, who made the institution over to trustees. The remaining three Calcutta colleges are the Ripon College (1885), the Central College (1896), and the Bangabasi College (1896). They are all proprietary institutions. A number of the mofassal colleges were founded under the auspices of, and are managed in whole or in part by, zamindars and other well-to-do gentlemen of the locality. Among colleges of this character are the Rajchandra College, Barisal (1890), the Victoria College, Narail (1890), the Tej Narayan Jubilee College, Bhagalpur (1890), and the Brajamohan Institution, Barisal (1898).

**Mission.** 186. Among the mission colleges we have already mentioned the General Assembly's Institution, the Duff College, the Bishop's College, and the College of the London Missionary Society. The remaining two are the Hislop College (1886), an institution at Nagpur belonging to the Free Church, and the Canadian Missionary College at Indore (1893).

**European.** 187. The three European colleges are St. Xavier's, Doveton, and LaMartinière.

**Second grade colleges.** 188. The Calcutta University colleges of the second grade which are situated in British India and are not affiliated to Allahabad may be classified as follows :—  
Government 3, Municipal 1, Missionary 3, Native 10, and European girls' 2.

The Government institutions are the Calcutta Madrassah which has already been mentioned, the Chittagong Collegiate School (1869), and the Cotton College at Gauhati in Assam (1901). The Municipal institution is at Midnapur; it

was formerly managed by Government and was afterwards transferred to the Municipal Committee. One of the native colleges is in Calcutta, *viz.*, the Albert College (1881); it was founded by Keshab Chandra Sen and is managed by a native committee. Of the remainder 8 are in the Bengal mofassal and one in Assam. Most of them are schools with collegiate classes attached to them, maintained in whole or in part by local land-holders. The three missionary institutions are the American Baptist College, Rangoon (1894), the Dublin University Mission College, Hazaribagh (1899), and the Church Missionary Society College, Calcutta (1899). The first two of these institutions are college classes attached to high schools. The third is a college maintained with a view to affording an opportunity to Christian youths educated under Church Missionary Societies in high schools in Bengal, of pursuing their studies under the religious influences to which they have been accustomed. The European institutions are collegiate classes attached to the Martinière and Loreto schools for girls.

189. Reviewing the position generally, it may be said that the Government have not of late years sought to increase the number of their colleges and have transferred some of them to local management. The missionary societies have continued to add to the number of their colleges, though the majority of their institutions date from some time back. The most striking feature of recent years has been the large increase in the number of native colleges both in Calcutta and in the mofassal, the latter being mostly small institutions.

General features.

#### Arts Colleges of the Madras University.

190. The fifteen Madras colleges of the first grade are situated as follows:— three in Madras City, two each in Tanjore and Trichinopoly districts, one in each of the districts of Vizagapatam, Godavery, Kistna and South Kanara, one in the Native State of Travancore, two in the Mysore State, and one in the Hyderabad State. Of the 40 colleges of the second grade, seven are in the City of Madras, 24 in the Madras districts, six in the Madras Native States (*viz.*, four in Travancore, one in Pudukkottai and one in Cochin), two in Mysore, and one in Hyderabad. In addition one Ceylon College is affiliated to the Madras as well as to the Calcutta University. At the close of the year 1901-1902 there were only five districts—Karnul, Anantapur, Cuddapah, the Nilgiris, and Chingleput—which had no college.

Location of colleges.

191. The 15 first grade colleges of the Madras University all started as schools, most of them rose first to be colleges of the second and then to be colleges of the first grade, and most of them have school departments. All, except St. Aloysius' College, Mangalore, and the Nizam's College, Hyderabad, were already in existence, when the University was established. The Presidency College and the St. Joseph's College, Trichinopoly (at first situated at Negapatam), were the original colleges of the University. Seven of the schools opened college classes between 1860 and 1869, three between 1870 and 1879, and the last three between 1880 and 1889. Of the colleges situated in British India three belong to Government and six to missionary societies; two are native institutions. The three Government colleges are the Presidency College, and the colleges at Kumbakonam (1867), and Rajamundry (1873). The large proportion of mission colleges is a special feature of Madras higher education. Missionary effort has always been active in Madras and there is a large native Christian community in the Presidency. St. Peter's College at Tanjore and one of the colleges at Trichinopoly are maintained by the Society for the Propagation of the Gospel, and were founded by the Missionary Schwartz. St. Joseph's College, Trichinopoly, and St. Aloysius' College, Mangalore, both belong to the Jesuits; the former was founded in 1844 by the Jesuits of the Madura Mission and the latter was opened in 1880. The Madras Christian College and Free Church Institution which was founded in 1837 has already been described. The Masulipatam Noble College was opened as a school in 1843 by the Revd. R. T. Noble, who was sent to Madras by the Church Missionary Society.

First grade colleges.

The native institutions are the Pachaiyappa's College at Madras, and the Maharaja's College at Vizianagram. The Pachaiyappa's College arose out of a school established in the Black Town in 1842, from funds derived from a bequest

for pious uses made by Pachaiyappa, a wealthy Hindu gentleman. The college is managed by Hindu trustees, and the staff is partly European and partly native. The Vizianagram College is maintained by His Highness the Maharaja; it was established as a school in 1857 with two branches, one for Brahmans and Kshatriyas, and the other for boys of other castes.

Second grade colleges.

192. Of the second grade colleges of the Madras University, one is maintained by Government and three are Municipal institutions; 15 belong to missionary societies and four to Native States; seven are native institutions; one is a semi-official institution managed by a committee; three are for the education of Europeans; and six are for female education. The Government institution is the Mangalore Collegiate School, founded in 1867. Of the Municipal institutions, the Salem College (1879) and the Victoria College, Palghat (1888), are both high schools of old standing, at first managed by Government and afterwards transferred to the Municipalities. The Brennen College, Tellicherry (1891), was founded as a school in 1862 by one Brennen, Master Attendant of the Port. It was managed first by the Basel Mission and later by the Government who transferred it to the Municipality. The semi-official institution is the Coimbatore College called originally "the Tahsildar's School," and founded by a Tahsildar of Coimbatore about the year 1850. The institution consists of a college and school, and is maintained from Provincial and Municipal grants and from fees. The 15 mission colleges were affiliated to the University at various dates between 1869 and 1898, and most of the institutions flourished as schools for many years before collegiate classes were added to them. Only four are of later date than 1860 and only two were founded after 1870. Numerous missionary societies have contributed to the work of founding and maintaining these institutions. Four of the colleges are maintained by Roman Catholic societies, including the Madras Roman Catholic Mission and the French Missionary Society of Paris. Four of the colleges belong to American Missionary Societies, one to the London Missionary Society, two to the Church Missionary Society, two to the Wesleyan Mission and two to the Church of Scotland Mission. Most of the native institutions were also founded long before they were affiliated to the Madras University. Three are maintained in part by subscriptions and endowments provided by native landowners and other gentlemen. These are the Hindu College, Tinnevely, founded by Hindu gentlemen in 1861; the Mrs. A. V. Narsing Rao College, Vizagapatam, founded in 1860; and the Kallikot College, Berhampore, founded by Government in 1856. Three others are maintained in whole or in part by native Rajas. The Zamorin's College, Calicut, was founded by a late Zamorin in 1877. The Pittapur Raja's College, Cocanada, was founded in 1852; it was at first maintained mainly by local subscriptions and by the exertions of District Officers, and at a later date it was endowed by the Raja of Pittapur. The Madura native college was established in 1889 by a native high school committee on the abolition of the Government College. The six Native State colleges are the Ernakulam College, Cochin, established in the middle of the nineteenth century; the Maharaja's College, Pudukkottai, founded in 1857; the Aurangabad College, a leading school in His Highness the Nizam's Dominions; and the Shimoga College, Mysore, founded as a Wesleyan school in 1854 but now managed by the State. The European colleges for men are St. Mary's, San Thomé, and Doveton, all at Madras. The six ladies' colleges were affiliated between the years 1896 and 1901, but all of them are schools of much earlier origin. The St. Mary's Presentation Convent College, Black Town, Madras, was founded as far back as 1842, and the Sarah Tucker College at Palamcottah was established in 1864. Three of the institutions are attached to Roman Catholic Convents, *viz.*, the St. Mary's College, Black Town, the Presentation College, Vepery, Madras, and the College of the Convent of the Holy Angels at Trivandrum in Travancore. The Sarah Tucker College at Palamcottah was established from funds collected in memory of Miss Sarah Tucker, a lady who took great interest in the education and training of young women in Southern India. The remaining institutions are the Maharajah's College for girls at Trivandrum in the State of Travancore, and the Maharani's College in Mysore. The convent colleges are primarily for Roman Catholics; but are open to all classes. The pupils are mainly Europeans, Eurasians, and native Christians and the existence of six ladies' colleges does not, therefore, represent the degree of progress of education among the women of the Madras Presidency which might at first sight be supposed.



### Arts Colleges of the Bombay University.

193. In striking contrast to Calcutta and Madras, the University of Bombay has only eleven colleges affiliated to it. Higher education in the Bombay Presidency has been developed by concentrating the students in large institutions in preference to the establishment of numerous colleges in the capital and the districts. All the colleges except the Rajaram College in the Native State of Kolhapur are of the first grade. Concentration of higher education.

194. The city of Bombay has one Government and two missionary colleges. Colleges. Of the remaining colleges, two are at Poona in the Deccan, one at Ahmedabad in Gujarat, and one at Karachi in Sind. Four are in the Native States of Kolhapur, Baroda, Bhavnagar, and Junagadh. Six of the colleges were derived from schools. Two of the colleges were affiliated in 1860, two between 1860 and 1870, one between 1870 and 1880, five between 1880 and 1887 and the last, the Babauddin College at Junagadh, in 1901. Of the Colleges in British India, two belong to Government and two to missionary societies; two are managed by local committees, and one is a native institution. The Government colleges are the Elphinstone College, Bombay, and the Deccan College, Poona. Both the missionary colleges are in Bombay. The Wilson College of the Free Church of Scotland has already been mentioned, and the St. Xavier's College is a Jesuit institution affiliated in 1869. It developed from two Jesuit high schools, and it is primarily for Roman Catholic youths although non-Christians are also admitted. The two semi-official colleges are the Gujarat College at Ahmedabad and the Dayaram Jethmal College at Karachi. The Gujarat College was established in 1858 by the aid of local subscriptions, and its object was declared to be the special tuition of youths for Government service in the Revenue, Judicial, and Public Works Departments. On these lines the college had little success, and in 1879 further subscriptions were raised and the institution was transformed into an arts college. From 1879 to 1887 it was managed by Government and supported by its endowments and by Government grants; in 1887 the Government transferred the management to a Committee but continued to pay an annual subsidy of Rs 10,000. The Sind College was established in 1887 and is maintained by subscriptions and endowments supplemented by Government, Municipal and Local Board contributions. The native college is the Fergusson College, Poona, affiliated in 1884. The college is a development of the "New English School" founded in 1880 by the late Vishnu Krishna Chip-lunkar and other native gentlemen for the purpose of encouraging higher education. It is under native management and is maintained by the aid of subscriptions and endowments. The Principal is Mr. Paranjpye, a Senior Wrangler of the Cambridge University.

### Arts Colleges of the Allahabad University.

195. Of the seventeen first grade colleges of the Allahabad University, eleven are situated within and six without the United Provinces. The eleven are distributed as follows:—one at Allahabad, two male and one female at Lucknow, two at Agra, and one each at Benares, Cawnpore, Bareilly, Meerut, and Aligarh. Of the colleges outside the United Provinces, three are in Rajputana, two in Central India, and one in the Central Provinces. Four of the Colleges, *viz.*, St. John's College at Agra, the Muhammadan Anglo-Oriental College at Aligarh, and the colleges at Jubbulpore and Jaipur are also affiliated to the University of Calcutta. All the eleven institutions situated within the United Provinces were, with the exception of the Meerut College (founded in 1892), in existence before the incorporation of the Allahabad University. Some of them are institutions of very old standing and several were originally affiliated to Calcutta. Taking all the colleges together, 9 were affiliated to the University of Allahabad when it opened in 1888, the Agra College followed in 1889, two Native State colleges in 1890, another Native State college in 1891, and in 1892 the Christ Church College at Cawnpore, the Meerut College, and the Isabella Thoburn Ladies' College at Lucknow. All the colleges in the United Provinces, except the Muir Central and Canning Colleges, began as schools and many of them have still school departments. Of the eleven colleges in the United Provinces, two belong to Government, three are managed by local committees, three are missionary colleges, two are native colleges and one is a college for ladies. The two Government Colleges First grade colleges.



are the Muir Central College at Allahabad and the Queen's College at Benares. Two of the semi-official colleges managed by local committees, *viz.*, the Agra and Bareilly Colleges, are pre-University institutions; the third is the Meerut Collegiate School founded in 1892; it is endowed by the nobility and gentry and aided by the Government. The missionary colleges are the St. John's College at Agra, founded as a school in 1850; the Christ Church College at Cawnpore, founded in 1892 and maintained by the Society for the Propagation of the Gospel; and the Reid Christian College at Lucknow. The last institution is maintained by the Methodist Episcopal Church and started as a school in the year 1877. The Canning College at Lucknow was founded by the Taluqdars of Oudh in memory of the late Earl Canning and was opened in 1864. The institution comprises three departments—the college proper, the law department, and the oriental department in which only Sanskrit, Persian and Arabic are taught. The college is supported by the Taluqdars of Oudh and aided by the Government. The Muhammadan Anglo-Oriental College at Aligarh was established by the educated and more advanced portion of the Muhammadans of Upper India under the leadership of the late Sir Syed Ahmed Khan; a further account of the college is given in the Chapter on Muhammadan Education. The Isabella Thoburn College was opened as a school in 1870; it is under the patronage of the Women's Foreign Missionary Society of the Methodist Episcopal Church.

Second grade colleges.

196. The fifteen second grade colleges are situated as follows:—two at Allahabad, one each at Fyzabad, Almorah, Agra, Benares, Gorakhpur, Lucknow, and Landour, three at Mussoorie, and two at Naini Tal. Ten of the institutions are European schools, one belongs to Government, two to missionary societies, and two are native institutions. With the exception of the Central Hindu College at Benares all the institutions started as schools, and for the most part they are still schools with collegiate classes attached to them. Some of them are institutions of old standing. The St. Peter's College, Agra, was founded in 1842, the Ramsay College, Almorah, in 1850, St. George's College, Mussoorie, in 1853, the High School at Fyzabad in 1860, and the Girls' High School at Allahabad in 1861. Two of the institutions were affiliated to the University at the time of its incorporation, five were added between 1890-95, and six between 1897-1901. Of these six, four are European collegiate schools. The European male colleges are the St. George's College and the Philander Smith Institute at Mussoorie; St. Joseph's Seminary, Naini Tal; St. Peter's College, Agra; and La Martinière College, Lucknow. The European female institutions are the Wellesley and All Saints Schools at Naini Tal; the Caineville School, Mussoorie; the Woodstock School, Landour; and the Girls' High School, Allahabad. The Government institution is a high school at Fyzabad. The missionary institutions comprise the Ramsay College of the London Missionary Society at Almorah and the St. Andrew's Church Mission College at Gorakhpur. The native institutions are the Kayastha Pathsala at Allahabad and the Central Hindu College at Benares. The Kayastha Pathsala was founded in 1872 by a member of the Lucknow Bar and is primarily for the education of boys of the Kayastha community. The object of the Central Hindu College at Benares is to impart secular education to deserving poor students at a low rate of fees, and non-sectarian religious instruction to Hindu students. The institution is supported by fees and by public subscription, and is under the control of a managing committee.

#### Arts Colleges of the Punjab University.

First grade colleges.

197. Sixteen arts colleges are connected with the Punjab University; nine of them are of the first, and seven of the second, grade. The nine first grade colleges are distributed as follows:—four are at Lahore, two at Delhi, one at Amritsar, and one each in the Native States of Patiala and Bahawalpur. Of the colleges situated within British India, one belongs to Government and two to missionary societies. The remaining four are native institutions. The Government institution is the Lahore College. It was affiliated to the Calcutta University in 1864, and the old Delhi College was incorporated with it in 1877. The missionary institutions are the St. Stephen's College, a school of the Cambridge Mission which opened college classes in 1882, and the Forman Christian College belonging to the American Presbyterian Mission. The four native colleges are

sectarian institutions. The Dayanand Anglo-Vedic College, Lahore, was established in 1886 by the Arya Samaj community for the encouragement of oriental and western studies. The Islamia College is a Muhammadan institution founded at Lahore in 1892. The Khalsa College at Amritsar is an institution founded by and for the benefit of the Sikh community : it has been endowed by the Chiefs of the Phulkian States. The Hindu College at Delhi was established in 1899 for the purpose of giving cheap secular education side by side with religious instruction according to the principles of the Sanatan Dharma. The Dayanand Anglo-Vedic College, the Islamia College, and the Khalsa College have school as well as college departments.

198. Of the seven second grade colleges, five are situated within the Punjab ; <sup>Second grade colleges.</sup> *viz.*, one at Lahore, two at Amritsar, one at Sialkot and one at Rawalpindi. Of the remainder one is at Peshawar, the capital of the North-West Frontier Province, and the other is in the Native State of Kapurthala. The Municipal institution is a high school which opened college classes in 1888. The missionary institutions are also schools with college classes. They comprise the Scotch Mission School at Sialkot, the Gordon Mission School of the American United Presbyterian Mission at Rawalpindi, the Church Mission School at Amritsar, and the Edwardes' Church Mission School at Peshawar ; the colleges were opened at Sialkot in 1889, at Rawalpindi in 1893, and at Amritsar and Peshawar in 1900.

The most noticeable feature of recent collegiate history in the Punjab is the foundation of the native sectarian colleges.

#### Professional Colleges.

199. An account will be given in the Chapter on Professional and Technical Education of the various professional colleges ; but it is desirable in order to complete the review of the institutions connected with the Universities to give a brief notice of them in this place.

Institutions are affiliated to the Calcutta University in law, medicine and engineering. Twenty-two of the arts colleges are affiliated in law, but there is no separate institution for legal instruction. The Medical College, Calcutta, is affiliated to the University in medicine, and the Thomason College, Rurki (1864), and the Civil Engineering College, Sibpur (1880), are affiliated in engineering. The Rurki College, however, does not send candidates to Calcutta.

The following professional colleges are affiliated to the Madras University :—In the Faculty of Teaching, the Madras Teachers' College at Saidapet near Madras (1886) and the training section of the Rajamundry College in the Godaveri District. In the Faculty of Law, the Government Law College at Madras (1892) and the law section of the Maharaja's College at Trivandrum in Travancore. In the Faculty of Medicine, the Madras Medical College. In the Faculty of Engineering, the College of Engineering at Madras.

In Bombay, the institutions affiliated in the Faculty of Law are firstly, the Government Law College at Bombay, and secondly the law classes at Poona and belonging to the Gujarat, Sind, Baroda, Bhavnagar and Junagadh Arts Colleges. These classes are affiliated only up to the first examination for the degree of Bachelor of Laws. The Grant Medical College is affiliated to the University in medicine ; the Poona College of Science in engineering and agriculture ; and the Baroda College in agriculture.

Ten colleges of the Allahabad University are affiliated to that University in law as well as in arts. The Rurki College is affiliated in engineering but the affiliation is nominal only, since the University does not give any diploma or degree in engineering.

The Punjab University has a Law College under its direct control which teaches candidates for the degrees in law granted by the University. Students are trained for the medical examinations of the Punjab University in the Government Medical College at Lahore.

#### Provincial Statistics of Arts Colleges.

200. Tables 28 to 30 contain statistics for those arts colleges of the five Universities which are situated in the area dealt with in this Review ; they therefore exclude the colleges of Mysore, Hyderabad, Cochin, Travancore, Pudukkottai,

Baroda, Central India, Rajputana, Patiala, Kapurthala, Cooch Behar, Chander-nagore, and Ceylon. The total number amounts to 140, against 86 in 1886-87, 100 in 1891-92, and 115 in 1896-97. Out of the total of 140, 32 are under public, and 108 under private, management. The public managed colleges comprise 24 Government institutions, 5 colleges managed by Municipal Boards, and 3 colleges of the Bombay Native States. The Government has 11 colleges in Bengal, 4 in Madras, 3 in the United Provinces, 2 in Bombay, and one each in the Punjab, Burma, the Central Provinces, and Assam. Fifty-five of the private managed colleges are aided and 85 unaided. Aided-colleges are most numerous in Madras which has 30; and unaided colleges in Bengal and the United Provinces which have 25 and 16, respectively. During the quinquennium the net addition to the number of colleges comprised one Government institution (Cotton College, Gauhati), a Bombay Native State college, 4 aided colleges, and 19 unaided colleges.

#### State aid.

**Madras.** 201. There are 30 aided colleges in MADRAS. The general regulations relating to grants-in-aid apply to colleges as well as to schools, and as they are detailed in the next chapter it is not necessary to set them out in this place. Colleges are always aided on the system styled the "salary grant" system; the amount of aid depends upon the qualifications of the teachers and not on the grade of the institution. For graduates of non-Indian Universities who possess high academic qualifications, the grant may amount to one-half the total salary; for other graduates of non-Indian Universities it may amount to one-third; for lecturers holding Indian trained teachers' certificates it may amount to one-third, and for lecturers holding untrained teachers' certificates to one-fourth.

**Bombay.** 202. There are 5 aided colleges in BOMBAY. To qualify for a grant-in-aid a college must be affiliated up to the B. A. standard, and must fulfil the general conditions laid down for secondary schools. The aid is given in the form of an average attendance grant of R100 a year for each pupil subject to a maximum of R2,500 a year for each of the three divisions of the course; additional grants, not exceeding R2,500 in all, may be given to any college in which the average attendance exceeds 150, or where two or more classical languages are taught, or where instruction is given other than that prescribed for the arts examinations. The maximum grant therefore amounts to R10,000 a year. In accordance with the general rule, the Government grant may not exceed one-half of the local assets or one-third of the total expenditure during the previous official year. Annual grants on account of the maintenance and extension of libraries, or of scientific apparatus, may be given up to R500 a year, but such grant may in no case exceed one-third of the total expenditure to be incurred. Initial grants for these purposes are dealt with separately.

**Bengal.** 203. Only 7 of the BENGAL private colleges are aided; they include 5 missionary colleges, one native college, and one European girls' collegiate school. Colleges are aided under the fixed grant system, in accordance with the general regulations described for secondary schools. The grants may not exceed one-half of the income guaranteed from private sources (or in the case of Calcutta one-third), and the grants are ordinarily made for a term of three years.

**Other provinces.** 204. There are 7 non-European aided colleges in the UNITED PROVINCES which receive grants-in-aid, the amount of which depends upon (1) the standard maintained, (2) the tuitional expenditure, and (3) the average number of students in attendance. The minimum grant may not exceed half the tuitional expenditure. The 3 aided colleges of the PUNJAB are all mission institutions; they receive fixed grants which are settled on the merits of each case. There is one small mission college in BURMA which receives aid on the principles laid down for secondary schools. The Morris and Hislop colleges of the CENTRAL PROVINCES receive aid on the general "fixed grant" system of the province.

#### Strength and Cost of Colleges.

**Strength.** 205. In Bombay a college contains on an average 194 pupils, in Bengal 185, in the Punjab 104, in Madras 94, and in the United Provinces 57 (or 86 excluding the college classes attached to European schools). BOMBAY naturally comes first with only 7 colleges in British territory none of which contains less than 100 pupils, and 3 smaller colleges in Native States. Notwithstanding its large total of 44 colleges, BENGAL comes second to Bombay; higher

English education is more widely diffused in this province than in any other part of India. The Bengal average is derived from widely different figures; in Calcutta 8 of the colleges have more than 300 pupils and 8 of them have less than 50, and in the mofassal the contrast between the size of the different colleges is equally marked. The smaller figures frequently represent unaided second grade collegiate classes appended to high schools. The PUNJAB occupies an intermediate position, both as regards the average size of its colleges and the diffusion of higher English education. MADRAS has, in comparison with its population, the very large number of 40 colleges, and notwithstanding that it comes next to Bengal by the criterion of the diffusion of higher English education, the average size of its colleges is small. This province is characterized by the existence of a large number of aided second grade collegiate schools; only one-third of the aided colleges of the Presidency have more than 50 pupils, and several of them have less than 20. The UNITED PROVINCES come below the other Provinces with a considerable number of colleges and a relatively small diffusion of higher English education.

The largest college in India is the Madras Christian College; it had 743 pupils on the rolls on the 31st March 1902.

206. The average annual cost of a college in the same five provinces, <sup>Cost.</sup> according to the figures of 1901-02, is as follows:—

	R
Bombay . . . . .	85,282
Bengal . . . . .	18,695
United Provinces . . . . .	16,484 (or R24,709 excluding European college classes.)
Madras . . . . .	15,766
Punjab . . . . .	14,189

The average cost is highest in the two provinces in which the average size is greatest; but whereas the Bombay average college is only slightly larger than the Bengal college, it is almost twice as expensive. In all grades of institutions education is, in general, run on much cheaper lines in Bengal than in Bombay.

The Presidency College at Calcutta with 611 pupils cost more than any other college in India; in 1901-02 its total expenditure amounted to R1,70,674. In sharp contrast the private Bangabasi College in the same city, with 616 pupils, spent only R16,536.

### College Life.

#### Introductory.

207. An Indian University student is required to pursue a prescribed course of study in a college affiliated to the University. We have now given an <sup>Scope of the section.</sup> account of the affiliated colleges, and the next step is to examine what the obligation to follow a prescribed course of study in one of them means to the undergraduate.

208. At the outset it must be explained that all undergraduates are not <sup>Private students.</sup> required to study in affiliated colleges, and that a number of private students are admitted to the various examinations of the Universities. Section 12 of the Acts of Incorporation of the Universities of Calcutta, Madras, and Bombay permits exemption by special order of the Senate, and in Madras the Senate have delegated this duty to the Syndicate. In the Allahabad University the exemption made by the regulations extends only to inspecting officers of the Educational Department and schoolmasters. The Punjab University accepts college and private students indifferently. The following figures for the B. A. examination of 1901-02 illustrates the extent to which the practice of admitting private students prevails in the several provinces:—

Province.	Public candidates.	Private candidates.
Madras . . . . .	688	131
Bombay . . . . .	293	91
Bengal . . . . .	1,934	181
United Provinces . . . . .	204	13
Punjab and North-West Frontier . . . . .	206	107
Burma . . . . .	17	...
Central Provinces . . . . .	48	...
TOTAL . . . . .	3,390	523

In the Punjab the proportion of private candidates was nearly one-half of the total; in Bombay it was nearly one-third, and in Madras nearly one-fifth. In Bengal the private candidates are mainly teachers and inspecting officers.

#### Terms and Vacations.

209. In most of the Universities the college year is divided into two terms, with one long vacation and one shorter interval. The dates and periods of terms and vacations are adjusted with reference to climatic conditions and differ greatly from one University to another. The dates also differ somewhat from college to college. The dates of the Entrance and B. A. examinations of the several Universities are approximately as follows:—

University.	Entrance examination.	F. A. and B. A. examinations.
Calcutta . . . . .	Beginning of March . . . . .	Middle of March.
Madras . . . . .	Beginning of December . . . . .	First half of December.
Bombay . . . . .	Middle of November . . . . .	November.
Allahabad . . . . .	Middle of January . . . . .	Middle of March.
Punjab . . . . .	Middle of March . . . . .	Middle of March.

In the Presidency College at Calcutta the year is arranged as follows:—

*First term.*—Middle of June until the Durga Pujahs, *i.e.*, until about the beginning of September.

*Durga Pujah vacation.*—About three weeks.

*Second term.*—Until Christmas.

*Christmas holidays.*—About ten days.

*Third term.*—Beginning of January until about the middle of April.

*Summer vacation.*—Middle of April until the middle of June.

Second and fourth year students do not attend the third term; they revise their studies by themselves for the F. A. and B. A. examinations, respectively. In the Presidency College at Madras the first term begins after the December examinations and ends on the 10th May, and the second term begins on the 14th July. In the Bombay University the arrangement is as follows:—

*First term.*—Beginning of January until the middle of April.

*Vacation.*—Middle of April until the 9th June.

*Second term.*—10th June until the end of September.

*Vacation.*—Beginning of October until the end of December.

At Allahabad the examinations come in the middle of March, and in most colleges the long vacation ends in the middle of July. In the Punjab the summer vacation extends from about the beginning of August until about the middle of October, and the working year is broken up by the examinations which occupy the second half of March and the first half of April.

#### Tuition.

Lectures and private tuition.

210. In most colleges teaching in the arts subjects is given almost exclusively by means of lectures delivered by the college professors, and there is little instruction by tutors or "coaches" similar to that which is given at Oxford and Cambridge. On the other hand the number of lectures is much greater than in the Universities of the United Kingdom. It was stated before the Indian Universities Commission that whereas a student in a Scottish University may obtain his degree after attending about 700 lectures, the Indian student often attends as many as 3,000.

211. According to the time-tables in Volume II, in the Presidency College at Madras, the number of lecture hours per week is 25; in the Elphinstone College at Bombay a student taking up English, a classical language, history, and mathematics attends 30 hours' lecture a week in his fourth year; in the Presidency College at Calcutta the number of hours of lecture are less, amounting to 18 hours a week in the fourth year; in the Muir Central College at Allahabad a

student taking up English, political economy and history would attend for 21 hours a week in his fourth year, and a student taking up English, mathematics, and science for 36 hours a week; in the Government college at Lahore a student taking up either English, Sanskrit and philosophy, or English, mathematics, and chemistry, would attend for 27 hours a week in his fourth year.

212. Attendance at the college lectures is compulsory. Before presenting himself for any University examination, the candidate must produce a certificate from the principal of his college to the effect that he has followed the prescribed course of instruction leading up to that examination. To take, for instance, the examination for the degree of Bachelor of Arts, the course for which occupies in each University two years divided into four terms. At Calcutta the certificate must show that the candidate has attended 66 per cent. of the lectures delivered in his college in each of the subjects in which he is to be examined. In the Allahabad University the candidate must have attended not less than 75 per cent. of the lectures, and the certificate must state that there is nothing against his character which ought to debar him from graduating. In Madras it must be certified that the candidate has attended during each term of the course of instruction for three-fourths of the working days of the term and that his progress and conduct have been satisfactory. The Bombay certificate must show the number of days on which the candidate has attended during each term, and must state that he is of good conduct and that he has the permission of the principal to appear at the examination. Compulsory attendance.

213. Many college professors hold preliminary and other examinations, both written and oral, to test the progress of their students and their fitness to appear at the University examinations. In a well regulated college promotion from class to class is refused to students who do not make satisfactory progress. It is the general practice to hold college examinations of this character at the end of the first and third years of the arts course at which stages there are (excepting the Bombay previous examination) no University tests. College examinations and class promotion.

214. Besides attending the lectures the student has the use of the college library and laboratory. It is only the large colleges that can afford good reference libraries. Of late years greater attention has been paid to laboratories and to practical training in science colleges. Some colleges, such as the Presidency College at Calcutta and the Muir Central College at Allahabad, are exceedingly well furnished in this respect. But in some of the smaller colleges which teach science subjects for the B. A. degree the laboratory equipment leaves much to be desired. The Allahabad affiliation rules for science colleges prescribe separate laboratories for physics and chemistry, suitably furnished and equipped, and give detailed lists of the apparatus which should be supplied. Libraries and laboratories.

215. The Indian Universities Commission criticised the college teaching in the following passage:— Criticism on college teaching.

In a rightly governed University, examination is subordinate to teaching; in India teaching has been made subsidiary to examination.

The lectures which the student values most are those which aim only at selecting the points on which examiners are most likely to set questions; and the books which are most carefully studied are not those prescribed by the University, but abstracts and 'keys' which present a bald outline of the original, together with notes on passages or phrases likely to be set. We consider that the use of keys ought in every way to be discouraged by college authorities, and we hope that University teachers will not lend themselves to a bad system by composing keys to books included in University courses.

#### Residence.

216. Students usually live with their friends when the latter reside in the town in which the college is situated; students who have to leave home in order to attend college live in lodgings, in students' messes, or in boarding houses attached to the colleges. The lodgings and messes are not always suitable places for students, either as regards their surroundings or their arrangements (see for instance the remarks under Bombay and Bengal in the Chapter on Physical and Moral Training). Some steps towards their improvement have been taken during the period under review. In Madras the University passed a rule that students General system.

must live with their parents or guardians, or in hostels, or in approved lodgings ; the rule was made not long before the end of the quinquennium and had not been strictly carried out when the quinquennium came to a close. The new Bengal Government rules regarding the residence of students (Chapter XVI) apply to Government and aided colleges, but many unaided colleges are not bound by them ; similar rules have been made for the Central Provinces (Chapter XVI).

Hostels.

217. A considerable, and an increasing, number of pupils live in boarding houses attached to the colleges. In most cases the boarding house serves a single institution, but some of the large boarding houses in the big towns take students from several institutions in the neighbourhood. Where a college and school are combined in one institution the boarding house is not infrequently used for both school and college students. In most cases the hostel is in the same building or compound with the college, but sometimes it is situated at a distance. The hostel is in general managed by a superintendent under the control of the principal ; the superintendent may or may not be a professor of the college. The residential life does not form such an intimate and important part of the training as it does in a European college ; nevertheless when the hostel is well managed it adds greatly to the value of the college education—it ensures a proper supervision over the students out of lecture hours, it increases the facilities for common games and amusements and for social intercourse, and it gives the college staff a greater opportunity for exercising a wholesome influence over the boys entrusted to their charge. The hostels vary greatly in merit, both as regards buildings and equipment, and as regards efficiency of management. Some of them are located in fine buildings, with clean and well kept rooms. On the other hand the Universities Commission said : “ we have seen cubicles hardly fit for occupation, and some hostels are untidy and ill-managed.”

Statistics of hostels.

218. Taking all the provinces together on an average one student in 7 lived in a college hostel in 1901-02 ; in 1896-97 the corresponding proportion was one in 9. The proportion varies greatly from province to province ; the percentage of male boarders on male students being as follows :—

Punjab . . . . .	52·3
United Provinces . . . . .	40·0
Bengal . . . . .	7·1
Bombay . . . . .	5·7
Madras . . . . .	5·4

In the Punjab and the United Provinces the boarding house system is more appreciated by the people than it is in the three older provinces, and residence in college has become the common practice for those boys whose parents do not live in the town where the college is situated.

Punjab hostels.

219. In the PUNJAB, with some minor exceptions, every college has its boarding-house. At Lahore the Government college has a hostel for Hindus and Muhammadans, which was built at a cost of R70,000 and was opened in 1891 ; near it is a residence for the principal who has the general supervision of the boarders—an assistant professor lives on the premises. The Forman Christian College has a new boarding house designed to accommodate 150 students and built with the aid of a Government grant. A house immediately adjoining the new building is to be occupied by one of the professors, who will exercise personal supervision and control. The boarding house of the Dayanand Anglo-Vedic College has recently been improved at a cost of R1,400, and a prayer-hall has been provided. Nearly half the students in the Islamia College reside in the college boarding house ; it is managed by an assistant superintendent who works under the immediate control of the principal. Similar provision for boarders is made in the colleges at Delhi, Amritsar, etc.

Hostels in other provinces.

220. All the more important colleges in the UNITED PROVINCES have their boarding houses, some of which are fine buildings ; the management in some cases needs improvement. Out of the total number of 574 BENGAL college boarders, 392 live in Government hostels ; in general the many private colleges of Bengal,



whether situated in Calcutta or in the mofassal, have no boarding arrangements. The two most important hostels under Government management are the Eden Hostel and the Elliott Madrassah Hostel; the former is intended chiefly for Hindu students of the Presidency College and of the Hindu and Hare schools; the latter takes students of the Calcutta Madrassah and Muhammadans from other colleges and schools. The Eden Hostel had 237 inmates in 1901-02, and the Elliott Hostel 100; the average monthly cost of a student was R10 in the Eden Hostel and R3 in the Elliott Hostel—the latter figure does not include the cost of food for which the students make their own arrangements. Hostels of this character, which take in students from several institutions and both undergraduates and school-boys, cannot exercise the same influence on college life as a hostel in which the students of a single college live together. In BOMBAY almost all the arts colleges are more or less supplied with boarding accommodation, but only one in 18 students lives in a college hostel. The Fergusson College at Poona has an excellent boarding house. In MADRAS the proportion of male college students living in hostels is smaller than in any other province. The most important boarding houses are the Victoria Hostel, Madras, and the hostels attached to the Madras Christian College. Like the Eden Hostel at Calcutta, the Victoria Hostel accepts students from various institutions, but the majority of the inmates belong to the Presidency College. At the end of 1901-02 a grant of R70,000 had been made for its extension. The Madras Christian College was one of the pioneers of the hostel system; there are three well managed hostels attached to the college—one for Christians, one for Brahmans, and one for non-Brahman Hindus. In each case the superintendent is one of the European professors, and the manager who resides in the hostel (in two cases) is one of the native teachers. The manager is responsible to the superintendent for morale, cleanliness, etc. There are also managing committees among the students. The hostels are self-supporting except in the matter of buildings and repairs. In BURMA the Government College had 55 boarders out of 133 students, and the Baptist College 9 boarders out of 15 students. All the three CENTRAL PROVINCES colleges are provided with hostels, but only 43 out of 282 students were in residence. In ASSAM 47 out of 57 students of the Government Cotton College resided in the college hostel.

#### Games and Amusements.

221. Even in the case of non-resident students, connection with a college is not entirely confined to lecture hours. Many colleges have reading rooms for the undergraduates, furnished with papers and periodicals. Cricket, football, and other college sports have become very popular, and much interest is taken by students in the inter-collegiate matches. Again, in many colleges the students form debating, literary, and other similar societies among themselves. In all these ways the members of the college are brought into friendly relation with one another and with their professors, and a corporate character is given to the college life.

#### Discipline.

222. There is not much to be said about the discipline maintained in Indian colleges. Allowing for what has been said above, the college is, for the great majority of the students, mainly a place for attending lectures, and the rules of discipline have mostly reference to orderly and respectful behaviour in class. The means by which discipline is enforced are similar to those used in secondary schools, modified so as to make them applicable to boys of greater age. The ordinary age for matriculation, however, is from about 14 to 17, so that a large number of the University students are still in the school-boy stage of life. The Indian Universities Commission remarked that Indian students are rarely guilty of disorder, but that they need close and friendly supervision. This supervision can be most readily and effectually provided in well-managed residential colleges.

223. The Indian Universities Commission found that in several Universities the students have been allowed to migrate from one college to another at will. "Where this is the case," they said, "it is not surprising to find that the students are said to be 'masters of the situation.' If the teaching or discipline of a college does not suit their ideas they can go to another." One evil resulting from this free transfer is that a struggling college will sometimes seek to attract to itself pupils from more stable and sound institutions.

Conduct of students and character of discipline.

Transfer rules. Inter-collegiate.



The rules of affiliation of the Madras University require a student seeking transfer to bring with him a leaving certificate showing: (a) that he has paid his dues, (b) the class in which he was studying, (c) the subjects he studied, and (d) whether he has qualified for promotion to a higher class. The certificate must be endorsed with the admission number under which the student is enrolled in his new college, and must be submitted to the Syndicate whenever required. The Government of Bengal has prescribed a set of rules which regulate the transfer of students between colleges over which the Education Department exercises control. Strict rules are prescribed by the University of Allahabad. The four Arts colleges at Lahore and the St. Stephen's College at Delhi have themselves adopted a set of inter-college rules. The Director states that a comprehensive set of rules regulating the relations of the various colleges to one another and to the University is much needed.

Inter-  
University.

224. Students are allowed, under conditions, to transfer themselves from one University to another; that is to say, having passed one examination of the course in the first University they may study for the next examination in the second University. The regulations of the several Universities differ in this respect. The Madras University is the most exclusive, as it does not in practice recognize the examinations of other Universities except in the case of those students who have *bonâ fide* changed their residence. At Bombay the examinations of other Universities may be recognized, if accepted by the Syndicate, at the examinations before that for the M.A. degree, but a candidate for that degree must be a bachelor of the Bombay University. Graduates of other Universities may be admitted to the M.A. examination at Allahabad by grace of the Syndicate.

### University Courses.

#### General features.

Entrance.

225. Students enter the University after passing the entrance or matriculation examination. The conditions which must be fulfilled by candidates for this examination, and the character of the examination itself, will be described in the Chapter on Secondary Education, since these subjects belong to the discussion of the secondary school course.

Preliminary  
course.

226. Except at Bombay, the undergraduates begin their course by two years' general study leading up to the Intermediate or First Arts examination,\* and after passing this examination they proceed to the special course for which they elect. At Bombay an examination styled the "Previous examination" is held at the end of the first year, and is, in general, the starting point for the special courses; at the end of the second year an intermediate examination is also held either in arts or science, but students need not wait to pass it before beginning their studies in engineering or agriculture. The Bombay medical course may begin immediately after matriculation.

List of  
courses.

227. The following is a list of the courses followed in the various Universities:—

	<i>Calcutta.</i>		<i>Madras.</i>
Arts. Science.	Law. Medicine.	Arts. Law.	Medicine. Engineering. Teaching.
	<i>Bombay.</i>		<i>Allahabad.</i>
Arts. Science. Law.	Medicine. Engineering. Agriculture.	Arts.	Science. Law.
		<i>Punjab.</i>	
	Arts. Science.	Engineering.	Law. Medicine.

\* The examination is called 'Intermediate' at the Universities of Bombay, Allahabad and the Punjab, and 'first arts' at the Universities of Calcutta and Madras.

The various professional courses are described in the Chapter on Professional and Technical Education, and in the present chapter we are concerned only with the courses in arts and science. In all Universities science subjects may be included in the arts course, but everywhere (except at Madras) a separate science course is also provided.

228. The following degrees in arts and science are granted by the several Universities :— Degrees in arts and science.

- Bachelor of Arts—by all Universities.
- Bachelor of Science—by all Universities except Madras.
- Master of Arts—by all Universities.
- Doctor of Science—by Calcutta, Allahabad, and the Punjab.
- Doctor of Literature—by the Punjab only.

In all Universities the course for the degree of Bachelor of Arts or Science extends over two years from passing the intermediate examination, *i.e.*, over four years from the time of entering the University. The conditions regulating admission to the M. A. and D. Sc. degrees vary and will be noticed later on.

#### Intermediate Course.

229. The two years of the intermediate or first arts course, during which the student pursues his general studies, may be regarded as the conclusion of the school curriculum. English forms the most important subject of the course. Many students enter the University without ever having heard English spoken by an Englishman, and at first it is not easy for them to fully understand the lectures delivered by English professors. The following is an outline of the intermediate course :— Outline of the course.

#### CALCUTTA.—Compulsory subjects :—

- |                      |                           |
|----------------------|---------------------------|
| 1. English.          | 3. Mathematics.           |
| 2. Second language.  | 4. Physics and chemistry. |
| 5. History or logic. |                           |

Candidates may also take up one of the following :—

- |              |                       |
|--------------|-----------------------|
| (a) Logic.   | (c) Physiology.       |
| (b) History. | (d) Sanitary science. |

#### MADRAS.—The following subjects are compulsory :—

- |                     |                                |
|---------------------|--------------------------------|
| 1. English.         | 3. Mathematics.                |
| 2. Second language. | 4. Physiology or physiography. |
| 5. History.         |                                |

#### BOMBAY.—The following subjects are compulsory :—

- | <i>Previous.</i>    | <i>Intermediate.</i>        |
|---------------------|-----------------------------|
| 1. English.         | 1. English.                 |
| 2. Second language. | 2. Second language.         |
| 3. Mathematics.     | 3. Mathematics and physics. |
| 4. History.         | 4. Logic.                   |

Students for the science degree follow the general previous course, and then a special intermediate course consisting of the following subjects :—

- |                     |               |
|---------------------|---------------|
| 1. English.         | 3. Chemistry. |
| 2. Mathematics.     | 4. Physics.   |
| 5. General biology. |               |

ALLAHABAD.—The subjects are divided into three groups, of which candidates must take up the first and either the second or third—

*Group 1.*—English and a first course of mathematics.

*Group 2.*—Logic, a second language, either history or a second course of mathematics.

*Group 3.*—A second course of mathematics, and physics and chemistry.

A student intending to read for the Degree of Bachelor of Science must study physics and chemistry in his intermediate course.

**PUNJAB :—**

1. English.
2. Second language.
3. Mathematics.
4. One of the following :—
 

(a) History.	(c) A branch of physical or natural science.
(b) Philosophy.	(d) A third language.

A student following the science course must take up the following subjects :—

1. English.
2. Mathematics.
3. Physics and chemistry.
4. One of the following :—
 

(a) Botany and zoology.
(b) Physiology.
(c) Geology.

Subjects of  
the course.

230. *English*.—In Calcutta and Bombay the examination comprises questions on the text-books and an essay. In Madras the papers are on (1) text-books, (2) language, (3) essay, and (4) translation from the second language. In Allahabad papers are set on the text-books and unseen passages; the examination also includes translation from the vernacular, or essay for candidates whose vernacular is English. The Punjab examination includes reading, questions on the text-books, paraphrase or translation, and essay.

231. *Second Language*.—In Calcutta, Bombay, and the Punjab the languages are classical or European; in Allahabad, only classical; and in Madras, classical, European, or Indian vernacular. The papers are in all cases on the set text-books, on grammar and idiom, and on translation to and from the language. In Madras essay writing forms part of the vernacular language examination. The list of classical languages includes in all Universities Sanskrit, Arabic, Persian, Hebrew, Greek, and Latin; Pali is added at Calcutta, and Avesta and Pahlavi at Bombay. At Calcutta an optional paper is set on original vernacular composition.

232. *Mathematics*.—In Calcutta and the Punjab the papers are on arithmetic, algebra, Euclid, geometrical conics, trigonometry and logarithms. In Madras they include only algebra, Euclid, and trigonometry. In Bombay the subjects for the previous examination are algebra and Euclid, and for the intermediate examination, trigonometry and elementary physics. The first course of mathematics at Allahabad includes arithmetic, algebra, and Euclid; and the second course trigonometry and geometrical conics.

233. *History*.—In Calcutta and Madras the examination is confined to the outlines of Grecian and Roman history, and in Bombay either Grecian or Roman history may be taken up. In Allahabad the course includes English history, and either Grecian and Roman history, or the British period of Indian history. In the Punjab there is one paper on general history and one paper on the history of Greece and Rome.

234. *Philosophy*.—Deductive Logic is an elective subject at Calcutta and Allahabad, and a compulsory subject in the intermediate examination at Bombay. Deductive Logic with the elements of psychology is an elective subject in the Punjab.

**Course for the Degree of Bachelor of Arts.**

235. **CALCUTTA**.—There are two alternative courses, one of a literary and the other of a scientific character. The subjects in each are as follows :—

*A Course.*

1. English
2. Philosophy.
3. One of the following :—
 

(a) Classical language.
(b) History.
(c) Mathematics.

*B Course.*

1. English.
2. Mathematics.
3. One of the following :—
 

(a) Physical Science.
(b) Biology.
(c) Geology.

**MADRAS.**—

1. English.
2. A classical, or a European or Indian vernacular language.
3. One of the following :—
 

(a) Mathematics.	(c) Natural science.
(b) Physical science.	(d) Philosophy.
(e) History.	

Outline of  
the course.

## BOMBAY.—

1. English.
2. Classical language.
3. History and political economy.
4. One of the following :—
 

<ol style="list-style-type: none"> <li>(a) Language and literature (English and a classical language).</li> <li>(b) Philosophy.</li> <li>(c) Mathematics.</li> </ol>	<ol style="list-style-type: none"> <li>(d) Physical science.</li> <li>(e) Natural science.</li> <li>(f) Roman History, law and general jurisprudence.</li> </ol>
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## ALLAHABAD.—

The subjects are divided into three groups :—

*Group 1.*—English.

*Group 2.*—Philosophy, political economy with political science, mathematics, and physics.

*Group 3.*—History, a classical language, and chemistry.

Candidates must take up (a) group 1, (b) one subject in group 2, and (c) a subject in either group 2 or group 3.

PUNJAB.—There are, as in Calcutta, two courses, in one of which the second subject is literary and in the other scientific.

*A Course.*

1. English.
2. A classical language.
3. One of the following :—
  - (a) A course of mathematics.
  - (b) History and political economy.
  - (c) Philosophy.
  - (d) Physical or natural science.
  - (e) A second classical language.

*B Course.*

1. English.
2. A course of mathematics or a branch of physical or natural science.
3. One of the following :—
  - (a) A course or second course of mathematics.
  - (b) A branch or second branch of physical or natural science.
  - (c) Philosophy.
  - (d) History and political economy.
  - (e) A classical language.

236. *English.*—The course in all Universities includes text-books and an essay. In Madras, English language and literature and translation are added. In Allahabad, unseen passages are set. The scope of the examination may be illustrated by the text-books studied at Calcutta and Madras. In the Calcutta examination of 1902, the books studied were :—Poetry: two plays from Shakespeare, two books of Paradise Lost, and selections from Tennyson's Lyrical Poems. Prose: Burke, two speeches and a letter, Pattison's Life of Milton. In the Madras examination of the same year, selections were set from the Works of Chaucer, Shakespeare, Dryden, Keats, Browning, Dickens, Oliver Wendell Holmes, and Matthew Arnold. Subjects of the course.

237. *Second Language.*—The following languages are common to the examinations of all the Universities :—Greek, Latin, Sanskrit, Hebrew, Arabic, and Persian. In Calcutta, Pali is another alternative language. In Madras, in lieu of a classical language, a candidate may take up an Indian vernacular or French or German. In Bombay, Avesta, Pahlavi, and French are included in the list of alternatives. The nature of the examination is much the same in all the Universities. The main portion consists of translation of passages from set authors, with grammatical and other questions on the passages, and on the set works generally. Candidates are also required to translate unseen passages, both from and into a selected language. In Madras a portion of one paper is devoted to general questions on grammar, structure, and idiom, and the writing of an essay is included in the examination in vernacular languages. The writing of an essay also forms part of the Punjab examination in Persian.

238. *Philosophy.*—In Calcutta the subjects are psychology, logic, and ethics; in Madras, physiology, psychology, general philosophy, logic, and ethics; in Bombay, logic and moral philosophy; in Allahabad, psychology and ethics; and in the Punjab, psychology, ethics, and inductive logic or natural theology. In Bombay, Allahabad, and the Punjab the course consists of prescribed text-books. In Calcutta several alternative text-books are given for each subject. In Madras general text-books are not prescribed, but certain advanced books are set, e.g., a portion of Kant's works.

239. *History*.—The course varies considerably in the different Universities. The character of the course may be illustrated by the subjects set at Calcutta and Madras for the examination of 1902 :—

Calcutta :—

- (1) History of England,  
Gardiner's Students' History.
- (2) History of India,  
Elphinstone—Hindu and Muhammadan periods,  
Meadows Taylor—Students' Manual, British period.
- (3) History of Greece, Oman,  
History of Rome, Shuckburgh.
- (4) Political Economy,  
Fawcett's Manual.

Madras :—

- (1) Outlines of the History of India.
- (2) History of Great Britain since the conquest, with special reference to its constitution.
- (3) Outlines of the History of Europe, A.D. 14—800.
- (4) Political science—a prescribed syllabus.
- (5) Political economy—a prescribed syllabus.
- (6) Special subjects: (a) Sir W. W. Hunter's History of British India, Vol. I, (b) Maine's Ancient Law.

240. *Mathematics*.

Calcutta :—Statics, dynamics, hydrostatics, and descriptive astronomy.

Madras :—Pure mathematics: algebra including indeterminate equations of the first degree, Euclid, geometrical conics, plane and the elements of spherical trigonometry, theory of equations, analytical geometry including the general equation of the second degree, portions of Todhunter's Differential Calculus.

Mixed mathematics: statics, dynamics, hydrostatics, geometrical optics, and astronomy.

Bombay :—First paper: geometrical and analytical conic sections.

Second paper: elements of differential and integral calculus.

Third paper: statics and dynamics.

Fourth paper: hydrostatics and optics.

Allahabad :—First paper: analytical geometry.

Second paper: differential and integral calculus (portions of Williams and Edwards).

Third paper: statics and dynamics (Hicks).

Punjab :—First course: statics, dynamics, and hydrostatics.

Second course: analytical geometry (including the general equation of the second degree), differential and the elements of integral calculus.

The course of mixed mathematics does not in any University require the use of differential and integral calculus.

241. *Physical Science*.—In Calcutta and Bombay the examination includes physics and chemistry. In Madras the course consists of experimental physics and inorganic chemistry and *either* mixed mathematics and more advanced physics *or* more advanced chemistry. In Allahabad the candidate may take up either physics or chemistry as one elective subject, or physics and chemistry as two elective subjects. In the Punjab the candidate may be examined in either physics or chemistry, or in both.

The course of physics at the Bombay, Allahabad, and the Punjab Universities includes practical work. The course of chemistry includes practical training everywhere except at Calcutta.

242. *Natural Science*.—In Calcutta the course includes (a) physiology and either botany or zoology, or (b) geology and either mineralogy or physical geography.

In Madras the course includes general biology and one of the following :—botany, animal physiology, zoology, geology (including mineralogy and palæontology).

At Bombay the course is confined to botany and zoology.

In the Punjab the student may choose any one of the following subjects:—  
zoology, botany, animal physiology, and geology.

There is a practical course everywhere except at Calcutta.

243. At the Calcutta University a student may follow an honours instead of the ordinary pass course in any subject for the degree of Bachelor of Arts. In the honours course additional and more advanced subjects are added to those for the pass course. Honours  
course,  
Calcutta.

#### Course for the Degree of Bachelor of Science.

244. The degree of Bachelor of Science was first taken at Bombay in 1882, at Allahabad in 1897, and at Lahore and Calcutta in 1902. It is much less popular than the B. A. degree; in 1901-02, it was taken by only 13 candidates—6 at Bombay, 3 at Allahabad, and 2 each at Calcutta and Lahore.

The following is an outline of the course:—

##### CALCUTTA.—

- |   |  |                                 |
|---|--|---------------------------------|
| (1) English—a short essay on some scientific subject. |  | (3) Physics.                    |
| (2) Statics and dynamics.                             |  | (4) Chemistry.                  |
| (5) and (6) Any two of the following:—                |  |                                 |
| (a) Physiology.                                       |  | (d) Geology.                    |
| (b) Botany.   |  | (e) Mineralogy.                 |
| (c) Zoology.  |  | (f) Hydrostatics and astronomy. |
|   |  |                                 |

##### BOMBAY.—Any two of the following subjects:—

- |                                     |  |                        |
|-------------------------------------|--|------------------------|
| (1) Mathematics.                    |  | (4) Botany.            |
| (2) Experimental physics.           |  | (5) Zoology.           |
| (3) Chemistry.                      |  | (6) Animal physiology. |
| (7) Physical geography and geology. |  |                        |

##### ALLAHABAD.—The following subjects are compulsory:—

- |                  |  |                |
|------------------|--|----------------|
| (1) English.     |  | (3) Physics.   |
| (2) Mathematics. |  | (4) Chemistry. |

PUNJAB.—English and any of the following subjects or groups of subjects:—

- |                                |  |                             |
|--------------------------------|--|-----------------------------|
| (1) Mathematics and astronomy. |  | (4) Geology and mineralogy. |
| (2) Physics and chemistry.     |  | (5) Physiology.             |
| (3) Botany and zoology.        |  | (6) Agricultural science.   |

The courses all include practical work, but the Indian Universities Commission expressed the opinion that the practical side must be made more prominent than it has been in the past history of the degree.

#### Course for the Degree of Master of Arts.

245. In all Universities the degree of Master of Arts is given after examination, but the preliminary conditions differ considerably. In Calcutta and Allahabad the candidate may be either a B. A. or B. Sc., and in Madras, Bombay, and the Punjab he must be a B. A. The Calcutta B. Sc., must take his M. A. degree either in mathematics or science. In the Calcutta, Bombay, and Punjab Universities, any graduate in arts or science (as the case may be) may be admitted to the examination, but in Bombay he cannot take the degree until five years from the date of matriculation. At Madras the candidate cannot go up for the M. A. examination until two years after graduation; at Allahabad a two years' interval from graduation and a course of study lasting one year are prescribed, but the interval may be reduced to one year in the case of honours students (*i.e.*, who obtained more than 75 per cent. of the marks in the particular subject at the B. A. examination). General  
course.

246. The subjects of the M. A. course are:—(1) languages; (2) history; (3) philosophy; (4) mathematics; and (5) physical or (except in the case of Allahabad) natural science. In Calcutta and the Punjab the candidate may take up one or more of the above subjects before proceeding to the degree; in Bombay and Allahabad only one; in Madras one or more, but not more than one in a year. The *language* subject includes the following:—Calcutta, English (for those whose vernacular is not English) or a classical language; Subjects.

Madras, a classical language or a group of Indian vernacular languages; Bombay, English with one or more classical or European or Indian vernacular languages; Allahabad and the Punjab, English or a classical language.

The course for the M. A. degree is much more advanced than that for the B. A. degree. Calcutta produces by far the largest number of M. A.'s, and the following details relating to the Calcutta course illustrate the degree of attainments which are considered necessary.

*Languages.*—The examination includes papers on a number of text-books, questions on comparative grammar and an essay in English on some subject connected with the history or literature of the language. The English course includes Anglo-Saxon. In the classical language examination, the candidate is required to translate from and into English.

*History.*—(1) history of England; (2) constitutional history of England; (3) selected period of history; (4) political philosophy, general jurisprudence, and international law; (5) political economy and economic history; (6) essay.

*Philosophy.*—Psychology, logic, ethics, natural theology, political philosophy, and history of Indian and European philosophy.

*Mathematics.*—There are two courses in one of which the principal subject is pure, and in the other mixed, mathematics. The first course includes subjects up to spherical trigonometry, theory of equations, and differential calculus. The second course includes subjects up to rigid dynamics.

*Science.*—In this subject the student may specialize and take up any one of the following:—

- (1) chemistry; (2) heat, electricity, and magnetism as principal subjects, and light and sound as subsidiary subjects; (3) the above subjects with the order of importance reversed; (4) botany; (5) physiology and zoology; and (6) geology and mineralogy.

Relative  
popularity  
of different  
subjects.

247. Seven hundred pupils passed the M. A. examination during the years 1898 to 1902; the following table shows the subjects in which the candidates took their degree:—

English . . . . .	226	French . . . . .	9
Sanskrit . . . . .	48	Madras vernaculars . . . . .	3
Arabic . . . . .	8	History . . . . .	49
Pali . . . . .	1	Philosophy . . . . .	89
Persian . . . . .	32	Mathematics . . . . .	84
Avesta and Pahlavi . . . . .	5	Physical science . . . . .	117
Hebrew . . . . .	2	Natural science . . . . .	20
Latin . . . . .	9		

English is much the most popular subject, and on the whole it is no doubt the easiest; the English total does not include the Bombay students who take up English with a second language. It is interesting to note that there were 48 Sanskrit students against only 8 students of Arabic; the easier Persian is preferred to Arabic. The proportion of students taking up philosophy, mathematics, and physical science (mostly at Calcutta) is large. Eighteen of the Sanskrit M. A.'s came from the Sanskrit College at Calcutta, 7 from the Deccan College, and 3 from the Oriental College at Lahore. The Arabic M. A.'s (other than the private candidates) passed from the Muir Central College at Allahabad, the Elphinstone College, and the Muhammadan Anglo-Oriental College at Aligarh. The Duff College at Calcutta had the largest number of M. A.'s in Philosophy (36), and the Presidency College, Calcutta, came next with 24; the Deccan College had 8 M. A.'s in philosophy or in combined history and philosophy. Most of the M. A.'s in mathematics came from the Presidency College, Calcutta (27), and the General Assembly's Institution, Calcutta (24); three each passed from the Government College at Dacca, the Elphinstone College, and the Government College at Lahore. Both the Presidency College at Calcutta and the Muir Central College at Allahabad make a speciality of instruction in physical science, the former produced 67 and the latter 8 M. A.'s in this subject; 9 students took the science degree from the Government College at Lahore.

Doctor of  
Literature,  
Punjab.

248. The regulations of the Punjab University make provision for the grant of the degree of Doctor of Literature to M. A.'s of distinction who are of five years' standing and who prepare an approved dissertation; no one has succeeded in qualifying for this degree.

## Course for the Degree of Doctor of Science.

249. The degree of Doctor of Science is granted after examination at Calcutta, Allahabad, and Lahore. At Calcutta, a candidate who has passed the B. Sc. and M. A. examinations, and a subsidiary examination, is eligible for the D. Sc. examination two years after passing the M. A. examination. At Allahabad, the candidate must, after passing the B. Sc. examination, follow a three years' course in either mathematics, physics, or chemistry in the Muir Central College, which is the only institution affiliated up to the D. Sc. standard; he is examined by the University at the end of each year of the course. In the Punjab, a Bachelor of Science may present himself after two years for the D. Sc. examination. The new Calcutta regulations for the Doctorship of Science had not come into practical operation at the end of the quinquennium, and in all only two students took the D. Sc. degree (both at Allahabad) during the period under review.

## Professors.

250. There are about 1,000 professors and teachers in the arts colleges; of these nearly 350 belong to Bengal and about 275 to Madras. The great majority are graduates of Indian or non-Indian Universities; the European professors with English or other non-Indian degrees belong mainly to the Government and mission colleges, and to the colleges for Europeans. The teachers of oriental languages are frequently without arts degrees, but some of them hold oriental titles or (in the Punjab) oriental degrees. The 272 teachers in Madras were classified as follows:—

English degrees or diplomas . . . . . 45	Lower qualifications . . . . . 29
Graduates of Indian Universities . 157	No special qualifications . . . . . 41

Sixty-seven of the Indian professors and teachers held trained teachers' certificates. In Bombay, the classification was as follows:—

M. A. . . . . 37	Other degrees or diplomas . . . . . 23
B. A. . . . . 43	Without special qualifications . . . . . 29

These figures group together English and Indian qualifications. In the Punjab the professors and teachers held the following qualifications:—

M. A. . . . . 32	B. A. . . . . 26	Other qualifications . . . . . 22
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The other qualifications include oriental degrees such as that of *Shastri* or *Maulavi Fazil*, and departmental teachers' certificates, etc.

251. The following table shows the staff of six of the principal Government colleges:—

Presidency College, Calcutta.	Presidency College, Madras.
Principal and Professor of English Literature.	Principal.
3 Professors of English Literature.	1 Professor of English Literature.
2 Professors of Sanskrit.	1 Junior Professor of English.
1 Professor of Arabic and Persian.	1 Professor of Sanskrit and Comparative Philology.
2 Professors of Philosophy and Logic.	1 Professor of History.
2 Professors of History and Political Economy.	1 Professor of Philosophy.
3 Professors of Mathematics.	1 Professor of Mathematics.
3 Professors of Physical Science.	1 Professor of Chemistry.
2 Professors of Chemistry.	1 Professor of Physics.
1 Professor of Geology.	1 Professor of Biology.
1 Professor of Biology.	1 Senior Assistant Professor.
1 Lecturer on Sanitary Science.	8 Junior Assistant Professors.
1 Demonstrator of Chemistry.	1 Latin Master.
1 Demonstrator of Physics.	1 Arabic, Persian, and Hindustani Master.
	1 Sanskrit Master.
	1 Malayalam Master.
	1 Telugu Master.
	1 Tamil Master.
	1 Kanarese Master.
24 Total—11 Professors of the Indian Service and 13 Professors of the Provincial Service.	26 Total.



Elphinstone College, Bombay.	Muir Central College, Allahabad.
Principal and Professor of English Literature. 1 Professor of English and History. 1 Professor of Oriental Languages. 1 Lecturer in Persian. 1 Professor of History and Political Economy. 1 Professor of Logic and Philosophy. 1 Professor of Mathematics. 1 Lecturer in Experimental Physics. 1 Professor of Biology. 2 Assistant Teachers of Oriental Languages.	Principal. 1 Professor of English Literature. 1 Assistant Professor of English Literature. 1 Professor of Sanskrit. 1 Professor of Arabic and Persian. 1 Assistant Professor of Arabic and Persian. 1 Professor of Mathematics. 1 Assistant Professor of Mathematics. 1 Professor of Physics. 1 Professor of Chemistry.
11 Total.	10 Total. (Law staff excluded).
Government College, Lahore.	Government College, Rangoon.
Principal and Professor of English Literature. 1 Professor of Philosophy. 1 Professor of History. 1 Assistant Professor of History and Philosophy. 1 Professor of Mathematics. 1 Assistant Professor of Mathematics. 1 Professor of Science. 1 Assistant Professor of Natural Science. 1 Assistant Professor of Biology.	Principal. 1 Lecturer in English. 1 Lecturer in Pali and Assistant Lecturer in English. 1 Lecturer in Mathematics and Logic. 1 Lecturer in Chemistry and Physics. 1 Assistant Science Lecturer.
9 Total.	6 Total.

## Examinations.

### Appointment of Examiners.

252. CALCUTTA.—Examiners are appointed by the Syndicate. In the Arts Faculty examiners are appointed both to set and mark papers, but in some cases separate examiners are nominated for the two purposes. Moderators are appointed only for the F. A. and entrance examinations, but in higher examinations in the Arts Faculty two or more persons are appointed to set the papers in any subject; and it is their joint duty to moderate them. In other Faculties the President of the Faculty is *ex-officio* President of the Board of Examiners. Examiners are usually selected from among the professors of the colleges affiliated to the University, but, when necessary, persons unconnected with the University are also chosen.

253. MADRAS.—Examiners are appointed by the Syndicate, nominations being invited each year from Fellows of the University and heads of affiliated colleges. The examiners are usually graduates of the University and professors of affiliated colleges. Outsiders are rarely appointed. Teachers who prepare for the examinations are not excluded. For the purpose of appointing examiners, subjects or groups of subjects are fixed. There are twenty-one such groups in Arts, two each in Law and Medicine, and one in Engineering. The examiners selected for a subject or group of subjects, conduct and are responsible for the examinations in those subjects as a body. One of the examiners in each group is appointed by the Syndicate to be the Chairman. The Board moderates the papers belonging to its group of subjects.

254. BOMBAY.—Examiners are appointed by the Syndicate. In the great majority of cases they are either Fellows or graduates of the University. Outsiders are generally appointed in one or two subjects of the M. A. examination.

Only such teachers as prepare candidates for the matriculation are precluded from examining in the subject in which they teach. Moderators are appointed in a few subjects of the matriculation examination.

255. ALLAHABAD.—Permanent Boards of Examiners are appointed by the Syndicate for the subjects of the B. A., M. A., B. Sc., and D. Sc. Examinations, which are divided for this purpose into ten groups. Each Board consists of three Fellows. The Boards appoint examiners subject to the confirmation of the Syndicate, and may select examiners from amongst themselves. The papers set by the examiners are revised by the Board. Examiners for the entrance and intermediate examinations are appointed by a committee of the Syndicate subject to the approval of the Syndicate, and the papers which they set are reviewed by the permanent Boards. Examiners are as a rule Fellows of the University or European professors of colleges. Teachers are not excluded, but in all examinations above the intermediate, one examiner is appointed in each case who is not engaged in teaching in a college affiliated to the University.

256. PUNJAB.—In all subjects except law the examiners are appointed by the Syndicate subject to the confirmation of the Senate. Teachers who prepare for any examination are debarred from examining in a subject in which they teach, and the examiners appointed for those examinations for which students are prepared by the recognized colleges are often engaged in teaching in other provinces. Moderators are not appointed, but to secure uniformity examiners are in general re-appointed for several years. Model papers are prepared by the Faculties and serve for guidance. In the case of any departure from the usual standard the Board of Studies may intervene.

#### Conduct of Examinations.

257. In general a syllabus is drawn up for the various subjects of each examination and is to be found in the University Calendar. The Calendar also publishes the last set of papers. The various examinations in English, in other languages, in history, and in philosophy are, to a very large extent, based on prescribed text-books. General questions are also as a rule set, and translations and essay writing are required. In mathematics the examinations comprise both book-work and problems, and in some cases it is laid down that a certain percentage of marks must be given for book-work. Outside the scientific subjects the examinations are conducted almost entirely by written papers and answers. The Universities of Bombay, Allahabad, and the Punjab have *viva voce* examinations in English. Except at Calcutta, most of the science examinations for the Bachelor of Arts degree have a practical side, but greater importance is attached to the practical portion of the examination in the case of the science degrees.

258. In order to pass any of the examinations a candidate must succeed in obtaining a prescribed minimum percentage of marks. For the B. A. Examinations the prescribed percentage is as follows :—

CALCUTTA.—Thirty per cent. in each subject and 36 per cent. in the aggregate.

MADRAS.—One-third in each division.

BOMBAY.—Thirty per cent. in each subject, provided that if the candidate fails to obtain 30 per cent. in one subject but secures more than 45 per cent. in the aggregate, he may be passed subject to certain conditions.

ALLAHABAD.—One-third in each group of subjects.

PUNJAB.—Forty per cent. in each obligatory subject and 33 per cent. in the elective subjects.

Successful candidates are in general divided into classes or divisions, the percentage of marks obtained regulating admission to the higher class. It is the general rule that a candidate who fails in any examination may present himself again as often as he pleases.

259. The matriculation examination is held by each University at a number of centres; the intermediate examination is also held at centres which are fewer in number than those appointed for the matriculation examination. Examinations above the intermediate are all held at the University towns, except that Calcutta has fourteen centres for the B. A. examination.

## Examination Statistics.

260. The figures in this section relate only to the area dealt with in the Review, and not to the total number of University candidates.

Intermediate examination.

261. In the intermediate examination 7,549 candidates presented themselves in 1901-02 against 6,035 in 1896-97. The number of candidates in 1901-02 amounted to 94 per cent. on the number of students who passed the entrance examination\* in 1899-1900. This is a high percentage, especially as a considerable proportion of those who pass the entrance examination do not pursue a University career. The explanation is that candidates are allowed to go up repeatedly for the examination in the hope of eventually passing it; in Madras and Bengal the number of candidates at the intermediate examination exceeded the number of students who passed the entrance examination two years previously. The percentage of successful candidates was 42 in 1901-02 against 39 in 1896-97. In both years the percentage of passes was lower in Madras and Bengal than in Bombay, the United Provinces, and the Punjab. The percentage was 43 in the case of college candidates, and only 23 in the case of private candidates.

B. A. examination.

262. In the B. A. examination there were 3,913 candidates in 1901-02 against 3,222 candidates in 1896-97. The total exceeded by 1,273 the total number of students who passed the intermediate examination in 1899-1900; the explanation is again that unsuccessful candidates often present themselves several times for examination. In every province except Burma, the number of B. A. candidates exceeded the number of intermediate examination passes of two years previously, and in Bengal (where the percentage of passes is lowest) the excess amounted to 955.

The number of candidates was greater in 1901-02 than in 1896-97 in Bombay, Bengal, the Punjab, and Burma, and smaller in Madras, the United Provinces, and the Central Provinces. There were 523 private candidates in 1901-02 against 347 in 1896-97; the number increased in each University province.

The percentage of successful candidates was 37 in 1901-02 against 42 in 1896-97; among college students the percentage was 39 and among private students 26. The percentage of passes in the principal provinces was as follows:—

	1901-02.	1896-97.
United Provinces . . . . .	68	49
Bombay . . . . .	62	80
Madras . . . . .	55	66
Punjab . . . . .	43	34
Bengal . . . . .	21	24

B. Sc. examination.

263. In the B. Sc. examination the number of Bombay candidates fell from 19 in 1896-97 to 6 only in 1901-02; there were 12 candidates for the new Bengal examination; the United Provinces candidates diminished from 8 to 5; and there were two Punjab candidates. All the candidates were college students. Rather more than half the candidates passed both in 1896-97 and in 1901-02; in Bombay, and the Punjab they all passed; in Bengal the passes were 2 out of 12, and in the United Provinces 3 out of 5.

M. A. examination.

264. In the M. A. examination there were 301 candidates in 1901-02 against 302 in 1896-97, but in the former year there were 99 private candidates and in the latter year only 64. The change in the proportion of private candidates is due to Bengal which returned 60 in 1896-97 and 30 in 1901-02. The M. A. candidates were distributed by provinces as follows:—

Bengal . . . . .	183
Bombay . . . . .	83
United Provinces . . . . .	31
Punjab . . . . .	31
Madras . . . . .	22
Central Provinces . . . . .	1

\* Including the Allahabad school final examination.

The principal changes were a rise of 9 in Bombay and a fall of 11 in Bengal; in the latter province, however, the number of college students increased by 19. In commenting on the small number of M. A. candidates in Madras the Director says:—

The standard of the M. A. degree examination is very markedly higher than that of the B. A. degree examination, especially in the scientific subjects, and there are very few colleges which are in a position to give the necessary instruction. Moreover, the M. A. degree is not, as the B. A. degree is, a necessary qualification for the higher appointments in Government service, although no doubt the higher degree gives its possessor some advantage, especially in the teaching profession. It is, therefore, not very likely that the number of candidates for the M. A. degree will much increase, at least as long as conditions remain the same as they are at present.

The number of M. A. candidates in Bengal is always much greater than in the other provinces; the M. A. degree gained in popularity when the annual number of students taking the B. A. degree increased so greatly as to detract from the value of the qualification from the point of view of the best students.

The percentage of passes was 47 in 1901-02 against 44 in 1896-97. The percentage stood as follows in the several provinces:—

Punjab . . . . .	68
United Provinces . . . . .	48
Madras . . . . .	45
Bengal . . . . .	43
Bombay . . . . .	36

265. During the five years of the quinquennium under review 40,408 students passed the entrance examination; 13,942 students passed the intermediate examination, 6,778 students passed the B. A. or B. Sc. examination, and 693 students the M. A. examination. In other words among every 100 students who pass the entrance examination about 35 pass the intermediate examination, and about 17 graduate in arts or science; whilst about 3 in every 200 take the M. A. degree. A certain number of students are diverted after passing the entrance or intermediate examination into the professional courses, but allowing for this circumstance the percentage of 17 is a very small one and illustrates what is said in the chapter on secondary education regarding the miscellaneous uses to which the entrance examination is put. General results.

### Students.

266. The total number of collegiate students, omitting those outside the area dealt with in this Review, amounted in 1901-02 to 17,148; the increase during the quinquennium under review was 3,215, during the previous quinquennium 1,509, and during the period 1887-88 to 1891-92 4,364. Nearly one-half of the total number of students belong to Bengal, and nearly half the remainder to Madras. In the five University provinces the number of boys of school-going age of whom one was in an arts college stood as follows:— Total and provincial statistics.

Bengal . . . . .	711
Madras . . . . .	755
Bombay . . . . .	1,029
Punjab . . . . .	1,319
United Provinces . . . . .	2,562

During the quinquennium Bengal gained 1,766 pupils, Bombay 877, Madras 239, the Punjab (with the North-West Frontier Province) 160, and the United Provinces only 44. Thus the United Provinces are not only behind the other provinces in the diffusion of collegiate education, but also show the least progress. The Bombay figures of 1896-97 were affected by plague.

267. Rather more than one quarter of the students were in colleges under public management; of these, nearly 4,000 were in Government colleges, and the balance comprised 263 students of the five Board colleges of Madras, Bengal, and the Punjab, and 228 students of the three Native State colleges of the Bombay Presidency. The pupils of private managed colleges numbered nearly 13,000, and 54 per cent. of them were in aided institutions. Out of 5,806 students of Statistics according to management.

unaided colleges, 4,541 belonged to Bengal. During the quinquennium the increase in the number of students in different classes of institutions was as follows:—

Government colleges	448
Aided colleges	993
Unaided colleges	1,695

Bengal accounts for 1,329 out of the total increase under the last head.

Race or creed of students. 268. The following table shows, by race or creed, the number of boys among 10,000 of school-going age, of whom one was a student in an arts college:—

Parsis	471
Christians	42
Hindus	12
Muhammadans	3
Buddhists	2

The Parsi community evidently appreciates to the full the advantages of a collegiate education. The Christians include both Europeans and Eurasians and Native Christians. The relative superiority of Hindus over Muhammadans is discussed in the Chapter on Muhammadan Education.

Male and female students. 269. Out of the total 17,148 collegiate students, 177 were females; they were distributed as follows:—

Bengal	55
United Provinces	49
Madras	35
Bombay	30
Burma	8

Race or creed of graduates. 270. The following table shows the race or creed of the students who took the B. A. and M. A. degree in 1901-02:—

Degree.	Europeans and Eurasians.	Native Christians.	HINDUS.		Muhammadans.	Parsis.	Buddhists.	Un-classified.
			Brahmans.	Non-Brahmans.				
B. A.	15	62	513	697	107	40	3	4
M. A.	1	4	33	71	12	4	...	2

(Excludes private candidates in Bengal.)

## Finance.

### Expenditure.

General statistics.

271. The total expenditure on arts colleges amounted to 25½ lakhs in 1901-02; it increased by 2½ lakhs during the period under review, as compared with 3¼ lakhs during the previous quinquennium, and with 4 lakhs during the years 1887-88 to 1891-92. Out of the total expenditure about 8¼ lakhs was incurred in Bengal, 6½ lakhs in Madras, 4¼ lakhs in the United Provinces, 3½ lakhs in Bombay, and 1½ lakhs in the Punjab. There was an increase of expenditure of R86,000 in the United Provinces, of R74,000 in Bengal, of R48,000 in the Punjab, and of only R9,000 in Madras. In Bombay the total expenditure diminished by R17,000.

Cost of education.

272. The average annual cost of educating a college student, according to the figures for 1901-02, stood as follow in the five University provinces:—

	R
United Provinces	278
Madras	195
Bombay	188
Punjab	136
Bengal	97

The averages are composed of items differing greatly in amount. The average annual cost in four of the large Government colleges was as follows:—

	R
Presidency College, Madras . . . . .	311
Government College, Lahore . . . . .	285
Elphinstone College, Bombay . . . . .	254
Presidency College, Calcutta . . . . .	251

The following are the figures for some of the large mission colleges:—

	R
Madras Christian College . . . . .	145
Wilson College, Bombay . . . . .	144
St. Xavier's College, Bombay . . . . .	117
* Forman Christian College, Lahore . . . . .	104
General Assembly's Institution, Calcutta . . . . .	99

And the following are the figures for some of the large Native colleges:—

	R
Pachaiyappa's College, Madras . . . . .	214
Fergusson College, Poona . . . . .	87
* Dayanand Anglo-Vedic College, Lahore . . . . .	49
Metropolitan Institution, Calcutta . . . . .	40
Bangabasi College, Calcutta . . . . .	31

The Fergusson College is well equipped, but its expenditure is reduced by the circumstance that the professors are content to give their services for a very small remuneration. The low figures of the Calcutta colleges illustrate the cheapness of private managed education in Bengal.

273. Out of the total expenditure of 25½ lakhs, 9½ lakhs were derived from public, and 16 lakhs from private, sources. The public funds comprise R8,96,000 Provincial Revenues, R46,000 Native State Revenues, and R27,000 Municipal and Local Board funds. The private funds comprise 9½ lakhs from fees, and 6½ lakhs from other sources. During the quinquennium the expenditure from Provincial Revenues diminished by R67,000, the expenditure from fees increased by R2,31,000, and the expenditure from other private sources by R70,000. Expenditure from Provincial Revenues diminished by R78,000 in Bengal and by R38,000 in Bombay; in Madras it remained practically stationary; and in the United Provinces it increased by R23,000 and in the Punjab by R14,000. The increase of expenditure from fees during the past three quinquennial periods has been as follows:—

	R
1887-88 to 1891-92 . . . . .	2,63,000
1892-93 to 1896-97 . . . . .	1,11,000
1897-98 to 1901-02 . . . . .	2,31,000

Progress, which declined during the middle quinquennium, has been satisfactory during the quinquennium under review. All provinces shared in the increase; in Bengal it amounted to a little over one lakh. Expenditure from "other private sources" diminished considerably in Madras and Bombay, but increased in Bengal, the United Provinces, and the Punjab.

The following table shows how the expenditure on Government, aided, and unaided colleges is met:—

(Figures in thousands of rupees.)

Class of college.	Public funds.	Fees.	Private sources.	Total.
Government . . . . .	6,55	3,60	32	10,47
Aided . . . . .	2,59	3,87	3,76	10,22
Unaided . . . . .	...	2,04	2,20	4,24

In the aided colleges the public contribution (derived from Provincial Revenues supplemented by small grants from Municipal and Local Funds) amounts to 69 per cent. of the sum derived from endowments, subscriptions, and other private sources.

\* Calculated on the number of pupils on the rolls on the 31st March 1902.

## Fees.

General  
principles.

274. The levy of fees in arts colleges is a somewhat vexed question. The general principles which have been approved by the Government in respect of advanced education are to the effect that all institutions maintained by the State must refrain from competing with aided or private institutions by charging lower fees, and that the Departments of Public Instruction and the managers of private institutions should co-operate to raise the fees gradually and cautiously in all colleges. This policy aims at rendering the institutions maintained or aided by the State less and less dependent on assistance from public revenues, and is also designed to secure greater efficiency and success in the private managed institutions. The needs of poor students are most appropriately met (1) by the provision of scholarships for more able boys, and (2) by means of endowed colleges which cheapen education for all poor students irrespective of their ability.

275. The principle that institutions maintained by the State must refrain from competing with private managed institutions by charging lower fees is acted on universally, and on the whole the rates levied in Government colleges and the few Municipal colleges are adequate. In aided colleges the Government is able to exercise control over fee rates and the admission of free students, and in most cases the position is satisfactory. The principles which should be followed have given occasion to some discussion and controversy in the Madras Presidency which has 30 out of the total 55 aided colleges. But it is in the case of the unaided colleges that the greatest difficulties have arisen. This aspect of the question is of most importance in Bengal, which has more than three quarters of the total number of unaided college students. The Government exercises no control over the fee regulations of these colleges, except where the college wishes to receive Government scholarship holders or for its students to compete for such scholarships, and hitherto the Universities have taken no steps to ensure the levy of adequate fees. Some colleges have taken advantage of this freedom to lower fees to a point inconsistent with efficiency, thus diminishing their own capacity for affording a good education and interfering with the work of other institutions. The Universities Commission drew the following picture of the evils resulting from practices of this nature :—

The evidence placed before us has shown that if a minimum rate of fees is not enforced, the standard of education and discipline is lowered. We were not satisfied with the state of some of the aided or even of some of the Government colleges which we inspected, but in the unaided colleges, where the smallest fees are levied, the conditions were far worse. At some of the unaided colleges we found that the professors and teachers were inadequately paid; that the buildings and class rooms were unsuitable; that the educational appliances for general teaching were inadequate; and that the apparatus and laboratories for science and other special teaching were of the most primitive description, and not even up to the requirements at an ordinary board or primary school in England, or in Europe generally. These results must be mainly traced to the undue competition among a number of colleges which are driven, in order to attract students, to charge very small fees.

General  
statistics.

276. In all arts colleges taken together the average incidence of fees per pupil was R57 in 1901-02 as compared with R52 in 1896-97. The following table shows the average annual incidence in various classes of colleges :—

FIRST GRADE COLLEGE.

Class of College.	Province.	Average annual incidence of fees.
Government	Madras	87
	Bombay	93
	Bengal	92
	Punjab	86
	Madras	70
Aided	Bombay	67
	Bengal	42
	Punjab(a)	66
	Madras	52
Unaided	Bengal	34
	Punjab(a)	34

\* The fee statistics for private managed colleges are subject to the remarks made on pages 440-441.  
(a) Calculated on the number of pupils on the rolls on the 31st March 1902.

## SECOND GRADE COLLEGES.

Class of College.	Province.	Average annual incidence of fees.
Government	Madras	63
	Bengal	37
Aided	Madras	55
	Bengal	41
	Punjab <sup>(b)</sup>	65
Unaided	Madras	67
	Bengal	54 <sup>(a)</sup>
	Punjab <sup>(b)</sup>	34

NOTE.—Information is not available for the United Provinces.

(a) Excluding the Burdwan College, in which no fees are charged.

(b) Calculated on the number of pupils on the rolls on the 31st March 1902.

277. In the Madras Presidency College the rates of fees are R30 a term for the M. A. course, R52 a term for the B. A. course, and R38 a term for the F. A. course. For other public managed colleges the following standard rates are laid down: M. A. course, R24 a term; B. A. course, R42 a term; and F. A. course, R34 a term. In Bombay the rates of fees are R120 a year in the Elphinstone College and R80 a year in the Deccan College. The highest rate of fees—R12 a month—is charged in the Presidency College at Calcutta; this rate appeared to the Universities Commission to be about as high as can be appropriately charged in India. At Government Colleges in the Bengal mofassal, the rate charged is R5 or R6 a month; special rates are prescribed for backward classes or districts, thus in the Chittagong College the rate is R3 a month, and for Muhammadans it is R2 or R4 a month. In the Government colleges of the United Provinces the fee is R8 a month for the F. A. classes, R10 a month for the B. A. classes, and R12 a month for the M. A. class. The same rates are charged in the Government and Board Colleges of the Punjab. In the Rangoon College the rates are R7 a month in the F. A. classes and R9 a month in the B. A. classes. In the Government College at Jubbulpore the fee rates depend upon the income of the parents and vary from R30 to R96 a term in the F. A. and B. A. classes.

The following table shows the fee incidence in some of the large Government Colleges in 1901-02:—

	R
Presidency College, Madras	92
Elphinstone College, Bombay	104
Presidency College, Calcutta	146
Muir Central College, Allahabad	82
Government College, Lahore	86
Government College, Rangoon	70

The Calcutta total includes an entrance fee of R10 and various special fees, in addition to the ordinary tuition fee of R12 a month; and similarly the Madras total includes reading-room and laboratory fees.

278. In the MADRAS Presidency a minimum rate of fees was prescribed in aided institutions for about fifteen years, but it was abolished by the Local Government at the end of 1891. The Universities Commission found opinion divided as to the effect of this change of policy. "Some witnesses attribute a decline in discipline and in the tone of education to the competition between different institutions which has, they allege, resulted from it; others contend that it was not possible to secure that the managers of aided institutions realized from students the fees which they entered in their accounts as paid, and that, as a matter of fact, false statements of the amounts realized were not infrequently furnished by them." The standard fee rates given above are used in estimating the fee income of an aided college for the purpose of the grant-in-aid code, but during the quinquennium under review the expenditure of these institutions always exceeded the available grant by more than the fee income, so that the rule had practically no effect. There is no prescribed minimum fee for aided schools in BOMBAY, but there is no difficulty in securing the levy of a reasonable fee under the Bombay system of large central colleges. In BENGAL, no grant-in-aid is given to a college which does not levy an adequate fee; the rates sanctioned are fairly low—about R5 or R6 in the large Calcutta colleges.



In the UNITED PROVINCES and in the PUNJAB aided colleges are required to levy a minimum fee of 75 per cent. of the rate in force in Government colleges. The following table shows the fee incidence in 1901-02 in some of the large aided colleges both mission and native :—

*Mission Colleges.*

	R
Madras Christian College . . . . .	76
St. Joseph's College, Trichinopoly . . . . .	78
Wilson College, Bombay . . . . .	62
St. Xavier's College, Bombay . . . . .	77
Duff College, Calcutta . . . . .	44
London Missionary Society's Institution, Calcutta . . . . .	46
Forman Christian College, Lahore* . . . . .	64
St. Stephen's College, Delhi* . . . . .	77

*Native Colleges.*

Pachaiyappa's College, Madras . . . . .	50
Fergusson College, Poona . . . . .	55
Victoria College, Narail (Bengal) . . . . .	57

Unaided colleges.

279. It has already been stated that the rate of fees levied in unaided colleges is practically uncontrolled. Apart from Bengal, the only provinces with a considerable number of unaided colleges are the United Provinces and the Punjab. The 16 unaided colleges of the United Provinces had only 411 pupils; ten of them are collegiate classes attached to European high schools. The seven unaided colleges of the Punjab had 588 pupils; the most important are native sectarian colleges, which charge low fees but have large subscriptions or endowments. The following statement shows the average incidence in 1901-02 of the fees levied in the unaided Native colleges of Calcutta :—

	R
Metropolitan Institution . . . . .	40
City College . . . . .	23
Ripon College . . . . .	55
Bangabasi College . . . . .	27
Central College . . . . .	21
Albert College . . . . .	39

In the City and Central Colleges the greater part of the expenditure is met by endowments and other private sources.

Free students.

280. In Madras no restriction is laid down with regard to the number of free studentships which may be granted in private managed institutions. In Bombay free students are rarely admitted to Government colleges, but a certain amount of latitude is allowed to aided colleges. In Bengal 5 per cent. of Hindu free students and 8 per cent. of Muhammadan free students are allowed in Government and aided colleges; in unaided colleges free studentships are granted frequently and without control. In aided colleges of the United Provinces free and half-rate students are limited to 5 per cent. in each case. In the Punjab no free students are allowed in Government or aided colleges, but half rates may be charged up to a limit of 10 per cent. of the number of pupils on the rolls.

*Scholarships.*

System.

281. In all provinces there is a general system of public scholarships paid from Provincial Revenues; the first set of the scholarships are granted on the result of the entrance examination and are tenable for two years; the second set are granted on the results of the intermediate examination and are also tenable for two years; sometimes a third grade of scholarships is given on the result of the B. A. examination tenable for one or more years, in order to assist the student to prosecute his higher studies, and perhaps to go up for the M. A. examination. In some provinces the three grades of scholarships are named respectively junior, senior, and graduate.† Some of the scholarships are open to all competitors from recognized institutions, others are reserved for special classes, such as females, Muhammadans, low castes, or aboriginals. Six State scholarships of the value of £200 a year, tenable by graduates for three years in England, are placed at the disposal of the Indian Universities; two scholarships are awarded annually,

\* Calculated on the number of pupils on the rolls on the 31st March 1902.

† For the sake of convenience these terms are used throughout the present section.

each University receiving a scholarship in turn. In addition to the various classes of Government scholarships, there are a number of private scholarships and prizes; many of them are awarded by the Universities from the proceeds of endowments which they hold in trust for the purpose.

282. The total expenditure on scholarships held in arts colleges was Expenditure. R2,67,398 in 1901-02 against R2,36,182 in 1896-97; all provinces except Berar and Coorg participated in the increase. The expenditure may be classified by sources as follows:—

	R
Provincial Revenues . . . . .	1,70,054
Native State Revenues . . . . .	6,416
Municipal and Local Funds . . . . .	3,800
Fees . . . . .	6,152
Private sources . . . . .	80,946
<b>TOTAL</b>	<b>2,67,398</b>

283. The following table shows the actual number of scholarship holders in Scholarship holders. 1901-02 for those provinces for which the information is available:—

Madras . . . . .	84
Bombay . . . . .	428
United Provinces . . . . .	491
Punjab . . . . .	207
Burma . . . . .	49
Assam . . . . .	142
Berar . . . . .	9

Some of the Assam scholarships are held in the province and some in Bengal; the Berar scholarships are held in Bombay.

284. We may now state briefly the arrangements in force in the different Provincial arrangements. provinces:—

MADRAS.—The scale of Government scholarships\* is as follows:—

	Number.	Monthly value.
		R
Junior . . . . .	25	7
Senior . . . . .	8	10
Graduate . . . . .	6	20

In 1901-02, two of the graduate scholarships were awarded in mathematics and four in science; five went to the Presidency College and one to the Madras Christian College. Of the eight senior scholarships offered in the same year, only three were awarded and the balance went to increase the number of junior scholarships of which 32 were awarded (seven to females).

285. BOMBAY.—The scholarship holders for 1901-02 comprised 418 boys and 10 girls; they derived their scholarships from the following sources:—

- 52 from Provincial Revenues.
- 35 from Native State Revenues.
- 99 from fees.
- 242 from private sources.

Of the total expenditure only R6,404 was derived from Provincial Revenues against R20,956 from private sources; there are many University scholarships and a number of private scholarships tenable by inhabitants of certain districts and members of particular communities.

286. BENGAL.—The following is the scale of Government scholarships:—

	Number.	Monthly value.
Graduate . . . . .	3	100 (tenable for three years).
Senior . . . . .	52 (a)	10 at R25 40 at R20
Junior . . . . .	155 (b)	10 at R20 47 at R15 95 at R10

The graduate scholarships were first given in 1900. The rules provide that ordinarily two scholarships shall be awarded to students who propose to carry on original research in scientific subjects, and one scholarship for research

\* Called in Madras F. A., B. A., and M. A. scholarships.

(a) Includes 2 special scholarships for females. (b) Includes 3 special scholarships for females.

in literary subjects. The lower value senior and junior scholarships are divided territorially. The principal private scholarships in Bengal are the Premchand Roychand studentships which are maintained from a fund of 2 lakhs held in trust by the University. There are five studentships each of the value of Rs. 1,400 a year. Candidates must be M. A.'s or Doctors of some faculty and they compete at a special examination. This examination is held annually and one studentship is given on the result. A wide list of literary and scientific subjects is prescribed; a candidate may not take up more than two subjects. The studentship is tenable in the first instance for three years and the holders must engage in some work of original research; if their progress is held to be satisfactory the studentship may be extended for another three years. There were five studentship holders at the end of the quinquennium; four came from the Presidency College, and one from the Presidency College and General Assembly's Institution.

287. UNITED PROVINCES.—Of the 491 scholars of the United Provinces, 161 received their scholarships from Government and 330 from other sources. The following is the scale of Government scholarships:—

	Number.	Monthly rate.
		R
Graduate . . . . .	5	{ 20 (tenable for 18 months).
Senior . . . . .	12	{ 12 first year. 15 second year.
Junior . . . . .	24	{ 8 first year. 10 second year.

288. PUNJAB.—The following is the scale of *open* Government college scholarships:—

	Number.	Monthly rate.	
		First grade.	Second grade.
		R	R
Graduate . . . . .	1	25	20
Senior . . . . .	3	16	12
Junior . . . . .	20	12	10

First grade scholarships are awarded to students who pass in the first division, and second grade scholarships to those who pass in the second division. *Close* college scholarships are occasionally awarded by Municipal and Local Boards. Special college scholarships are awarded by the Government for the encouragement of education among Muhammadans and among the sons of Hindu and Sikh Jat and Rajput agriculturalists.

289. BURMA.—The following is the scale of college scholarships:—

	Number.	Monthly rate.
		R
Senior . . . . .	5	16
Junior . . . . .	20	12

These scholarships are tenable at either of the Burma colleges.

290. CENTRAL PROVINCES.—There are a considerable number of Government scholarships in the Central Provinces, some of which are tenable within and some without the province, and some in arts colleges and others in professional colleges. The total number is as follows:—

	Number.	Monthly value.
		R
Graduate . . . . .	2	14 or 20
Senior . . . . .	6	10 or 15
Junior . . . . .	27	from 6 to 12

The value in the case of the graduate and senior scholarships depends on whether or not the scholar lives in his native town.

291. ASSAM.—The Assam Administration is specially liberal in the matter of college scholarships; some are held in Assam and some in Bengal, some in arts colleges and some in professional colleges, some are open scholarships and others are for special classes or localities.

292. **BERAR.**—There are three Government scholarships in this province of the value of R20 a month, each tenable in any college of the Bombay University. The period for which they run is 4 years, or 5 years in the case of those held at the Grant Medical College.

### Oriental Colleges.

#### Institutions.

293. The indigenous institutions for the study of Sanskrit and Arabic are described in the chapter dealing with private institutions; we are now concerned with those oriental colleges which are returned as public institutions. Only 5 institutions in all are shown under the head oriental colleges in the statistics—4 in the United Provinces and one in the Punjab. To them should be added two Bengal institutions included among the arts colleges. The following is a list of the seven institutions:—

Province.	Name of Institution.	Class of Institution.	Principal languages taught.	Number of students.
Bengal	Sanskrit College, Calcutta	Government.	Sanskrit . . . .	66
	Arabic Department of the Calcutta Madrassah.	Government	Arabic . . . .	339
United Provinces.	Sanskrit College, Benares	Government.	Sanskrit . . . .	351
	Oriental Department attached to the District School, Mirzapur.	Government	Arabic . . . .	5
	Oriental Department of the Canning College, Lucknow.	Aided.	Sanskrit, Arabic, and Persian.	} 60
	Chashma-i-Rahmat School, Ghazipur.	Aided.	Arabic . . . .	
Punjab	Oriental College, Lahore	Punjab University (aided).	Sanskrit, Arabic, Persian, and Gurmukhi.	87

#### Colleges of Bengal.

294. The origin of the *Sanskrit College, Calcutta*, has been noticed in an earlier part of the chapter; it is a Hindu, and mainly a Brahmanic institution, maintained by the Government. Instruction is given in English up to the F. A. standard, and in Sanskrit up to the M. A. standard, and there is also an oriental department in which Sanskrit teaching of a high order is imparted by more characteristically indigenous methods. A class has been opened for teaching the Vedas at the request and expense of the Mahant Maharaj of Tarkeswar. A Sanskrit library of printed works and manuscripts, recently revised and augmented, is attached to the college, and a Government grant of R600 a year is applied to the purchase of standard English and Sanskrit works. The Sanskrit staff consists of a professor of literature, a professor of Hindu law and rhetoric, a professor of grammar, a professor of Hindu philosophy, a professor of the Vedas, an assistant professor of literature, and eight other Pandits. The professors are all learned Hindus. In the oriental department, students study for the Sanskrit title examination which is held annually by the Government at the Sanskrit College and at other centres. Any person, wherever educated, may be admitted to the examination. At the last title examination, 62 candidates passed and obtained the title of *Tirtha* in various subjects. It is found that students usually elect subjects like literature and grammar, in preference to more difficult and abstruse subjects such as law or philosophy. During the quinquennium 18 candidates from the Sanskrit College passed the M. A. examination. A student who takes his degree in Sanskrit in the first division is given the title of *Shastri*. Formerly the University recognized only the study of literature, but of late years three higher branches have been added to the course, namely: general philosophy, logic, and Vedic literature. The oriental department of the Sanskrit College had 52 pupils on the 31st March 1902, against 54 five years previously; out of these 45 were in the title and 7 in the Vedic class. Special advantages in the shape of free studentships are enjoyed by 100 poor pupils, the amount of their school fees being paid by private liberality; 100 other pupils, who are sons of Pandits, are allowed by Government to pay fees at a reduced rate.

Sanskrit  
College,  
Calcutta.

Calcutta  
Madrassah.

295. The *Calcutta Madrassah* and the Government and private *Madrassahs* of the Bengal mofassal are described in the Chapter on Muhammadan education.

#### Colleges of the United Provinces.

Sanskrit  
College,  
Benares.

296. The old *Sanskrit College, Benares*, is located in the Government Queen's College; it has a purely oriental and an Anglo-Sanskrit department; the latter fails to attract many pupils and has not been a success. The oriental department is both a teaching and examining institution—a number of students are taught by a staff of learned Government Pandits, and candidates from a number of affiliated institutions, both within and without the United Provinces, are admitted to the examinations held by the Principal of the college. The diplomas of the college are highly esteemed, and its influence over Sanskrit teaching is growing—schools have been affiliated in such distant places as Vizianagram and Nepal. The staff of the oriental department comprises 5 professors and 7 assistant professors. One of the assistant professors devotes his whole time to the Sanskrit library and to the search for Sanskrit manuscripts. The college publishes a "Pandit Journal" in which texts are edited by the staff. The college examinations are divided into three grades—*prathama* (first), *madhyama* (intermediate), and *acharya*. For the *prathama* examination most of the candidates are outsiders; the number of outsiders diminishes as we ascend the scale and very few non-collegiate students enter for the *acharya* examination. The full *acharya* course lasts for six years after passing the *madhyama* examination; at the end of it the higher degree of *Acharya* or the lower degree *Upadhyaya* is awarded to successful students. Students take the degree in some branch of Sanskrit learning such as *Vyakarana*, *Nyaya*, *Dharmasastra*, etc. The Panini system of grammar is studied. In 1901-02, two candidates obtained the *Acharya* degree and 3 candidates the *Upadhyaya* degree. The number of pupils on the roll was 377 in 1896, it remained almost constant for the next five years, but fell in 1902 to 351.

Other  
institutions.

297. The oriental department of the *Canning College, Lucknow*, has between 30 and 40 students; it presents candidates at the oriental examination of the Punjab University, at the Sanskrit examinations of the Benares College, and at the *Mullah* examination (Arabic) which is held at the Muir Central College. The oriental department of the *Government High School, Mirzapur*, and the *Chashma-i-Rahmat School, Ghazipur*, prepare candidates for the *Mullah* examination. In 1901-02 five students, in all, passed this examination.

#### Oriental Learning in the Punjab.

Oriental  
branch of  
the Punjab  
University.

298. There are two departments of the oriental branch of the Punjab University. In the first department the degrees of Bachelor and Master of Oriental learning are conferred on candidates who have gone through a course of training analogous to that prescribed for the B. A. and M. A. courses on the English side, through the medium not of English but of the vernacular (Urdu). In the second department examinations are held in oriental languages and titles conferred on successful candidates.

Course for  
degrees in  
Oriental  
Learning.

299. The following is an outline of the course for degrees in Oriental Learning:—

#### *Entrance Course.*

##### Compulsory subjects:—

- (1) A vernacular language of India.
- (2) Sanskrit or Arabic.
- (3) Elementary Mathematics.
- (4) History and Geography.

##### Optional subjects, not more than one of the following:—

- (1) A second classical language.
- (2) English.
- (3) Persian.
- (4) Elements of physical science.

#### *Intermediate Course.*

##### Compulsory subjects:—

- (1) Sanskrit or Arabic.
- (2) Mathematics.

Elective subjects, any two of the following :—

- |                                   |  |
|-----------------------------------|--|
| (1) History.                      | (4) A second branch of physical science. |
| (2) Philosophy.                   | (5) A second classical language.         |
| (3) A branch of physical science. | (6) English.                             |
| (7) Persian.                      |  |

*Course for the Degree of Bachelor of Oriental Learning.*

Compulsory subject :—

Sanskrit or Arabic.

Elective subjects : any two of the following :—

- |                                   |  |
|-----------------------------------|--|
| (1) Applied mathematics.          | (5) A second branch of physical science. |
| (2) History, political economy.   | (6) English.                             |
| (3) Philosophy.                   | (7) Persian.                             |
| (4) A branch of physical science. | (8) Pure mathematics.                    |

The degree of *Master of Oriental Learning* may be taken in Sanskrit or Arabic, or in both these languages. The degree of *Doctor of Oriental Learning* is given on conditions similar to those governing the grant of the degree of Doctor of Literature, but no one has qualified for the degree.

300. The attempt of the Punjab University to foster the study of combined western and eastern learning through the medium of the vernacular has met with little success. The Universities Commission attributed this failure partly to neglect, and partly to the absence of proper text-books and the inherent difficulty of obtaining the services of lecturers competent to convey western learning to their pupils in the vernacular. "The preparation of suitable text-books in Urdu and Hindi was part of the original scheme of the University, but little or nothing seems to have been done in this direction. . . . The regulations for the degree of B. O. L. in such subjects as science indicate that some of the most modern and advanced text-books are required to be used and that they have to be taught through the medium of the vernacular (Urdu). Many of the text-books prescribed would be sufficiently difficult even if used in an English course. We are informed that there are no vernacular translations of such works, and so far as we have been able to ascertain, there are no professors in the Oriental College who have had the training or experience necessary to fit them to be professors in advanced courses of Science." Five students took the degree of M. O. L. in the years 1883 and 1885, and since then only seven candidates in all have qualified for it. In 1897 one candidate took a second class degree in Arabic, and in 1900 one candidate took a third class degree in the same subject. During the period under review 13 candidates took the B. O. L. degree.

301. With regard to the grant of oriental titles, the Punjab University performs functions similar to those entrusted to the Education Department in Bengal and the United Provinces. Three grades of examinations are held in Sanskrit, Arabic and Persian, and titles are granted to students who pass those examinations, and also an examination in general subjects or in English. The examination in general subjects is the entrance (English or Oriental) examination for the highest titles and the middle school examination for the lower titles; the standard of the test in English is that of the middle school examination. The following is a list of the titles corresponding to the several examinations :—

Grade.	Sanskrit.	Arabic.	Persian.
Highest . . . .	Shastri . . . .	Maulavi Fazil . . . .	Munshi Fazil.
Middle . . . .	Visharada . . . .	Maulavi Alim . . . .	Munshi Alim.
Lowest . . . .	Prajna . . . .	Maulavi . . . .	Munshi.

It is not necessary to pass the lower examinations before going up for the higher. Any student, wheresoever educated, may present himself for examination, and candidates appear from the United Provinces, Hyderabad, Rajputana,

Central India, etc., as well as from the Punjab. In 1902, 20 candidates received the title of *Shastri*, 11 candidates the title of *Maulavi Fazil*, and 15 candidates the title of *Munshi Fazil*.

Vernacular  
examinations.

302. The University regulations provide for the holding of high proficiency and proficiency examinations in Urdu, Hindi, Punjabi, and Pashtu, but practically examinations are held only in Punjabi and Urdu; the titles of *Vidvan* and *Budhimān* are conferred on students who pass the higher and lower grade examinations, respectively, in Punjabi. In 1901-02 five candidates passed the higher proficiency in Punjabi and one in Urdu.

Oriental  
College,  
Lahore.

303. The Oriental College was established in 1870 by the Senate of the Punjab University College, and was taken over in 1882 by the Punjab University, which has since maintained it in accordance with the provisions of its Statutes. It is managed by a Committee composed of Fellows of the University, and presided over by the Vice-Chancellor, under the control of the Syndicate and Senate. The cost of maintenance is met partly by an annual allotment from the University, and partly from the income of certain endowments of the University, which provide the salaries of the readers and translators employed along with the permanent teaching staff. The functions of the college correspond with the various aspects of the work of the oriental branch of the University. It trains candidates for the B. O. L. and M. O. L. degrees and for the title examinations in Sanskrit, Arabic, Persian, and Punjabi. A school department is attached to the college, in which students are prepared for the entrance examination of the Oriental Faculty and for the lowest title examinations in classical languages and Punjabi. The college also undertakes the tuition in oriental languages of the students of the Government college, and receives a special grant for the purpose. In 1902 the following number of students of the Oriental College obtained the highest grade of titles:—

Shastri . . . . .	10
Maulavi Fazil . . . . .	4
Munshi Fazil . . . . .	2
Vidvan . . . . .	2

Two graduate, two senior, and five junior scholarships are awarded to students of the course in Oriental Learning by the Government and the University; 27 stipends are tenable by students of the title department of the college.

## CHAPTER IV.

## SECONDARY EDUCATION.

**General Character of Secondary Education.**

304. THE secondary stage of general education extends from the end of the primary stage to the end of the school course. For those pupils who proceed to a University it lies between the primary and collegiate stages. In most provinces the secondary stage is regarded as a simple prolongation of the primary stage, and the pupil proceeds to the secondary course after traversing the full primary course, and often without change of school. In Bombay and Berar, on the other hand, primary and secondary education are regarded as things apart. The primary school gives the complete vernacular education afforded in the province, and a boy who is to receive a secondary education is transferred from his primary school after he has passed through its first four standards. The system in the Central Provinces is similar, but there the instruction given in the upper classes of the vernacular schools is regarded as secondary education.

The secondary stage of general education.

305. Secondary education may be either English\* or Vernacular. The vernacular secondary course completes the education of those pupils who desire to carry their schooling in the mother-tongue somewhat beyond the primary stage. The English secondary course aims at giving a sound English school education; the teaching of English is a prime object throughout the course, and in the higher classes instruction in all subjects is given through the medium of English.

English and vernacular secondary courses.

306. The secondary course is divided into the high and middle stages. The actual and relative durations of the two stages differ in the various provinces. The English and vernacular middle stages have in general the same number of classes. There is no vernacular middle stage in Bombay and Berar. Subject to some exceptions the middle stage terminates the course of vernacular instruction. Many students of the English course do not read beyond the middle stage, others proceed to the high stage. Some pupils, again, take up the English high course after completing the vernacular middle course. The great majority of the pupils in the high stage follow the literary course terminating in the matriculation examination of one or other of the Universities.

The High and middle stages.

307. There are various classes of secondary schools corresponding to the different stages of instruction described above. The school is usually designated according to the standard of instruction up to which it teaches. A school with classes for the high stage is called a high school, although it may give instruction from the infant stage upwards, such a school is then divided into high, middle, and primary departments. All the high schools, except two in the Punjab and one in the North-West Frontier Province, are English schools. Similarly, a middle English school gives instruction up to the end of the middle English, and a middle vernacular school up to the end of the middle vernacular, course, and may have middle and primary departments. A boy may thus receive a complete school education in one institution, or may be transferred from a lower grade to a higher grade school on passing from one stage to another. Such a transfer is often made where the school in the neighbourhood of a boy's home does not give instruction beyond some medium stage. The system goes even beyond this, for many colleges have grown out of schools and have school departments attached to them, and a boy may pass from kindergarten occupations to the studies appropriate to the degree of Master of Arts without leaving the institution in which he begins his education. It was explained in the last chapter that the first half of the course for the degree of Bachelor of Arts is in

Classes of secondary schools.

\* In some provinces the expression used is "Anglo-Vernacular."



reality a prolongation of the school course, and from this point of view the complete Indian school is the second grade college teaching up to the standard of the First Arts or intermediate examination of the University.

### Scope of the Chapter.

Secondary stage of education and secondary schools.

308. The present chapter is chiefly concerned with the secondary stage of education; the primary stage, even when the instruction is given in secondary schools, is dealt with in the next chapter. But secondary schools containing primary departments are single institutions and the description of them could not be split up into sections. The secondary schools are therefore treated as a whole in this chapter.

Male and female pupils.

309. Except where the contrary is specially mentioned, the present chapter deals only with schools for boys, pupils in boys' schools, and boys in the secondary stage of instruction. The secondary education of girls has made little progress and is described in the Chapter on Female Education. The pupils in boys' secondary schools comprise 574,000 boys and over 7,000 girls. These girls are not excluded from statements which purport to deal with the number of *pupils* in boys' schools.

### Rise of Secondary Education.

General account.

310. The system of public secondary education which has been developed in India has little indigenous foundation. It is an exotic introduced for the main part by the Government and the missionaries, but from the outset it was received with cordiality by the educated classes of the native community. The first period in the history of secondary education in India opened in the more advanced provinces in about the year 1820 and closed with the Education Despatch of 1854. "During this period \* \* the desires of the people set more or less strongly in the direction of English education, as being that which would qualify them for the most lucrative and honourable employment. The tendency was confirmed by the Resolution passed by the Government of Lord William Bentinck in 1835,\* which decided in favour of education in English and the vernacular, in preference to the oriental classics. After this declaration of educational policy, the establishment of English schools and colleges became the main object of the efforts alike of Government, of the missionary bodies, of charitable individuals, and of the natives themselves associating together for that purpose. These efforts, so far as they came at all under the influence and control of Government, were subject to the supervision of Honorary Boards, Committees, or Councils of Education, to whose zeal and success in discharging the difficult duties which they had undertaken, the Despatch of 1854 paid a well-earned and cordial tribute."† In that Despatch the Court of Directors commented on the narrow range of the educational facilities up to that time afforded, and directed that schools should be established "whose object should be not to train highly a few youths, but to provide more opportunities than now exist for the acquisition of such an improved education as will make those who possess it more useful members of society in every condition of life." The Court of Directors laid special stress on the need for conveying useful and practical knowledge to the great mass of the people, but their remarks applied to the class of institutions now known as secondary schools as well as to primary schools, and for some years effort was mainly directed to the advancement of secondary education. Many Government secondary schools were opened, and schools established by mission and native societies and by private persons were encouraged by grants-in-aid. The grant-in-aid system attained its most remarkable development in Bengal, where the demand for English education was specially pronounced. "Within a year and-a-half of the promulgation of the rules, the whole of the allotment for grants-in-aid was taken up by 79 Anglo-Vernacular and 140 Vernacular schools, chiefly in the Metropolitan Districts. The grants-in-aid system steadily advanced in popularity; and by 1862-63 it had far outstripped that of departmental schools

\* This Resolution, the promulgation of which was the immediate result of Lord Macaulay's famous Minute on Education in India, closed the long controversy between the Anglicists and the Orientalists. The former party contended that higher education should open the doors of western learning to the Indian student, the latter wished to confine higher instruction to the learning of the East.

† Report of the Education Commission, page 181.

in the field of Secondary Education.”\* During the period 1871 to 1882 the force of the movement in favour of English education slackened, and primary education, to which the main efforts of the Government were now devoted, made more rapid progress. The years 1881-82 witnessed the elaboration of Lord Ripon's scheme of Local Self-Government. It had a strong influence on the course of secondary education, for, in pursuance of the general policy that local needs should be supplied from local funds managed by committees of local inhabitants, the Government began to divest itself of the direct management of its secondary schools in favour of Municipal and rural Boards. The Education Commission appointed in 1882 recommended that it should be “distinctly laid down that the relation of the State to secondary schools is different from its relation to primary education, in that the means of primary education may be provided without regard to the existence of local co-operation, while it is ordinarily expedient to provide the means of secondary education only where adequate local co-operation is forthcoming; and that therefore, in all ordinary cases, secondary schools for instruction in English be hereafter established by the State preferably on the footing of the system of grants-in-aid.” This policy has in general regulated the action of the Local Governments. Secondary education has increased during the past twenty years more rapidly than primary education, but the bulk of the new institutions are of private origin and are managed by private persons or societies. Most of these private institutions are aided by the State, but many others are able to subsist from their fees and other resources without Government assistance.

311. The following table illustrates the remarks made in the above paragraph :—

Year.	NUMBER OF SECONDARY SCHOOLS FOR INDIAN BOYS.				
	Government.	Board.	Aided.	Unaided.	Total.
1870-71	780	...	2,188	32(b)	2,950
1881-82 (a)	1,357	...	1,813	655	3,825
1891-92	301	1,075	2,084	649	4,109
1901-02	233	1,040	2,371	938	4,582

(a) Excluding British Burma.

(b) Figures incomplete.

The figures for 1881-82 are inflated by the circumstance that the middle departments of high schools were shown in most provinces as separate schools; about two-thirds of the apparent increase in the Government schools was due to this cause.

### Secondary Schools.

312. In 1901-02 there were 5,032 public secondary schools for boys, of which 3,097 were English schools and 1,935 vernacular schools. The last fifteen years show a steady rise in the number of secondary schools. In 1886-87 the total was 4,160; in 1891-92, 4,438; in 1896-97, 4,827; and in 1901-02, 5,032. The increase is mainly in the English schools; the number of vernacular schools rose by 208 during the period 1886-87 to 1896-97 and fell again by 132 during the quinquennium under review. The number of English schools has increased considerably during each of the last three five-year periods, and the rise during the quinquennium under review (337) was considerably greater than that in either of the two preceding periods. It follows that whilst in 1886-87 vernacular schools comprised 45 per cent. of the total, the percentage had fallen in 1901-02 to 38. The contrast between the progress of English and vernacular schools illustrates the preference which exists for an English education, a preference which is due partly to the better prospect of employment which it affords, and partly to the desire of parents that their children should be acquainted with the English language and pursue the studies to which it gives them access. There is, in most provinces, a constant tendency for the middle vernacular school, when it gains sufficient strength, to transform itself into an

\* Report of the Education Commission, page 187.

English school. In Bengal the process has been hastened by changes in the regulations which prevent students who have passed from vernacular institutions at the middle scholarship examination from obtaining admission to medical and survey schools and to the *Mukhtiyarship* examination. Comparing the schools according to the standard up to which they teach, the changes during the quinquennium were as follows: high schools\* rose by 230 to 1,070, middle English schools rose by 108 to 2,030, and middle vernacular schools fell by 133 to 1,932.

Provincial statistics.

313. Of the 3,097 English schools 1,481 belong to Bengal, 437 to Madras, and 427 to Bombay. During the quinquennium under review the rate of progress in the different provinces has varied considerably. The Punjab (with the North-West Frontier Province) shows the greatest proportionate rise—65 on 191; the increase in Bengal was 146, in Madras 43, and in Bombay only 24. Every province except Burma and the United Provinces shows a fall in the number of vernacular schools, the fall was largest in Bengal (170). The United Provinces show a very slight rise, and Burma a large increase of 94 on 160—due mainly to the promotion of primary schools to the middle grade.

Number of English schools for boys per district.

314. The average number of English schools per district varies greatly from province to province. The following table arranges the provinces in order according to this criterion:—

Bengal	30
Madras	20 (large districts.)
Bombay	17
Punjab	9
Assam	8
Central Provinces	5
Berar	5
United Provinces	4 (small districts.)
North-West Frontier Province	3
Burma	2
Coorg	2

Strength of a boys' English secondary school.

315. The strength of an English secondary school has increased steadily. In 1886-87 the average number of pupils was 118; in 1891-92, 119; in 1896-97, 123; and in 1901-02, 136. The attendance as well as the number of schools shows an unusually large increase during the quinquennium under review, which has thus been from each point of view a period of accelerated progress. In the six largest provinces the average size runs as follows:—

Punjab	188
Burma	175
Madras	171
United Provinces	137
Bengal	129
Bombay	102

All these provinces except the Punjab show an increase during the quinquennium; in the latter province the number of schools has increased in proportion more rapidly than the number of scholars ever since the year 1886-87.

Cost of a boys' English secondary school.

316. The average cost of an English secondary school was R223 a month in 1886-87, R245 in 1891-92, R260 in 1896-97, and R260 in 1901-02. In the six largest provinces the average cost *per mensem* is as follows:—

	R
Burma	624
United Provinces	441
Bombay	381
Punjab	321
Madras	319
Bengal	191

In Burma salaries and charges of all kinds are in general higher than in India proper. The low Bengal figure is an illustration of the general cheapness of the private managed educational institutions of that province. All the

\* Including 3 vernacular high schools in the Punjab and North-West Frontier Province.

large provinces except the Punjab show an increase during the quinquennium, by far the largest increase being in Burma, where the average rate rose from R524 to R624 a month. In the Punjab there has been a progressive fall during the past two five-year periods.

317. In 1901-02 there were 696 English secondary schools for boys under public, and 2,401 under private management. It has been explained in an earlier portion of this chapter that it has been the policy of the Government to develop secondary education through private agency, and where possible to withdraw gradually from State management. During the quinquennium under review the total number of public managed institutions (leaving aside institutions managed by Native States) remained practically stationary, whilst the number of institutions under private management increased by 300.

Again leaving aside the schools maintained by the Native States, the number of schools under private management exceeds that under public management in all Provinces except Berar and Coorg. Bengal and Assam have the largest proportion of private managed institutions, the numbers being: Bengal 1,377 private to 89 public, and Assam 89 private to 12 public. The Bengal private institutions form more than half the total of this class, and are a special feature of English secondary education to which it will be necessary to revert in some detail. The remaining provinces come in order as follows:—

	Private.	Public.
Burma . . . . .	59	17
Madras . . . . .	317	119
United Provinces . . . . .	185	59
Bombay . . . . .	212	100
Punjab . . . . .	156	83
Central Provinces . . . . .	44	40

318. In 1901-02 there were 756 vernacular middle schools for boys under public management and 1,176 under private management. During the quinquennium the number of schools under public management (omitting schools managed by Native States) fell by 59, and those under private management by 92. The proportion in any province of public to private managed institutions depends largely, as in the case of primary schools, on the extent to which the provincial system is based on the indigenous schools. This subject is discussed in the next chapter. Here it will suffice to note that in Burma all the middle vernacular schools are under private management, in Madras and Bengal the number under private management greatly exceeds the number under public management, whilst in the United Provinces, the Punjab, and the Central Provinces the reverse is the case.

319. In 1901-02 the English schools under public management comprised 194 schools managed by the Government, 360 schools managed by Municipalities and Local Boards, and 142 schools managed by Native States.

320. The proportion of schools managed directly by the Government is much greater in the case of secondary than in the case of primary schools—in other words the devolution to Municipal and Local Board management has been much less complete. In a Resolution of 1894 the Government of India declared that the Government should gradually withdraw from the direct management of secondary schools. In commenting on the Education Review for the five years ending 1896-97, the Government of India noticed that this principle had not been followed, and that there had been no real withdrawal during the quinquennium. They recognized that there are strong arguments against complete withdrawal inasmuch as well managed Government schools serve as a model to the remainder, and they said that while maintaining the position that there should be no extension of the system of direct Government management, they would not insist on the withdrawal from management where that is considered inexpedient. It seemed to them desirable that there should in general be one Government school in each district. During the quinquennium under review there have been only slight changes in the number of English secondary schools for boys under Government management in the different provinces. Among the

major provinces Bengal and the United Provinces return the largest proportion of public managed schools as being under direct Government control; the devolution to local bodies has been most complete in the Punjab. But in the United Provinces the District Board high schools, which are in fact partly under Government management and partly under the control of the Boards, are entered as Government managed; the distinction between this Province and the Punjab is, therefore, more nominal than real.

The following table compares the number of English high schools for Indian boys managed by the Government with the number of districts in the several Provinces:—

	Schools.	Districts.
Madras . . . . .	4	22
Bombay . . . . .	20	25
Bengal . . . . .	49	48
United Provinces . . . . .	34	48
Punjab . . . . .	2	27
Burma . . . . .	3	36
Central Provinces . . . . .	5	18
Assam . . . . .	10	12

Board schools.

321. The number of Board schools also shows little alteration, the most important changes are a loss of 10 schools in Bombay and a gain of 13 schools in Bengal. Of the 360 Board schools 135 belong to Local Boards and 225 to Municipalities. In most provinces the English Board schools are mainly confined to the towns, and the management of such schools by rural Boards is common only in Bengal and Madras. In all other provinces the total number of Local Board English secondary schools for boys was only 22 at the end of the quinquennium. The management of schools by Municipalities and Local Boards is dealt with in the Chapter on Controlling Agencies.

Schools managed by Native States.

322. The 142 Native State schools included in the Provincial statistics are made up of 115 in Bombay, 15 in Bengal, 11 in the Central Provinces, and 1 in Madras. The Bombay schools show a rise of 11, and the schools in the Chhattisgarh Feudatory States of the Central Provinces, a rise of 3. The schools in the Orissa Tributary Mehals of Bengal were not shown separately in the educational statistics of 1896-97.\* The Madras school is situated in the Sandur State.

Aided and unaided English schools.

323. In 1896-97 the returns included 1,489 aided and 612 unaided secondary English schools for boys, in 1901-02 the corresponding figures were 1,573 and 828, giving a rise of 84 aided and 216 unaided schools. The greater portion of the increase, namely 75 aided and 135 unaided, occurred among the high schools. The large increase in unaided English schools is one of the most noteworthy incidents of the quinquennium. All the provinces contribute to it; Bengal shows much the largest gain (93), the Punjab comes next with 40, and then Madras and the United Provinces each with 25, and Bombay with 23. Many of the new institutions are schools run by private proprietors and their existence indicates that the demand for English education is so great that in many parts of the country, and notable in Bengal, it allows of schools being maintained without assistance from public funds. The position would be eminently satisfactory were the new schools well staffed and equipped and only established to meet a real demand. Unfortunately this is not always the case, and "venture schools" have sometimes been opened in rivalry of existing institutions and to the detriment of sound education and discipline. Their equipment and staff leave in many cases much to be desired. These remarks apply with special force to Bengal, where the unaided English schools are far more numerous than elsewhere. The comparatively large Punjab increase is due in great measure to the activity of various denominations and sects to which allusion has already been made.

Control of unaided schools.

324. The circumstance that a considerable proportion of the English schools are able to exist without Government support, in no way lessens the interest of the State in the question whether they give a good education, and the nature and extent of the control exercised over them are matters of great public

\* They were included amongst the unaided institutions.

importance. Up to the end of the quinquennium under review this control was somewhat lax. A school can seek recognition both from the Government and from a University. For institutions which do not seek a grant-in-aid the only effect of Government recognition is that the school is eligible to receive Government scholars, and may send its pupils to compete for Government scholarships and in other Government examinations. Such a course would, however, be beyond the ambition of the inferior schools, and recognition by the Government has not been in the past a sufficiently valuable prize to encourage efficiency. Unaided schools are, in some provinces, not usually inspected by the Government officers. Recognition by the University enables the school to send up its pupils to the matriculation and other school examinations held by the University as public school candidates, but this distinction loses much of its importance through the freedom with which private students are allowed to present themselves.

325. The Inspector of the Schools is, in general, primarily responsible for the recognition of unaided English secondary schools by the Department. The MADRAS Manual gives a detailed set of rules which must be observed in every recognized school, including the school departments of colleges, except in so far as special tracts of country or special classes of schools may be exempted. The rules deal with the following subjects :—

Recognition of unaided schools by the Government.

1. Staff.
  - General educational qualifications.
  - Professional qualifications of head masters and assistants.
  - Prohibition against political agitation.
2. Accommodation and appliances.
  - Site, plan, and accommodation.
  - Dimensions of building.
  - Sanitary inspection.
  - Furniture, apparatus, and appliances.
  - Libraries.
3. Annual promotion and payment of fees.
4. Admission and withdrawal of pupils.
5. Discipline.
6. Registers.

In BENGAL a middle school is recognized if, as the result of inspection, the Inspector considers that it gives a reasonably good education; for higher schools the University list is generally followed, but a school may be excluded if it is found on inspection to be of an inferior character. In the UNITED PROVINCES high and middle schools are recognized by the Department on the report of the inspecting staff.

In the PUNJAB the middle school examination is held by the University, but the recognition of schools for that examination rests with the Department of Public Instruction. In March 1902 the Local Government issued orders that no school may be recognized unless it is certified by the Inspector of Schools to have been in existence during nine out of the twelve months preceding the examination, and unless the Department is satisfied that the organization and staff are such as are likely to ensure efficient instruction.

In BURMA the rules for recognition are strict; the Director alone registers schools, and the conditions to be fulfilled cover matters such as the management, the application of the funds, premises and equipment, qualifications of teachers, and payment of fees. The conditions required by the Calcutta University for recognition must also be fulfilled.

In the CENTRAL PROVINCES the conditions on which unaided schools are recognized are as follows :—

- (1) That the curriculum is in general accordance with that in Government or aided schools.
- (2) That the text-books in use are unobjectionable.
- (3) That the fees levied are not lower than the minimum rate prescribed for aided schools.
- (4) That the school is provided with an adequate staff and a suitable building.

Recognition  
of schools by  
the Univer-  
sities.

326. The rules and practice of the different Universities in the matter of the recognition of schools differ considerably. In MADRAS the University recognizes all high schools which are recognized by the Department, and such schools in Native States of Southern India as are certified by the Government of the State to be organized and conducted in substantial accordance with the Madras educational rules. Under this rule schools have been recognized in Hyderabad, Mysore, Travancore, Cochin, Pudukkottai, and Pondicherry, as well as in the Presidency itself. The BOMBAY University does not recognize any particular schools and accepts candidates from any school. The CALCUTTA University has a long list of recognized schools and has added to it greatly of recent years. In 1896 the total number was 575, and in 1901 it was 679. The 679 schools were distributed as follows: Calcutta 78, rest of Bengal 428, Assam 26, Burma 22, United Provinces 21, Punjab 45, Central Provinces 16, Cooch Behar 4, Central India 16, Cashmere 2, Nepal 1, and Ceylon 20. A school seeking recognition by the Calcutta University must furnish information regarding—

- (a) the constitution of the managing body, and the names of its members;
- (b) the number, names, and qualifications of the teachers whom it is proposed to appoint; and
- (c) the scale of fees to be charged.

The rules allow the Syndicate to call for further information, including information about the site and buildings and sanitary arrangements; and the Syndicate may require a guarantee that the school will be maintained on the proposed scale for five years. The Syndicate may refuse to recognize any school that appears to be from any cause injurious to the interests of sound education and discipline, or unless the Government Inspector certifies that it has been in existence since the 1st July next preceding the entrance examination, and is qualified to teach up to the entrance standard. The Syndicate may withdraw the privilege of affiliation from any school which shows, year after year, bad results in the entrance examination, or which has materially deteriorated. The weak point in the system is that the University has no machinery to enable it to ascertain whether a school seeking recognition is really needed and efficient, or whether after recognition it continues to be well managed and to give a sound education. The Indian Universities Commission stated that "at Calcutta the Syndicate has sometimes insisted on recognizing new venture schools, without due regard to the interests of sound education and discipline." An unaided school in the United Provinces cannot send a scholar to the entrance examination of the ALLAHABAD University as a public school pupil, unless the Inspector of Schools certifies that the staff of the school is competent to teach the entrance course. The University follows the Education Departmental list for the Entrance Examination, and practically accepts the recommendation of the Department in the case of the school final examination. The PUNJAB University defines a "public school" to be "a school (a) in which the course of study conforms with the standard prescribed by the Department of Public Instruction or the University, and which is inspected by the Department; or (b) which satisfies the University that it is organized and conducted so as to ensure efficient training up to the standard of the entrance examination." This University admits private and "public school" students indifferently to its entrance examination.

Grant-in-aid  
system.

327. The grants-in-aid of private managed institutions fall under two main heads: (a) those based on the result of the individual examination of pupils (styled results-grants), and (b) those based on other principles. The results-grants system, which was at one time the favourite, has fallen into disrepute. It is used both for secondary and primary schools, but more especially for the latter class, and the discussion regarding it is therefore reserved for the next chapter. The conditions under which, and the manner in which, secondary schools have received aid during the quinquennium are as follows:—

Systems of  
the large  
provinces.

328. MADRAS.—The ordinary school grants are for teaching, scholarships, buildings, and equipment. The main grant is that for teaching. Aid for teaching is given under three systems:—

- (i) the salary-grant system;
- (ii) the fixed-grant system;
- (iii) the results-grant system.

Upper secondary (high) schools are aided on the first system; lower secondary (middle) schools on the permanent section of the general school list on the second system; and lower secondary schools on the temporary section of the general school list on the third system. Grants-in-aid of upper secondary departments are paid from Provincial and of lower secondary departments from Provincial and Municipal funds. On whatever system the grant is made the maximum may not exceed the net cost of the school, *i.e.*, the sum required to meet that part of the current expenditure which is not covered by the receipts from fees, endowments, and miscellaneous sources. The income from fees is calculated at what the amount should be under the general regulations prescribed by the Madras Government. In order that an upper secondary school may receive a grant-in-aid it must have an average attendance of at least 30 boys, the teachers must possess the qualifications specified in the Madras Educational Rules, and the curriculum must conform to the departmental instructions. The grants are based on the salaries of the teachers employed in the school, and the proportion which the grant bears to the salary depends in each case on the qualifications of the teacher and the character of the institution. For instance, a grant not exceeding one-half the total salary may be given for masters holding trained teachers' certificates who are employed in schools situated in non-municipal towns and in villages in which the fees, if levied at the standard rates, do not cover an adequate portion of the current expenditure. A maximum grant of one-third may be given for masters holding trained teachers certificates in ordinary schools, and of one-fourth for masters holding untrained teachers certificates in such schools. The general conditions for the admission of a lower secondary school to aid on the fixed-grant system are similar to those described above, but the minimum average attendance is 25 boys in municipalities, and 15 boys in non-municipal areas. The grant is fixed for three years and the amount is settled with reference to the net cost of the school and the funds available. In the distribution of public funds, schools on the fixed-grant system have a priority of claim over those aided by results. The minimum attendance in the case of schools on the temporary section of the general school list (aided on the results grant system) is 20 boys in schools situated in municipalities and 10 boys in schools situated in non-municipal areas. The grants depend on the number of pupils passing by the different standards. Each boy passing in the compulsory subjects by the lowest secondary standard earns ₹6½ (or if he passes with merit ₹8), and by the highest secondary standard ₹10 (or ₹12). Grants are also given for a number of optional subjects.

329. BOMBAY.—In disposing of applications for the registration of schools for grants-in-aid the Department considers whether the teaching staff is competent and adequate; whether the school supplies a want in the locality; how far its own resources, exclusive of fees, are adequate to meet its necessary expenditure; whether the fees charged are reasonable; and whether the money at the disposal of the Department can meet the application. Before payment of the grant from year to year, the Inspector must be satisfied that the school premises are healthy, well lighted, and well ventilated, and that they contain sufficient accommodation, furniture, and appliances for the pupils attending them; that the arrangements for registering the admission, attendance, and age of pupils, and for keeping accounts are not defective; that the discipline and behaviour of the pupils are satisfactory; that the conditions on which the school was registered are duly maintained; and that all statistical returns and certificates are trustworthy. The Government grant may in no case exceed one-half of the local assets, or one-third of the total expenditure of the institution during the previous year. Schools whose permanent character has been established may be placed by the Department on a special list, and such schools receive an annual grant fixed for a period of five years. Schools whose permanent and efficient character has not been established to the satisfaction of the Department are aided on the results-grant system. A capitation grant is given for each pupil, and a further grant for each pupil passing by a recognized standard. The grants are assessed on the results of examinations held by the Inspector at the school. The schools are ordinarily examined and inspected in alternate years, and in the year of inspection, if the results are satisfactory, the school receives a grant equal to that of the previous year. Special grants may be given if the school has, through misadventure for which the managers are not to blame,



fallen greatly in attendance or efficiency. The capitation allowance for boys in secondary schools is R2 on the average daily attendance. Including optional subjects a pupil may earn R6 in the bottom class of the middle school and R30 in Standard VI of the high school. In addition to the grants for instruction, grants are also given for buildings, furniture, libraries, scientific apparatus, workshops, and gymnastic appliances. Special grants are also given for drawing.

330. BENGAL.—Grants to secondary schools are made on a consideration of the income, expenditure, and efficiency of the institution, the needs of the locality, and the funds available. The results-grant system is not applied to secondary schools in Bengal. Aided schools together with their accounts and registers must be open to inspection, and (with special exceptions) they must charge some fee however small. Schools applying for grants-in-aid must give information regarding pecuniary sources, expenditure, number of pupils, management, curriculum, teachers, and fees. The grants for high schools may not exceed one-half of the income guaranteed from private sources, except in certain districts where the proportion may be two-thirds. In middle schools in which the expenditure exceed R40 a month, the proportion is also two-thirds; in middle schools in special districts and in all middle schools in which the expenditure does not exceed R40 a month, the grant may equal the expenditure from private sources. These are the maximum grants and the actual grant may be less. Grants are ordinarily sanctioned for a period of three years.

331. UNITED PROVINCES.—The ordinary tuition grants for English schools are of three main kinds:—

- (1) the fixed grant,
- (2) the attendance and merit grant, and
- (3) the public examination grant.

The annual fixed grant is as follows:—

For the high section . . . . .	R
For the upper middle section . . . . .	600
For the lower middle section . . . . .	300
	200

The Inspector of schools may (in addition to the fixed grant) allow an attendance and merit grant for each scholar in average attendance as follows:—

	R	a.	p.
In the higher middle section . . . . .	3	0	0
In the upper primary section . . . . .	2	0	0
In the lower primary preparatory section . . . . .	1	8	0

Grants may also be allowed for each scholar passing one of the public examinations at the following rates:—

School final or entrance examination . . . . .	R
English middle examination . . . . .	22
Lower English middle examination . . . . .	10
	6

The total grant under these heads may not exceed:—

- (1) the income of the school from fees and private sources,
- (2) one-half the annual tuitional expenditure,
- (3) the difference between the annual expenditure and the income from sources other than the grant-in-aid.

General characteristics.

332. The grants are reduced if the school does not hold the prescribed number of school meetings during the year, and may also be reduced for inefficiency. In lieu, or in addition to, the ordinary grants, special grants may be given for new schools, for special staff, and for backward localities.

It will thus be seen that in the four principal provinces the tuition grants are of the following descriptions:—

Madras—(1) salary grant, (2) fixed grant based on net expenditure, (3) results system.

Bombay—(1) fixed grant based on net cost, (2) results system.

Bengal—fixed grant based on needs and means and the amount of private expenditure.

United Provinces—fixed grant based on the standard of instruction supplemented by attendance and results grants.

In other provinces they are as follows :—

Punjab—attendance grants supplemented by results grants and salary grants.

Burma—fixed grants based on net expenditure, and various forms of special grants.

Central Provinces—fixed grants based on net expenditure.

### Buildings and Equipment.

#### Buildings.

333. Almost all the schools under public management are held in buildings belonging to the school, and, as a rule, erected for school purposes. Many private managed schools also have their own buildings, but the proportion varies from province to province and from locality to locality. In the following paragraphs information is given for each province, or for a portion of the province, typical of the whole.

MADRAS.—The following table shows the number of secondary schools for boys which have their own buildings, and which are accommodated in other ways :—

Class of building.	1896-97.	1901-02.
Buildings of their own . . . . .	369	376
Rented buildings . . . . .	158	151
Chavadies, temples, etc. . . . .	14	6
Managers' or head-masters' own houses . . . . .	7	5
TOTAL . . . . .	548	538

The proportion with buildings of their own is good, but there has been no great advance during the quinquennium.

BOMBAY.—All but 5 of the Government high schools, and nearly all the high schools in Native States, are in buildings specially erected for them. About one quarter of the European schools, and about four-fifths of the aided schools for natives, are held in hired buildings.

BENGAL.—All secondary schools under public management, and most of those under private management, are held in premises belonging to the school, whilst the rest are held in rent-free premises belonging to the promoters of the school.

UNITED PROVINCES, Oudh Circle.—The 12 English secondary schools under public management have all their own buildings. Fifteen out of 17 private managed schools have fairly suitable houses of their own, and 2 are held in hired premises by no means suitable for the purpose. Of the 60 vernacular secondary schools under Board management, all but one are held in buildings provided for the purpose. There are very few private managed vernacular secondary schools in the United Provinces. In the fourth circle, the town schools at Saharanpur, Meerut, and Shahjahanpur, are accommodated in unsuitable rented buildings.

PUNJAB.—With few exceptions Board Schools have their own houses, and the majority were specially built to serve as schools. Most mission schools are located in houses of their own, and in the case of other private managed schools the conditions vary. In the Rawalpindi circle a large number of such schools have their own houses; in the Multan circle 2 out of 4 own buildings erected for them; in the Jullundur circle the private schools are, with few exceptions, held in hired premises; in the Delhi circle 8 out of 15 boys' schools and both the girls' schools are located in buildings designed for the purpose; and in the Lahore circle 5 out of 19 schools are held in hired houses.

BURMA.—In nearly every case English schools have buildings erected for the purpose; but a few schools managed by town committees, and a few schools in the larger towns under private management, meet in hired premises.

CENTRAL PROVINCES, Northern Circle—Practically all the Government and Board schools (except a few schools for girls), and most of the schools under private management, have their own buildings. Southern Circle—All Board schools have their own buildings; 7 private managed schools are held in buildings designed for the purpose, and 3 in ordinary native houses. Eastern Circle—All schools have their own buildings and none are held in hired premises.

ASSAM.—No secondary schools are held, except temporarily, in hired premises.

BERAR.—Secondary schools under public management are, in general, accommodated in buildings erected for the purpose; but, except some mission institutions, few or no private managed schools have buildings of their own.

Character of buildings.

334. There is great variety in the type of secondary school buildings in the different provinces and in different localities in the same province. Most schools under public management have buildings designed for school use; many private managed schools also have this advantage, but many others are housed in miscellaneous buildings which are not always suitable for the purpose. The great majority of the buildings are one storied and constructed of masonry, but there are exceptions in both these respects.

335. MADRAS.—The following interesting account is derived from a report by the Inspector of Schools, Central Division :—

*Upper Secondary Schools.*—No very great change has taken place during the last quinquennium. As the older high school buildings in the circle were erected under the supervision of European managers with sufficient funds and foresight the need for improvement was not so great as in the case of primary schools. At the same time from the very first there seems to have been steady progress and during the last five years this progress has been very marked. In several cases totally new buildings planned with due regard to educational requirements have been erected or are in course of erection. In still more cases additions have been made or are being planned.

Until comparatively recent times schools under public management had the most suitable buildings, *e.g.*, the Government schools now given over to Municipalities or District Boards. Lately, and more especially during the past five years, private managers have been shewing a great deal more enterprise than Boards or Municipalities, with such good results that it may fairly be said that school buildings under private management are equal to, if not better than, those under public management. It is noteworthy that the Sri Mahant school at Tirupati, which is entirely the result of Native enterprise, possesses probably the finest and most suitable buildings in the circle, completed during the last five years. Another instance of purely native enterprise is the high school at Madanapalli where very extensive additions are being planned. The Hindu High School, Triplicane, S. P. G. High school, Nandyal, and Arcot Mission college at Vellore, may also be quoted as examples of recent enterprise on the part of private managers.

The buildings vary so much in plan and construction that it is impossible to describe a "typical" school building. But it is possible to distinguish the old type from the new and to trace the gradual development from simple to complex. The oldest buildings whether under public or private management are plain one storied buildings, oblong, or T shaped or L shaped with a verandah all round. In these buildings the classes are not separated by any partitions or walls. Office rooms are cut off at one end or built into the verandah.

The advantage of these simple buildings is that the work of supervision is facilitated. But the disadvantages are very numerous and in all the more recent buildings separate rooms, at least for the higher classes, have been built. This is now the case in 22 buildings in the circle. The plans of the more recent buildings vary very much. In some cases the T shape has been kept, class rooms being walled off at each end. Other common shapes are an H, a cross, or an E. But in almost all recent buildings the general idea is the same—a central hall in which the lower classes are held, with rooms for the higher classes in the wings or on each side. Eight schools possess a separate examination hall which can also be used for school celebrations, etc. A very few schools have a second story.

Dimensions vary with the numbers and these vary from close on 1,000 to 50. The longest building is 230 feet, the shortest 50. The breadth varies from 160 feet to 12 feet. On the whole it may be said that the dimensions are not sufficient. In 14 schools classes have to be held in verandahs or temporary *pandals*, and in several more the lower classes are accommodated in out houses and sheds. But in almost every case the managers are alive to the defects and additions are being planned.

Building materials.—In the Ceded Districts local stone is used with good effect: in the rest of the circle bricks and *chunam* with Cuddapah slabs for flooring. The buildings are as a rule durable and weather-proof.

Compounds.—Almost all the schools stand in compounds very suitable for drill and gymnastic exercises.

Latrines of a suitable kind have been provided in every case.

General remarks.—Although in many cases not large enough, the high school buildings in the circle are well suited to their purpose. The fact that only two high schools are housed in bungalows and that all buildings except ten were specially erected for the purpose speaks for itself. Due regard has been paid to school hygiene. Light and air are sufficient, and there are signs that even greater attention will be paid to these matters in the immediate future than has been done in the past.

*Lower Secondary Schools.*—Most of the remarks on primary schools buildings\* apply in a lesser degree to lower secondary schools also, at all events in the Ceded Districts and North Arcot. But most of them are under public management and some attempt at least has been made to furnish them with suitable accommodation. No lower secondary schools are held in temples or on pyals in the houses of the masters. As a rule buildings are rented specially for the purpose, but in many cases such buildings are only sheds or native houses—ill adapted for school purposes. In very few cases have special school buildings been constructed. This is largely owing to the fact that special lower secondary schools are as a rule only found in rural tracts and in small towns where there are no high schools. In large towns high schools with their lower secondary departments remove the need for special lower secondary schools.

336. BOMBAY.—There are no standard plans for secondary school buildings. For Government high schools the usual scheme of a building is a large central hall for examinations and other purposes, such as drawing classes and collective lectures. On each side of the hall are class-rooms carried out in two wings, which are again, if necessary, extended at right angles to the main buildings to form three sides of a quadrangle. In addition to the hall and class rooms, the secondary school building (whether Government, aided, or Native State) has, as a rule, a library, a laboratory, and a masters' room. The majority of the aided schools are located in a *wada*, or old quadrangular building, in a town.

337. BENGAL (Burdwan Division).—The buildings are much ruder and much less expensive than those used in Bombay. Secondary schools under public management are, as a rule, provided with houses made of brick; those under private management are generally built of less permanent materials. The vernacular middle school building resembles that for the better class of primary schools. The typical high school has a centre block consisting of a hall, a verandah and two rooms, and two wings built at right angles to the central block, each containing 4 rooms. The typical middle school has three rooms lying side by side and a verandah.

338. UNITED PROVINCES, Oudh Circle.—The secondary English schools under public management are accommodated in suitable *pucca* buildings. They generally consist of a hall and four rooms on each side with two verandahs. The typical vernacular secondary Board schools are constructed of masonry, and are built after one or other of several designs. In the design most frequently used there is a central hall with two rooms on each side, and a verandah on one, or two opposite, sides. There are also quarters for servants, etc. In some cases the rooms are all of a row, with a large room in the centre and a verandah in front. In other cases, again, the building contains two large and four small rooms with or without two corner rooms for furniture, etc. The large rooms constitute the front side and the small ones the right and left flanks; a fencing wall joins the right and left flanks with the main entrance in the middle. A few of the secondary school buildings consist of two large rooms divided by arches in the middle and with a verandah in front. The buildings used for the few schools under private management are less satisfactory. They are, with the exception of those maintained by the Court of Wards, untidy, ill-ventilated, and badly situated.

339. PUNJAB.—The secondary Board schools of the Punjab are usually well designed and of good materials. The designs are so widely different, both as regards the ground plans and the details, and as regards the dimensions and numbers of the rooms, that they cannot be well included in a general description. The schools under private management are frequently held in buildings which were not originally meant for schools, and most of them have been modified to make them serve the purpose of a school-house.

340. BURMA.—English schools in Burma occupy in nearly every case buildings erected for the purposes. The type of building varies with the management. A common type of mission school consists of a hall with a concrete floor, and an upper storey of wood. Class rooms open off the main hall at each corner, both above and below. The upper hall is used for the assembly and dismissal of the school and for mission purposes, and the lower hall and class rooms are used for

\* See the next chapter.

teaching. Municipal schools are built on no fixed plan. Some have only one floor, others have two; some have no separate class rooms, others have class rooms opening off the main hall; others again have the main hall divided by light partitions into separate rooms. Many are the result of continual additions to buildings which at an early stage became too small to accommodate the pupils. The one feature which English schools have in common is that they are substantial teak buildings with shingle roofs, well adapted to the Burmese climate. A few convent schools are of brick.

341. CENTRAL PROVINCES.—There is no standard-plan for secondary schools and the buildings in different localities, and under different classes of management, differ greatly from one another. In the Northern Circle most of the smaller secondary schools are built in the form of a cross upon a plan borrowed from France; there is no specific difference between the buildings of schools under public and private management, each kind presents specimens of varying descriptions. In the Southern Circle the type of buildings depends on a consideration of the funds, site, and space available. Primary schools are usually situated in villages where the cost of the site is small and space is freely available; in the towns, on the contrary, these matters are so important that often any discarded building is eagerly seized upon for school use, although it may be by no means suitable for the purpose. Of the two Departmental schools, that at Kamptee has excellent buildings. The main school was specially built for the purpose with a central hall, flanked on each side by two class rooms; it has been much spoilt by additions. The Sironcha school has a single building with three rooms in line and a front verandah. The municipal English schools have fair buildings, but they were erected without studied design, and have been enlarged from time to time with the growth of the number of students. Seven of the 10 aided schools have specially designed buildings, which are suitable considering the requirements and difficulties of their respective situations, but their plans have nothing in common. In the Eastern Circle, also, the schools differ from one another in plan, etc., according to local convenience, means, and requirements. The municipal schools are usually better built than the rural schools, and the State schools than the schools under private management; the mission schools are ordinarily provided with suitable buildings.

342. ASSAM.—The State high and middle schools are all well housed in buildings erected for the purpose. The private managed schools have less expensive buildings, but, except in a few cases, they have been specially designed for school use.

343. BERAR.—The English middle school buildings which were in vogue at the time of the Education Commission have given place to tile-roofed buildings with iron pillars. They are not sufficiently high and need ceilings; in consequence of these defects they become very hot. An increase in the height has been sanctioned. There are only two high schools in Berar; one has a lofty building specially designed for the purpose, and the other is accommodated in barracks which have been made as suitable as possible for school use.

Accommodation in class rooms.

344. A minimum space accommodation per pupil is prescribed in Madras, the United Provinces, the Punjab, and the Central Provinces. In Madras and the Central Provinces it is 8 square feet and 80 cubic feet, in the United Provinces it is 12 square feet, and in the Punjab it is 10 square feet. Punjab Board schools do not always provide this minimum and Inspectors complain of inadequate accommodation. The Director of Public Instruction in the United Provinces makes the following remarks regarding overcrowding in class rooms:—

On the whole English schools are housed in good buildings; though in many cases the students are huddled together in a way which is not healthy and makes efficient teaching difficult. Orders have lately been issued that admissions are to be strictly limited to the space available in the different class rooms, and the attention of managers has been called to the rule which prescribes that 12 square feet of accommodation must be allowed for each scholar in attendance. In vernacular schools, particularly in town schools at the headquarters of districts, overcrowding is the rule rather than the exception, and the buildings are frequently ill ventilated and badly lighted. The attention of District Boards is periodically called to the subject, but as a rule they express their inability, for want of funds, to do what is needed. The Benares Division is specially behindhand in this respect, and though the number of scholars steadily increases, for years nothing has been done in some of the districts to increase the accommodation. At Ghazipur and Ballia the town schools are excessively overcrowded. In the

Allahabad Division the Fatehpur town school, one of the most flourishing middle schools in the province, is housed in a building which was never intended to be used for such a purpose. The rooms are dingy, narrow, and ill-ventilated, and the overcrowding very discreditable. It is a wonder that any teaching can be done there; yet six years' repeated remonstrance has not succeeded in inducing the District Board to consider the advisability of building a new school-house.

345. It will be seen from the following table that the total cost of building a secondary school, and the cost per pupil, vary greatly according to the class of school, the character of the management, and the province to which the school belongs.

Province.	Locality.	Class of building.	Total cost.	Cost per pupil.
			₹	₹
Madras	Madras City	Cost of recently erected suitable upper secondary school buildings capable of accommodating 680 pupils.	49,100 (and site ₹8,750)	Roughly speaking ₹70.
	Central Circle	Suitable and typical upper secondary school building for 400 pupils.	19,000	Generally speaking ₹40-45, and should not exceed ₹50.
Bombay	...	Average for a good high school complete with accessories such as compound wall, gymnasium, servants' rooms, etc.		150-200
Bengal	Burdwan Division	Middle school building for about 60 pupils.	250	4
		Ordinary <i>pucca</i> high school building for about 200 pupils.	3,000	15
United Provinces.	Oudh	Average vernacular secondary school	3,500	25-30
		Typical English secondary school	18,387	116
Punjab	...	Average <i>katcha-pucca</i> vernacular middle school building for at least 180 pupils.	1,170	6½
		High school for not more than 400 pupils.	5,000	12
Burma	...	Best description of English school	...	100
Central Provinces	Northern Circle	Vernacular middle school	From 1,200 upwards.	...
	Eastern Circle	Ordinary vernacular middle school for about 150 pupils.	2,500	17
		English school for about 75 boys	5,000	66
		English school for about 150 boys	15,000	100
Assam	...	Average high school building	20,000	...
		Good State middle school for 150 to 200 pupils.	6,000	30-40
		Aided middle school building	450 to 1,100	...

Most of the figures in the above table are rough averages, and the actual cost varies in general from place to place according to diverse local conditions.

346. The Codes of the Local Governments make provision for special grants-in-aid of school buildings. It is a general condition of such grants that the site, plans, and estimates of the building must be approved. In MADRAS grants not exceeding one-third of the total cost may be given towards the erection or enlargement, or purchase of school buildings and hostels or boarding houses. In BOMBAY grants may be given to managers of schools in aid of erecting, purchasing, enlarging or re-building school buildings. The maximum amount of the

grant depends on the sum raised privately. Except in the case of institutions for primary education only, or of buildings the total cost of which does not exceed Rs.5,000, the grants may not exceed one-third of the private expenditure. In BENGAL grants may be given to managers of schools in aid—

- (a) of erecting, enlarging, or furnishing school buildings;
- (b) of executing extensive repairs; and,
- (c) in special cases, of paying off debts incurred in erecting or enlarging school buildings.

The proportion of the Government contribution must not, in general, exceed the proportion which the general Government grant may bear to the private income of the particular class of school.

#### Equipment.

347. The equipment of the secondary schools also varies greatly from province to province and from locality to locality; it is more expensive in a high school than in a middle school, and, generally, in an English school than in a vernacular school. Again, the schools under public management are usually better equipped than the private managed schools, though there are notable exceptions to this statement. The following table shows, for typical schools of various classes and provinces, the cost of equipment divided under the heads furniture, ordinary apparatus, scientific apparatus, gymnastic apparatus, and books.

Province.	Class of School.	Furniture.	Ordinary apparatus.	Scientific apparatus.	Gymnastic apparatus.	Books.	Total.	REMARKS.
Madras	Typical upper secondary school for 200 pupils, Central Circle.	R 1,345	R 270	R 600	R 325	R 100 a year.	R Roughly 3,500	
Bombay	Good high school for 400 boys.	...	...	3,500	...	...	8,000	Details not available.
Bengal	High . . . .	659	90	...	...	500	1,249	
	Middle . . . .	199	38	...	...	50	287	
United Provinces.	English secondary .	2,044	253	2,000*	*	*	4,297	* See remarks on the next page.
	Vernacular secondary.	268	33	...	90*	10*	401	
Punjab	High . . . .	...	...	525	225	80	1,500 to 3,000	
	English middle .	...	...	240	80	80	500 to 850	
	Vernacular middle .	...	...	195	50	30	350 to 450	
Central Provinces.	High school, Eastern Circle, for 200 boys.	1,125	630	1,000	300	2,000†	5,055	† Includes 1,000 for hostel library.
	English middle school, Northern Circle, for 100 boys.	321	46	228	Not stated.	...	595	
	Vernacular middle school, Eastern Circle.	366	90	175	32	...	663	

The actual cost of equipment varies greatly in different schools, and the table should be regarded only by way of illustration. The total cost of the equipment of a high school is shown as Rs.8,000 in Bombay, Rs.5,055 in the Central Provinces, Rs.4,297 in the United Provinces, Rs.3,500 in Madras, Rs.1,500 to Rs.3,000 in the Punjab, and Rs.1,249 in Bengal. The cost of furniture and appliances in an English school in Burma averages about Rs.6 a pupil.

348. The ordinary furniture of a good English secondary school comprises benches and desks, tables and chairs, blackboards, cupboards, clocks, and minor articles. The desks are, as a rule, long desks for seating a number of pupils, single or double desks of European pattern are rare. In Madras the typical school for 200 pupils may be said to have reversible benches for forms V and VI, extra writing accommodation for 50 pupils used by each form as

required, and back benches for forms I to IV. The ordinary apparatus comprises maps, globes (in some cases), wall charts, kindergarten apparatus, etc. The scientific apparatus for object lessons and elementary teaching in physics (and sometimes in chemistry) is usually of a simple description. In Madras a list of apparatus is prescribed for teaching physics and chemistry up to the standard of the entrance examination. In the chemical and physical apparatus of a good high school in Bombay will be found instruments for the demonstration of light, heat, sound, and gravity, or telescopes, microscopes, orreries, globes, etc. These are imported from England; and the total cost of equipment for scientific teaching, including chemicals, retorts, furnaces, etc., may be taken at R3,500. The scientific apparatus in an English secondary school in the United Provinces costs not less than R1,000 and may be taken as generally nearer R2,000. For a Punjab high school lists of apparatus are prescribed; the apparatus for physics costs R250, for chemistry R200, for object lessons R50, and for mensuration R25. The science apparatus for a typical high school in the Central Provinces is more expensive, and costs R1,000. Most high and middle schools are provided with simple gymnastic apparatus—horizontal bars, parallel bars, vaulting horse, dumb-bells, and the like. A list considerably longer than this is prescribed for Madras schools. Gymnastic apparatus in the United Provinces is supplied from a games fund derived from subscriptions paid by the pupils (minimum 2 As. a month). In the Central Provinces a set of apparatus for a high school costs R300 and in the Punjab R225. Only the best of schools have anything more than a few reference books by way of a library. The more important Bombay schools are well off in this respect. In the United Provinces all Government and District Board high schools maintain libraries, a grant for the purpose being regularly made in the school budget; aided schools also keep up fair libraries. In a typical Bengal high school R500 is spent on books, and some of the Government schools have fairly large libraries; thus each of the schools of this class in the Burdwan Division has more than 3,000 volumes.

#### Punjab Report.

349. The following extracts from the reports of the Punjab Inspectors (1901-02) regarding school buildings and equipment, show how much improvement is needed in a province where the attention paid to these matters is not below the average:—

**DELHI CIRCLE.**—In the matter of school and boarding-house buildings and appliances the districts appear not to be properly equipped. Class and boarding house accommodation is generally insufficient and unsuitable, and science and gymnastic apparatus are incomplete in almost all the secondary schools. The Gurgaon District is the worst as regards school and boarding-house accommodation, where a downward tendency appears to be marked, and practically nothing seems to have been done to improve the existing buildings or to erect new ones where required. The libraries of most of the Anglo-Vernacular schools are poor, and almost nothing is done to keep up the libraries of the old Government schools.

**JULLUNDUR CIRCLE.**—In the Kangra and Ludhiana districts the buildings of secondary schools are sufficiently commodious and kept in order, with the exception of those at Gujralwal and Sawaddi (Ludhiana District), which were overcrowded. In the Jullundur District the Municipal Board school at head-quarters is still without a building of its own, and those of Phillour, Pharala, and Adampur are inadequate. In the Hoshiarpur District the building of the Municipal Board school at the head-quarters is sufficiently commodious, but all the secondary schools outside are not adequately housed. The same may be said of the Gurdaspur District. All the secondary schools are well equipped with furniture and appliances, except that science apparatus is either incomplete or not supplied at all in most of the vernacular schools of the Jullundur, Gurdaspur, and Hoshiarpur districts.

**LAHORE CIRCLE.**—The school buildings of secondary schools in the Montgomery District are commodious enough; but in the Lahore District the Qasur high school is suffering for want of adequate accommodation and many of the middle school buildings in the mofassal are out of repair. In Amritsar an excellent building has been provided for the Muhammadan Anglo-Oriental School, and the building of the Amritsar Municipal Board school has been enlarged, but that of the Artisan School stands badly in need of improvement. Furniture and appliances are fairly supplied in all the districts of the circle except that science apparatus is required in the artisan school, Amritsar, and the apparatus supplied to the Lahore District is not in working order in many cases. The libraries of some of the Anglo-vernacular middle schools are poor, and few books suitable for boys' reading are found in them.

**MULTAN CIRCLE.**—The Multan Inspector reports that the buildings of Anglo-vernacular schools generally are overcrowded, while in Multan even those for vernacular secondary schools have not had the necessary repairs. The libraries of all Anglo-vernacular schools are poor.



### School Life.

Day and  
boarding  
schools.

350. The boys studying in secondary schools usually live with their friends, or, if they have come from a distance, in lodgings. Out of the 578,000 boys in such schools in 1901-02, only 24,500 (including Europeans and Eurasians) were living in hostels forming a part of, or attached to, their schools.

351. In 1901-02, 9,500 boys were living in hostels under public management, and 15,000 in hostels under private management. Two thousand and two hundred of the boys in public managed hostels were in Government boarding houses, mainly in Bengal (669), the United Provinces (632), and the Punjab (400). The two most important hostels under Government management in Bengal, are the Eden Hindu Hostel, and the Elliott Hostel, both in Calcutta; these hostels, which receive both college and school pupils, have been noticed in the Chapter on Collegiate Education. Of the 7,323 boys in hostels managed by Boards 7,126 belong to the United Provinces, the Punjab, and the North-West Frontier Province. The system of resident State schools has been further developed in the Punjab than in any other part of India. The Director makes the following remarks about boarding houses attached to secondary schools in the United Provinces :—

The boarding-houses attached to District schools are, as a rule, well built, and afford sufficient accommodation. In large towns where there are several aided English schools more boarding-houses are needed, and it would be well if some of the more prosperous aided schools would open these useful annexes. It should be considered a reproach to a school that any of its scholars should be living in lodgings in the town; but there are many such cases. In Ghazipur there is no boarding-house, though there are two flourishing English schools.

The boarding-houses of town schools are usually even less satisfactory than the school buildings. They are said to meet the wants of poor villagers, but it cannot be said that they make for cleanliness or help to impress upon the minds of the inmates the benefits of sanitation. It is hardly worth while to teach a sanitary primer, if all the rules enjoined therein for the construction of dwelling-houses are violated on the school premises. Precept at variance with example is dead. But besides improvement in existing boarding-houses there is need of a large increase in the number. It is certain that the absence of well organized boarding-houses has kept down the number of scholars in the secondary classes.

In the Punjab at the end of 1901-02 all Board secondary schools in the Delhi, Jullundur, and Multan circles, except 8, had been provided with hostels. So also had most of the schools in the Rawalpindi Circle, whilst there were 33 boarding-houses for boys with 930 inmates in the Lahore Circle. The Director speaks badly of the condition of the hostels in the Rawalpindi and Multan circles, and of some of the hostels in other circles. The Director writes as follows with regard to boarding houses in the North-West Frontier Province :—

A great deal has been done towards improving boarding-house accommodation during the past quinquennium. Six good buildings—three in the Banna and three in the Peshawar District—have been erected, and the hired house at Zaida, in the latter district, much improved. All Board secondary schools, except two in the Peshawar and one in the Kohat District, all aided schools, and two out of the seven unaided schools were supplied with boarding houses. The Municipal Board primary school at Tank, in the Dera Ismail Khan District, had a boarding house attached to it. The number of inmates in boarding houses was 343. As compared with 1896-97, the number of these institutions has increased by five, of which four have been added to Board schools and one to an unaided school. Of the 21 boarding houses 15 are managed by local bodies, 2 aided by Government or by Local Boards, and 4 are unaided. These houses, generally, are said to be adequately furnished and well managed. The Victoria Bharatri School boarding-house continues to be without a night superintendent.

352. The following table shows the number of boys of secondary schools living in hostels under private management in the five large Provinces of the Peninsula :—

Bengal . . . . .	4,888
Madras . . . . .	2,756
Punjab . . . . .	2,688
Bombay . . . . .	1,598
United Provinces . . . . .	1,487

For all other provinces the total is only 1,519. Some of these hostels are attached to colleges with school departments; others, and especially in Madras, are missionary institutions; others are native denominational institutions; and others again belong to ordinary proprietary schools.

353. In most provinces the ordinary day's work, apart from preparation and private study, is five or six hours. School is held, either through the middle of the day with an interval mid-way, or in the morning and evening, to suit the convenience of the season and locality. Classes are not usually held for more than three hours at a stretch. School hours.

354. The arrangement of the school year and the rules for holidays and vacations differ considerably from province to province. In MADRAS, the year for secondary schools is divided into two terms for fee purposes, separated by the two long vacations of the year. These are the summer and Christmas vacations. The summer vacation in upper secondary (high) schools lasts usually for one month and fifteen days, and in lower secondary (middle) schools for one month. In Muhammadan schools Ramzan and Eid-i-Ramzan (32 days) take the place of the summer vacation. The Christmas vacation usually extends from the 23rd December to the 15th January, but in Muhammadan schools it embraces only the days on which the Government offices are closed. Saturday and Sunday, or Friday and Sunday in the case of Muhammadan schools, are whole holidays. In Hindu schools the number of miscellaneous holidays is 24, or 18 in the case of lower secondary schools; in Muhammadan schools the number amounts to 29. In BENGAL, the school year is not divided formally into terms but there are two vacations—the summer vacation and the Durga Pujah vacation. These occur rather close together, the summer vacation in May—June and the Durga Pujah vacation in September—October. The dates of the latter vacation are determined by those of the festival on account of which the holidays are given. Each vacation lasts in high schools for a month or a little less. The summer vacation in middle schools lasts for about two weeks only. It is a general rule that the total holidays (exclusive of Sundays) may not ordinarily exceed 60 days. In departmental English schools in the UNITED PROVINCES there is a summer vacation extending from the 8th May to the 30th June and a Christmas vacation from the 25th December to the 1st January. Schools are also closed on holidays gazetted by the Government, and on other occasions on which the District offices are closed. In the PUNJAB the school year is not divided into formal terms. A summer vacation of one month is usually given, the dates varying from school to school and from district to district; a week's holiday is allowed at Christmas; and 30 miscellaneous holidays on various festivals, etc. In Government schools in BURMA a six weeks' vacation is given at mid-summer, and in addition the following occasional holidays:—

Buddhist holidays	21 days.
Christmas holidays	10 days.
King's Birthday	1 day.

355. A general notice of the subjects of school discipline and training, will be found in Chapter XVI. It will suffice for the purposes of the present Chapter to give a description, by way of illustration, of the systems in force in two provinces, and Bengal and the Punjab have been selected for the purpose. School discipline and training.

356. BENGAL.—The discipline and training in a Bengal high school varies greatly according to the character of the institution; it is far better in the Government and Board schools and in the best of the private managed institutions, than in the small and often ill-equipped and inadequately staffed venture schools. The typical high school has high, middle, and primary departments containing about 11 classes in all. In a good school the high and middle classes all have separate rooms, and the primary classes are generally held in a hall with divisions partitioned off. Small aided and unaided schools sometimes have only four or five-class rooms, and two or more classes have to be held in the same room. A first-class high school would have a staff of about 12 to 14 regular masters, 3 pandits, a drawing master, and a master for gymnastics and drill. In a smaller school there would be about 8 regular masters and 2 pandits, one of the regular masters, would take the classes in drill and gymnastics and one of the pandits (trained in a normal school) in drawing. The school day is from 10-30 to 4 o'clock with a break from 1-30 to 2. The pupils mostly arrive a little before school time and play about until the bell rings, when they enter their respective class rooms and take their places. They go in

as they please and class movements are not performed in unison. When the boys are seated the teacher comes in and they rise and salute him. The lesson then begins. At the end of the hour the teacher goes to another class and a fresh teacher takes his place and instructs the class in another subject. The teacher sits at a table at the end of the room, and the boys are ranged on benches round him, their writing books placed on their knees. In Government schools this primitive method has been replaced by desks and benches. Occasionally there are galleries in large class rooms in which some of the pupils sit. At 1-30 the boys leave the class rooms and rest, play, and eat during half-an-hour. A school servant fetches sweet-meats, etc., from the bazar, and a room is usually set apart in which the boys take their food. At 2 o'clock the pupils return to their class rooms, and after two hours' further study the bell rings and the school is dismissed. Each class has at least half-an-hour of drill and gymnastics during the course of the day. The masters give their pupils such preparation work as they think fit. Discipline, which was formerly lax, has been made more strict of recent years, and in the best schools careful attention is paid to cleanliness and neatness, quiet and orderly behaviour, attention, and manners. Conduct registers are usually maintained, and in most Government schools quarterly reports of conduct and progress are made to parents and guardians. The ordinary school punishments are fines, impositions, standing in class, detention in school, corporal punishment, and in extreme cases expulsion. Corporal punishment is allowed in cases of gross misconduct, and may be inflicted only by the head master. State schools and some private schools have an annual prize day. There are debating clubs in many high schools at which the headmaster or second master usually presides. The debates are generally held in a class room on Saturdays and Sundays. There is often a school reading room with papers and magazines, a room in one of the masters' houses is frequently devoted to this purpose. In the evening the boys play cricket, football, and indigenous games with much keenness. Many schools have no play grounds, but there is usually an open space in the outskirts of the town or village which answers this purpose.

357. THE PUNJAB.—An English secondary school in the Punjab has, as a rule, its high, middle and primary departments, and the ages of the pupils extend from about 5 to 17 years. A separate master is appointed to the charge of each department. The high school has two classes, the middle school three classes, and the primary school four classes and an infant class. Each class or section of a class is held in a separate room. A large English school will have ten to twenty class rooms. The best schools have laboratories, and with few exceptions all schools have play grounds for which gymnastic apparatus is provided. Masters are assisted in maintaining discipline by class monitors who wear a badge and are very proud of the distinction. The monitors give the word of command for class movements and are responsible for conduct during the absence of the teacher. They have no powers of punishment. An ordinary school day during the cold weather commences at about 10 o'clock and ends at about 4, with an interval of about half-an-hour in the middle of the day. The day is portioned out according to a fixed time-table. The pupils begin to arrive at about half-past nine and at ten minutes to the hour the school bell rings. The boys are then marshalled in the play ground; the high, middle and primary departments standing apart. The master appointed for the purpose then calls the roll, and leave applications are presented to him through the class monitor's. After roll-call the monitors march the boys of the different classes to their respective rooms; they enter the room and seat themselves at the monitor's word of command. All class movements are effected in this way. The teacher sits at one end of the room and has a chair, black board, and table. In most schools the boys sit round the rooms on benches, but modern desks are being introduced and are ranged in parallel rows in front of the master. We may suppose that the first hour of the class is devoted to English. The master will make the boys read from the class reading book and will ask them questions and explain passages and words to them. The boys sometimes take their place in class according to their answers, but this system is more in vogue in middle than in high schools. At the end of the hour a fresh master will come in, or the boys will move by word of command to another class room. After three hours of study comes an interval during which the boys play and eat some light.

food, bought from the vendor who establishes himself in a corner of the school compound. Five or ten minutes before the end of the school day a second roll-call is held in the class rooms, and the school is then dismissed. During the course of the day each class has half-an-hour's drill or gymnastics in the play ground. Every high school has its gymnastic instructor and some large schools have more than one. The boys do their preparation at home. The former practice was for each master to allot his tasks independently with the result that the boys were often over-taxed. Now, in some schools, the head master fixes the time for private study and apportions it. The ordinary punishments inflicted for breaches of discipline and conduct are detention in school, extra tasks, standing in class, and corporal punishment in cases of serious misconduct. The extreme penalty is expulsion. Corporal punishment may be administered only by the head master, the punishment must be recorded in the order book, and a copy of the record must be sent to the parent or guardian of the boy. Conduct registers are maintained. Appointment to the post of monitor is a coveted reward. There is an annual prize day in many schools on which books, etc., are given as a reward for proficiency in class or at gymnastics and for good conduct. Most secondary schools have a library containing one to two hundred volumes; one of the teachers fills the post of librarian and gives out books to the boys. More than half the high schools have school clubs in which debates are held, papers are read, and poems are recited. Boys pay a small subscription to the club, which is located in a class room and is often provided with journals and newspapers. One of the boys acts as Secretary. Dramatic clubs are becoming popular in the Punjab schools. In the winter, after school hours, the boys play cricket, football, and other games, and the school teams are eagerly trained for the winter school competitions.

358. It has been stated above that the large majority of secondary schools in the Punjab are provided with boarding houses; in some cases these form part of the school premises, but more frequently they are separate buildings. The boarding house is in charge of a Superintendent who lives on the premises and is sometimes a teacher in the school. He manages the establishment and is responsible for the feeding, health, and conduct of the boys. The boys sleep in dormitories (or sometimes in cubicles), and each boy is provided with a native bed, a box, and a mat. Dormitory monitors are appointed to assist in the maintenance of discipline. Life is regulated by a time-table which gives the hours of rising, going to bed, meals, and preparation. The following arrangement of hours is fairly typical. In summer, rise at 5 and bathe; class work from 6 to 12 with an interval in the middle; return to the boarding house and food and recreation until about 2-30; private study until about 6; physical exercise—gymnastics, games, etc., until sunset; then dinner, rest, and bed. In winter rise at about 5 or a little later; 7 to 9 private study; 9 to 10 recreation and food; 10 to 4 school; 4 to 6 games and recreation; 6 to 7 dinner; 7 to 9 (or considerably later if one is preparing for an examination) private study; then bed. The roll is called at 9 o'clock, and when it is over the doors are shut. It will be noticed that the hours of study are longer in winter than in summer, a natural arrangement in a hot climate. The boys have usually to learn their lessons in the dormitory; rooms for study or for recreation are still the exception. In some boarding houses in-door games are organized. Meals are provided by the management, and the greater part of the Punjab escapes from the caste difficulties which stand in the way of residential school life in most parts of India. In poorer schools the boys often pay for their living in kind instead of in cash. The parents would then supply the boy every month with about 20 seers of flour, a seer and a half of *ghi*, six or eight annas for vegetables, pulse, fuel, etc., and four annas for miscellaneous expenses. The small monthly fee ranges from about annas 4 to R1 a month, and in a school of humble means the monthly cost per boy would be about R3-8 to the parents and about R1 to the school management; in the latter is included the cost of a cook and servant. Every other Saturday, or on the occurrence of holidays lasting for two or more days, boys belonging to villages in the neighbourhood go home to see their parents and to fetch their quota of food.

359. A matter intimately connected with the discipline of schools is the regulation of the transfer of students from one school to another. The rules in MADRAS, BOMBAY, and BENGAL, which may be taken for illustration, are

Transfer  
rules.

similar in character. It is generally laid down that a boy may not be transferred without a leaving certificate from the school at which he has been studying, and that the master of the school to which he comes may not place him in a higher class than that which he has left unless he has qualified for promotion. The details of the leaving certificates differ, they give particulars of matters such as age, class, character and conduct, payment of fees, and whether the student has qualified for promotion. When schools are started in competition, and the transfer rules are not strictly observed, great mischief is apt to result to the conduct and discipline of the schools, for a boy may escape the penalty for misconduct or neglect of study by changing to another school the master of which is willing to receive and promote him without asking any questions.

### Stages of Instruction and Ages of Pupils.

Classes of the secondary course.

360. The secondary course in an English high school comprises 7 classes in Bombay and Berar, 6 classes in Madras, Bengal, the United Provinces, and the Central Provinces, and 5 classes in the Punjab, Burma, and Assam. The point at which the secondary course begins, *i.e.*, the number of primary classes below it, differs from province to province. Including all classes from the infant stage up to the end of the high school course, the total number of classes stands as follows: Bengal, 13; Bombay and the United Provinces, 12; Madras and Berar, 11; the Punjab and Burma, 10; the Central Provinces and Assam, 9. If the school age for infant classes be taken to begin at five, and if a year be allowed for each class the high school course would be finished at the following ages: Bengal, 18; Bombay and the United Provinces, 17; Madras, 16; the Punjab and Burma, 15; the Central Provinces and Assam, 14. This does not correspond with the actual condition of affairs. Although it is the general rule that a class occupies a year, double promotions are (in some provinces) frequently given, especially in the lower classes, and the three infant stages in Bengal are sometimes merged into a single year's course. The ordinary age for matriculating at a University after completing the school course is about 14 to 17, and some pupils pass the entrance examination at an even earlier age. When the three older Universities were founded, 16 was fixed as the age limit for matriculation, but this rule was afterwards abandoned. At the close of the quinquennium under review the Allahabad University was the only one which had a minimum age limit for matriculation, there the limit was also 16. The complaint is made that clever boys are hurried through the school course in order that they may matriculate as early as possible, and that this overpressure prevents proper study and injures the pupils both physically and mentally. The Indian Universities Commission, following the example of a Committee of the Senate of the Calcutta University, proposed that a general minimum limit of 15 years of age should be enforced.

The English course.

361. The English secondary course is divided into a middle and a high stage.\* The high stage begins after 4 classes in the United Provinces and the Central Provinces; after 3 classes in Madras, Bombay, the Punjab, Burma, and Berar; after 2 classes in Bengal; and after one class in Assam. The United Provinces middle stage is further sub-divided into a lower and an upper section. During the quinquennium under review the division between the high and middle stages was marked by an examination in all provinces except Bombay. The character and object of these examinations will be explained later on.

The vernacular course.

362. There is a vernacular high school course only in the Punjab and Burma. In the Punjab it leads up to the entrance examination for the oriental side of the Punjab University. In Burma there are no vernacular high schools; but there is a "high" vernacular course with two examinations, (standards VIII and IX), the candidates for which are either students of normal schools, certificated teachers at work, itinerant teachers, pupil teachers, or school managers. Elsewhere the secondary vernacular course is a middle school course. This vernacular course corresponds in duration to the middle English course in Madras, and Bengal. In Bombay, the United Provinces, Berar, and the Central Provinces the vernacular course terminates with two classes above the usual upper primary stage; in Bombay and Berar these classes are regarded

\* Styled in Madras the upper and lower secondary stages.

as a portion of the primary stage of education, in the United and the Central Provinces they are classified as a secondary course. The United Provinces course corresponds in duration with the lower section of the English middle course.

363. The system of class promotion in the secondary stage is in general similar to the system prevailing in the primary stage which is described in the next chapter. In BENGAL promotion examinations are held by the headmaster throughout the secondary course; in Government schools the headmaster usually sends the marks to the Inspector with whom the final decision rests. In State schools in the UNITED PROVINCES promotion from class to class is "given annually on the result of the examination of the class held at the close of the annual term either by some examining board or by the headmaster" (Code of 1892). In the PUNJAB promotions from class to class within a department are made by the headmaster, and promotion from the middle to the high department depends on the result of a public examination. In the CENTRAL PROVINCES promotion from class to class is made by the headmaster and from grade to grade on the result of an examination held by the Department.

### Subjects and Method of Teaching.

364. The stage in the general course of education at which English should become the medium of instruction has been the subject of some controversy. The Despatch of 1854 refers to English as by far the most perfect medium for the education of those persons who have acquired a sufficient knowledge of it to receive general instruction through it, but it did not attempt to indicate the stage at which this "sufficient knowledge" might be deemed to have been acquired. The Education Commission stated, in paragraph 464 of their Report, that there is room for much difference of opinion as to the language which should be employed as the medium of instruction of pupils who are learning more languages than one. The advocates of early instruction in English point to the desirability of giving the Indian youth a practical knowledge of English at the earliest possible opportunity, and to the greater choice of text books which the use of the English language affords. Their opponents contend that until the pupil has made some progress he can study more intelligently in his own vernacular, and that with a better trained intellect he will become more proficient in English itself, as well as in the vernacular and in general subjects. Of late years the tendency has been to postpone instruction through the medium of English to a later stage than was formerly considered desirable, and at the end of the quinquennium under review the dividing line was in general drawn between the middle and high stages of instruction. In MADRAS "while managers of schools have perfect liberty to adopt whatever language they please as the medium of instruction, they are strongly advised to adopt the vernacular of the pupils as that medium up to and including the third form or 7th standard"\* (*i.e.*, the highest standard of the middle stage). In BOMBAY instruction is given in the vernacular throughout the middle stage of English schools. In BENGAL it has hitherto been the practice to give instruction through the medium of English in the middle classes of high schools, but through the vernacular in middle English schools. Under the new scheme of education instruction through English will be permitted only in the high stage. In the UNITED PROVINCES instruction is given through the medium of English in the upper middle and high sections (except in vernacular languages and oriental classics), that is in the four highest classes. In the PUNJAB "even in Anglo-vernacular Schools, the medium of instructions up to the end of the middle course is the vernacular, except in arithmetic and geography, which have for some years now, on the recommendation of the Punjab Educational Conference, been taught through English, with the view to give a greater facility and accuracy in the practical use of the language."† In BURMA up to Standard IV (that is to the end of the upper primary stage), the second language, arithmetic, and geography are taught from text-books written in one of the recognized vernaculars, and the examination papers are set and answered in a vernacular language. But English, including conversation and composition and translation, is taught, from the earliest stages, through the medium of

\* Madras Educational Rules, page 25.

† Letter from the Government of the Punjab, No. 375, dated the 26th June 1901.

English. From the beginning of the secondary stage all the text-books are in English, and the teaching and examinations are also in English, explanations being given (when necessary) in the vernacular.

**The medium of instruction in vernacular schools.** 365. The teaching in the vernacular schools is, as the name implies, always conducted through the medium of the vernacular, but English is sometimes, and in some provinces, taught as a subject.

**Different courses in English schools. General course.** 366. The course in English secondary schools has hitherto usually led up to, and been dominated by, the entrance or matriculation examinations of the Universities. These examinations have not been regarded solely, or even mainly, as a test of fitness to enter on a University course; the certificate of passing has been accepted by the Government and by private employers as a qualification for their service, and only a small proportion of the students presenting themselves for examination have subsequently entered a University. The entrance or matriculation examination is, in general, of a literary character, and the instruction in secondary schools has therefore been chiefly literary—there has been little corresponding to the “modern side” of European schools. These remarks apply to the whole secondary course, for although the University examinations affect directly only the curriculum in the high stage, yet instruction in the middle stage must be adapted to what will be required of the pupils after they have passed through it.

**Special courses.** 367. There are, in most provinces, other courses of a more practical character, which have hitherto been much less popular than the matriculation courses. The Education Commission of 1882 found that, with the exception of some independent secondary schools in Bombay, high schools were throughout India regarded almost exclusively as preparatory schools for the Universities. They reported that there was a real need for some more modern course which would fit boys for industrial and commercial pursuits, and they recommended that there should be a bifurcation of studies within two years of the end of the secondary course, the upper classes of high schools being divided into two types, one leading to the entrance examination of the University, the other of a more practical and less literary character. These recommendations were endorsed by the Government of India, and various of the Local Governments have from time to time taken action upon them. From such action have arisen the upper secondary examination in Madras, the school final examinations in Bombay and Allahabad, the recently introduced engineering and industrial and commercial courses in Bengal, and the clerical and commercial examination of the Punjab. The Punjab University has also instituted a separate entrance examination which may be taken by students proposing to follow a science course.

**Order of subjects.** 368. It will be convenient in the first place to describe the general courses for the matriculation examinations, next to examine the character of the more modern courses and the extent to which they are followed, and lastly to give a brief account of the preliminary courses of the middle stage.

**Matri- culation course.** 369. The general subjects of the matriculation courses are:—

- (1) English.
- (2) A second language which may be either (a) an oriental or European classical language, or (b) an Indian or continental European vernacular language.
- (3) Elementary mathematics.
- (4) History and geography.

In Madras and Bombay elementary science is added. In Allahabad\* and the Punjab the option of a vernacular language is not given. In the former University entrance candidates may appear in the Urdu or Hindi of the school final examination, but no account of this is taken in determining the candidate's place; translation from vernacular into English is also required of all candidates at the entrance examination. In the Punjab the candidate may take up a fifth voluntary subject consisting of either a vernacular language, elementary science,

\* In November 1901 the Senate approved of considerable alterations in the Allahabad course.



or a second classical language. In Calcutta drawing is an optional subject; no account of it is taken by the University in determining the candidate's place in the examination, but the Director includes the marks for drawing in awarding scholarships.

370. The distribution of the working hours among the several subjects is illustrated by the specimen time-tables in Volume II. The following abstract shows the division of time in the highest class of selected typical English high schools teaching the matriculation course :—

Subject.	HOURS PER WEEK.							
	Madras.	Bombay.	Bengal.	United Provinces.	Punjab.	Lower Burma.	Central Provinces.	Assam.
English . . . . .	9	10	9½	12	12	5½	12	9½
Classical language . . . . .	5	5	4	5(c)	5(a)	3½(b)	3½	3½
Vernacular language . . . . .	5	—	1	1	(d)	—	—	1½
Mathematics . . . . .	6	4	6	6	9	6½	5½	5
History and geography . . . . .	5	5	5	6	6	8½	4½	4½
Science . . . . .	4	4	1	5(c)	(d)	1½	—	½
Drawing . . . . .	1	—	2	—	(d)	—	1½	1
<b>TOTAL</b>	<b>35</b>	<b>28</b>	<b>28½</b>	<b>30</b>	<b>32(d)</b>	<b>25</b>	<b>26½</b>	<b>25½</b>

(a) Science (5 hours) is alternative with this subject.  
 (b) Classical or vernacular language.  
 (c) Science is alternative with a classical language.  
 (d) In addition 4 hours for either vernacular language, science, or drawing.

371. English is the principal subject of study and is, in general, taught English. throughout the secondary department of the English high and middle schools. The pupils learn grammar, idiom and construction, translation, and essay writing. At Calcutta and Allahabad English text-books are prescribed for the course, and questions are set on them at the examination; whilst at Madras, Bombay and Lahore there are no set books. The Indian Universities Commission recorded the following remarks on the question whether English text-books should be prescribed :—

The question whether a text-book should be prescribed at this stage has been much debated. The advocates of each system contend that the other system fosters cram. It is contended on the one hand that, if a text-book is prescribed, the student confines himself to learning that book and perhaps an explanatory key by heart. On the other hand, it is urged that unless some text-book is prescribed and particularly some poetry, a student learns nothing whatever of the language, and restricts his studies to learning lists of idioms and grammatical difficulties. We are of opinion that good teaching and examining make text-books a secondary matter, and that it is undesirable that text-books should be prescribed in English at the Entrance Examination. What is required is that students in the Entrance classes should be taught some easy modern prose, with some simple poetry; the object being to enable them to read with ease the books from which they will derive information on other subjects during their college course. To secure this, the Entrance course can be described in general terms, a list of books being given by way of illustration. The list might consist chiefly of historical and descriptive books from which a student would obtain useful knowledge as well as linguistic training, and it should be so long as to exclude the possibility of all of them being committed to memory.\*

A number of witnesses complained before the Indian Universities Commission of the character of the teaching in English, and the Commission considered that notwithstanding the prominence given to English throughout the course (both in the schools and in the colleges) the results are most discouraging. They attributed this unsatisfactory state of affairs largely to the hurrying of boys through the school course; to their beginning the study of, and instruction through the medium of, English, at too young an age; and to boys being taught in the lower classes "by ill-paid teachers, who have no claim to be regarded as qualified to teach the language." "Faults acquired at this stage are seldom completely eradicated, and, even when a boy reaches the higher classes of a high school, he is generally taught by a teacher whose vernacular is not English and who is wanting in the capacity to teach the language properly. Numbers of students reach the stage of matriculation without ever having heard an Englishman speak, and incapable of understanding English as spoken by those whose mother-tongue it is."

\* Report of the Indian Universities Commission, paragraph 84.



Vernacular  
languages of  
India.

372. A vernacular language is an alternative with a classical language in Calcutta, Madras and Bombay; and may be taken as a voluntary subject at Allahabad and Lahore. The abstract from the time-tables shows that a classical rather than a vernacular language is, as a rule, studied in the entrance classes; but in earlier stages a larger proportion of the week is devoted to the study of the vernacular. The time-tables of selected schools give the following information regarding the study of vernacular languages in the middle stage: Madras 5 hours a week, Bombay 4 hours, Bengal  $5\frac{1}{2}$  hours, the United Provinces 6 hours in the lower and  $4\frac{1}{2}$  hours in the upper division, the Punjab 3 hours, the Central Provinces  $4\frac{2}{3}$  to  $3\frac{1}{3}$  hours, and Assam 3 hours. In Burma the study of a vernacular language is compulsory in all classes. The Universities Commission observed that the teaching of vernacular languages in secondary schools is frequently neglected, and is relegated to ill-paid and incompetent instructors.

Classical  
languages of  
India.

373. For the entrance examination all the Universities recognize Sanskrit, Arabic, and Persian. Calcutta also recognizes Pali for the benefit of its Burmese students. At Calcutta, Madras, Allahabad, and Lahore the course comprises the study of prescribed text-books, grammar, and translation, and the pieces to be translated into the classical language consist of sentences or easy passages. At Bombay text-books are not prescribed by the University. The traditional system of teaching Sanskrit and Arabic to young pupils is repetition by rote, and it is difficult to obtain instructors with an adequate knowledge of the language who are also capable of giving intelligent instruction by western methods.

Other  
classical  
languages.

374. Latin, Greek, and Hebrew are recognized by all the Universities. Greek and Hebrew are not often studied, and Latin is taken up principally by European and Eurasian pupils. Latin is also sometimes selected by Indian students, and is specially useful to those who are entering the profession of medicine.

Continental  
languages  
of Europe.

375. Calcutta and Madras recognize French and German; and Bombay, French and Portuguese, the latter mainly for the population of mixed Portuguese descent. Complaint has been made that French is becoming too popular at Bombay, because the subject is regarded as an easy one.

Mathematics.

376. The general course in mathematics includes arithmetic up to stocks and discount, algebra up to simultaneous equations, and the first four books of Euclid with simple deductions. In Madras the algebra includes quadratic equations, and only the first three books of Euclid are read. Mensuration forms part of the course in Allahabad and the Punjab.

History and  
geography.

377. The course in history comprises the outlines of English and Indian history. Elementary general geography and the outlines of physical geography are taught, and more detailed instruction is given in the geography of India. Text-books for history and geography are prescribed for the University examinations only at Calcutta and Allahabad.

Elementary  
science.

378. The Madras course in elementary science consists of two volumes of Macmillan's Science Primer Series—Balfour Stuart's Physics and Roscoe's Chemistry. In Bombay the subjects are the parallelogram of forces and the mechanical powers, chemistry from the above text-book, and astronomy from Lockyer's Primer in the same series.

Courses alter-  
nating with  
the general  
matriculation  
course.

379. At the close of the quinquennium under review the principal courses alternating with the general matriculation courses were:—

the Madras Upper Secondary Course,  
the Bombay School Final Course,  
the Bengal Engineering and Commercial Courses,  
the Allahabad School Final Course,  
the Science Entrance Course of the Punjab University, and  
the Punjab Clerical and Commercial Course.

In Madras the examination at the end of the upper secondary course is conducted by the Commissioner for Government Examinations, whilst the school final examinations in Bombay and the United Provinces; and the science and clerical examinations of the Punjab, are conducted by the Universities. No examination had been held in the new Bengal courses by the end of the quinquennium. The Allahabad school final examination and the Punjab science examination admit to the University, the Madras upper secondary examination, the Bombay school final examination, and the Punjab clerical and commercial examination, do not. The school final examination replaces the entrance examination as a qualification for Government service in Bombay; in Madras, the United Provinces, and the Punjab, it is an alternative qualification. The Central Provinces send up pupils to the Allahabad school final examination. In Burma and Assam there was no separate school final course at the end of the quinquennium.

380. The MADRAS upper secondary course consists of two parts—a compulsory portion embracing English, a second language, mathematics, history, and geography; and an optional portion including any two subjects of the Government technical examination scheme. This scheme embraces a large variety of subjects. The courses, together with the technical schools and the pupils who study in them, will be noticed in the Chapter on Professional and Technical Education. The Madras upper secondary course has attracted a very small number of pupils; only 49 candidates passed the examination in full during the first 12 years of its existence—27 during the quinquennium under review, and 22 during the previous seven years.

381. The BOMBAY school final examination has been in existence since 1889. It was at first held annually in Bombay only, but since 1897 the examination has, like the matriculation examination, been conducted at various centres. The course occupies the two highest classes of those schools which teach it. It includes the following subjects:—

*Compulsory.*

1. English. | 2. A vernacular. | 3. Arithmetic.

*Optional.*

- |                                 |                        |
|---------------------------------|------------------------|
| (1) English.                    | (6) Biology.           |
| (2) Second vernacular language. | (7) Political economy. |
| (3) History and geography.      | (8) Agriculture.       |
| (4) Mathematics.                | (9) Drawing.           |
| (5) Natural philosophy.         | (10) Manual training.  |

The Director's Report for 1901-02 shows that 1,162 boys (of whom 26 per cent. passed) went up for the examination against 3,634 who entered for the matriculation test. The Director states that the examination is not popular and fails to attract promising youths "who are unwilling to shut themselves out from a University career if other things fail".

382. The BENGAL scheme is of very recent creation and had hardly come into operation when the quinquennium closed. Its object is to provide a two years' course suitable for pupils who propose to follow an engineering or an industrial or commercial career, as an alternative for the literary course leading up to the matriculation examination of the Calcutta University. The scheme is described as follows in a letter from the Director, dated the 14th July 1900:—

Existing technical schools will be amalgamated with local zilla or high schools in all cases in which such amalgamation is considered desirable by Government. Classes will be opened in the high or entrance schools at Ranchi, Comilla, Mymensingh, Bankipore, Rangpur, Midnapore, Barisal, Dacca, and Pabna for the teaching of such technical subjects as are required in the training of sub-overseers. As soon as the students have passed the annual examination of the third class and obtained promotion to the second class of the zilla or high schools, they will have to decide whether to continue their studies for the University Entrance examination or in the newly opened "modern-side" classes. Those who elect to join the Engineering branch of the modern side will have to learn:—

- (1) Modern English,
- (2) Mathematics,
- (3) Drawing and practical geometry,
- (4) Mensuration, elementary engineering, surveying; and to undergo—
- (5) Manual training.

After a period of two years' training the modern-side students will be examined in these subjects. Such students will later on receive their instruction at the Sibpur Civil Engineering College if they pass the necessary examination.

Classes will be opened at Hooghly, the Hare School, Calcutta, and the Government schools at Uttarpara, Dacca and Bankipore, for the training of boys who intend to follow the industries or commerce as their future careers. The bifurcation will commence in the second class. Students who join this section of the modern side will learn—

- (1) Modern English,
- (2) Mathematics,
- (3) History, geography, and science primer,
- (4) Drawing and practical geometry,
- (5) Elementary chemistry and physics, and
- (6) Mensuration and mechanics.

After a period of two years' training the students will be subjected to a final school or leaving examination, those who pass obtaining certificates. Such certificates will be considered equal to Entrance examination certificates.

383. In the UNITED PROVINCES the so-called University entrance and school final examinations both fulfil the double function of a test for pupils leaving school and a test for candidates for the University. Only a minority of the students who pass the entrance examination continue their studies at a college, and a considerable proportion of the students who pass the school final use its certificate for obtaining admission to the University. The two classes in the high section of English secondary schools give instruction in one or other of the courses. The school final course was introduced in the year 1892, and the first examination was held in 1894. English, geography, history, and mathematics are common to the two courses; in the school final course a vernacular language (Urdu or Hindi) is substituted for the compulsory classical language of the entrance course. The test in English is improved by the addition of an oral examination. Besides the above compulsory subjects the pupil must study one at least of the following:—

- (1) Drawing.
- (2) Elementary physics and chemistry.
- (3) Agriculture and surveying.
- (4) Book-keeping.
- (5) Political economy.

All these subjects except the third are taught in some one or other of the English secondary schools which have adopted the school final course. Agriculture and surveying are taught in the Agricultural School at Cawnpore. Elementary physics and chemistry form the most useful subjects for those who prefer to enter a University, and they are taken up by the great majority of pupils. The following are the figures from 1894 onwards:—

Year.	Elementary Physics and Chemistry.	Drawing.	Agriculture and Surveying.	Book-keeping.	Political Economy.	TOTAL.
1893-94 . . .	89	5	...	7	1	93
1894-95 . . .	196	10	42	22	17	213
1895-96 . . .	213	17	12	21	30	239
1896-97 . . .	237	20	18	21	21	262
1897-98 . . .	249	32	13	21	35	281
1898-99 . . .	301	32	12	31	18	335
1899-1900 . . .	322	40	...	24	24	369
1900-01 . . .	...	...	...	...	...	452
1901-02 . . .	...	...	...	...	...	435

Up to the latest year for which information is available the number of candidates outside the physics and chemistry course was very small, and, except in the case of drawing, it showed little tendency to increase. The examination in Urdu or Hindi or in both these languages, which is prescribed for the school final examination is open also to entrance candidates, undergraduates, and graduates of the University, and separate certificates are granted to those who pass in the subject. In 1901-02 there were 119 candidates for this special vernacular examination.

384. Before the beginning of the quinquennium the PUNJAB University instituted an entrance examination in science running parallel to the entrance examination in arts, and a school final examination called the clerical and commercial examination "intended to fit youths for commercial and other non-academic pursuits." The course in science includes the following subjects :—

*Compulsory.*

- |                            |  |   |
|----------------------------|--|---|
| (1) English.               |  | (4) Physics and chemistry, and the elementary principles of mechanics and hydrostatics. |
| (2) Mathematics.           |  |   |
| (3) History and geography. |  |   |

*Optional* : Not more than *one* of the following :—

- (1) Botany and zoology. | (2) Agriculture. | (3) Drawing.

The following is the Clerical and Commercial course :—

*Compulsory.*

- |                                      |  |   |
|--------------------------------------|--|---|
| (1) English.                         |  | (3) General and commercial geography.         |
| (2) { Dictation and caligraphy.      |  | . (4) Book-keeping and commercial arithmetic. |
| { Précis writing and correspondence. |  |   |

*Optional* : Not more than *one* of the following :—

- (1) Urdu. | (2) Native system of accounts. | (3) Short-hand writing.

In 1901-1902 there were 22 candidates for the entrance examination in science of whom 15 passed, and 33 candidates for the clerical and commercial examination, 12 of whom passed. The Government of the Punjab made the following remarks in a letter, dated the 26th June, 1900 :—

The Science course has been adopted alongside of the ordinary Arts course in several schools, and there is reason to believe that this example will soon be more generally followed. But the same has not been the case with the Clerical and Commercial course. As this course is designed to cut the students off from a University career, which has a great attraction for the people, it is being more tardily, and not very willingly, adopted by the schools. Recently, however, the full course has been adopted by the Municipal Committee of Amritsar; it is being tried experimentally in the Board School at Delhi. Shorthand and other parts of the scheme have been introduced, as an instalment, into a number of schools; and the Clerical and Commercial examination was held in March last for the first time, when 16 out of 39 candidates passed.

In 1901-02, 73 boys from the CENTRAL PROVINCES went up for the school final examination of the Allahabad University. Writing in April 1900, the Director said that no boy from those provinces had ever taken the course in surveying, book-keeping, or political economy.

385. The above sketch makes it clear that the purely literary course, qualifying both for the University and (except in Bombay) for Government employment, continues to attract the great majority of pupils, and that more practical studies are at present but little in request. In 1901-02 less than 2,000 candidates (the greater portion of whom belonged to Bombay) appeared for the various alternative examinations enumerated in this section, whilst the total number of candidates for the various general matriculation examinations amounted to nearly 23,000.

386. The English middle school course terminates in different provinces at points which vary in distance from the closing point of the whole secondary course. Thus the number of high school classes above the middle English course are 4 in Bombay and Bengal, 3 in Madras, and only 2 in the United Provinces, the Punjab, Burma, and the Central Provinces. This variation affects the standard up to which the middle English course extends. The distinction is of some importance since a considerable proportion of the pupils do not proceed from the middle English to the high stage. Vernacular languages, English, arithmetic, and history and geography, are taught throughout almost all the middle departments of secondary schools. In Madras and Burma a classical or modern European language may be taken up in place of the vernacular, but the vernacular is commonly studied. During the quinquennium the rule was made in Madras that, in order to ensure that the vernacular knowledge of pupils in the lower secondary classes reading Sanskrit,

Persian, or Arabic should not be neglected, such pupils must all receive instruction in vernacular reading and composition. In the United Provinces candidates for the English middle examination are required to take *either* a classical language, *or* a vernacular language with elementary physical science or drawing. In the United Provinces history is compulsory in the upper middle stage, and in Burma it is optional in middle English classes. Euclid and algebra are compulsory subjects in the United Provinces (upper middle stage), Burma, and the Central Provinces; Euclid or mensuration is compulsory in Bengal, and mensuration in the Punjab. Euclid and algebra are optional in Madras and the Punjab. The instruction in these subjects is of a very elementary character. Some elementary science teaching is included in the middle English course in most Provinces. In Madras and Bombay the subject is voluntary. The Bengal course includes lessons from science primers in elementary botany and natural history, with further simple lessons in agriculture for rural boys, and in physics and chemistry for town boys. In the United Provinces the elementary sanitary primer entitled "the Way to Health" forms part of the compulsory course, and the study of part of an elementary manual on practical physics and of elementary physical geography is optional. In the Punjab the study of "the Way to Health" or of Cunningham's Sanitary Primer is compulsory, and Balfour Steuart's Primer of Physical Science is a voluntary subject. In Burma the voluntary subjects include Huxley's introductory volume in the Science Primer Series, "the Way to Health" and "the House I live in." In the Central Provinces Balfour Steuart's Primer is a compulsory subject, and simple lessons in hygiene are included in the vernacular reader. Drawing is an optional or compulsory subject in all provinces; and two or three hours a week are devoted to this subject in the middle departments of the best high schools in all parts of India.

Teaching in the English middle stage in the United Provinces.

387. The following remarks from the Report of the Director in the United Provinces are of interest:—

The report of the examiners shows that the teaching is still far from satisfactory in some of the subjects. It is said that in English the students seem to have learnt 'keys' by heart without understanding the sense; in Indian history they learn off abstracts by heart; and in geography map-drawing is very defective and the spelling of names bad. Now that English is no longer to be taught in the primary stage it will be possible to replace incompetent men by teachers trained in the normal schools.

Vernacular middle school course.

388. The vernacular middle course in most provinces corresponds closely to the English middle course, with the main difference that English is either not taught or reduced to a subsidiary position as a voluntary subject. This appears to be the only difference in MADRAS, BENGAL, and ASSAM. In the UNITED PROVINCES there are no optional subjects in the vernacular middle school, but the scope of the compulsory subjects is somewhat widened; mensuration is substituted for algebra, the second book is added to the course in Euclid, and elementary instruction is given in physical geography and science. In the PUNJAB Euclid and algebra are added to the list of subjects taught in the English middle stage. In BURMA a vernacular language takes the place of English *plus* a second language; elementary science or Pali is alternative with geography (the latter to suit monastic schools); and Euclid and algebra, which are compulsory in English schools, are optional in the middle stage of vernacular schools. In the CENTRAL PROVINCES there is a marked difference between the English and vernacular middle school courses. The vernacular course is as follows:—

*Compulsory :*

- |                                     |                         |
|-------------------------------------|-------------------------|
| 1. A vernacular language.           | 4. Sanitary reader.     |
| 2. Geography.                       | 5. Agricultural reader. |
| 3. Arithmetic, Euclid, and algebra. | 6. Physics primer.      |

*Optional :*

- |                           |                               |
|---------------------------|-------------------------------|
| 1. Drawing.               | 3. History of India.          |
| 2. Mercantile arithmetic. | 4. Mensuration and surveying. |

### Examinations.

Secondary examinations.

389. In reviewing the courses of study some account has already been given of the secondary examinations. The whole system of these examinations is undergoing alteration, and the following description relates to a condition of affairs which

has had a great influence on Indian education in former times but which is now passing away. The principal secondary examinations are those which are held at the termination of the middle and high school courses. At the end of the high school course come the matriculation examinations of the Universities and the alternative school final examinations which have already been described. In the present section of this chapter some further details will be given with regard to the matriculation examinations, but it will not be necessary to add to the information given above on the subject of the school final tests. The middle school examination differs somewhat in character for candidates from English and vernacular schools, the difference corresponding in general to that between the English and vernacular courses. Furthermore, for vernacular students the middle examination usually marks the end of the school career; and the certificate of passing it is a school leaving certificate on which the ex-pupil sometimes relies in seeking employment; whilst for English students the middle examination is often merely an intermediate test at the time of promotion from the middle to the high stage of instruction.

390. The regulations proposed by the University Committee of 1857 admitted any person to the matriculation examination wherever he might have been educated, provided that he was not less than 16 years of age and produced a certificate of good moral conduct. The rules of the Universities dealing with this subject have been modified from time to time, and now differ considerably from one another. The following is an outline of the regulations of each University.

The matriculation examination.\*  
Regulations for admission to the examination.

391. CALCUTTA.—Matriculation candidates of the Calcutta University are divided into high school and private students. The high school is a school recognised by the Syndicate as qualified to send up candidates to the entrance examination. A high school student must produce a certificate from the headmaster that there is nothing against his moral character, and that, judging from the exercises that he has sent up and the tests to which he has submitted, there is a reasonable probability of his passing the examination. A private student must produce a similar certificate signed or countersigned by the Educational Inspector of the circle in which he lives.

392. MADRAS.—The candidate must produce a certificate signed by the headmaster of the recognized high school which he is attending on the date of applying for admission to the examination, attesting that he has attended a recognized high school during the two terms of the current school year, that he has completed the course of study prescribed for the several classes of the high school, and that his conduct and progress have been satisfactory. There are two exceptions to the above rule. A candidate who has not received his education in a recognized high school may be admitted to the examination by order of the Syndicate provided that he produces satisfactory evidence that he is of good character, that he has received suitable instruction, and that he is qualified to enter upon a University course. A candidate who has completed his twentieth year may be admitted to the examination on producing a certificate of good character from a Fellow or headmaster. Many candidates are admitted as private students under these exceptions.

393. BOMBAY.—The candidate's application must be accompanied by a certificate of assent from his school master, teacher, or guardian, and by a certificate of moral character signed by a school master, teacher, guardian, or some other person of known respectability. There is no obligation to have studied in a recognized school, and no certificate of attendance is required; but if the candidate has attended a school of public instruction within eight months of the date of his application, the certificate of assent must be signed by the master of such school.

394. ALLAHABAD.—Candidates must have resided or studied for not less than a year in the United Provinces, Central Provinces, Rajputana or Central India, and must have completed the age of sixteen years. A candidate who has attended the course of instruction at any Government, aided, or other recognized high school for six months immediately preceding the date of examination, must produce a certificate from the headmaster of the school of age and character

\* The examination is styled "matriculation" in the Madras and Bombay Universities, and "entrance" in the Universities of Calcutta, Allahabad and the Punjab.

and of attendance at the prescribed course of instruction since the commencement of the school year. Other students are admitted as private candidates, and must produce a certificate of age and character from one of several specified educational authorities.

395. PUNJAB.—Candidates are divided into public school and private students. A public school candidate is a student whose name has been borne on the rolls of any public school during nine out of the twelve months preceding the examination. A public school means a school (*a*) in which the course of study conforms with the standard prescribed by the Director of Public Instruction or the University, and which is inspected by the Department, or (*b*) which satisfies the University that its organization and conduct are such as to ensure efficient training up to the standard of the entrance examination. Every candidate must produce a certificate of good character signed or countersigned by a public or educational authority belonging to certain classes. The names of public school students must be submitted to the headmaster or manager of the school. No certificate of attainments is required.

Number of candidates.

396. The number of candidates presenting themselves at the entrance examination of the different Universities has increased greatly in recent years. It was 15,302 in 1892-93, 18,314 in 1896-97 and 23,767 in 1901-02. Out of the latter figure Madras accounts for 7,658, Calcutta for 7,029, Bombay for 3,731, the Punjab for 2,808, and Allahabad for 1,541. Except at Calcutta private students are admitted freely to the examination under the regulations described above. The percentage of private to total candidates was 18·4 in 1892-93, 19·5 in 1896-97 and 21·8 in 1901-02. In the latter year the Bengal percentage was only 4·5, whilst in other provinces it was as follows: Bombay 38·8, the Punjab 33·0, Madras 26·0, and Allahabad 18·1. The percentage of private candidates has increased greatly in Madras and the Punjab, and fallen in Bombay and Allahabad. The free admission of private students is generally admitted to be an evil. Such students are often merely school students who have not succeeded in qualifying themselves for admission to the examination, and in general private students are apt to cram for the examination without undergoing a proper course of training. In the examination itself private candidates show a marked inferiority to those presented by public schools. In 1901-02 the percentage of passes in the case of public candidates was 46·3 and in the case of private candidates only 17·1.

Conduct of the examination.

397. The matriculation examination is held by each University at a number of centres. Calcutta has 36 centres situated in Bengal, Assam, the Central Provinces, the Punjab, Burma, Central India, Rajputana, and Ceylon. Madras has 30 centres in the Presidency and in Native States of Southern India. Bombay has 5 only, all situated in the Presidency. Allahabad has 18, situated in the United Provinces, the Central Provinces, Central India, and Rajputana. The Punjab University has 16 in the Punjab, the North-West Frontier Province, and Kashmir. The examination is usually held in the class rooms of a local college or school under the superintendence of local officers of the Education Department, and the papers are set and marked by University examiners appointed in the manner described in the last chapter. The examination presents special difficulty by reason of the very large number of candidates. It is found difficult to maintain a reasonable uniformity of standard and at the same time to render the examination a test of real study. The charge is made that the rigid and stereotyped character of the test encourages learning by rote and generally unsound methods of reading. To pass the examination the candidate must obtain a certain percentage of marks. In all Universities, except Bombay, successful candidates are arranged in two or more divisions according to the number of marks they obtain. The division is made according to the percentage or aggregate number of marks obtained by the candidate, and not by competition. The percentages required for a pass in the different Universities are as follows:—Calcutta, Allahabad, and the Punjab: 33 per cent. in English, 25 per cent. in each other subject, and 33 per cent. on the aggregate. Madras: 40 per cent. in English, and 35 per cent. in each other subject. Bombay: one-third marks in each language, and one-fourth marks in each other subject.



398. The statistics of success and failure are influenced by so many considerations that no very useful deductions can be made from them. Among public students the average percentage of successes was 52.0 in 1892-93, 50.8 in 1896-97, and 46.3 in 1901-02. The percentage in 1901-02 was highest at Allahabad (56.7), Lahore (50.4) and Calcutta (50.2), and lowest at Madras (37.9) and Bombay (46.8). The percentage of marks required for a pass is higher at Madras than elsewhere.

399. The middle school examinations are held by the Department in all provinces except the Punjab, where the examination is conducted by the University. The objects served by, and the regulations governing, the examination differ so considerably that it will be convenient to describe them separately for some of the major provinces. In MADRAS the lower secondary (*i.e.*, middle) examination is held at the end of the middle school course. There is one examination for English and vernacular school candidates, but English is compulsory for candidates following the English course. The examination is primarily intended to be a leaving certificate examination for lower secondary education; it also serves as a test for promotion to the high stage, for the award of results grants, and for the general educational qualifications of candidates for a lower secondary teacher's certificate. It is not compulsory. In BOMBAY there is no vernacular course. The English school examination is the equivalent of the 3rd standard for English schools. It is not compulsory, but it is the terminal examination for middle schools and is also used for promotion and for the award of results grants. In BENGAL scholarships and certificates are granted on the results of the middle examination. It is a vernacular examination with an additional English test for students from English schools. Middle schools have hitherto been expected to send up candidates regularly to the examination, which forms the leaving test for such schools. The examination qualifies for admission into first and second grade training institutions. In the UNITED PROVINCES the vernacular middle examination is held at the end of the 6th standard and the English middle examination, which was abolished in September 1902, was formerly held at the end of the 8th standard. Both examinations have hitherto been compulsory. The examinations in addition to being the terminal test for middle English and vernacular schools were used for making promotions and the grant of scholarships, and qualified for admission to normal schools. In the PUNJAB the middle examination is compulsory. Its character differs somewhat for candidates from English and from vernacular schools. It is used for purposes of promotion, scholarships, and results grants; and it qualifies for admission into normal and patwaris' schools and for lower grade appointments in the public service. In BURMA all pupils must go up for the examinations which take place at the end of the 5th, 6th and 7th standards and the figures for all those examinations are lumped together in the provincial statistics. There is also a middle English scholarship examination; to be eligible for admission to this examination a boy must have passed the 7th standard examination.

400. In Madras, Bengal, the United Provinces, and the Panjab the middle school examination is held by means of written papers and at fixed centres. Madras has also standard examinations for each class which are, as a rule, held by the inspecting officer at the school. In Bombay and Burma the middle school examination is merely one of the series of standard examinations and is held *in situ* by the inspecting officer. In Burma there is a middle English scholarship examination which is held at fixed centres.

401. It results from the circumstance that the examination is compulsory in some provinces and not in others, and from the different uses to which the examination is put, that the proportion of pupils in the public schools who are examined varies greatly from province to province. An endeavour has been made in Table 64 to indicate the proportion of public school pupils who have studied up to the standard of the examination and who actually enter for it. The number of pupils available for examination has been calculated by dividing the number in the corresponding stage of education by the number of classes in that stage. The method is a rough one and the result only approximate. It shows that in the year 1901-02, the large majority of public school boys went up for the examination in the United Provinces, the Punjab and Burma, about one in two in Madras and the Central Provinces, nearly one in three in Bombay, less than



one in three in Assam and Berar, and only one in five in Bengal. Private students were admitted to the examination in all Provinces except Bombay and Berar. The number of private students was much greater in Madras (4,003) than in any other Province.

Public  
service certi-  
ficate exa-  
minations.

402. The Bombay, Burma and Berar Reports give separate figures for secondary examinations for the grant of certificates qualifying for entrance into the public service, but the number of candidates who go up for these examinations is small. In 1901-02 there were 895 candidates for the 2nd grade public service certificate examination in Bombay, 394 of whom passed. For the English public service certificate examination in Burma there were 61 candidates and 47 passes. In Berar the number of competitors was comparatively large, for the English examination there were 333 candidates and 72 passes, and for the vernacular examination 324 candidates and 163 passes.

### Teachers.

Number.

403. Table 65 shows the number of teachers in secondary schools for boys, the average number of teachers per school, and the average number of pupils per teacher. The teachers form a large body of over 27,000 men, of whom nearly 13,000 belong to the various schools of Bengal. The averages include high schools, middle English schools, and middle vernacular schools, and give therefore only a very rough idea of the general position. The schools of Bombay, the United Provinces and the Punjab appear to have the strongest staffs. In Bombay the number of teachers per school is comparatively small, because the schools have no primary departments. The Burma figures, showing two teachers per school and 50 pupils per teacher, are difficult to understand; the public managed schools of this province have strong staffs and it would seem as though the aided middle vernacular schools have, in general, only one teacher apiece. In Madras, the Punjab, and the Central Provinces the general rule is laid down that one teacher should not hold a class of more than 40 pupils.

Qualifica-  
tions.

404. The general qualifications of teachers are shown for the six large provinces in Table 66. Only one-quarter of the total hold trained teachers' certificates, about one-seventh hold no special qualifications, and the balance are classed as holding "other qualifications" which consist usually of the certificate of having passed some general education examination. The percentage of trained teachers is 62 in Burma, 45 in the Punjab, 39 in Madras, 30 in the United Provinces, and 17 in Bengal. Bombay shows no trained teachers; the Director says that there are no teachers in secondary schools who have been trained systematically in India, as no secondary training college has hitherto existed in the Presidency. Bombay stands on a different footing from other Provinces in having no primary departments in its secondary schools; elsewhere many of the trained men must be primary department teachers who have gone through a course in an ordinary normal school. Precise figures are not available for the Central Provinces, but it is said that in Government and Board English schools an untrained man is the exception, and that the untrained men are servants of long standing who are considered to be too old to be sent for training. In aided high schools and English middle schools the proportion of trained teachers is smaller, because it is difficult to persuade managers to send their masters for training. The untrained teachers, with few exceptions, possess University certificates. In vernacular middle schools almost all teachers possess trained or untrained teachers' certificates. On the whole, therefore, the Central Provinces stand comparatively well in the matter of the training of their secondary school teachers. For Assam the information is not available.

There does not appear to have been any great general improvement during the quinquennium under review. Madras made good progress; while the total number of teachers in public secondary schools for boys increased by 226, the number with trained teachers' certificates rose by 405. In Bengal, whilst the total number of teachers increased by about 1,700 the number of trained teachers increased by only about 100. In the United Provinces there was a total increase of 465 teachers; some increase took place in the number of trained men, but the principal increase was among those holding "other qualifications". In Burma the number of trained teachers is steadily increasing. In the Central Provinces the number of teachers who do not possess a

trained teacher's certificate is being gradually reduced by sending annually a number of teachers and stipendiary students to the secondary department of the training institution.

The "other qualifications" are of a very miscellaneous character. The Bengal total of 8,347 comprises the following:—

Master of Arts . . . . .	146	Middle Scholarship . . . . .	2,540
Bachelor of Arts . . . . .	986	Primary Scholarship . . . . .	261
First Arts . . . . .	1,274	Oriental Languages . . . . .	611
Entrance . . . . .	2,337	Other . . . . .	192

The figures for Madras are as follows:—

Untrained teachers' certificate . . . . .	725
Approved service teachers' certificate . . . . .	248
General education qualifications only . . . . .	970

405. Table 67 illustrates the rates of pay received by teachers in secondary schools. The highest rate in high schools varies, in general, from R200 to R500 a month. The teachers of lower primary classes in secondary schools sometimes do not receive more than from R5 to R10 a month. Among the larger provinces salaries appear to be highest in Bombay and Burma, and lowest in Bengal.

406. Secondary school teachers are in general the servants of the Government, of Municipal and Local Boards, or of private societies or individuals. Their pensionary status depends on the class of service to which they belong. Broadly speaking teachers of Government schools are eligible for pension, teachers of Board schools subscribe in some provinces to provident funds, and teachers of private schools receive no pension and belong to no general fund. But this general statement is subject to important modifications. In MADRAS all teachers employed in Government schools and colleges are pensionable,\* while those employed in Board colleges and secondary schools are required to subscribe to provident funds assisted from local funds. The teachers of aided schools and colleges are not admitted to the benefit of provident funds assisted by the State. In BOMBAY all teachers in Government schools are eligible for pension; teachers in Board and aided secondary schools (with the isolated exception of the Sind Madrassah) do not serve for pension. As regards Native States, there was for many years a pension fund for all employes on more than R10 a month in the secondary and primary schools of Kathiawar; this fund was converted into a provident fund (subscription to which is not compulsory) in 1900. There is a pension fund in the Rewa Kantha Agency, created when the schools of the Agency were under departmental control, but not in any other State or Agency. In BENGAL, teachers in Government secondary schools render service for pension; teachers of Government schools transferred to the control of Municipalities, Joint Committees, or District Boards are also eligible for pension; and teachers of Board schools who have been appointed by District Boards have to subscribe to provident funds. There is no pensionary or provident fund system in private managed schools. In the UNITED PROVINCES the teachers appointed in district schools and in District Board town schools before the 1st April 1885, are eligible for pension; and all the teachers of the Queen's Collegiate School, Benares, and six Provincial headmasters of district schools are in pensionable service. The teachers of the Jubilee High School, Gorakhpur (aided), and of three Municipal schools, subscribe to Municipal provident funds. In the PUNJAB all teachers belonging to the Provincial and Subordinate service, and those on the graded provincial list who were in service before the transfer (in 1886) of the district schools to local bodies, are rendering pensionable service. There is no provident fund for teachers in the Punjab. In BURMA only Government school teachers are pensionable, and there is no provident fund for teachers. In the CENTRAL PROVINCES all teachers in Government schools, and all teachers in Board schools who were in service before the transfer of such schools to local bodies, are eligible for pension. In ASSAM only Government teachers are pensionable. In BERAR all classes of teachers

\* It is necessary to qualify this statement by explaining that the majority of teachers in Government schools in Madras render service which is classed as "inferior" in the Civil Service Regulations. There is no superannuation or retiring pension for inferior service, but a pension or gratuity may be granted to an "inferior" officer invalidated after more or less than 30 years' service, respectively. All services on pay not exceeding R10 a month is, in general, "inferior" service.

drawing more than ₹10 a month are pensionable, and those receiving less than ₹10 a month are eligible for gratuities on retirement.

### Statistics of Pupils.

Pupils in secondary schools and in the secondary stage of instruction.

407. In dealing with the statistics of secondary education we may have regard either to the pupils in secondary schools or to the pupils in the secondary stage of instruction. In 1901-02, 330,000 out of the total 581,000 pupils in boys' secondary schools were in the primary stage of instruction. The primary stage pupils are included in the statistics examined in the Chapter on Primary Education, and in the present chapter the account will be confined to boys in the secondary stage of instruction. It may, however, be noticed in passing that the total number of pupils in English secondary schools for boys rose during the ten years 1886-87 to 1896-97 from 272,000 to 340,000, and during the quinquennium under review to 422,000. During the same ten years the number of pupils in vernacular secondary schools for boys rose from 133,000 to 159,000, whilst during the quinquennium under review it remained practically stationary. The increase of the pupils in English secondary schools for boys occurred mainly in institutions under private management. The increase in Government schools was 3,207, in Board schools 6,076, in Native State schools 604, in aided schools 33,959 and in unaided schools 38,637.

It will be convenient to deal separately with the pupils of English and vernacular schools. They follow different curricula with different objects, and the statistical returns for the two classes show very different results.

General statistics for boys in the secondary stage of instruction in English schools.

408. The number of boys in the secondary stage of instruction reading in English secondary schools amounted at the end of 1901-02 to 223,000. The total increased by nearly 18,000 during the period 1891-92 to 1896-97, and by over 49,000 in the period under review. The very large increase during this period will have been anticipated from the remarks already made regarding the increase in the number of English schools. The total for 1901-02 included 142,000 boys in the middle stage and 81,000 boys in the high stage. Out of every hundred boys studying in all departments of English secondary schools, 19 were in the high stage in 1891-92, 18 in 1896-97 and 19 in 1901-02. The proportion reading to the end of the course has varied but slightly. Comparing with the population statistics, it appears that in 1891-92 one boy in every 114 of school-going age was studying in the secondary stage in English schools; and that in 1901-02 the corresponding proportion was one in 82. The number of pupils reading English in boys' public schools for general education of all grades was 326,000 in 1891-92, 383,000 in 1896-97, and 429,000 in 1901-1902. Comparing with the statistics for male population of school-going age, we find that one boy in 54 was reading English in 1891-92, and one boy in 43 in 1901-02. The apparent progress would have been greater but for the deferring of the study of English until a later stage of the school curriculum. The 1896-97 total includes 69,000 pupils in boys' primary schools, and the total for 1901-02 only 51,000. The comparison with population is to a slight extent vitiated by the circumstance that the total figure for pupils reading English in boys' schools includes girls in boys' schools and excludes boys in girls' schools.

Provincial statistics.

409. The following table ranges the provinces in the order in which they stand by the criterion of the proportion of the male population of school-going age in the secondary English stage:—

	Number of boys of whom one was in the secondary stage of an English school.
Bombay . . . . .	50
Madras . . . . .	54
Berar . . . . .	65
Bengal . . . . .	71
Punjab . . . . .	99
Central Provinces . . . . .	112
Assam . . . . .	132
North-West Frontier . . . . .	152
Burma . . . . .	161
United Provinces . . . . .	278

The contrast between Bombay and Madras on the one hand and Burma and the United Provinces on the other is very marked. Every province except the District of Coorg made considerable progress during the quinquennium under review. The following table compares the progress in each province:—

	Increase in the number of boys in the secondary stage in English schools.
Bengal	17,145
Madras	10,563
Bombay	8,999
United Provinces	4,729
Punjab and North-West Frontier	4,208
Burma	1,513
Central Provinces	1,161
Berar	495
Assam	420

410. The number of boys in the secondary stage of vernacular schools was 30,896 in 1896-97 and 30,412 in 1901-02. The total has remained almost stationary. It has already been explained that the preference for English instruction accounts for the want of progress of vernacular secondary education. The total for 1896-97 included 3,219 boys, and the total for 1901-02 2,452 boys, in middle classes attached to primary schools. The Punjab, the North-West Frontier Province and Assam had, at the end of 1901-02, 143 boys in the high stage. Bengal, where special causes contributed to the preference for the English schools, shows a loss of 3,427 pupils in the secondary stage of vernacular schools. The United Provinces, on the other hand, shows a gain of 2,779. In Burma, where primary schools have been raising themselves to the middle grade, the number of boys in the vernacular secondary stage increased from 763 to 1,335. No other province shows an important change. Comparing the number of pupils with the male population of school-going age the provinces stood at the end of the quinquennium in the following order:—

	Number of boys of whom one was in the secondary stage of a vernacular school.
Punjab	297
Central Provinces	416
United Provinces	419
Burma	531
Bengal	830
Assam	899
Madras	1,032

It has already been explained that there is no vernacular secondary stage in Bombay.

### Financial.

#### Expenditure.

411. The total expenditure on secondary schools for boys amounted in 1901-02 to 109 lakhs. It increased by 12½ lakhs during the period under review and by 13 lakhs during the previous quinquennium. In the case of Burma and Coorg information has not been supplied to enable the total to be split up into the portions devoted to the secondary and primary departments of the schools. In the remaining provinces the total of 102½ lakhs is divided roughly as follows: 68 lakhs secondary departments and 34½ lakhs primary departments. Bombay contributes nothing to the total under primary departments, because there are no primary departments in secondary schools\* in that province. The total 109 lakhs includes 98½ lakhs for English schools and only 10½ lakhs for vernacular schools. Again the total expenditure on English schools includes 71 lakhs for high schools and 27½ lakhs for middle schools. During the quinquennium the expenditure on high schools rose by nearly 12½ lakhs, and

\* There are primary departments in schools for Europeans, but the expenditure on these departments is not given separately.

the expenditure on English and vernacular middle schools remained almost stationary. The following provinces showed the largest increase of expenditure on English schools :—

	₹
Bengal . . . . .	3,87,000
Madras . . . . .	2,21,000
United Provinces . . . . .	1,48,000
Burma . . . . .	1,47,000
Bombay . . . . .	1,30,000

The most striking feature as regards vernacular secondary schools is that the expenditure in Bengal diminished by ₹61,000.

Cost of educating a boy.

412. In 1901-02 the average annual cost of educating a pupil in an English high school amounted to ₹28·9, in an English middle school to ₹16·9, and in a vernacular middle school to ₹6·8. During the quinquennium the expenditure on English schools did not increase so fast as the pupils: the cost of educating a boy in a high school fell by ₹2·2, and in a middle school by ₹1·5, or taking both classes of schools together by about ₹1·4. The average cost of educating a pupil in a vernacular secondary school remained stationary for all provinces taken together. The cost of education in an English school was highest in Burma (₹43·2), Bombay (₹38·8) and the United Provinces (₹36·6), and lowest in Bengal (₹18·6); Assam (₹17·6) and Berar (₹17·2).

Expenditure from public and private funds.

413. We may next examine the statistics for expenditure according to the sources whence the funds are derived. They may be divided into the two main classes of public funds (Provincial, Board, and Native State Revenues) and private funds (fees and other sources). Expenditure from private funds increased to a much greater extent than expenditure from public funds. The total from public funds rose from 27½ lakhs in 1891-92 to 29½ lakhs in 1896-97 and to 30½ lakhs in 1901-02. The expenditure from private sources rose from 56½ lakhs in 1891-92 to 67½ lakhs in 1896-97, and to 78½ lakhs in 1901-02. In 1891-92 public funds formed 32 per cent. and in 1901-02 only 28 per cent. of the total.

Expenditure from public funds.

414. Of the expenditure from public funds 14½ lakhs were derived from Provincial Revenues, 3 lakhs from Native States Revenues, 8 lakhs from Local Boards, and 4½ lakhs from Municipalities. Expenditure from Provincial Revenues, which rose by ₹1,62,000 in the period 1891-92 to 1896-97, increased by only ₹29,000 in the quinquennium under review. Expenditure from Native State revenues rose by ₹1,18,000: ₹20,000 was included for schools in the Orissa Tributary Mahals (whilst the ₹15,000 spent by these States in 1896-97 was lumped among "other sources" of expenditure), and there was a considerable increase of expenditure by Native States in the Bombay Presidency. During the 1891-92 to 1896-97 quinquennium expenditure from Local and Municipal funds remained almost stationary; during the quinquennium under review expenditure from Local funds rose by ₹1,000 and expenditure from Municipal funds fell by ₹23,000. Local and Municipal Boards, and especially the former, have not been able to devote an adequate sum to education. It will be shown in the next chapter that they have in general been unable to fulfil completely their first duty towards primary education, and naturally therefore they have not been able to afford the desirable scale of expenditure on secondary schools. The support of secondary education has devolved on Municipal and Local Boards to a greater extent in the United Provinces and the Punjab than in the other large Provinces. In the case of District Boards in the United Provinces the District Board responsibility is nominal; the money is provided by the Local Government although it passes through the local accounts, and the District Boards have no voice in the distribution of the expenditure. In Madras, Bombay, and Bengal 9½ lakhs were spent from Provincial Revenues and 3½ lakhs from Municipal and Local funds, whilst in the United Provinces and the Punjab 2½ lakhs was spent from Provincial Revenues and 6½ lakhs from Municipal and Local funds.

Expenditure from private funds.

415. The expenditure of 78½ lakhs from private sources included nearly 56 lakhs from fees and 22½ lakhs from "other sources." Expenditure from fees rose by nearly 8 lakhs in the period 1891-92 to 1896-97, and by nearly 8½ lakhs in the

period under review. Expenditure from other sources includes subscriptions and endowments, the funds devoted by missionary societies to the up-keep of their schools, the funds similarly devoted by Native societies and proprietors, and other miscellaneous sources of income.

Fees.

416. The rate of fees which should be levied in secondary schools has been the subject of frequent discussion. Fees ought not to be pitched so high as to impede the progress of education, but, on the other hand, it is of great importance that they should not be allowed to fall too low. Very low fees are apt to result in a starved expenditure and consequent inefficiency; and the lowering of fees in rivalry is detrimental to discipline and to the good conduct of schools. The standard is set by the institutions under public management; schools under private management are not expected to charge the full State rates, but they should work up to a reasonable proportion of those rates. The following is a brief abstract of the fee regulations as they stood at the end of the quinquennium. In MADRAS standard rates of fees are fixed for all schools under public management, varying from R7 a term in the lowest to R19 a term in the highest form of the secondary department. The year contains two fee terms. In institutions under private management, the rates and levy of fees are left to the discretion of the managers; but in estimating the fee income for the purpose of making grants, the calculation is based on the standard and not on the actual rates. In BOMBAY R1 a month is fixed as a reasonable monthly fee for English schools, aided schools are encouraged to raise their fees but not to bring them up to the State level. In BENGAL it is laid down that the fees levied must be adequate, but it is not stated what should be regarded as an adequate fee. In the highest class of Government English secondary schools the rate levied is usually R3 a month, and this rises to R5 in the high department of collegiate schools at the Presidency. In aided schools the fee for the highest class is usually R1-8, and sometimes R2. In the UNITED PROVINCES the minimum rates prescribed for English schools rise according to a graduated scale from R1 a month in the lowest class of the secondary department to R3 a month in the highest class. For aided English schools the minimum is 75 per cent. of that for State schools. In the PUNJAB fees are levied by three grades according to the estimated income of the parents. The following table shows the standard monthly rate for the lowest and highest classes of English secondary departments :—

	Lowest class.			Highest class.		
	R	a.	p.	R	a.	p.
Grade III.—Incomes up to R100 a month	1	8	0	3	0	0
Grade II.—Incomes up to R200 a month	3	0	0	6	0	0
Grade I.—Incomes greater than R200 a month	4	8	0	8	0	0

In 1901-02 most boys were paying according to the lowest scale, but over 900 paid at higher grade rates. In aided schools the rates must not be less than 75 per cent. of those fixed for schools under public management. In BURMA the minimum fee in Government, Municipal, and aided English schools is R3 a month in the middle, and R4 a month in the high department. In the CENTRAL PROVINCES, as in the Punjab, the rate of fees varies according to the estimated income of the parents. In Government high school departments the rates are :—

	Fee per term or half-year.
Incomes up to R600 a year	R 12
Incomes up to R2,400 a year	24
Incomes greater than R2,400 a year	48

In the middle departments of Government and Broad English schools the rates are :—

	Fees per month.
Incomes up to R360	R a. 0 8
Incomes up to R2,000	1 0
Incomes greater than R2,000	5 0

In aided high school departments the minimum rate is R2 a month, and in aided English middle school departments annas 8 a month. It is the general

rule that the prescribed minimum rates may be relaxed in the case of schools situated in backward localities or established for backward classes.

**Statistics.**

417. The average annual rate of fees *per* student in English schools was R13·1 in 1896-97 and R12·9 in 1901-02. In the latter year the average rate for Government schools was R19·0, for Board schools R13·0, for aided schools R12·1, and for unaided schools R11·8. Among the larger provinces the rate is highest in Burma and in Bombay and it is lowest in Bengal, the Central Provinces, and Assam. Bombay, and Bengal are the only provinces which show a decrease; the net decrease is small in the case of Bengal and looks large in the case of Bombay, but the Bombay decrease does not represent any real fall in the rates, it is due to a decrease in the proportion of boys in the high stage to total boys in the secondary stage. In Bengal the fees in high schools under public management have remained practically unchanged, but aided schools show an average fall of R2·7 and unaided schools of R4·3. The Director remarks that "this represents a very considerable decrease, showing how the starting of rival schools has caused a reduction of fee rates, and what is probably also inevitably the case, a loss of standard or efficiency." The largest rise is shown by the Central Provinces, Burma, and the United Provinces.

In vernacular middle schools the fees charged are much lower than in English schools, and they are to a considerable extent governed by the considerations regulating fees in primary schools. The average annual rate for all provinces was R2 in 1896-97 and R2·1 in 1901-02.

**Free students.**

418. The Educational Codes of some provinces lay down rules to regulate the maximum number of pupils who may be admitted to school without payment of fees or of full fees, on the score of the poverty of their parents. Thus in BENGAL a maximum number of 5 per cent. may be admitted free in State and aided schools, and in addition 8 per cent. of Muhammadans up to a maximum of 12. Teachers on pay of not more than R50 a month may have one son educated free, and a second son on payment of half fees, in the schools in which they teach. In English schools in the UNITED PROVINCES 5 per cent. may be admitted free and 5 per cent. at half rates. In the Report for 1901-02 the Director says :—

Managers of Anglo-Vernacular aided schools frequently evade the rules regarding fees by giving what they call scholarships, but which are in reality aids given out of school funds towards the payment of fees of poor boys. Under recent orders of the Local Government, however, the grant-in-aid to schools which indulge in this form of charity will be reduced by the amount which they can afford to give away in this manner; and it is to be hoped that they will now devote school money to the legitimate object of improving the teaching.

In State and aided schools in the PUNJAB, 5 per cent. may be admitted free and 5 per cent. at half rates in the high departments of secondary schools, and 5 per cent. free and 10 per cent. at half rates in the middle departments of such schools. In the CENTRAL PROVINCES 10 per cent. of the pupils in the high stage of aided high schools or of school departments of aided colleges may be educated free. In the middle departments of State secondary schools the maximum is 5 per cent. and in the middle departments of aided schools 10 per cent. The rules for middle departments are subject to the proviso that no boy may be admitted as a free scholar, the annual income of whose parents or guardians exceeds R75.

**Scholarships.****General scheme of scholarships.**

419. The secondary school scholarships form a chain leading from the lower primary stage of education to the end of the school course. The usual practice is to grant one set of scholarships at the end of the lower primary course and tenable in the upper primary departments of secondary schools or (more rarely) in upper primary schools, a second set at the end of the upper primary course tenable in the middle departments of secondary schools, and a third set at the end of the English or vernacular middle course tenable in the high departments of secondary schools. At the end of high school course further scholarships are awarded to assist students to proceed to college. The period during which the scholarship is held depends on the duration of the course. Sometimes the scholarships are awarded by the results of the general primary and middle examinations, and sometimes special examinations are held for the purpose

The majority of the scholarships are "open", but there is a considerable minority of "closed" scholarships for special classes and localities, and especially for backward classes. The above remarks apply more especially to the Government scholarships; there are in addition private scholarships derived from endowments, etc., and these are in general awarded in accordance with the terms of the bequest or gift. In some cases the scholarship carries with it the privilege of free tuition, in other cases the scholar must pay the ordinary fees.

420. MADRAS.—Forty-five scholarships for boys are granted on the results of the lower secondary (middle school) examination tenable in high departments, and 80 scholarships for boys on the results of the upper primary examination tenable in middle departments. The majority are "open" scholarships and the remainder are for special classes, *e.g.*, Uriyas, Muhammadans, Mappillas, and backward classes. In addition to the direct Government scholarships, grants are paid from provincial funds in aid of scholarships at a maximum rate of ₹12 a term for boys, and ₹18 a term for girls. In 1901-02, 570 pupils held scholarships payable from Provincial Revenues in secondary schools.

Number and  
value of scho-  
larships.

421. BOMBAY.—In 1901-02, 818 boys and 102 girls held scholarships in high schools, and 350 boys and 14 girls in middle schools.\* The students derived their scholarships from different sources as follows:—Provincial revenues, 251; Native State revenues, 205; local funds, 241; fees, 35; private sources, 552.

422. BENGAL.—The following Government scholarships are granted in Bengal:—

- (1) 1,075 lower primary scholarships (some of which are reserved for girls) of the value of ₹2 a month, tenable for 2 years in an upper primary, middle, or high school.
- (2) 300 upper primary scholarships of the value of ₹3 a month, tenable for 2 years in a middle or high school.
- (3) 300 middle scholarships. These comprise middle vernacular scholarships of the value of ₹4 a month, tenable for 4 years in a high school or for 2 years in a normal or survey school; and middle English scholarships of the value of ₹5 a month, tenable for 3 years in a high school or medical school or for 2 years in a survey school.

423. UNITED PROVINCES.—The following Government scholarships were tenable in secondary schools at the end of the quinquennium:—

- (1) 40 entrance scholarships, of the value of ₹4 a month, awarded on the result of the English middle examination, tenable for 2 years.
- (2) 40 English middle and entrance scholarships, of the value of ₹3 a month for the first three years and of ₹4 a month for the last two years, awarded on the result of the vernacular middle examination, tenable for 5 years.
- (3) About 900 *halkabandi* scholarships, of the value of ₹2 a month, awarded on the result of the upper primary examination, tenable for 2 years.

In 1901-02, 1,978 students held scholarships in secondary schools, and 912 of these derived their scholarships from non-Government sources.

424. PUNJAB.—There are 739 *open* scholarships of the value of ₹2 a month, tenable for 3 years (or in certain cases for 4 years) in the middle departments of high or middle schools. There are also 150 *open* ordinary scholarships of the value of ₹4 a month and 26 *open* prize scholarships of the value of ₹6 a month tenable for 2 years in the high departments of high schools. These scholarships are awarded on the results of the upper primary and middle school examinations. In addition to the above, *open* or *close* scholarships may be founded by local bodies from the funds under their control. There were in 1901-02, 2,072 scholarship-holders in secondary schools in the Punjab.

425. BURMA.—In Burma there are no scholarships in vernacular schools, scholarships of this kind were tried but proved a failure. There are 38 middle English scholarships awarded by competition among the pupils who have passed

\* These figures are approximate only.



the highest standard of the middle stage. Their value is Rs 8 a month, and they are tenable for 2 years in a high school. A few upper primary scholarships are awarded, and are tenable in the primary departments of English secondary schools. In 1901-02, 71 boys and 3 girls were in receipt of middle English scholarships, and 7 boys held upper primary scholarships.

426. CENTRAL PROVINCES.—In high schools there are 43 scholarships payable from public funds of the value of Rs 6 or Rs 8 a month; they are tenable for 2 years and are awarded on the results of the high school scholarship examinations; there are also ten scholarships payable from private sources which vary in value from Rs 2 to Rs 6. In middle schools there are 14 scholarships payable from Provincial revenues, 73 payable from local funds, and 9 payable from endowments, etc. The majority of the scholarships payable from public funds are awarded on the results of the primary examination, are of the value of Rs 4 a month, and are tenable for 4 years in an English middle school.

427. ASSAM.—There were in 1901-02, 198 lower primary scholarships tenable for 2 years in high, middle, or upper primary schools; 55 upper primary scholarships tenable for 2 years in high or middle schools; 28 middle vernacular scholarships tenable for 4 years in high schools; and 16 middle English scholarships tenable for 3 years in high schools. The value of the lower and upper primary scholarships is Rs 3 a month, and the value of the English and vernacular middle scholarships is Rs 4 and Rs 5 a month respectively.

Expenditure  
on scholar-  
ships.

428. The total expenditure on scholarships in secondary schools was Rs 2,94,000 in 1891-1892, Rs 3,25,000 in 1896-1897, and Rs 3,63,000 in 1901-1902. The total for 1901-1902 comprised Rs 3,01,000 derived from public, and Rs 62,000 from private sources. The United Provinces contributed Rs 26,000 and Bombay Rs 18,000 towards the total from private sources. In all other provinces the aggregate from private sources was only Rs 18,000. The United Provinces and Madras are the only provinces in which the total shows a considerable variation from the figure for 1896-1897. In the former province there was an increase of Rs 26,000 and in the latter of Rs 10,000.

## CHAPTER V.

## PRIMARY EDUCATION.

## Scope of the Chapter.

429. Primary education may be regarded in either of two aspects, in the first place as the education given in primary schools, and in the second place as the primary stage of instruction, in whatever grade of institution that instruction may be received. The first aspect corresponds more particularly to the definition of the Indian Education Commission of 1882, who stated that primary education is "the instruction of the masses through the vernacular in such subjects as will best fit them for their position in life." The primary departments of middle vernacular schools may come within this definition, but even the lower classes of high schools are not in general for the benefit of "the masses," although in some provinces they afford instruction of the same character as that given in primary schools. The present chapter deals in the first instance with primary schools proper, but, following the precedent of previous reviews, it also takes account of those students who read in the primary departments of secondary schools.

430. There are over 92,000 primary schools for boys and less than 6,000 primary schools for girls; over 15 per cent. of the male and less than 2 per cent. of the female school-age population are in the primary stage of education. It would confuse and mislead to amalgamate the statistics for boys and girls, and the subject of the primary education of girls is therefore relegated to the Chapter on Female Education. Unless the contrary is specially stated, the present chapter deals only with primary boys' schools, with pupils in primary boys' schools, and with boys in the primary stage of education. In some provinces, the system of co-education in primary schools is not uncommon, and the total number of pupils in primary schools for boys (a little over 3 million) includes 160,000 girls.

## Organization.

431. The organization of primary instruction in the various provinces of India depends, in a large measure, on the extent and nature of the systems of indigenous education which prevailed when the country passed under British rule. Wherever a widespread system of indigenous instruction was discovered, effort was in the main directed to the encouragement and improvement of the indigenous schools; where the indigenous system was weak, schools were founded and maintained by the State, originally to a large extent directly, and later through the instrumentality of Municipal and rural Boards. The distinction is not merely one of managing agency; the character of the school and of the instruction differs considerably in those parts of the country where the schools are of an indigenous and of a European origin. As the standard and methods of instruction have been raised and modernized the distinction has become less sharp, but there is still a marked contrast between a Board school in Bombay and an indigenous village *pathsala* in Bengal. In no province does one or other of the systems obtain a complete monopoly. Even where the indigenous system is strongest there are some primary schools under public management, and even where it is weakest some indigenous schools are incorporated in the system of public instruction and aided by the State.

432. Among the races which form the bulk of the Indian population, leaving aside Burma for the moment, systems of elementary education were developed only by the Hindus, the Muhammadans, and the Sikhs; the aboriginal population remained sunk in ignorance until the Government and the missionaries opened schools for their instruction. The elementary schools of the Hindus were mainly secular in character, and the children of any of the villagers might be

admitted to them, except those who belonged to the castes which it was pollution to touch. The Muhammadan *maktabs* and the *gurmukhi* schools of the Sikhs were completely democratic, but their main object was instruction in the Scriptures, and the small amount of secular education which they gave was subsidiary to the learning by rote of long passages from the sacred books. It follows naturally that the Hindu schools have in general proved more amenable to improvement than the schools of the Muhammadans and Sikhs. The Hindu system was strongest in Bengal and Madras, but Hindu schools of similar character existed in larger or smaller numbers in other provinces. The Muhammadan system was most developed among the large Mussulman population of the United Provinces, the Punjab, and Sind. The Sikh system was peculiar to the Punjab. In Bombay, the school was never so intimately connected with the organization of the village community as in Bengal, and the system had become enfeebled by many years of disorder and strife. In the Central Provinces and Assam the indigenous system was also weak.

Origin and development of the several provincial systems.

433. When Sir Charles Wood's Despatch of 1854 was written very little had been done by the Government to improve or supplement the indigenous systems of instruction; except in the United Provinces and Bombay the work had yet to be begun. The authorities in India had been disconcerted by the magnitude of the task before them, and it had been repeatedly asserted that the benefits of education must be left to filter downwards. The Despatch of 1854 instituted a different policy. It declared that:—

Attention should now be directed to a consideration, if possible, still more important, and one which has been hitherto, we are bound to admit, too much neglected, namely, how useful and practical knowledge, suited to every stage in life, may be best conveyed to the great mass of the people, who are utterly incapable of obtaining any education worthy of the name by their own unaided efforts, and we desire to see the active measures of Government more specially directed, for the future, to this object, for the attainment of which we are ready to sanction a considerable increase of expenditure.

Sir Charles Wood thought that by wise encouragement the indigenous schools might "be made capable of imparting correct elementary knowledge to the great mass of the people," and in accordance with the general principles laid down in the Despatch such schools were to be developed and improved by the system of grants-in-aid. The scheme placed too much reliance on the indigenous school system, which in many parts of India furnished but scanty and poor material. When the situation was reviewed by the Secretary of State in 1859 it was found that the progress had not been satisfactory, and Lord Derby declared that:—

On the whole, Her Majesty's Government can entertain little doubt that the grant-in-aid system, as hitherto in force, is unsuited to the supply of vernacular education to the masses of the population: and it appears to them, so far as they have been able to form an opinion, that the means of elementary education should be provided by the direct instrumentality of the officers of Government.

From this time onwards the various provinces proceeded on their own lines and moulded their systems to suit the local conditions of the population. Speaking generally it may be said that Bombay, the United Provinces, the Punjab, the Central Provinces, and Berar worked mainly on the departmental system; whilst Madras, Bengal, and Assam operated through the agency of aided schools. Bombay and Bengal stood at the two extremes of the system; in the former a strong system of State schools was inaugurated, in the latter vast numbers of village *pathsalas* were incorporated in the system of public instruction.

434. In recommending general recourse to the support of indigenous schools by grants-in-aid Sir Charles Wood was largely influenced by the apparent impossibility of providing funds for a system of direct State instruction, and this difficulty remains in a lesser degree to the present day. At the time when Lord Derby's Despatch was written and for several years afterwards, the financial position was fraught with great difficulty and danger and the general revenues of the country could not afford large grants for educational purposes or other local needs. Recourse was then had to local taxation. Municipalities were created in all large and many small towns with the power of levying local rates, and Acts were passed authorizing the levy of a cess on the land to be devoted to local improvements in rural areas. Funds were thus secured (though not to

the extent desirable) both for the maintenance of State schools and for the grant of aid to indigenous schools. The Municipal Acts were mostly passed between 1864 and 1868, but it was not until some years later that Municipal funds were devoted to any considerable extent to educational purposes. The rural Acts had a greater and more immediate effect on educational expenditure. The first Local Cess Acts were passed for Sind in 1865, for the Bombay Presidency proper in 1869, and for Madras, Bengal, the North-Western Provinces, and the Punjab in 1871. The Bengal Act was confined to the provision of the means of communication, and funds for education continued to be derived from general revenues. After the passing of these Acts primary education made a great stride forward, and the number of State and recognized private schools rose from 19,000 to 85,000 in the eleven years 1870-71 to 1881-82. During this period the management of State schools and the grant of State aid to private schools remained generally under the direct superintendence of Government officials, although Municipal Corporations undertook a part of the work in the towns. This condition of affairs was altered when the various Municipal and Local Boards Acts were passed in 1883-84, in pursuance of Lord Ripon's policy of Local Self-Government. Under these Acts the control of local bodies over local resources was greatly enlarged, and the Government divested itself more and more of the direct management of primary education, making over its schools to Municipalities and District Boards. At the present day the transfer has been almost completed, and the Government schools are practically limited to some institutions in remote and backward parts of the country or for backward classes, and to the practising sections of training schools. The Board schools must however conform to the general regulations and standards laid down by the Department of Education, and the Local Governments exercise a more or less direct control over them.

435. The process of evolution described in the above paragraphs has endowed the country with a system of public instruction the main elements in which (in so far as boys are concerned) are nearly 16,000 Board schools under general Government control and nearly 56,000 schools under private management which are aided by the State in return for their adhesion to the prescribed methods and courses of instruction.

436. There are two special classes of schools to which allusion must be made. Unfortunately statistics are not available to show the total number of missionary schools and the number of pupils who receive instruction in them. Missionary societies have played a very important part in the development of primary education from the earliest days of British rule, and their efforts have been specially devoted to those aboriginal tribes who are without the Hindu pale and have no educational system of their own. With the development of the system of public instruction a new class of private schools has sprung up, owned and managed by natives of the country but differing from the indigenous schools in this that they result from, and are based on, the State system. Numerous schools of this class are included in the list of aided institutions; they can be successfully maintained only where there is a popular demand for education.

437. We may now examine briefly the course of progress in the various provinces, taking first those in which the aided school system prevails.

The history of primary education in BENGAL consists of an account of the various methods devised from time to time to strengthen, and to improve the character of the instruction given in the indigenous schools. These schools first presented themselves to the Government as very imperfect and rudimentary institutions. Lord William Bentinck deputed the Revd. Mr. Adam, a missionary, to examine their condition in 1835. The following is an extract from his report:—

The education of Bengalee children generally commences when they are five or six years old, and terminates in five years, before the mind can be fully awakened to a sense of the advantages of knowledge, or the reason sufficiently matured to acquire it. The teachers depend entirely upon their scholars for subsistence, and being little respected and poorly rewarded, there is no encouragement for persons of character, talent or learning to engage in the occupation. These schools are generally held in the houses of some of the most respectable

Native inhabitants or very near them. All the children of the family are educated in the vernacular language of the country, and in order to increase the emolument of the teachers they are allowed to introduce, as pupils, as many respectable children as they can procure in the neighbourhood. The scholars begin with tracing the vowels and consonants with the finger on a sand board, and afterwards on the floor with a pencil of steatite or white crayon and this exercise is continued for eight or ten days. They are next instructed to write on the palm-leaf with a reed-pen held in the fist, not with the fingers, and with ink made of charcoal which rubs out, joining vowels to the consonants, forming compound letters, syllables and words, and learning tables of numeration, money, weight and measure, and the correct mode of writing the distinctive names of persons, castes, and places. This is continued about a year. The iron style is now used only by the teacher in sketching on the palm-leaf the letters which the scholars are required to trace with ink. They are next advanced to the study of arithmetic, and the use of the plantain-leaf in writing with ink made of lamp-black, which is continued about six months, during which they are taught addition, subtraction, multiplication and division, and the simplest cases of the mensuration of land and commercial and agricultural accounts, together with the modes of address proper in writing letters to different persons. The last stage of this limited course of instruction is that in which the scholars are taught to write with lamp-black ink on paper, and are further instructed in agricultural and commercial accounts and in the composition of letters.

A certain proportion of these schools, which teach the full primary course, have developed into useful and well managed institutions, but the majority of them do not exhibit an improvement over the original type commensurate with the care bestowed on them. Various schemes, into the details of which it is not necessary to enter, were started for their improvement and encouragement, and ended in a somewhat indiscriminate adoption of schools the teachers of which received rewards according to the result of annual examinations of their pupils. In 1883-84 this policy was reversed, a large number of the worst schools were gradually weeded out and the Local Government set itself to the task of improvement and consolidation.

438. In MADRAS the incorporation of the indigenous schools has been attended with better results. They have had before them the model of a fair sprinkling of State schools and numerous and well managed missionary institutions. Under these influences they have exhibited "an alacrity in adopting advice and accepting improvements which has been wanting in most other parts of India."\* They allowed themselves to be inspected on the condition of receiving grants, and soon exhibited an improvement which has ever since made a fairly steady progress.

439. In BOMBAY, the UNITED PROVINCES, and the PUNJAB the main type of school is the Board school managed by Municipal Corporations and Local Boards and supported largely from local rates and cesses. The manner in which this class of school has grown up has been explained, the result will be described in the main sections of this chapter. In all these provinces attention has also been directed to the indigenous schools. In the BOMBAY PRESIDENCY special care has been bestowed on the *Mullah* or Muhammadan religious schools of Sind. Many of the schools originally admitted to State aid proved unworthy, nevertheless the advantages of secular education are becoming more appreciated and a residue of useful aided schools remains. In 1843 Mr. Thomason, Lieutenant-Governor of the NORTH-WEST (now the UNITED) PROVINCES, made the first general attempt to improve indigenous schools, by establishing model schools as centres of supervision. The scheme was not successful and was soon supplanted by a system of State schools supported by a local cess. Recently a fresh effort has been made to induce the indigenous schools to enter into the general scheme of public instruction, and still more to encourage persons to open schools similar to the State schools by the offer of grants-in-aid; but so far the educational results of the experiment have not been generally encouraging. The PUNJAB followed the lead of the United Provinces in abandoning the attempt to improve the indigenous schools and in developing a separate system of State schools. These schools did not prove popular and the progress of primary education was slow. Accordingly in 1881-82 the Lieutenant-Governor decided to make a further attempt on the indigenous schools. An elaborate enquiry was instituted into the condition of the schools and after some years a number of them were included in the public list. The scheme has not answered fully the expectations of its originator, for at the end of 1901-02, the province had only 524 aided schools against 1,607 schools under Board management.

\* Report of the Education Commission, page 66.

440. ASSAM, the CENTRAL PROVINCES, and BERAR occupy an intermediate position on the scale, the number of Board and Aided schools in each being as follows:—

	Board Schools.	Aided Schools.
Assam . . . . .	1,079	1,452
Central Provinces. . . . .	836	798
Berar . . . . .	598	394

The CENTRAL PROVINCES started with a weak indigenous system but has been very successful in fostering and developing it. BERAR followed the Bombay system of Cess schools and has incorporated indigenous schools after the manner of the Central Provinces. The system in ASSAM is peculiar inasmuch as the aided schools are not of indigenous origin. They consist of two main classes, firstly schools for aboriginal tribes managed by missionary societies, and secondly private schools mostly started by ex-pupils in the hope of obtaining Government aid. Many of the Board schools were started in the same way as the second class of aided schools, and transfers have been made from one class to the other.

441. The position in BURMA is somewhat different from that which prevails in any part of the Indian Continent. In the first place the system of indigenous instruction is wider and a much larger proportion of the inhabitants can read and write. The indigenous system includes two main classes of schools. Firstly, almost every village has its *kyauing*, or monastery, and one of the principal duties of the presiding *póngyi*, or monk, is the instruction of the boys of the village. Secondly, there are a large number of lay schools in which girls as well as boys are taught. These were formerly conducted by pious Burmans as a meritorious work, nowadays they are often private schools out of which the schoolmaster seeks to make his livelihood. Burma has only three schools under public management and 4,000 indigenous and missionary schools are aided by the State. There are no Local Boards in Burma and, outside the Municipal towns, the supervision of the aided system is conducted directly by the Education Department. Indigenous education has been under departmental influence for a much shorter time than in India itself, and to a considerable extent it is still unaffected by it. Very simple rules are prescribed for the recognition of indigenous schools, whether lay or monastic. A feature of the Burma system is the "itinerant teacher" appointed by the Department and working under the Deputy Inspector. It is his special duty to assist in the discovery of new schools, in bringing them under tuition and registration, and generally in spreading primary education in the district to which he is attached.

### Primary Schools.

442. In 1901-02 there were over 92,000 public primary boys' schools in the area dealt with in this Review. The number rose by over 13,000 during the ten years 1886-87 to 1896-97 and fell by over 5,000 during the period under review. BENGAL has suffered by far the largest loss, the decrease in that province amounting to 3,728. The small indigenous village schools of Bengal are of a weak and ephemeral character; they are unable to withstand the occurrence of hard times and cannot comply with the requirements of an improving system. MADRAS and BOMBAY have lost about 900 and 600 schools, respectively. The UNITED PROVINCES have gained over 700 owing to the increased expenditure from provincial funds, to the inclusion in the system of some indigenous schools, and to the opening of a large number of private schools, as in Assam, on grants being given for the purpose. The CENTRAL PROVINCES and BERAR have lost, whilst the PUNJAB and ASSAM remain almost stationary. In BURMA, allowing for the exclusion of unaided schools from the public list, and the raising of a certain number of schools to the secondary class, there has been a slight gain. The main cause of this general decline in the number of schools is the arrest of the progress of primary education which will be dealt with more fully later on in this chapter. A further cause is a matter for satisfaction. There is a steady progress of concentration; the small village schools being abandoned in favour of larger and better equipped schools which serve groups of villages.

Number of towns and villages served by a school.

443. In 1901-02 one boys' school served on an average 6·2 towns and villages. Among the larger provinces the schools are most thinly scattered in the Central Provinces, where one school serves 23·4 towns and villages. In the United Provinces and the Punjab the corresponding figures are 15·6 and 14·5, in Burma 11·9, in Assam 8·0, in Bombay 5·0, in Bengal 4·7, and in Madras 2·9. Schools are most abundant in the two provinces of the Peninsula where the indigenous system prevails. The Director of Public Instruction of the Central Provinces gives the following explanation of the comparative fewness of the schools in that Province:—

The Central Provinces primary schools are large, the average number of pupils being 54, and very few schools are attended by pupils from one village only. The village is not the unit of educational life; it is a group of villages. Some are attended by boys from 13 and 14 villages; attendance from 5, 6, or 7 is not unusual; and very few indeed draw pupils from a single village. So, though there are in every district villages and groups of villages deprived of access to any school, existing schools extend their benefits much more widely than the Quinquennial Report would indicate.\* \* \* While admitting the inadequate provision of primary schools, it should be remembered that, generally speaking, all large villages and groups of villages sufficiently near each other for a central school have been occupied, and that if smaller and scattered villages are to be provided with schools, they must be small and consequently expensive.\*

Distance between schools.

444. The following table shows the mean average distance in miles between each boys' primary school in the several provinces:—

Bengal	2·0
Madras	2·9
United Provinces	4·3
Berar	4·4
Assam	4·7
Bombay	5·1
Punjab	7·1
Burma	7·1
Central Provinces	8·2

The statement assumes that the schools are equally distributed over the whole area, which of course is not really the case. In Bengal, for example, they are plentiful in the metropolitan districts, but they are few and far between in Chota Nagpur and other outlying tracts. Similarly in Burma, the Central Provinces, and Assam, and in portions of other provinces, there are larger or smaller tracts of hill, forest, and jungle in which villages and schools are scarce. Bengal and Madras owe their position at the head of the list to the large number of indigenous schools. Burma would come very much higher if the many unrecognized indigenous schools were included; the reason for the low position of the Central Provinces has already been explained. The table shows that, on an average, boys in Bengal have not to go more than a mile to reach a school; and that in Madras, the United Provinces, Berar, Assam, and Bombay the mean distance varies from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  miles.

Strength of a school.

445. A boys' primary school contains on an average 33 pupils. Allusion has already been made to the process of concentration. During each of the periods 1897-98 to 1901-02 and 1892-93 to 1896-97 the average strength increased by two pupils, and during the period 1887-88 to 1891-92 by one pupil. The increase since 1896-97 extends to all the major provinces except Bombay which lost 3 pupils per school, the Central Provinces which lost one pupil per school, and the Punjab which remained about stationary. The size of a school varies greatly in the different provinces. The Bombay (56) and Central Provinces (54) schools are the largest. In Madras and Burma, with numerous indigenous institutions, the averages are only 31 and 30 respectively, and in Bengal, with its small village schools, only 26.

Cost of a school.

446. Perhaps the most striking feature of the Indian primary schools is their extraordinary cheapness. The average cost of a boys' primary school according to the statistical returns is less than ₹10 a month. This figure is somewhat below the actual cost. The returns for indigenous schools are not always reliable and,

\* Letter from the Director of Public Instruction, Central Provinces, No. D.-1389, dated the 10th April 1900.

especially in Bengal, the village schoolmaster receives presents and fees in kind, for which no estimate can be made. Small as the expenditure is, it is greater than was the case in former years. The average monthly cost of a school rose from R7.1 in 1886-87, to R7.8 in 1891-92, to R8.4 in 1896-97, and to R9.5 in 1901-02. The average of R9.5 is made up from figures which vary greatly according to the province and class of school. The extremes may be taken to be R37, the average for a Board school in Bombay, and R3 the average for an unaided school in Bengal. For the reasons explained above the latter figure is somewhat below the mark; but making all allowances it is extraordinarily small. This great cheapness of the Indian schools is a matter which must be borne in mind. In dealing with subjects such as the equipment, curriculum, and methods of teaching, and the remuneration and qualifications of teachers, it must never be forgotten how small is the sum available for each school. And again the number of schools is so enormous that to raise the average to even R20 a month would involve a total annual expenditure of over one crore.

447. Primary schools are in general divided into the two classes of upper primary schools and lower primary schools. The former give instruction from the infant class to the end of the full primary course, in the latter the instruction extends only to one or two years from the end of that course. The great majority of the pupils do not study beyond the lower primary stage, and are taught in lower primary schools. In 1901-1902 there were in Madras 4,755 upper and 14,338 lower primary schools, and in Bengal 4,310 schools of the first and 41,612 schools of the latter class. It is worthy of note that the loss of schools in Bengal was confined to the lower class, the number of upper primary schools having increased during the quinquennium by 272. In Madras, on the other hand, the loss extended to the upper primary schools, the total number of which fell by 222. The distinction between upper and lower primary schools is not equally marked in all provinces. In Bengal the two classes of schools are quite distinct; in Bombay there is no such distinction, but the course in non-rural schools is divided off into upper and lower stages.

448. Of the 92,000 boys' primary schools which existed in 1901-02, 79 per cent. were under private and 21 per cent. under public management. The schools under public management include those managed by the Government, by Native States, and by Municipal and Local Boards. The private managed schools comprise the aided and unaided (but inspected) indigenous and missionary schools, the "venture" schools or (schools maintained for private profit), and other miscellaneous institutions. In 1891-92 the percentage of boys' primary schools under private management was 80.4 and in 1896-97, 80.5. The decline to 79 per cent. during the last quinquennium was due to various causes. Part is apparent only, being caused by the exclusion of unaided Burmese indigenous schools, and the inclusion of certain Native State schools in Bengal which were entered under the head "unaided" in the 1896-97 figures. For the rest, the causes which have arrested the progress of primary education have operated with greater force in the case of private managed schools than in that of the more stable Board schools. While the former class of schools have suffered a loss of 5,671 the net decrease among schools of the latter class was only 717. Of the schools under public management only 301 are managed directly by the Government, about 3,200 belong to Native States in Bombay, the Central Provinces, and Bengal, and the balance, amounting to nearly 16,000, are Municipal and Local Board schools. Of the private schools over 55,000 are aided from public funds and over 17,000 are unaided but are recognized by the Department. The unaided schools consist for the greater part of indigenous and venture schools which are either awaiting admission to the aided list, or which have been removed from that list owing to their failure to come up to the standard required by the Education Department. The Board schools are larger and more expensive than the institutions under private management. In 1901-02 the average Board school contained 52, the average aided school 31, and the average unaided school 20 pupils. The average cost of a Board school was R21½, of an aided school R7½, and of an unaided school about R4.



Government schools.

449. The few schools maintained by the Government consist for the greater part of institutions in backward tracts in which there are no Local Boards and of practising schools attached to normal institutions. One hundred and ninety-seven of the schools are in Madras, and of these 158 are situated in the hill tracts, 15 are schools for Muhammadans in the city of Madras, and 23 are practising sections of training schools. The only other provinces in which the number exceeds 10, are Assam (29), the Central Provinces (28), and the United Provinces (23).

Native State schools.

450. The Native State schools comprise 2,053 in Bombay, 872 in the Orissa Tributary Mahals and some other Native States of Bengal, and 250 in the Central Provinces. The Bombay schools have diminished by 83, the decline being due to the general adverse circumstances which have affected the Presidency. The Central Provinces figures represent schools in the Chhattisgarh Feudatory States. Notwithstanding the effect of prolonged famine the total number of these schools shows an increase of 21.

Board schools.

451. District and Municipal Boards take part in the system of primary instruction both by themselves maintaining schools and by granting aid to schools in localities where the practice of private management prevails. Apart from the special cases alluded to above, the Government has made over the whole work of the management of State primary schools for boys to these local bodies, and they also assist materially in the distribution of the grants-in-aid of private institutions. The functions of Local and Municipal Boards towards primary education have been noticed in the Chapter on Controlling Agencies.

The percentage of Board Schools on total primary schools for boys\* in the provinces in which public management plays an important part was as follows :—

North-West Frontier	85
Punjab	71
Bombay	70
United Provinces	65
Berar	57
Central Provinces	48
Assam	39

In Madras the percentage was only 13 and in Bengal and Burma it was insignificant. During the quinquennium the principal loss has been suffered by Madras (547 schools) and by Bombay (203 schools). In Madras the apparent loss has been accentuated by the transfer of some Board schools to private management. The only administration showing an important increase is the United Provinces, where a stimulus was given to primary education by the addition to the grant from Provincial Revenues made during the administration of Sir A. P. Macdonnell. In Coorg 60 schools have been transferred from Government management to the recently formed Local Board. About one-thirteenth of the total number of Board schools are maintained by Municipalities and the rest by rural Boards.

Schools under private management.

452. The brief history of primary education in India given at the beginning of this Chapter explains why the proportion of schools under private management varies greatly in different parts of India. At the present time almost all boys' primary schools in Burma are under private management, in Bengal the percentage of such schools on the total is 98 and in Madras 86. At the other end of the scale comes Bombay with only 22 per cent. of privately managed schools. Intermediate are Assam (60 per cent.), the Central Provinces (44 per cent.), the United Provinces (35 per cent.), and the Punjab (29 per cent.). The private managed schools of Bengal represent nearly one half of the total number of boys' primary schools dealt with in this Review.

Recognition of aided schools.

453. In order to receive aid from public funds a primary school under private management must conform to the curriculum of instruction laid down by the Department. Each province has its own set of rules regarding the general conditions which must be fulfilled by schools before they can be recognized as fit to receive public financial support. The rules of Madras and Bengal, the

\* Excluding schools in Native States.

two provinces of the Peninsula in which the aided system chiefly prevails, afford a striking contrast. The Madras rules of recognition are strict and their requirements extend to matters such as the qualification of head masters and teachers; the proportion of teachers to pupils; the accommodation, equipment, and sanitary condition of the school; the payment of fees; the admission and withdrawal of pupils; discipline; and the maintenance of registers. In the Bengal rules of 1898 practically the only conditions laid down for recognition were that the *pathsala* should have at least ten boys on its roll, and that it should have been in existence for at least six months before the date of examination. Before the school can earn a reward it has to produce its attendance registers and a certificate of eligibility from the inspecting *pandit*. The small Bengal village schools could not conform to standards such as are laid down and accepted in Madras. In Burma where, as stated above, practically all primary boys' schools are under private management, different rules obtain for indigenous and non-indigenous schools. Any indigenous school, monastic or lay, can become eligible for State aid, provided—

- (a) that the school has a working session of at least four months;
- (b) that at least four of the pupils are able to read and write their vernacular as judged by the second standard;
- (c) that it passes pupils within a year of registration by recognized standards.

For non-indigenous schools (largely missionary schools) the conditions of recognition cover matters such as management, superintendence, stability, school premises, sanitation, and fees.

454. The aid from public funds has hitherto been distributed mainly under what is styled the "results grant system". The main feature of the system is that individual pupils are examined by the inspecting officer, and a fixed payment made for each pupil who is pronounced to have attained a certain standard of proficiency. The grant to a school is made up of the total amount thus earned by the individual pupils who have passed.\* The system was adopted in the first instance on the strength of English precedents and its employment was stimulated by the Education Commission who recommended that as a general rule aid to primary schools should be regulated to a large extent according to the results of examination.† It has, however, never been in universal use. The system has varied from time to time and from province to province. Fixed grants have often been prescribed for schools in backward tracts or for backward classes, the results grant has in some provinces, and in some classes of schools, been made supplementary to small fixed salary grants, and again the best schools have in some provinces been placed on a fixed grant list. Also, in addition to the ordinary grants, special grants are given for buildings, equipment, etc. Of recent years the "results grant system" has been viewed with increasing disfavour. In England it has been finally condemned, and in India experience has proved that, to whatever grade of schools it is applied, it is both disastrous in its influence on education, and uncertain in its financial effects. The change of view has found expression in several provinces during the past few years. The Bengal reports contain comments on the evil effects of the system on the character of the instruction. In Madras, with effect from the 1st March 1899, the fixed grant system was introduced, "under which a specific amount of aid is fixed for three years to all primary and lower secondary schools in the permanent section of the general school list, that is, which have fulfilled all the conditions of recognition."‡

455. The following is a short account of the position as it stood at the end of the quinquennium, beginning with Madras, Bengal, and Burma, the three provinces in which the aided system is most prevalent:—

In MADRAS, primary schools that satisfy all the conditions of recognition are placed on the permanent section of the general school list and aided on the fixed grant system, while those that only partially satisfy the conditions, but are deemed worthy of recognition, are placed in the temporary section and aided with results grants. In 1901-1902, 1,360 upper primary, but only 425 lower primary, schools were included in the permanent section. In BENGAL also the results grant system was still in general use. But to secure permanency for the weak *pathsalas* located in backward and poor villages, where the *guru's*

\* Report of the Education Commission, page 405.

† Report of the Education Commission, page 174.

‡ Report on Public Instruction, Madras, 1901-1902.

income from fees is precarious, an advance reward system has been in force for many years. In BURMA the principal forms of ordinary grants were : (a) results grant, (b) pupil-teacher grant, and (c) salary grant : the latter form of grant was made for two years to a few schools to enable the managers to support themselves until fees and results grants made the schools self-supporting.

456. In the remaining provinces the position was briefly as follows :—In BOMBAY private schools are assisted by Government grants according to the results of examinations held each year or every other year by the Government Inspectors. Some of these schools whose permanent character is established receive fixed grants annually for a series of years. In the UNITED PROVINCES vernacular primary schools receive grants which are fixed with reference to the character and utility of the school and the funds at the disposal of the Board ; the grants are reviewed each year. In the PUNJAB the maintenance grants comprise attendance grants based on the number of pupils, results grants based on the number of passes by the prescribed standards, and staff grants in aid of the salaries of teachers and monitors. The total must not exceed one-half the expenditure on tuition. In BURMA the results grant system is applied only to vernacular schools ; anglo-vernacular primary schools are paid "maintenance" grants. In the CENTRAL PROVINCES primary schools are aided either by the results grant or combined grant system. The results grant depends partly on the number of passes and partly on the average attendance of pupils. Under the combined grant system a small monthly grant is given by way of subsistence allowance supplemented by results grants. In ASSAM the results grant system prevailed in the more advanced and populous localities, small fixed grants supplemented by results grants were given in more backward localities, and larger fixed grants without other reward in specially backward tracts.

Distribution  
of grants by  
Government  
and Boards.

457. The grants in aid of private managed institutions are distributed sometimes directly by the Government but more frequently by the Municipal and District Boards. Of the 18 lakhs of public money granted to private aided institutions in 1901-02,  $4\frac{1}{2}$  lakhs were paid direct from General Revenues,  $11\frac{3}{4}$  lakhs from Local Board Revenues, and 2 lakhs from Municipal Revenues. Private managed primary schools situated within Municipalities are in most provinces aided by the Municipal Boards, the practice as regards rural schools varies in the different provinces. In Bombay the proportion of the amount paid by Local Boards is very small ; in the Central Provinces it is less than half that paid by the Government ; in Madras, the United Provinces and Bengal the provincial payments vary from about one-fifth to one-sixth of the total ; whilst in the Punjab and Assam the proportion contributed directly from General Revenues is comparatively trifling. In Burma, where there are no Local Boards, the payments from rural Local Funds, which amount to considerably more than half the total, are made by Government agency. In distributing aid to private managed institutions District and Municipal Boards are bound to observe the general rules framed by the Local Government for the recognition of schools and the award of grants-in-aid.

Statistics of  
aided  
schools.

458. The number of aided schools has fallen during the quinquennium from 56,815 to 55,561. Bengal has lost the large number of 2,828, Bombay has lost 365, the Central Provinces 193, the Punjab 119, and Berar 167. On the other hand Burma has gained 1,397, the United Provinces 778 and Madras 221. The Burma gain arises largely from the transfer to this head of all schools on the "unaided" list deemed worthy of recognition by the Department ; the United Provinces' increase is due to the aiding of a few existing indigenous schools, and to the opening of schools in large numbers under the new grant-in-aid rules ; and part, at any rate, of the Madras increase is the result of transfers from Local Boards. The United Provinces' experiment is noticed further in a later part of this chapter.

Unaided  
schools.

459. Of the 17,597 unaided schools 11,144 belong to Bengal and 5,829 to Madras—the two provinces of the Peninsula with the strongest indigenous agency. The number in other provinces is comparatively trifling. This circumstance indicates that no large "outer circle" of indigenous schools remains, suitable for inclusion in the public primary educational system. This remark applied also to the condition of affairs which prevailed in 1896-97. In

Burma, the remaining province with a widely spread indigenous system, 2,158 schools were shown on the unaided list in 1896-97. They have since either joined the aided list or been excluded from the category of public schools. Bengal and Madras both show a heavy loss in the number of unaided schools, amounting in the former case to 1,756 and in the latter to 581. But a fall in the number of unaided schools is a less serious indication than a decrease under other heads. The circumstance that the schools are unable to fulfil the simple conditions for a grant indicates that they are much below the ordinary standard; they are often of a weak and ephemeral character and a tendency to require a somewhat higher standard for recognition by the Department excludes the less fit.

460. Madras, Bombay, and Bengal have a system of night-schools in which the instruction is wholly or mainly of the primary grade. The house and staff of an ordinary day-school are used, the teachers receiving special remuneration in the form of extra pay or grants-in-aid. The system has never had much success, and it will be seen from the following table that the number of schools and pupils has diminished greatly during the quinquennium under review:—

Province.	Schools.		Pupils.	
	1896-97.	1901-02.	1896-97.	1901-02.
Madras . . . . .	1,437	775	25,424	14,212
Bombay . . . . .	239	107	5,408	2,380
Bengal . . . . .	1,587	1,082	Not stated.	19,516

461. The BOMBAY Director gives the following unsatisfactory report:—

The history of these schools is one of decline in every respect—in number of schools, in attendance, and in expenditure. \* \* \* \* \* Speaking generally, there is no chance that they will prosper. Education, in the country at least, is not valued for its own sake, and the material advantages to be derived from the possession of it are not sufficient to attract men or boys who are tired with a day's work. It is also to be remembered that the masters are themselves tired out with the day's teaching to, which perhaps, postal work has been added. In many cases the schools serve no purpose but to enable the master to draw his extra allowance. "Normally," the Inspector in Sind writes, "there would be little or no attendance at the night school, which would deprive the master of this part of his allowance. Accordingly an arrangement is made with some grown-up men who have attended a primary school in their youth. They are brushed up in the books of a lower standard, attend the school a few times during the year, and are all present in the institution for the visit of any officer or for the annual inspection. The master looks to the register being filled in so as to appear satisfactory." The experiment was tried in Sind of keeping schools open to late evening, and asking labourers to put in even half an hour whenever work was slack or temporarily stopped. The subjects to be taught were reading and writing and elementary account keeping. This plan was tried for six months in every district and failed everywhere. Reports from all parts of the Presidency are equally unsatisfactory. It is just possible that in Bombay and other trade centres night schools might flourish, with liberal aid, on condition that they taught English, with commercial subjects, and other matters of obvious practical utility. The only night school which is reported as successful is one managed by Miss (Dr.) Bradley in Umakhadi, Bombay. The Anglo-Vernacular standards are taught in it. And even in towns it is essential that the masters should be competent men, who will come fresh to their work, and that the instruction given should be practical, and obviously useful, and that it should be given in an interesting and attractive way. In the British districts of the Southern Division, the experiment of night schools has hardly been made. Those which exist in the Native States are not in a satisfactory condition. In Kathiawar it is thought that the attendance in them may revive when better times come round, and men are no longer driven by famine to the Government relief works.

462. The BENGAL Director states as follows:—

Night schools are worked at very small cost, the day school-house and staff being generally utilised for the purpose. Still the difficulty of getting, under the present circumstances, genuine day-labourers or youths after the day's hard toil to attend schools at night makes the permanent and efficient working of these schools rather difficult and, possibly, a thing of the future. Arrangements have however been made, as an experiment, to start 200 night, or continuation, schools in the Presidency Division under the recent orders of Government. They are, as usual, to be worked by day-school teachers or gurus who will get a monthly stipend of ₹2 and a capitation allowance of annas 2 per pupil for 10 pupils and more. They will be at first primary schools only.

463. The MADRAS Director makes no comment on the decline of the night school system which the provincial statistics disclose. During the quinquennium grants to night schools were restricted to persons actually earning their subsistence as day labourers.

### School Buildings and Equipment.

Account  
given by the  
Education  
Commission.

464 The Education Commission gave the following account of the condition of primary school buildings in about the year 1882 :—

In the matter of school buildings as well as of methods of registration, there is also a broad distinction between departmental and aided schools. The contrast is most marked between the departmental system of Bombay and the indigenous system of Bengal. In the Bombay Provincial Report it is stated that there are 688 substantially built school-houses in the British districts and 371 in the Feudatory States of the Northern Division alone, which have together cost more than 27 lakhs. Besides these there were 560 houses built after the country fashion of less lasting materials, whilst 2,530 were private houses or temples lent to the Department. The school-houses are being improved as far as funds will permit. In Bengal it is stated that "School accommodation does not as yet form a very important point for consideration in this country, the climate permitting the children, except during the rains, to sit out in the open air. Of the 50,788 schools, 6,545 have houses of their own, 43,256 are accommodated rent-free in the houses of other people, and 987 are held under the shelter of trees." In Madras, school accommodation for result schools is often very insufficient. An open "pyal," or raised verandah facing the street, is among the best of the places provided. Sometimes a dark room is used. A shed for cattle at night often does duty for a school-room by day. Inspecting officers not unfrequently hold their examinations under a tree. Where, however, local boards and municipalities have schools, there is generally fair and sometimes good accommodation. In the North-Western Province school houses are either Government buildings on a more or less uniform plan prescribed by the Public Works Department; or rented buildings; or sheds or other accommodation lent by zamindars. The houses answer their purpose fairly well, and light and ventilation are sufficient. In the Punjab also, where the system of primary education is chiefly departmental, constant attention is paid to the subject, and it is stated that the tendency is to build more expensive houses than are really required. In the Central Provinces the Government school-houses are built on a standard plan. They are said to be durable and cheap. A school-house for 60 pupils costs Rs600. It is a tiled building built of brick and lime. If the village or town-committee wish for a more imposing structure, they must obtain subscriptions to its cost. In Assam the houses are of the rudest description, consisting simply of posts and a thatch, while in the Hyderabad Assigned Districts more ambitious flat-roofed structures have been planned by the Public Works Department. They are said to be expensive, and in the Provincial Report the expense is justified by the argument that the village school-house ought to be the best building in the village, a really suitable and permanent structure, "Such a building well furnished is in itself an education both for the villagers and their children, and should outlast successive generations." On the whole, then, it may be said that proper school accommodation for Government schools is generally provided, while in Bombay and in the Hyderabad Assigned Districts very great attention is paid to the subject. On the other hand, the school-houses of the aided schools in country villages are very indifferent, frequently mere cattle-sheds or corners of houses, while in some cases the shade of a tree supplies the wants of the pupils until the monsoon closes the sylvan school-houses for four months.

During the twenty years that have elapsed since the Report of the Education Commission was written some advance has been made, but in many cases the condition of the school building is even now far from satisfactory. It is still the case that the State schools are in general housed in better buildings than those which afford shelter to the indigenous schools, and the typical school house of Bombay, the Punjab, the Central Provinces, and Berar, still affords a marked contrast to the accommodation provided in Bengal and Assam.

Tenure of  
buildings.

465. In general, most public managed schools have their own buildings, whilst most of the private managed schools (other than mission institutions) are still held in borrowed or rented buildings or in any other place that can be made available for them. It will, however, be seen from the following notes relating to the several provinces that the above statements are not of universal application :—

#### MADRAS.—

##### Primary Schools for boys.

Class of building.	1896-97.	1901-02.
Buildings of their own . . . . .	5,509	6,276
Rented buildings . . . . .	5,267	4,673
Chavadies, temples, etc. . . . .	5,261	4,792
Managers or head-masters' own houses . . . . .	3,955	3,351
TOTAL	19,992	19,092

The percentage of schools with buildings of their own increased during the quinquennium from 28 to 33. It is still less than one-third, but this is a fair proportion considering that the schools are mostly under private management.

**BOMBAY.**—The following table shows the progress made in providing the Board and Native State schools of the Central Division with their own buildings since the time when the Education Commission wrote their Report :—

Class of building.	1881-82.	1896-97.	1901-92.
Buildings of their own . . . . .	312	635	653
Rented buildings . . . . .	227	387	352
Rent-free buildings . . . . .	1,037	827	729
TOTAL . . . . .	1,576	1,849	1,734

The number of schools with houses of their own has more than doubled, but it is not satisfactory to find that nearly two-thirds of the public managed schools are still located in hired or rented buildings. The slow progress during the quinquennium under review is the result of financial difficulties arising from plague and famine.

**BENGAL** is the most backward of all the provinces in the matter of primary school buildings, and no great progress has been made since the Report of the Education Commission. Most upper primary schools have their own houses, but it is only in rare cases that lower primary schools have been furnished with buildings; in the Burdwan Division only about 10 per cent. of primary schools of both grades have premises of their own.

**UNITED PROVINCES.**—The following figures relate to recognized primary schools of all classes in Oudh :—

Buildings of their own . . . . .	906
Lent by landholders, etc. . . . .	463
Hired . . . . .	15
	1,384

This is a much more satisfactory result than can be shown by any of the three older provinces.

**PUNJAB.**—The proportion of public managed schools (which form the great majority in this province) which have buildings of their own varies from about 80 per cent. in the Jullunder Division to about 60 per cent. in the Rawalpindi and Delhi Divisions. Only a small proportion of the private managed schools (always excepting mission institutions) have their own buildings.

**BURMA.**—Lay schools are generally held in the manager's house, and monastic schools in the monastery building.

**CENTRAL PROVINCES.**—Rural schools have, in general, their own buildings, sometimes the gift of the *malguzar*, sometimes provided from subscriptions among the villagers, and more often (in recent times) paid for by the District Council. Urban schools in the Northern Circle if under public management are located in their special buildings, but non-mission private managed schools are usually held in hired premises. In the Eastern Circle schools of every class have, with few exception, their own buildings.

**ASSAM.**—A large proportion of the primary schools of Assam have no houses of their own, but are held in any place available—in the verandahs of private houses, in the village *namgarh*, in cutcherries, or in any other place where the space can be found.

**BERAR.**—About 76 per cent. of the recognized primary schools are held in premises belonging to them, the rest meet either in rented houses or in houses belonging to the people.

466. **MADRAS.**—Under the rules for the recognition of schools the site, plan, and accommodation of upper primary schools must be approved by the Inspector, In primary schools held in closed buildings, at least six square feet and sixty

Character of buildings.

cubic feet must be provided for each pupil on the roll. Every school building must be maintained in substantial repair and in a cleanly condition, and no class room may be permanently used by a larger number of pupils than the Inspecting or Sanitary Officer declares that it is sufficient to accommodate.

The following description given by the Inspector of the Central Circle illustrates the present condition of school buildings in the Madras Presidency and the extent to which effect is given to the regulations summarized above :—

The accommodation provided for schools under public management is generally superior in every respect to that of schools under private management. During the last quinquennium there has been considerable improvement in the condition of buildings for schools under private management in the Madras Municipality. Schools in this city are generally held in the upper stories of houses with a sufficient number of windows, or in spacious halls downstairs with an open courtyard in the middle. The payment of rent grants from municipal funds has also contributed to bring about an improvement in this direction. The description given in paragraph 168 of the Education Commission Report holds good chiefly in the case of unrecognized or indigenous schools in the Presidency Town.

There has been a marked improvement in the condition of Board school buildings in the Chingleput District. The type of a Board school building is a rectangular hall 30 feet by 12 feet with a verandah 5 feet deep on one side running lengthwise with mud walls and thatched roof. Mission schools are provided with better buildings than non-mission schools and the missionary bodies at work in the district have constructed school-houses on approved plans, attention being paid to sanitation and ventilation. Apart from these mission schools the majority of schools under private management—in the rural parts especially—are held in *pyals* or verandahs or in a portion of the managers' own dwelling houses or the houses of their friends or patrons. A few schools are also held in temporary *pandals* or sloping sheds in front of the teacher's house or in village *chavadies* or temple *mantapams*.

The description in the Education Commission Report referred to above still holds good in the North Arcot District, though owing to the stricter enforcement of the rules of recognition, some improvement has been effected as regards light, ventilation and sanitation. Private managers have in a few cases erected suitable school houses, but as a rule they still teach their pupils in their own houses enlarged in many cases by *pandals* intended to accommodate the infant classes. Board schools are better accommodated than schools under private management. The type of primary school buildings in this district—whether under public or under private management—is a large oblong room sometimes divided into two or more rooms, with verandahs on one or more sides which are generally occupied by the lower classes. As a rule there is no flooring of wood or stone—the walls are generally of mud or conglomerate, and the roof generally thatched though occasionally composed of tiles.

In the Ceded Districts there has been on the whole no marked improvement. The Bellary District is the most backward. So far as I have been able to discover there are only four buildings in all the Ceded Districts erected specially for primary schools, two mission schools and two public schools. Municipal and Local Fund schools are often held in disused Taluk Cutcheries or Munsiff Courts which are not well adapted for school purposes, though better lighted and ventilated than the ordinary buildings. But too often they are held in rented private houses disgracefully lighted and ventilated, the owners of which resent any improvement.

The best school buildings under private management are those held in *choultries*—portions of which are lent for the day—and in the front portion of temples. The great objection to temples as schools is the number of pillars. On the other hand they are as a rule more spacious, light, and airy than the sheds or hovels which so often serve as schools.

In Municipalities, *Kasba* stations, and large villages almost every school under public management and some mission schools have a compound in which drill classes can be held.

All primary schools in towns are supposed to have latrines.

Though there has been a slight improvement in all parts of the circle save the Ceded Districts, yet the state of primary school buildings is still most unsatisfactory. Light and ventilation are especially unsatisfactory. Only in a few municipalities, as for instance Vellore, is due regard paid to the physical welfare of the pupils. Taluk Boards are as a rule guilty of gross neglect. Unless these public bodies and unions set a better example it is hardly likely that private managers will develop any conscience in this matter.

Speaking of the Province generally the Director remarked as follows in his Report for 1901-02 :—

That a school is working under proper hygienic conditions is to a large extent ensured by the rules of recognition, and it is one of the duties of the Inspector at his annual inspection to see that it has suffered no deterioration in its sanitary condition. The Sanitary Commissioner and his assistants also report such hygienic defects as were noticed by them in their annual tours and steps are taken to see that these are remedied as soon as possible \* \* \* Judging from the large amount that has been spent on building grants, there has been a very great improvement in school buildings. There are, however, still a great many primary schools that should be better housed.

467. BOMBAY.—The site, plan, and estimates of all Local Board school buildings must be approved by the Director or Inspector. In the case of schools under private management the Inspector is enjoined, before paying the grant from



year to year, to satisfy himself that the school premises are healthy and well lighted and ventilated, and that they contain sufficient accommodation, furniture, and appliances for the children attending them. Schools are built on standard plans which have been prepared for houses intended to accommodate 40, 60, 80, and 100 boys, respectively. A school for 100 boys is built in the shape of the letter L; there is a room of 16' x 16' dimensions in the centre, the short arm is composed of another room of the same dimensions, and the long arm of a room 31 feet in length and 16 in breadth; a verandah runs along both inner faces of the L. The plan is so arranged that the building may easily be extended. It is constructed of permanent materials and has a gable roof. In Sind the climate requires a different style of building. There it is usual to build with similar internal dimensions (giving the accepted area of 10 square feet per child), but the buildings are commonly flat roofed with very thick walls of mud and brick and deep verandahs all round. Protection is thus given against the heat of the Sind summer. In parts of Gujarat, where the rainfall is not heavy and the soil is light, *katcha* buildings are often erected at a comparatively small cost, but the repair charges of such buildings are heavy. In Sind and in other Divisions the people sometimes erect small *katcha* buildings for schools at their own cost and by their own labour. These are very rough and ready school houses, but are preferable to the ordinary rented house in the middle of the village.

It is the policy of the Education Department, where possible, to erect permanent and well built school buildings for District Local Board schools, especially when the people give a local contribution to the cost. The Government usually makes a building grant equal to half the amount required. Similarly Municipalities are encouraged by building grants to erect school-houses according to the standard plan. Of late years progress has been arrested by the financial embarrassment caused by plague and famine; in the Report for 1901-02, the Director says:—

There is not much progress to report in this matter, which is only natural, considering the circumstances of the past five years. Very many of the private schools are still housed in *dharmaśālas* and hired rooms which are ill-ventilated, ill-lighted, and insanitary. Money has not been available for buildings either from Provincial Revenues or from Municipal and Local Funds. Popular contributions have in some places been lying in the bank for years awaiting a supplementary grant from public funds. Many of the school rooms, owing to the same causes, are bare, unattractive and ill-equipped.

468. BENGAL.—Little change has taken place since the Education Commission drew a contrast between the Bengal and Bombay schools. The lower primary schools are generally held in the verandahs and out-houses of the people interested in the schools, in temples and mosques, or even under the shade of trees. The upper primary schools have simple *katcha* buildings with two rooms and a verandah in front of them. The great cost of erecting houses for over 40,000 schools renders it difficult for the Department to effect an improvement without the active co-operation of the people.

469. UNITED PROVINCES.—The general orders of the Education Department direct that eight square feet per scholar may be taken as the minimum accommodation admissible in the case of town schools. The same rule is to be borne in mind in the case of village schools, and the accommodation provided as circumstances permit. Inspectors are required to note the state of school buildings, and, when necessary, to arrange for repairs. In the Oudh Circle (which may be taken by way of illustration) primary school buildings are constructed on a more or less uniform plan approved by the Department. The building consists usually of a *katcha* house with tiled or flat roof, comprising one or two large rooms for classes and one or two small rooms for school furniture, etc. There is generally a verandah attached to these buildings, and the compound is enclosed by a mud wall. There has been no great change since the Education Commission's Report, but in some cases the plan has been altered to secure greater stability and better ventilation. In recently constructed buildings quarters for the teachers are, as a rule, provided. The condition of the ordinary private managed school building is still unsatisfactory. In the Report for 1901-02 the Director says:—

Village school buildings which belong to the District Boards are kept in fair repair, but those that are hired buildings, as many of them are, are usually very uninviting in appearance, and not properly kept up by the owners. Very little is done to make education attractive.



Ordinarily the village school building is unsightly, and its interior dark and squalid. Standard plans for different grades of scholars have been drawn up and recommended by the Department for many years, and it would be as well if they were more generally adopted in future, when new buildings have to be erected.

470. PUNJAB.—A simple standard is prescribed for the Board schools which form the majority of boys' primary schools in the Punjab, and the tendency, noticed by the Education Commission, to build more expensive houses than are required is dying out. It is laid down in the Education Code that when new buildings are constructed a healthy site should be selected in a respectable neighbourhood, and that the class rooms should be so designed as to allow a superficial space of at least 10 feet for each boy. The simplest building consists of a single room of 40' × 15' dimensions to accommodate a maximum number of 60 scholars. For larger schools other rooms are added as required of a standard size of 26'8" × 15'. Each such room can accommodate 40 pupils. The buildings are usually of the class styled *katcha pucca*, i.e., kiln burnt bricks with mud mortar, sometimes plastered over with lime. The roof is of timber covered with reeds and plastered with mud. A godown or small room for keeping appliances, etc., is usually added, and the teacher occasionally lives in it. The school usually has its small compound which is sometimes planted with vegetables, etc., used in the object lessons, and is often furnished with gymnastic apparatus. In many localities want of funds has prevented the local authorities from working up to the standard, and although there has been considerable improvement during the past ten years, the annual Reports contain many complaints regarding the character of the primary school accommodation. In the Report for 1899-1900 the Director said: "Not much was done during the year for school buildings, and some districts are very badly off in this way, many schools meeting under trees or in open sheds, which, whilst all very well when the boys could come and go as they liked, is quite unsuited to modern conditions; but the requirements in this respect are now more fully recognized, and what is waited for is the means, which better times may be expected to furnish." And again in the Report for 1901-02: "Every Inspector complains of insufficient and unsuitable accommodation." The simple conditions which indigenous aided schools must fulfil do not include any provision regarding buildings or equipment. The indigenous village school is usually held in a mosque, *dharmaśala*, or temple, or in a room or verandah of some private house. The open air under the shade of a tree is often preferred to such accommodation.

471. BURMA.—The indigenous lay and monastic schools, the numbers of which are roughly equal, form the bulk of the primary schools of Burma. The lay schools meet as a rule in the house of the manager, which, in the case of upper primary schools, has generally been enlarged to meet the requirements of the pupils, either with or without the aid of temporary loans from Government; or in houses built by the manager, with the help of advances from Government repayable in three years. Such buildings are of the ordinary Burmese type—teak posts, walls, and flooring, with galvanized iron roof in the better class of town schools; or rough jungle wood posts, with bamboo flooring, mat walls, and thatched roofs, in the poor class of jungle schools. The monastic school or *kyauṅ* is always a substantial building of teak or other wood with (in the majority of recent buildings) a galvanized iron roof. It is, as a rule, much larger and better ventilated than the ordinary village lay school. Karen schools in connection with the American Baptist and Roman Catholic Missions form a class by themselves. The pupils meet in the chapel erected by the contributions of the villagers; this is always a good building with teak walls and flooring, and generally a galvanized iron roof.

472. CENTRAL PROVINCES.—The typical rural school of the Central Provinces consist of one room with a verandah running round three of its sides, the two ends of the verandah at the back of the building are partitioned off into small rooms. The classes are held in the big room and in the verandah, and the two small rooms are used for storing maps and appliances under lock and key. The material used is either brick or stone whichever is the commoner. The roof is invariably tiled. The Education Manual requires that at least six square feet and sixty cubic feet of space shall be provided for each pupil on the roll. In practice this minimum is generally much exceeded. Thus a typical building for a small village school of 50 pupils will have a single inner room measuring 20' × 12'. The walls are some 10 feet in height supporting a slope roof which

gives a cubical content of about 3,360 cubic feet. This would allow of 40 boys sitting inside if the minimum were taken; but, as a matter of fact, 20 or 30 boys would be the largest number ever assembled in the room at the same time, the rest working in the verandah (32' x 6') in front. Generally speaking, in small rural schools, the rule of one teacher one room is observed. An institution of this class would have one master taking classes inside and one monitor looking after the smaller boys in the verandah.\*

473. ASSAM.—The lower primary school building, when a separate building exists, is, as a rule, a rudimentary structure, consisting of four walls and a roof; sometimes there are no walls, merely wooden posts at intervals supporting the roof. These sheds are erected by the *guru* and his pupils, sometimes with the aid of a friendly villager; they do not last for more than two or three years. A really good school house for about 30 pupils would have a hard raised floor, the walls would consist of *sal* or other wooden posts with *ekra* between them, and the roof would be of thatch. A comprehensive scheme is under consideration for the improvement of the *pathsala* buildings.

474. BERAR.—The flat-roofed buildings described by the Education Commission have given place to tile-roofed houses with closed verandahs built on a standard plan. The buildings have separate rooms according to their size. At first masonry square pillars were in vogue, but now iron round pillars are used. This change gives more space and makes the rooms generally more convenient. The accommodation is 10 square feet per child.

475. The following table shows the cost of typical school buildings in various parts of India :—

Province.	Locality.	Class of building.	Total cost.	Cost per pupil.	Remarks.
Madras	Presidency Town	Good primary school for 200 pupils.	2,000	10 0	In the case of many buildings erected for primary schools the cost per pupil has been much greater than that shown in the statement.
		Ordinary primary school-house with brick walls and tiled roof.	1,000	...	
	Central Circle	Good primary school for 200 pupils	1,000	5 0	
		Small village school with mud walls and thatched roof.	100	...	
Bombay	Presidency in general.	Standard plan for a <i>pucca</i> school building :— for 40 boys	1,280	32 0	
	Gujarat	for 60, 80, or 100 boys.	...	28 0	
		<i>Katcha</i> building for a small school for 50 children.	500	10 0	
Bengal	The province in general.	Lower primary school accommodating about 30 boys.	75	2 8	
		Upper primary school accommodating about 40 boys.	150	3 12	
United Provinces	Oudh	Lower primary school, average cost. Upper primary school, average cost.	300 500	8 0	Approximate average cost.
Punjab	The province in general.	<i>Katcha-pucca</i> house for 60 scholars	360	6 0	This is the ordinary average cost; the actual cost depends on the locality, the readiness with which materials and labour can be made available, etc.

\* Occasional Reports of the Office of the Director General of Education in India; No. 1, "Rural School in the Central Provinces," by H. Sharp.

Province.	Locality.	Class of building.	Total cost.	Cost per pupil.	REMARKS.
Burma	The province in general.	House in which a lower primary lay school of the ordinary type meets, with accommodation for 40 children.	R 200	R a. 5 0	These figures are merely a rough average. No estimate can be given for monastic schools. They are built not as schools, but as monasteries, and they display the wealth and piety of the builder. A monastic school of a dozen pupils may meet in a <i>kyaung</i> worth a quarter of a lakh.
Central Provinces.	Northern Circle. Eastern Circle	Rural school for 50 boys built of good rubble masonry. Ordinary rural schools to accommodate 80 pupils.	350 to 400. 500	7 to 8 6 0	Urban schools are generally more expensive. The Education Commission put the cost too high.
Assam	The province in general.	Ordinary lower primary school building of a good type, affording accommodation to about 30 pupils.  Good school house for about 30 pupils.	25-45  240	1 to 1-8  8	The cost varies greatly in different localities and depends to some extent on the extent to which the villagers are willing to supply labour and materials.
Berar	The province in general.	Cost of an ordinary primary school house: for 40 boys . . . . . " 55 " . . . . . " 75 " . . . . . " 100 " . . . . . " 125 " . . . . . " 160 " . . . . . " 200 " . . . . .	1,400 1,550 2,100 3,300 3,700 4,800 5,800	28 to 35	

The cost per pupil ranges ordinarily between Rs 5 and Rs 10; in Bombay and Berar, it is much higher extending up to Rs 30 or over; in Bengal and Assam, it is much lower, and may be only one or two rupees.

#### Equipment.

476. In no province has the ordinary primary school anything but a very simple equipment; there is nevertheless a great difference between the provinces in this respect, and the State schools of Bombay, the Punjab, and the Central Provinces are far better off than the private managed schools of Bengal and Assam. A brief account of the equipment of typical schools in these five provinces will afford a sufficient illustration.

477. BOMBAY.—The furniture of an ordinary Board school is usually as follows:—

- Blackboard and stand for each class.
- Cupboards for records and library.
- Tables and stools or chairs for the teachers.
- Map stands.
- Benches for the pupils (this is not universal but benches are being gradually supplied).
- Gymnastic apparatus (in many but not all schools).

The school apparatus consists generally of arithmeticons, form and colour boxes, form and colour charts, kindergarten boxes, maps, wall pictures, pointers, etc. In all schools there is a small library of educational books of reference, and in many schools a small museum for object lessons.

478. PUNJAB.—The equipment of an ordinary primary school comprises :—

- One square yard of matting per scholar.
- Chairs, tables, and small mats for teachers.
- Map racks or box.
- Cabinet.
- At least two blackboards.
- Maps.
- Vernacular text-books:
- Apparatus for practical mensurations and object lessons.
- Alphabetical sheets.
- Simple gymnastic apparatus, in many schools.

479. CENTRAL PROVINCES.—Mr. Sharp gives the following description of the typical rural school-room :—

The room is whitewashed, and the walls are tarred for some three feet from the ground. Above this are hung the maps—the school plan, the village area, the district, the Central Provinces, India, the world. There are brightly-coloured prints of the King, the Queen, and the Royal Family; often too, of the potentates of other nations; portraits of Viceroy, of Mr. Gladstone, and all sorts of celebrities; perhaps prints from an old "Graphic" or "Black and White" that have found their way into the wilderness; specimens of manual training brought by the master from his training class; a printed curriculum, the list of committee members and the monthly statements. Above these, again, are lines of moral texts. The floor is strewn with bamboo mats for the accommodation of the boys; at the upper end is a carpet (borrowed for the occasion); but the table, chairs, and bench for seating the committee and ourselves are part of the school furniture. In one corner stands the "ball-frame", in another the black-board; a window-sill supports the simple agricultural apparatus—enough to show practically the effect on plants of different solutions, how plants in the light give off oxygen, and how we can recognize our breath as CO<sup>2</sup> and water-vapour. On a shelf is a series of clay pots, containing specimens of all the soils found on the village area—*Mund awal* and *doyam*, *patharua* and the rest. On the table is the globe—and a very fair one, manufactured entirely by the master while under training—and several vases of flowers.

480. BENGAL.—The lower primary school of Bengal has, generally speaking, no furniture whatever. A typical upper primary school has benches for the boys, stools or chairs for the masters, blackboards, and a few wall maps. Kindergarten gifts are being supplied.

481. ASSAM.—In the shed which accommodates the typical lower primary school of Assam "there is nothing on the earthen floor, except a bamboo bench around the wall, and a central tiny platform made of bamboos on which the children place their little dog-eared text-books. There are no maps on the walls; there are no pictures illustrating the animals and plants in different countries; there are no books of reference, and I believe I am right in saying that there is nothing to be seen but a chair, a pen and ink bottle, some very dirty blotting paper, the register, inspection book, and some bundles of plantain leaves on which the pupils copy letters, figures, and words".\*

482. The following table illustrates the cost of the furniture and apparatus Cost of equipment. in various classes of primary schools :—

Province.	Locality.	Class of School.	Cost of furniture and apparatus.	REMARKS.
Madras	Nellore District	Fully equipped school for 100 children.	₹ 207	This represents the cost of the furniture and apparatus prescribed by the Code; only the best schools are completely equipped according to this standard.
Bombay	Presidency general.	Board school for 100 boys	400	Includes benches, gymnastic apparatus, and wall pictures, which are not found in all schools.

\* Report by the Director of Public Instruction,

Province.	Locality.	Class of school.	Cost of furniture and apparatus.	REMARKS.
Bengal	Burdwan Division.	Typical upper primary school .	₹ 91	Includes 12 benches (R63)
United Provinces	Oudh . . .	Typical vernacular school .	108	Includes benches—R24.
Punjab	The province in general.	Vernacular school . . . . . Anglo-vernacular school . . . . .	100—150 200—350	
Central Provinces	Northern Circle .	Typical rural school . . . . .	78	Does not include benches for pupils.

### School Life.

Day and  
boarding  
schools.

483. The Indian primary school is almost invariably a day school. In 1901-1902 out of about 3 million boys in primary schools only a little over 10,000 (including Europeans) resided in boarding houses attached to the school. The number increased somewhat during the quinquennium but the rate of increase is not enough to make any impression on the vast number of the pupils. The number of boarders is greatest in Madras (3,081), Bombay (2,495), and Burma (1,613). Such primary boarding schools as do exist are usually orphanages, mission schools and other special institutions; ordinary primary schools never have boarding accommodation.

School  
hours.

484. The children live with their parents and go to school and return each day. The distance which they have to traverse has already been noticed. Sometimes the school is held through the day with a break in the middle, sometimes there is morning and evening school and the children go home between the two. The hours of study are commonly 5 or 6. The time tables for typical primary schools contained in Volume II show how the hours of study are divided between the different subjects. In MADRAS the hours are from 10 A.M. to 4 P.M. with a break from 1 P.M. to 2 P.M.; young pupils are allowed a break of 15 minutes during the 3 hours of morning study. In the summer, where the circumstances of the locality allow it, school is held from 6 or 7 to 9 or 10 in the morning, and again from 3 or 4 to 5 or 6 in the evening. In a BENGAL village school the hours are as a rule from 6 to 9 in the morning and again from 2 to 5 in the afternoon, giving a six hours' working day. Sometimes, however, the children in village schools are made to work even longer hours and go home only to take their mid-day meal. They then often bring some light food with them and eat it at about 9 to 10 o'clock. When the hours are as long as this the children are not actually kept at work the whole time; the teacher has several classes to instruct and the children find time to play about and sometimes are sent on errands for the *guru*. In an urban upper primary school the discipline is stricter, and the hours run generally from 10-30 A.M. to 4 P.M. with a break of half an hour in the middle of the day. In the UNITED PROVINCES a primary school ordinarily meets twice daily: once for three hours in the forenoon, and a second time for not more than three hours in the afternoon. It is laid down that the morning meeting should begin not earlier than an hour after dawn, and that the afternoon meeting should close at least an hour before dark. During the season of extreme heat the afternoon classes are sometimes abandoned. In the lowest classes of primary schools the boys may not be required to attend for more than three hours a day. The PUNJAB primary school has a five hours' working day. In the winter the hours are from about 9 to 12 in the morning and again from about 3 to 5 in the afternoon. As the days become shorter the hours of meeting and dismissal are gradually changed. In the summer the morning classes begin shortly after dawn and the afternoon classes are dismissed shortly before sunset. The circumstance that the boys come

from varying distances makes it difficult to assemble them all at the same time, and sometimes renders it necessary to dismiss the school an hour or so before dark. Boys who live near the school go home for the mid-day meal; those coming from a distance bring their food with them and eat and rest in or near the school. The Code requires three short periods of recreation to be given during the day to the infant class, two periods to the class next above it, and one to the remaining classes.

485. The annual vacations in Indian primary schools are short, but the numerous native festivals afford a number of occasional holidays. Sunday is everywhere a whole holiday, and Saturday is sometimes a half holiday or Friday in Muhammadan schools. In MADRAS schools there is a summer vacation of one month, and also a few days' holiday at Christmas and the same miscellaneous holidays as in schools of higher grades. In BENGAL there are no definite rules regarding vacations and holidays in primary schools. The schools are closed at seasons when the children are required to assist their parents in cultivating or harvesting, or when the monsoon rains make attendance difficult or impossible, and holidays are given whenever an important festival occurs. In the UNITED PROVINCES a summer holiday of 20 days may be given if the Chairman of the District Board considers it necessary, the school is closed for eight days after the annual examination, and the miscellaneous holidays total up to about eight weeks. In the PUNJAB a fortnight's holiday is given at the time of the spring harvest and the miscellaneous holidays amount to more than five weeks. Apart from miscellaneous holidays, primary schools in the CENTRAL PROVINCES are given three weeks' holiday at seed time and three weeks' at harvest time. Vacations and holidays.

486. An account of the system of class management and discipline in the Board schools of the PUNJAB, in the rural schools of the CENTRAL PROVINCES, and in the more archaic village schools of BENGAL, will serve to illustrate this portion of the subject. With the simple appliances and low paid teachers which are all that the primary schools have hitherto been able to afford, the system of management is necessarily of the simplest, and it falls far below the accepted standards of modern Europe. But the training of teachers and the equipment of schools are being gradually improved, and with these reforms the system of class management and discipline is undergoing transformation. Class management and discipline.

487. A primary school in the PUNJAB with less than 30 or 40 pupils, and such schools form the large majority, has a single teacher. Most of these schools give instruction in the full primary course of five classes, and each class studies several subjects. The teacher may therefore have to teach 30 or 40 pupils, varying in ages from perhaps 5 to 15 and studying a variety of subjects. It follows that the system of class management must be rudimentary. In each class the teacher is assisted by a monitor, selected from among the best pupils of the class, whose special function it is to keep order. The boys of the upper classes also help to teach and keep order in the lower classes. The majority of the pupils sit in the school room, but some are also accommodated in the verandahs, and others perhaps under a tree outside. Under the old system the teacher sat in the centre of a wall and the pupils were arranged in a circle all round the room. This method is discouraged and teachers are told to place the pupils in parallel rows facing them, the highest classes in front. The teacher will perhaps take two classes at the same time, setting sums to one and hearing another read or giving it an object lesson. The classes at the back of the room and outside will, in the meantime, be occupied with writing in their books or on their slates, in doing sums or in drawing maps, and some of the bigger boys will be looking after them and helping them. The discipline is simple and paternal, and the children are generally well behaved. The rule enjoining cleanliness is difficult to enforce in the case of the children of the peasantry. Class movements are supposed to be made in unison, and the boys are drilled for this purpose. The rule is, however, not always observed. The words of command are given in English.

488. A rural school in the CENTRAL PROVINCES is divided into five classes, and a certificated master is supposed to be able to teach and manage 40 boys, and a monitor half that number. The monitor is a lad of the village who has passed his primary examination and shows a bent for teaching; he receives a small

remuneration (R2 to R4 a month) and teaches the little boys. Mr. Sharp gives the following description of the method of class management in a well conducted school :—

In the verandah are seated the infants and the first class, under the immediate care of the monitor, who is at present kneeling on the floor and showing the infants, who sprawl around him, how to form letters and count with cowries or seeds. Meantime he must keep half an eye upon class I, who are writing simple words and sentences on their slates; soon he will have to transfer thither his whole attention, and take each section through a reading lesson, while the infants play with their cowries, or disport themselves as they see fit. The second class is also taught by the monitor, but is just now inside, working out arithmetic questions under the master's vigilance. In half an hour, when the master has set down the two highest classes to writing work, he will take his turn in the verandah, and while the boys of the second section of class I are labouring through an addition-sum, will turn his attention to the first section and the infants, thus leaving the monitor free to go inside and orally instruct class II in reading or the multiplication tables. At present, however, he is engaged with his two proper classes, the third and fourth; and while the former writes copies, he is explaining the globe to the latter, or questioning them in the lesson they have prepared overnight at home. All this requires carefully constructed time-tables; and, even so, the criticism is likely to be that the school, especially for so small a staff, is too much sub-divided; for (class I being in reality double) there are practically no less than six standards.

As regards the method and class management, strict rules of guidance are laid down in the training classes and normal schools; and books upon these subjects have been published in the vernacular by the Department. Generally speaking, class answering is in vogue (perhaps too much so) in the small classes; in classes III and IV we find individual answering and taking of places, on the results of which the monthly class-order is made out. Cram, learning by rote and unintelligent instruction of every kind are discouraged in favour of ocular demonstration and thorough comprehension. The infants must be taught by means of pictures and objects; the elements of arithmetic are explained with reference to the "ball frame" or to bags of cowries. Geography must be illustrated by a walk to the tank or the river, and the discovery of miniature islands, capes and gulfs. Understanding of the *Patwaris's* map is attained by an excursion to the fields; botany may not be attempted without the dissection of leaves and flowers, nor agriculture without the display of prescribed apparatus. Above all, the constant use of the black board, the map and the picture is insisted on. So much for precept; but, in practice, the native teacher is often wedded to ways that result from centuries of *pundit*-lore—the droning of unintelligent repetition, the despotism of the *ipse dixit* that scorns, because it fears, an explanation; still, training has already effected much; and uncertificated teachers are being replaced rapidly by qualified men.

489. In BENGAL the system is on similar lines to that which prevails in the Punjab, but is much more rudimentary. The ordinary village lower primary school has only one teacher. Sometimes he may not have more than 10 to 20 pupils, but in a large village the number may be as many as 60 or even more. From the infant stage upwards the pupils are divided into five classes. In the better schools the teacher sits in the middle of one side of the room and the pupils are arranged all round the wall; the highest class sitting on his immediate right, and so on in gradation. In other schools the children sit pell-mell on the floor. There is no defined monitorial system, but one or two of the bigger boys help the teacher with the lower classes and exercise an authority which is as much feared as that of the *guru* himself. The teacher will perhaps himself look after three classes, hearing one class read, giving another a sum to work out, and supervising the copy writing of a third. The other classes will be set tasks to be performed under the eye of the bigger boys appointed for the purpose. In most schools the children are still taught mainly by rote. In the older days the *gurus* were in the habit of inflicting cruel and fantastic punishments on their pupils. Such methods are forbidden by the Education Rules and are dying out, but the *guru* still makes a free use of the cane. In an upper primary school the arrangements are better. There are as a rule two teachers; the head teacher takes the three upper classes and his assistant the remainder. The two teachers sit on opposite sides of the room and the pupils of each are arranged in a semi-circle round him in the manner already described. The teachers are better educated than in the general run of village schools, the instruction is less mechanical, and the discipline is better.

Physical  
training.

490. Considerable attention has been paid to physical training and much progress has been made. The time-tables in Volume II show that physical exercise forms an ordinary part of the day's routine even in primary schools, a quarter to half-an-hour being generally set apart for the purpose. In some provinces simple gymnastic apparatus is provided, more generally the exercises are such as can be

performed without it. Graduated courses of physical training have been prescribed. Such a course may begin with simple action songs and exercises for the infant class, and proceed to more complicated drill and perhaps gymnastic exercises. Indian children take a pleasure in such exercises and native methods and games have been incorporated in the courses with considerable advantage. The primary school pupils sometimes take part in the athletic tournaments which have become a popular feature of Indian school life. The want of good play grounds for primary schools is often felt in town schools. In the Punjab itinerant gymnastic instructors, reservists or certificate-holders, visit the vernacular schools and train the masters and monitors as well as the pupils. Apart from the prescribed courses the children take much pleasure in their own games, which they play chiefly in the evening.

**Duration and Stages of the Primary Course.**

491. The course of primary instruction, whether given in primary schools or in the primary classes of secondary schools, is in general divided into two stages styled the upper primary and the lower primary. In former times the two stages were, in most provinces, marked off sharply by the lower and upper primary examinations which closed each period of the course. Now that a diminishing importance is attached to the examination of young pupils, this distinction is losing its force and the primary course is assuming the character of a graduated series of classes working up to a standard which suffices for the general mass of the people. The lower primary stage is, however, in most provinces still regarded as an entity in itself, and, as already stated, the large majority of schools for the children of villagers and other poor classes do not profess to give instruction beyond that stage. In 1901-1902 out of a total of nearly 3¼ million boys in the primary classes only 412,000, or a little over one-eighth, were in the upper stage.

492. The lower primary stage contains as a rule four or five classes, and the upper primary stage one or two classes. The course in each class occupies in general one year, but double promotions are sometimes given to forward children while backward children must sometimes be retained for more than a year in the same class. The school life begins at the age of about 5 or 6, and the majority of children, who only pass through the lower primary stage, finish their schooling at the age of about 10 or 11; those who complete the primary course remain at school until the age of about 11 to 13. The following are the number of classes in the various Provinces:—

<i>Madras</i> :—Lower Primary	. . .	Infant class and 3 classes.
Upper Primary	. . .	1 class.
Total	. . .	5 classes.
<i>Bombay</i> :—Superior Schools	. . .	Infant class and 7 classes.
Rural Schools	. . .	5 classes.
<i>Bengal</i> :—Lower Primary	. . .	Infant class and 4 classes.
Upper Primary	. . .	2 classes.
Total	. . .	7 classes.
<i>United Provinces</i> :—Preparatory	. . .	2 classes.
Lower Primary	. . .	2 classes.
Upper Primary	. . .	2 classes.
Total	. . .	6 classes.
<i>Punjab</i> :—Lower Primary	. . .	Infant class and 2 classes.
Upper Primary	. . .	2 classes.
Total	. . .	5 classes.
<i>Burma</i> :—Lower Primary	. . .	Infant class and 2 classes.
Upper Primary	. . .	2 classes.
Total	. . .	5 classes.

Upper and lower primary stages.

Number of classes and ages of children.



<i>Central Provinces</i> :—		Lower Primary . . . . .	Infant class and 3 classes.
		Upper Primary . . . . .	1 class.
		Total . . . . .	5 classes.
<i>Assam</i> :—		Lower Primary . . . . .	Infant class and 3 classes.
		Upper Primary . . . . .	2 classes.
		Total . . . . .	6 classes.
<i>Berar</i> :—			4 classes.

Classes in  
Bombay and  
Bengal.

493. We have already seen that in Bombay the primary school gives the full course of vernacular education provided in the Presidency. There is nothing in Bombay to correspond to the middle vernacular schools of other provinces. In the report for 1901-1902, the Director states that "the system of primary education is a system complete in itself aiming at giving boys, roughly speaking between the ages of 5 and 17, a sufficient education in and through the vernaculars. It has no necessary connection with the secondary system, and would remain quite unaffected if the secondary system were to disappear to-morrow." The five simpler standards of the Bombay rural schools will shortly be alluded to again. In Bengal the full primary course shows seven standards or classes; but the lower standards of the primary stage do not, as a rule, each occupy a year, and the course of instruction lasts from about the ages of 5 to 9 in the lower, and from 9 to 11 in the upper, stage.

Class  
promotion.

494. The systems of class promotion vary. Hitherto a distinction has been made in some provinces between promotion from class to class and promotion from the lower primary to the upper primary stage. In MADRAS promotion appears to be given in all cases by the schoolmaster. It is recommended that pupils should be promoted from one class to another only after a regular examination to test their fitness. In BOMBAY, on the other hand, promotions are made from class to class on the result of examinations held *in situ* by the Government Inspector, but the head master has power to promote if the Inspector is prevented from holding the examination. In BENGAL it has hitherto been the practice for the schoolmaster to make promotions in the three lowest classes, and for promotion to higher classes to depend on the result of an examination *in situ* held by the Sub-Inspector. For promotion to the upper primary stage the boys have had to pass a further examination. In the UNITED PROVINCES promotion from class to class is made by the teacher subject to the control of the inspecting officer, but promotion to the upper primary stage has hitherto depended on the result of an annual central examination. A similar rule has prevailed in the PUNJAB. In BURMA, departmental examinations have controlled all promotions. In the CENTRAL PROVINCES pupils are promoted from class to class only after a regular test examination conducted by the head master, or, in rural schools, by the Deputy Inspector if the latter does not consider the head master capable of making judicious promotions.

### Subjects and Method of Teaching.

General  
course and  
methods.

495. The course of instruction in a primary school is simple, and in general the maximum which it attempts is to teach the child to read and write his own language; to obtain a sufficient knowledge of arithmetic and mensuration to enable him to do easy sums, and to understand the simple forms of native accounts and the village map; to acquire a rudimentary knowledge of geography, agriculture, sanitation and of the history of his country; to train his faculties by simple kindergarten and object lessons; and to develop his physique by drill and exercises. The choice of books is so designed that the child may gain some knowledge of history, geography and the elements of science from the primers from which he learns to read. Of recent years endeavour has been made to render the course less bookish and more practical and specially by the introduction of kindergarten methods and object lessons. Where these methods have been used with discretion, that is to say, by competent teachers, without elaborate forms, rules, and appliances, using objects familiar to the children in their everyday life, they have been productive of much benefit, in imparting greater life and reality to the teaching

and in training the children's senses and powers of observation. The experience which has been gained of these methods in Madras and Bombay has enabled these provinces to effect steady advance in the system; a complete scheme has been prepared for Bengal, for the introduction of which teachers are being trained; and a manual is being prepared for kindergarten teaching in the Punjab, where well designed courses of object lessons are already given. The Director in Burma reports that kindergarten and object lessons form part of the primary curriculum in that province and that they have been popular from the beginning; since 1896-1897 an infant standard has been added to Anglo-vernacular schools in which kindergarten occupations and object lessons are taught. Other provinces have made some progress in a similar direction.

496. There is a distinction, which was much more strongly marked in former days than it is at the present time, between the instruction given in primary schools and in the primary departments of secondary schools. The distinction did not obtain to the same extent in all provinces, and, in this as in so many other respects, Bombay and Bengal stood at either end of the scale. In Bombay the secondary schools have no primary departments,\* but no boy can enter the English stage of instruction until he has passed through four of the lower vernacular classes in a general primary school. In Bengal the high and middle schools have their own primary departments, and formerly the course of instruction differed from the outset in each class of school. The new vernacular scheme of education for Bengal shapes the course in such a way that it may be followed both in primary schools and in the lower classes of high and middle schools, and when that scheme comes into full operation every boy, whatever his destination, will have to pass through the same elementary course. But at the end of the quinquennium under review the new Bengal course was in its infancy, and in that province, as well as in Burma and in some other parts of India, a child educated in a secondary school followed from the earliest stage a course of instruction which differed from that given in the primary schools proper.

497. With few exceptions instruction in the primary stage of education is given exclusively in the vernacular of the pupils. This was not always the case, and instruction through the medium of English was at one time common in the primary classes of secondary schools. The system was mischievous. Not only did it prevent children from acquiring a good knowledge of their own language, but the difficulty of learning in a foreign tongue hindered their general progress and encouraged a system of learning by rote without proper comprehension of the subject matter. The practice has been stopped by a recent order in English schools in BURMA, and the introduction of the new vernacular scheme will put an end to it in BENGAL.

498. The teaching of the English language as a portion of the primary course is not generally encouraged and is growing less common; but it is still continued in several provinces especially in the upper primary stage. In MADRAS "a second language is also prescribed as an optional subject and this may be either English or any one of the seven recognised vernacular languages of the Presidency. English, however, which was formerly taught from the first standard upwards, can now only be begun in the third standard in which instruction in the language is given mainly through conversation lessons."† In the UNITED PROVINCES it was until recently the practice to begin the study of English in the first year of the upper primary stage of English schools. In 1902-03 the practice was forbidden in all State schools, but aided schools were granted a general permission to continue teaching English even in the primary classes.‡ In the PUNJAB English is still taught in the two upper primary classes. In Anglo-vernacular schools in BURMA, English is studied from the lowest class upwards. English is not taught in the primary classes of schools in the plains district of ASSAM, but it is taught in the mission schools of the Khasi and Jaintia Hills and the upper primary examination in all subjects, except Khasi, is held in English.

\* Except in some special cases such as European schools.

† Report on Public Instruction in the Madras Presidency, 1901-02, page 27.

‡ In 1903 further orders were issued to revert to the practice of including English in the upper primary stage.

Urban and rural schools.

499. Another important distinction which is gaining ground in several provinces is that between the courses of instruction in urban and rural schools. Endeavour is being made to popularize rural education and make it more practically useful by devising shorter and simpler courses for the children of agriculturists embodying instruction in subjects which are likely to be useful to them in after life. Allusion has already been made to the Bombay rural standards, and a further account will shortly be given of the teaching in rural schools.

Provincial courses and methods.

500. The following is a brief statement of the primary curricula in the various provinces.

**MADRAS.—**

**LOWER PRIMARY STAGE.**

*Compulsory subjects.*

Reading, Recitation and Grammar.  
Writing and Spelling.  
Arithmetic—the compound rules and mental arithmetic.

*Optional subjects.*

*Object Lessons.*—Familiar animals, vegetables and minerals, and their products; familiar facts regarding the weather.  
*Second Language.*—Any of the seven recognized vernaculars of the province.  
*Drawing.*—Elementary free-hand.  
*Geography.*—Of the village and the district.  
*Singing.*  
*Elements of Hygiene.*

**UPPER PRIMARY STAGE.**

*Compulsory subjects.*

*Reading and Writing.*—As above.  
*Arithmetic.*—Including addition and subtraction of fractions; mental arithmetic, household accounts, and bazar bills.  
*Second Language.*—English or a vernacular.  
*Drawing.*—Free-hand.  
*Geography.*—Madras Presidency and adjoining provinces; physical features of India; oceans and continents; shape, size, and motions of the earth.

*Optional subjects.*

*Singing.*  
*Elements of Hygiene.*  
*History of India.*—A very elementary knowledge, up to 1853.  
*Elements of Agriculture.*  
*Mensuration.*—Areas of the square and rectangle.  
*Any of the subjects of the Madras industrial course.*

501. BOMBAY.—In a Bombay urban primary school the infant class and first two classes correspond to the lower primary stage, the next two classes correspond to the upper primary stage, and the remaining three classes are above the ordinary standard of primary instruction. As, however, the Bombay system regards the whole of the vernacular course as a single entity, and as the instruction is given throughout in the same school, it will be convenient to describe the whole in this place. The Department has laid down somewhat different curricula for Marathi, Gujarathi, Kanarese, Sindhi, and Urdu schools. They are all based on the same principles and the Marathi school has been selected for illustration.

**LOWER PRIMARY STAGE.**

*Reading.*—Departmental readers in *Balbodh*\* and *Modi*†; learning poetry by heart.  
*Writing.*—Dictation in *Balbodh* and *Modi*.  
*Arithmetic.*—Simple arithmetic, European and Native; easy mental arithmetic.  
*Geography.*—Study of a map; the four cardinal points; notion of the relative position of objects with reference to space; plan of the school house; map of the *taluka*.‡  
*Object Lessons.*—On subjects treated of in the reading book, with simple drawing.

**UPPER PRIMARY STAGE.**

*Reading and Writing.*—As above but more advanced.  
*Arithmetic.*—English tables of weights, measures, etc.; vulgar fractions; rule of three and compound proportion; mental arithmetic involving the use of native tables.  
*History and Geography.*—History of the Province, general knowledge of the Presidency and of India; map of India.  
*Object Lessons.*—Plants, animals, and natural phenomena with simple drawing.

\* Balbodh — copy hand. † Modi — running hand.  
‡ Revenue and administrative sub-division of the district.

FURTHER STAGE.

*Reading.*—Departmental readers ; grammar and etymology ; manuscript reading ; repetition of poetry ; prosody.

*Writing.*—Essay or report writing in current hand, with attention to handwriting, spelling and punctuation.

*Mathematics.*—Arithmetic and native accounts ; Euclid, Book I.

*History.*—History of India ; some instruction in the system of Indian Government.

*Geography.*—Geography of the world ; elementary physical geography.

*Sanitary Primer.*

In his Report for 1901-02 the Director quotes the following remarks by Mr. Prior, Inspector of the Central Division, which sum up the net result of the vernacular course :—

A boy who has completed the *Balbock* Higher Standards has a thorough knowledge of arithmetic including decimal fractions, the advanced rules and native accounts, whilst his reasoning powers have been developed by mastering the first book of Euclid. He has read a good deal of prose and poetry—quite sufficient to make him understand the lighter literature of the day and to express his own ideas with correctness. He can read difficult *Modi* script and can write in that character. He has also a fair knowledge of the History of India, of the Geography of the World, and of elementary sanitation and science. In fact he has received a sound all round practical education.

502. BENGAL.—The three lowest classes of the new Bengal primary course are styled the infant classes. In these classes children are to be taught largely by the kindergarten method. The course includes kindergarten occupations, the alphabet and spelling book, writing words, the simple rules of European and native arithmetic, drawing—beginning with lines and ending with simple free-hand drawing and tracing, simple action songs, and elementary drill and gymnastics. The following table compares the new and old courses in the Lower Primary and Upper Primary stages :—

LOWER PRIMARY COURSE.	
<i>Old course.</i>	<i>New course.</i>
Reading text book.	Reading.
Reading manuscript.	Hand-writing.
Hand-writing.	Science Primers, Standards I and II.
Literature book, including a lesson in Geography.	Arithmetic, European and native, mental arithmetic.
Arithmetic, including mental arithmetic, European and native.	Drawing.
<i>Subhankari</i> (native arithmetic).	School drill.
Hygiene.	Object lessons on the sky and air and the subjects in science.
Total course of reading, 274 pages.	Manual work (optional), for boys.
	Needlework, for girls.
	Total course of reading, 179 pages.
UPPER PRIMARY COURSE.	
<i>Old course.</i>	<i>New course.</i>
Bengali language and grammar.	A literature book including prose, poetry and grammar.
History of Bengal.	Historical Reader (Bengal).
Geography of the quarters.	Geographical Reader.
Geography of Bengal.	European and native arithmetic and mental arithmetic.
European and native arithmetic.	Practical geometry and mensuration.
Euclid, Book I, 26 propositions, and mensuration.	Science Primer, Standards III and IV.
Elements of physical science or agriculture.	Free-hand drawing.
Sanitation.	Drill.
Total course of reading, 815 or 955 pages.	Object lessons on the action of water in nature and the subjects in science.
	Manual work (optional), for boys.
	Needlework, for girls.
	Total course of reading, 490 pages.

It will be seen from the above outline that the course of reading has been abridged and that the instruction has been made more practical. The introduction of the new scheme was sanctioned in the Resolution of the Government of Bengal No. 1, dated the 1st January 1901. It was recognized that the change would be fraught with great difficulty. "To introduce the system simultaneously throughout the province, it would be necessary to attempt to specially train all the primary and middle school teachers in Bengal numbering some 50,000 at the least, some of whom

*i.e.*, those who are in charge of good schools) are fairly intelligent and able, while others are of a very inferior type, such as the *gurus* who start the so-called season *pathsalas*. The task of training such an enormous number of teachers would be colossal, and it is feared that the difficulties which might arise in this matter would militate against the success of the scheme and might give rise to doubts as to the soundness of the scheme itself." It was therefore decided "to limit the introduction of the new scheme to those schools where boys are being actually sent up for competition for scholarships of the middle, upper primary, and lower primary stages, in which classes of schools the *gurus* are generally experienced and trained men, and to leave the *gurus* in schools of a lower type, such as season *pathsalas*, either to continue to teach as now the old system of instruction, or to attempt the new should they wish to do so, or feel they were competent to undertake it. The number of primary schools, upper and lower, is 47,714 : of these not more than 16,444, exactly one-third of the whole, compete for scholarships." It was not expected that the teachers would at once teach the new subjects well, but it was contended that the teaching could not be worse than the present entirely mechanical system of training the memory whereby all the other faculties are dulled, and it was urged that bad teaching with a good educational system would produce better results than bad teaching with a bad and unsound system. In pursuance of this policy manuals have been prepared for the teachers, and instruction in method is being given in the Kurseong training school and in local schools opened for the purpose. It will be for the next Quinquennial Review to describe the further history of this important experiment.

503. THE UNITED PROVINCES :—The lower primary course in vernacular schools comprises reading, writing, arithmetic and geography. Arithmetic includes the four compound rules in Indian money, and the weights and measures in common use. In mental arithmetic the children are taught fractional tables up to 40. The teaching in geography includes the meaning and use of a map, the points of the compass, the explanation of simple geographical forms, and the map of the District. The upper primary course includes the same subjects with the addition of an agricultural primer and a primer on sanitation. The course in arithmetic extends to recurring decimals, simple interest, and practice. In the lessons on geography the children are taught the map of India by means of notes on historical events, places, etc. In the primary department of English schools the curriculum also includes drawing and object lessons. Wherever trained teachers are employed, school drill is included in the curriculum of both upper and lower primary schools.

504. THE PUNJAB.—The lower primary course comprises reading and conversation, writing and dictation, arithmetic including the four compound rules and mental arithmetic, geography of the district and of the province, object lessons on common objects, and elementary drill and gymnastics. Half the series of object lessons are fixed by the Director for the whole province, the other half are selected locally by the District Inspectors or head masters of high schools with the approval of the Circle Inspector. This ensures diversity and the adaptation of the lessons to local circumstances. In vernacular schools the upper primary course consists of reading; grammar; writing; dictation and letter-writing; arithmetic up to rule of three and simple interest, and mental arithmetic; outlines of the geography of the world both physical and political, and more detailed instruction in the geography of Asia, India and the Punjab; a further course of object lessons; mensuration; and elementary Persian. Either Arabic or Sanskrit is studied in a few schools in place of Persian. In English schools English is compulsory in the upper primary department, mensuration is not taught, and Persian is optional but is usually studied.

505. BURMA.—In vernacular schools in Burma the lower primary course comprises reading; writing; a little dictation and grammar; the first three rules of arithmetic and short division; easy mental arithmetic; kindergarten; object lessons; drawing; modelling in sand the principal geographical features; a simple science primer; and physical exercise. The elements of Pali and a primer on physiology and hygiene styled "The Way to Health" are optional subjects. In the upper primary stage the subjects are the same with the omission of object lessons. The reading and writing include the reading of a well written manuscript and the writing of a short letter. The arithmetic extends to the compound

rules and weights and measures. The course in geography comprises instruction in the meaning of the cardinal points, general geography of India and Burma, and map drawing. In English schools, English and a second language must be studied in both the lower and upper primary departments. The second language may be Pali, a vernacular language of Burma or India, or Latin or French, the choice depending on the character of the school.

506. THE CENTRAL PROVINCES.—The ordinary course in the lower primary stage comprises reading, writing, arithmetic, kindergarten, object lessons, geography, drawing and physical exercise. The arithmetic includes mental exercises and native accounts. The course in geography includes the map of the school room drawn to scale, the district, and the explanation of geographical terms on a map or globe. The object lessons are on familiar plants, animals and substances in common use. In the two first years the course in drawing consists in making geometrical forms on a ruled slate. In the third year curved lines and their combination are studied and familiar objects are drawn from copies. Agricultural lessons (explained and illustrated by apparatus) are studied in some schools, and where they are not, an historical reader is compulsory. Kindergarten occupations, object lessons, and drawing after the first two years, are voluntary subjects. In the fourth class or upper primary stage the subjects are the same. The course in arithmetic extends to the elements of vulgar and decimal fractions and of native accounts. The geographical course includes the following: (1) outlines of the world as taught orally from a globe; (2) causes of day and night, size and shape of the earth; (3) comprehension of the *patwari's* map of the village area; outlines of India and the Central Provinces; the principal countries and peoples of the world, with special reference to the British Empire. The agricultural lessons include the elements of the law of landlord and tenant. The object lessons in this course are intended to convey an elementary knowledge of animals and plants, with special reference to agriculture, and of metals and other substances employed in the arts and manufactures carried on in the district in which the school is situated.

507. ASSAM.—Taking the full primary curriculum to be represented by the syllabus for the upper primary scholarship and certificate examination, the subjects for study in the districts of the plains are:—reading, writing, grammar, and composition; a general account of the quarters of the globe; history of Bengal or Assam; arithmetic, including mental exercises and native accounts; Euclid, the first 16 propositions of Book I; simple mensuration; and a science primer.

### Teaching in Rural Schools.

508. In some provinces the course in rural schools has been differentiated from the general primary school course with a view to make it more popular and to afford a more practical and useful education. The subject has received special attention in Bombay, the Central Provinces and the Punjab.

509. BOMBAY.—Side by side with the "superior" schools there exist in Bombay special rural schools which teach in place of the ordinary seven standards five simpler standards. The whole course is designed to occupy the child roughly from the ages of 6 to 12. The system has now been in force for some years; it has not progressed equally all over the Presidency. In the Northern Division the rural standards are popular; in the Southern Division rural standards have only been recently framed for Kanarese schools, but they are being rapidly introduced (not without some opposition) in the Marathi Districts of Ratnagiri and Kolaba; in the Central Divisions "there is a good deal of tacit resistance"\*, as local magnates prefer the *Balbodh* standards which are more useful to their own children. Masters too used to think it beneath their dignity to teach the *Modi* standards, but steady pressure from the Deputy Inspectors is making itself felt.\*\* The standards were revised in 1900. In the infant class they give the same course of instruction as the superior standards. "Thenceforward they are specially devoted to three R.'s while particular attention is paid to native accounts, simple forms of agreement, the plants and animals of the locality, its agricultural products, in addition to an elementary knowledge of sanitation." Mr. Prior, from whose report a quotation has already been made, says that as compared with the boy who passes through the superior standards the boy who completes

\* Director's Report, 1901-02, page 42.

the rural course "learns only the more practically useful rules of arithmetic entirely omitting decimal fractions, nor does he learn any Euclid. He learns only those branches of accounts and bookkeeping which he will actually need in later life. The technical terms used in formal documents are rendered familiar in his reading books. He can write simple reports in *Modi* and read fluently from the miscellaneous file in a *Mamlatdar's* office. His knowledge of history is limited to his province, and his knowledge of geography to India. He has been given also some idea of rudimentary science and sanitation. The scope of this course is thus severely utilitarian; but it is hoped that the introduction of object lessons and simple drawing will tend to relieve the monotony of the curriculum".

510. THE CENTRAL PROVINCES.—The following account of the rural schools in the Central Provinces is taken mainly from the work by Mr. Sharp from which several quotations have already been made.

The first step in the direction of revising the system of education with a view to make it more appropriate to the needs of village life was taken in the year 1893-94. Under the old system the readers were couched in a language practically foreign to the people, and the subjects and methods of instruction had so little bearing on the experience of everyday life that education was deservedly unpopular among the parents and left little impression on the children. It was thought that the schools would be both more popular and more useful if the curriculum were simplified and the hours of attendance reduced so as to admit of the boys' devoting part of the day to field work. The school hours were shortened from a total of six to three in the morning and two in the afternoon. Pupils of the first and second classes were required to attend in the morning only, and the school committee was empowered to exempt pupils of higher classes, being the children of agriculturalists, from afternoon study. The schools remained unpopular, and in 1897-98 the Chief Commissioner suggested that a further step should be taken by rendering the curriculum more utilitarian. "What it is most desirable to give the son of an actual cultivator," he said, "is ability to read and write sufficiently; a knowledge of arithmetic *after native methods* such as will enable him to follow his accounts with his shop-keeper and his landlord, some familiarity with the manner in which his rights and liabilities are recorded, and such general development of his intelligence as will result from the use of judiciously framed readers, and perhaps some simple object lessons." The suggestion was considered by a conference in March 1899, and a scheme was then formulated, which, after tentative application, was enforced in all primary schools. Under the new system the bulk of the pupils are "half timers" and the few whole timers consist as a rule of the sons of the *malguzar*, the *bania*, the *patwari*, and the schoolmaster himself, who require a little more than the minimum of knowledge and can afford the time to return after breakfast for two hours' further instruction.

511. The rural school contains five classes—(1) the infant class, (2) the first class divided into two sections, (3) the second class, (4) the third class and (5) the fourth class which ends the course. The age of the pupils ranges from about five to fourteen years. The "half timers" are taught reading, writing, arithmetic, kindergarten, drawing, geography, agriculture and simple facts about physical science. The general readers provide the lessons in agriculture and physical science, and the only other books required are a simple geography and an arithmetic.

512. *Reading* is begun in the infant class by means of seeds, cowries, and sand spread on boards. In class 1, the child proceeds from the alphabet and easy words to short sentences. In class 3 intelligent reading is aimed at and attention is paid to parsing and punctuation. In class 4 a reader, 184 pages, is studied which contains 70 lessons in prose and poetry. The subjects are moral, intellectual and practical, and include simple historical stories, and lessons in sanitation, simple science and agriculture. The readings are accompanied by explanations and illustrated by object lessons. The children are also taught to read ordinary manuscript letters, bonds, petitions, etc. Under the head of reading comes also the study of the *patwari's* papers, including the village map, the field roll, and the rent rolls. In these papers the cultivator finds recorded the land held by him, his rights, the crops raised on his fields, and the rent due for them. The instruction is made as practical as possible and once or twice a month the *patwari* takes



the boys into the fields, and explains the papers on the spot. [The poetry lessons are difficult, because the boys are ignorant of grammar and the vocabulary differs greatly from that in ordinary use; the meaning therefore requires careful and copious explanation. Along with the study of the meaning, the poetry is learnt by heart and sung to one or other of the popular *rāgs*. This exercise is enjoyed by the boys and is popular with their parents.

513. When a boy has attained class 4, his *Writing* lessons are as follows :—

- (a) copying small hand in a book from printed headings ;
- (b) dictation (on slates) from the reader and from unseen passages ;
- (c) the writing (on rough native paper with a reed pen) incidental to the study of manuscript ; and
- (d) the writing (generally in a note-book of native paper) of imaginary letters, at first dictated by the master, and, later on, made up by the boys.

514. In *Arithmetic* an endeavour is made to combine in a suitable manner the European and the native methods. A special characteristic of the native system is the extent and complexity of the tables which are learnt by heart. Fractional tables are carried up to  $100 \times 5\frac{1}{2}$ , plain tables up to  $100 \times 100$ , and square tables even higher. Mr. Sharp mentions the instance of a small school boy who could tell, without a moment's hesitation, the square of any number up to 1,000. "In 1899 a course was drawn up, which, based on European methods, yet includes sufficient of the Hindu system to give scope to native genius, to serve for the practical purposes of business, and to prevent the pupil from thinking that arithmetic, as taught in the school, is quite alien from the methods pursued in domestic life. On the one hand, the elementary rules, problems, and rule of three (as being useful mental exercise) are taught strictly upon European lines. Vulgar and decimal fractions are discarded, save that addition and subtraction of the latter to two places are taught as a necessary adjunct to the *patwari's* papers. On the other hand, the standard of tables has been raised to suit native ideas; *gurus*\* are retained; interest is taught on the native method, and the keeping of *mahajani* accounts has been made compulsory."

515. Mr. Sharp says that no subject is taught so badly in the Central Provinces village schools as *Geography*. "The reasons are the intrinsic difficulties of instruction in this subject, the influence of previous curricula which masters cannot shake off, faulty methods of instruction, and the want of a really suitable text-book." "Even now," he continues, "many a master is content if he can get the boys to repeat definitions learnt by rote, and reel off a list of the districts comprising the province (even though the latter no longer form part of the half-timer's course). But a gradual improvement is discernible, due, in large measure, to insistence upon the simplified curriculum." The theory of the present course is to teach the children to understand the plan of the school-house, the maps of the village area and of the district, and thence to lead them to a general knowledge of geographical terms and of the geography of the province and of the world.

516. Lessons in *Agriculture* are included in the third and fourth readers. The lessons are impressed on the children by copious demonstration and a course of numerous experiments. To almost every vernacular school is attached a *garden* which sometimes develops into a small experimental farm. The typical school garden consists of three parts, the flower garden, the vegetable garden and the crop plot. The first object aimed at is the adornment of the school building and the impression of neatness and order produced on the pupils. A second aim is to supply the classes with suitable objects for illustrating the lessons on agriculture. Thirdly, it is hoped that, by introducing the cultivation of European and the better class of native vegetables into schools, the use of these products will gradually spread among the cultivators.

517. Considerable attention is paid in the rural schools to *Physical exercise*. The system adopted is mainly an adaptation of the native exercises or *deshi kasrat*. They are ingenious and interesting and well designed to improve the physique of the children, whilst their native origin renders them popular among both parents and pupils.

\* Rules of thumb.



518. In summing up the effect of the village school life on the child, Mr. Sharp rightly points out how handicapped he is, as compared with an English boy, by the narrowness of his surroundings. A thousand varied circumstances excite the curiosity and stimulate the attention and intelligence of an English school-boy even in the remotest of country villages. The son of an Indian cultivator enjoys few corresponding advantages. His home boasts neither pictures nor books. "His mother cannot read; his father, if he has the knowledge, makes little or no use of it. The village temple is whitewashed outside, and nearly pitch dark inside. Relatives sometimes assemble at a marriage or a funeral; but they are all cultivators, too, and present no variety. Once or twice a month comes the excitement of the local bazar, and once a year a pilgrimage, generally on foot, to some fair by a sacred river. For the rest, sunrise and sunset, and between them the fields of slowly ripening crops. All tends to lull and dull the senses, to narrow the intellect." The finished product of the village school Mr. Sharp describes in the following terms:—

The rural scholar passes the primary examination and leaves school at an age between ten and fourteen years, or a little later. In handwriting and orthography he is probably, in arithmetical tables and the deciphering of letters and other manuscript certainly, superior to the English (perhaps to any) boy of a similar age. He can read simple narrative correctly, but often with monotony and apparent want of understanding. Nevertheless, he does comprehend and can remember the meaning of lessons which have been once taken and explained in class. If he is given time, he will probably explain an unseen lesson of equal difficulty; but this is not always so; and if he is hurried, he will understand nothing. He is lamentably ignorant of history and of the conditions of India. If the teacher has taken a little pains, he sings charmingly with zest and feeling; and he understands the difficult subject-matter of the songs. He can express the simplest ideas with great propriety on paper, but his ignorance of grammar prevents much progress. In working out sums he is careful and hardly ever makes blunders, but he is exceedingly slow; can work only by the precise rule shown him; and knows, of course, far less than his European equivalent. At mental problems he is quick within certain limits; but take him off the beaten track and he collapses. His attainments in geography are utterly inferior. His knowledge of common objects is far narrower, but probably more certain and detailed, than that of the average English boy. His acquaintance with the principles of land record and accounts are a thing apart. Of other knowledge he possesses none.

On the whole, this lad of fourteen years strikes us as possessed of a coolness and an acuteness equal to those of an English youth of twenty-two, working upon an experience narrower than that of a child of seven. Hence there is a brilliancy but at the same time an artificial tone about his attainments. He is wanting in breadth of view, in versatility, in solidity. He will explain a piece of poetry more difficult than Chaucer, recount the history of the Ramayana, work a complicated sum in interest, astonish us with his quickness in tables, interpret the village registers or balance an account with accuracy. This is fairly safe ground. More than this he will rattle off a list of the Moghal Emperors or of the British possessions in Africa. Probably, however, he does not know who the Moghals were or when they lived, nor whether Cape Town is a city, a country or a mountain. That which he really knows he knows with accuracy; but his knowledge is like a slender column supported on a narrow basis of experience unbuttressed by information from surrounding sources. Such a column we much fear may soon collapse.

519. THE PUNJAB.—The zamindari schools of the Punjab have had less success than the rural schools of either Bombay or the Central Provinces. These schools "were intended to meet the special requirements of the village people by giving a course of instruction useful to them as villagers and not leading up to the higher schools. The scheme of instruction was confined to the 3 R.'s arithmetic being taught according to native methods; and, to prevent boys from getting out of touch with field occupations, it was provided that they should attend for one short period a day only, in the morning or evening. The schools were first established in 1886 and 1887; and in 1889, when the scheme of instruction was simplified, it was anticipated that, within a short time, there would be at least one school of the new type in every *Tahsil*."\* The success anticipated was not realized. By the end of 1892-93 there were 213 zamindari schools in the province, but from that time the number has steadily declined, and in 1901-02 it amounted to only 184. At the end of that year there were 3,610 sons of agriculturists in these schools as against 4,484 five years earlier. The schools are unpopular and have failed to establish a position by the side of the whole-time schools. The half-time rule is frequently infringed, native arithmetic is universally neglected, and the lessons in the agricultural readers are not practically illustrated by visits to the field. It is in contemplation to abandon the zamindari schools and to establish "a uniform scheme of schools in rural tracts as distinguished from

\* Letter from the Government of the Punjab, No. 408, dated the 16th July 1902.

urban schools, which will not be so ambitious as the present scheme for primary schools, and will retain the useful features of the zamindari scheme."\*

520. OTHER PROVINCES.—In BENGAL the new scheme of vernacular education differentiates between the courses appropriate for rural and urban schools. "While rural schools have to follow one course of studies in which the simple facts of agriculture, natural history and botany form a prominent part, in the case of urban schools the simple agricultural knowledge is replaced by a few simple facts in physics and chemistry."† In MADRAS no distinction is made except that which is afforded by the choice of optional subjects. The Madra Government have expressed the opinion "that the course in primary school can hardly be made shorter or simpler than it is at present. It consists of only reading, writing and arithmetic as compulsory subjects, and it does not seem necessary to establish two distinct courses. The curriculum can no doubt be improved and this matter is being attended to."‡

### Analysis of Time-tables.

521. We may conclude our account of the course of instruction by an analysis of the time-tables of typical schools which are printed in Volume II.

The following table shows the distribution of the hours of study in the highest class of a typical upper primary school in five provinces:—

Subject.	HOURS PER WEEK.				
	Madras.	Bombay.	Bengal.	Punjab.	Central Provinces.
Vernacular Language . . . . .	9½	10	5	7½	12½
English . . . . .	9½	...	...	...	...
Persian . . . . .	...	...	...	2½	...
Arithmetic . . . . .	4½	8	4	8½ (b)	7½
Geography . . . . .	2½	6	3	1½	6
History . . . . .	...		3	...	...
Science and Sanitation . . . . .	...	3	3	...	...
Object Lessons . . . . .	...	...	3	1½	1½
Drawing . . . . .	...	3	3	...	3
Physical Exercise . . . . .	2½	3	3	3	2½
Total . . . . .	27½ (a)	33	27	24	33

(a) In addition 1½ hours weekly examination.

(b) Includes 3½ hours mensuration.

Kindergarten is mentioned as a special subject in the lower classes of all the schools from which the above analysis is taken except the Punjab school; but kindergarten occupations are also taught in the Punjab. Object lessons are included among the subjects of the lower or higher classes of all the schools.

522. The following is a similar analysis for the highest class of typical rural schools in four provinces:—

Subject.	HOURS PER WEEK.			
	Bombay.	United Provinces.	Central Provinces.	Assam.
Reading . . . . .	6	6	5	8
Writing . . . . .	5	3	4½	5
Arithmetic . . . . .	7	6	6½	9 (d)
Geography . . . . .	3	3	2½ (b)	...
Sanitary or Physical Science . . . . .	3	...	1½	1½
Kindergarten . . . . .	2	...	...	...
Drawing . . . . .	4 (a)	...	...	...
Physical Exercise . . . . .	3	3	...	4
Total . . . . .	33	21	19½ (c)	27½ (e)

(a) Includes 2 hours modelling. (b) Geography and Agriculture. (c) This is the course for half-timers. (d) Includes mensuration. (e) In addition 3 hours weekly examination.

\* Report on Public Instruction in the Punjab, 1901-1902.

† Enclosure to Bengal Government letter No. 938, dated the 21st February 1902.  
Madras Government letter No. 173, dated the 28th March 1902.

The hours of study are longer and the course more elaborate in Bombay and Assam than in the United Provinces and the Central Provinces. Kindergarten appears only in the Bombay list and object lessons not at all; but kindergarten occupations are also taught in the lower classes in the Central Provinces, and object lessons are used both in Bombay and the Central Provinces.

### Upper and Lower Primary Examinations.

523. It has hitherto been the usual practice to publish the general results of two examinations held at the end of the lower and upper primary courses respectively. The character and objects of these examinations have varied considerably in the different provinces. In some cases they have been used, in addition to forming a general progress test, for making promotions from stage to stage, for awarding scholarships, for estimating the "results grants" to be paid to aided schools, and as a test for entrance into the lower grades of the public service. In some provinces the examinations have been collective examinations conducted with the aid of printed papers, in others, such as Bombay, the examinations have been conducted *in situ* by the inspecting officers. The effect of the collective examination of young pupils has proved mischievous, and the Government of India have decided that there shall be only one primary examination, which will mark the completion of the lowest stage of instruction, and will test the degree of proficiency attained in the highest classes of primary schools. It will no longer be a public examination held at centres to which a number of schools are summoned; but will be conducted by the inspecting officer in the school itself. In view of this change of system it is not necessary to make a detailed examination of the figures for the lower and upper primary examinations given in Tables 98 and 99. Madras, the Punjab, the North-West Frontier Province and Coorg have no lower primary examination or have given no figures for it. Taking the total for the remaining provinces, it appears that in 1901-02 1 out of every 6.5 of the boys in the lower primary stage who were reading printed books went up for the examination, and that the percentage of passes was 68. In 1896-97 the corresponding figures were 7.0 and 64. As regards the higher examination, deducting private students, of whom there were 13,000 in Madras and only 800 in the rest of India, 10 out of every 35 boys in the upper primary stage presented themselves for examination and 61 per cent. were successful. In 1896-97, 10 out of 31 went up for the examination and 56 per cent. were successful. In most provinces the Upper primary course lasts for two years, and in others for one year only.\* The examination is most commonly used in Burma and Central Provinces, and next in the United Provinces and the Punjab. The 13,000 private students in Madras were examined for certificates for entry into the public service. The subjects and standards of the examinations are determined by the curricula which have already been described.

### Teachers.

Number.

524. Table 100 gives the number of teachers in public primary schools for boys; it does not show the whole total since all schools in Burma and Coorg; and certain classes of schools in Bombay, the Central Provinces and Berar, are omitted. Even so the total amounts to over 100,000 men, a figure which gives some idea of how formidable a task it is to train, or introduce new methods among, so great an army. Nearly half the total belong to the primary schools of Bengal. In Bombay, the Central Provinces and Berar there are on an average about two teachers to each school; in the Punjab the average gives three teachers to two schools, and in Madras and the United Provinces five teachers to four schools; in Assam only twelve schools in a hundred, and in Bengal only six in a hundred have more than one teacher.

In Bombay and Berar the primary schools teach the whole vernacular course, and therefore have, on an average, more classes than the schools of other provinces; in the Central Provinces paid monitors are included in the total. In Bengal the ordinary village school never has more than one teacher, and it is only the upper primary schools which have two. In most provinces the average number of pupils per teacher varies from 25 to 30; in the Central Provinces it is 33 and in the United Provinces 34. In many cases the actual number is much larger than the average.

\* In Burma the two examinations of the upper primary stage are both included in the statistics.

525. Table 101 shows the qualifications of 111,000 teachers in primary schools for boys and girls; all schools in Burma, the Central Provinces and Coorg, and certain classes of schools in Bombay and Berar are omitted. The teachers may be classed as follows:—

	Per cent.
Trained . . . . .	18·4
Hold other qualifications . . . . .	50·6
Hold no special qualifications . . . . .	31·0

The "other qualifications" are similar to those mentioned in the corresponding section of the chapter on secondary education, but the general educational qualifications range, naturally, somewhat lower. The proportion of trained teachers is still small; it varies greatly in the several provinces which stand in the following order in this respect:—

	Percentage of trained teachers.
Punjab . . . . .	48·3
United Provinces . . . . .	39·2
Bombay . . . . .	34·1
Assam . . . . .	25·6
Madras . . . . .	23·4
Berar . . . . .	15·9
Bengal . . . . .	4·1

Most teachers in State schools of the Punjab, and many teachers in private-managed schools, are trained in the normal schools of the province. In Bengal there has hitherto been very little training of the *gurus* of village schools. Information regarding the progress made during the quinquennium is not available for all provinces; in Madras there has been an improvement, the total number of teachers in boys' primary schools diminished by about 1,200 whilst the number of trained teachers increased by 759; in Bengal upper primary schools the number of trained teachers diminished by 75 although the total number of teachers increased by over 800; in the United Provinces the number of teachers increased by 842, and the greater portion of the increase occurred among untrained teachers with "other qualifications"; in Assam the proportion of trained teachers is said to be gradually rising.

The actual proportion of trained teachers in Burma and the Central Provinces is not ascertainable. The majority of the teachers in the primary schools of the Central Provinces are trained, and an increase in the number of stipends granted in normal schools has had the effect of greatly reducing the number of uncertificated teachers. It is the business of the itinerant teachers to instruct, and improve the methods of, the indigenous school masters of Burma, but few of them receive formal training.

526. The range of pay among the teachers of primary schools (Table 102) varies greatly from province to province, and extends up to the following monthly rates:—

	Rs
Burma . . . . .	100
Bombay . . . . .	65
Punjab . . . . .	55
Berar . . . . .	35
United Provinces . . . . .	25
Madras . . . . .	20
Central Provinces . . . . .	20
Assam . . . . .	15
Bengal . . . . .	8

The Burma figures represent the maximum pay of certificated teachers in non-indigenous upper primary schools; the pay of masters of indigenous schools is very much lower, and the monastic schools are managed by non-salaried monks. The State schools of Bombay and the Punjab have better paid teachers than the schools in other parts of India. The *gurus* of the Bengal *pathsalas* are poorly paid, but, as stated elsewhere, their cash receipts form only part of their earnings. In most provinces the minimum rate of pay is as low as Rs 2 or Rs 3 a month.

Pensions.

527. The vast majority of the primary school teachers neither earn a pension nor subscribe to a provident fund. The most important exception to this rule is that all teachers of primary Board schools in Bombay serve for pension, for which the Boards contribute to general revenues under the Civil Service Regulations. In Berar, also, all classes of teachers drawing R10 a month or more are eligible for pensions, whilst those who draw less than R10 a month receive gratuities on retirement. Elsewhere some Government and Board primary school teachers earn pensions or gratuities or subscribe to provident funds, but the number is insignificant when compared with the total body of teachers.

Teachers as post-masters.

528. Primary school masters are allowed to supplement their earnings by taking charge of branch post-offices; in rare cases masters of middle schools do the same. A few of the reports give figures showing the extent to which the practice prevails: in 1901-02, 727 primary school masters in Bombay and 858 in Bengal held charge of post-offices, and in each province their monthly allowance varied from R2 to R10. The Bombay Director says:—"The arrangement is one which is convenient to both Departments. To the Education Department it is a convenient and inexpensive way of supplementing a deserving master's pay. The Postal Department obtains at a very cheap rate the services of the only man in a village able to do its work. The only danger is that the work of the post-office will trench upon the hours which the master owes to his school. But complaints on this head are few. Only one has come before me, and the Post Master General courteously and promptly put a stop to what was complained of." The Madras Director also reports that the system has, on the whole, worked satisfactorily. On the other hand, the Burma Director says:—"In a few cases school masters have been appointed post masters as well; but the work is not sought after. A manager of an aided vernacular school earns from fees and grants quite enough to keep him. Moreover, we find that when a manager becomes post-master his school begins to go down."

In some provinces school masters are allowed to keep pounds or to sell judicial stamps.

### Statistics of Pupils—Progress.

General statistics.

529. As explained above the statistics of pupils may be regarded in either of two ways: firstly, with respect to the number of boys in primary schools, and secondly, with respect to boys in the primary stage of instruction whether in primary or secondary schools. The number of boys in the primary stage in primary schools at the end of 1901-02 was 2,902,000 and in secondary schools 282,000, giving a total of 3,184,000. This last figure gives the most correct view of the general condition of public primary instruction, and is the most convenient for comparison with earlier years. It represents only 1 in every 5·8 boys of school-going age.

Progress during the quinquennium.

530. In the five years 1887-88 to 1891-92 the number of boys in the primary stage rose by 275,000 and in the next five years by 361,000. In the five years under review there was an increase of only 1,000. In commenting on Mr. Cotton's Review on Education during the period 1892-93 to 1896-97 the Government of India drew prominent attention to the slow progress of primary instruction; during the five years now under consideration, the position of affairs has been much worse. Comparing the years 1886-87 and 1901-02 the average annual increase has amounted to less than 43,000—a very small figure when it is remembered that in the Census of 1901 only 13 million males in British India were returned as able to read and write out of a total male population of 117½ millions. The problem of the education of the rural population of India is still far from solution.

531. If we compare the progress of primary instruction during the past five years with that of higher instruction (*i.e.*, the instruction given in the secondary departments of high and middle schools and in arts and oriental colleges) the contrast is marked. In 1892-93 to 1896-97 the number of male pupils in the higher stages increased by 22,000 and the number of primary male pupils by 361,000; in 1897-98 to 1901-02 the first class of pupils increased by 49,000 and the second class of pupils by less than 1,000. It follows that

whereas in 1891-92 the percentage of male pupils in the primary stage was 93·9 per cent. in 1901-02 it was only 92·6 per cent. It is worthy of note that on an average the boys in the primary stage carry their studies further than was formerly the case. In the educational statistics the primary stage is divided into three grades, (a) upper primary, (b) lower primary, reading printed books, (c) lower primary, not reading printed books. In 1896-97 the percentages in stages (a), (b) and (c) respectively were 12·7, 67·7, and 19·6. In 1901-02 the corresponding figures were 12·9, 69·4, and 17·7.

532. If we examine the figures according to the class of management of the schools in which the boys are educated it appears that the number of boys in the primary stage in Government schools decreased by 5,000, in Local Board schools by 3,000, in Native State schools by 7,000 and in unaided schools by 47,000. Burma is responsible for a large part of the latter decrease. On the other hand, boys in the primary stage in Municipal schools increased by 3,000 and in aided schools by 61,000. The United Provinces earned a large proportion of the latter increase.

533. Looking at the figures by provinces it will be seen that the number of boys in the primary stage remained nearly stationary in Madras, the Punjab and North-West Frontier Province, Assam, Berar and Coorg. Bombay suffered the greatest loss, 55,000, and next to it Bengal, 19,000. In the number of primary institutions the Bengal loss was much greater than the loss in Bombay, but whereas the Bengal schools have increased in strength the Bombay schools have suffered a loss in attendance. The United Provinces has gained 74,000 primary boy pupils.

534. It is difficult to gauge accurately the progress which has been made in Burma because of the wholesale exclusion of the weaker indigénous schools which occurred during the earlier years of the quinquennium. The following table illustrates the position :—

Year.	Primary boys' schools.	Pupils in primary boys' schools.	Boys in the primary stage of instruction.
1896-1897 . . . . .	4,688	119,250	118,290
1899-1900 . . . . .	3,881	113,616	115,120
1900-1901 . . . . .	3,805	117,654	118,277
1901-1902 . . . . .	3,927	116,839	118,260

In the years 1896-97 to 1899-1900 the unaided boys' primary schools\* and their pupils fell from 2,158 to 1,177 and from 41,000 to 26,000, respectively, by the exclusion of the worst of the indigenious schools. In 1900-01, "of the unaided schools those worth keeping were put on to the public register, and those of which we had no hope were relegated to the private list." From that year onwards the "unaided" class of schools disappears from the Burma statistics. The apparent decline in 1901-02 in the number of pupils in boys' primary schools which may be noticed in the above table is due to the raising of 34 schools with 2,281 pupils to the secondary school class. Regarding the question from the point of view of the boys in the primary stage, numerically the position in 1901-02 is practically the same as in 1896-97; but there has been real progress, since in 1896-97 over 40,000 of the boys were in unaided probationary schools, whereas in 1901-02 all the boys were in aided schools which conform to the simple departmental requirements.

535. In 1891-92, 159 boys per thousand of school-going age were in the primary stage of instruction in public schools; in 1901-02 the proportion was 174 per thousand. The following table ranges the major provinces in order :—

	Per thousand.
Bengal . . . . .	232
Bombay . . . . .	225
Madras . . . . .	198
Assam . . . . .	197
Burma . . . . .	167
Central Provinces . . . . .	137
United Provinces . . . . .	87
Punjab . . . . .	86

Proportion of boys under instruction and male literacy.

\* i.e., the probationary schools brought on to the public register but not as yet examined for grants.

If we arrange the provinces in order of male literacy we get, in some cases, widely different results :—

Burma . . . . .	378
Madras . . . . .	119
Bombay . . . . .	116
Bengal . . . . .	104
Assam . . . . .	67
Punjab (including North-West Frontier) . . . . .	64
United Provinces . . . . .	57
Central Provinces . . . . .	54

The most striking feature of these tables is that Burma which has a proportion of male literates more than three times as great as any other province comes only fifth on the list by order of public instruction ; it is clear that the majority of Burmese boys still learn to read and write in schools not recognized by the Department. The following extract from the Report of the Census Superintendent shows, however, that it would be easy to exaggerate the importance of the Burma figures for literacy :—

High as is the proportion of the educated to the total population of the province, it would be vain to suppose that the lettered Burman was removed by many degrees from his unlettered countryman. The monastic curriculum is not severe and at best the literacy of the bulk of the folk is a plant of shallow growth. A few years neglect will often suffice to wither it, and it not unfrequently happens that the only remnant of his early teaching left to a man who would resent off-hand the imputation of illiteracy, is found, when the matter is looked into, to be his power of appending his own signature to a document.

Next it will be observed that although Bengal comes at the top of the list by the criterion of public instruction, yet judged by male literacy it stands below both Madras and Bombay; the rudimentary character of the instruction given in many of the Bengal village schools may possibly have some bearing on this circumstance. In both lists the United Provinces, the Punjab and the Central Provinces come at the bottom, and, especially in the United Provinces and the Punjab, the proportion of boys under public instruction is still very unsatisfactory. The proportion of boys under public instruction in the Central Provinces is high compared with the male literacy; it is difficult to account for this, but it may be remarked that the Central Provinces return no "private" institutions.

536. All the major provinces except Burma show an increase in the proportion of boys in the primary stage of instruction during the period between the last two Census operations. The large Burma decrease (42 in a thousand) is due in great measure to the exclusion of unaided schools from the public list. The only provinces in which the increase is considerable are :—

	In a thousand.
United Provinces . . . . .	36
Central Provinces . . . . .	36
Assam . . . . .	33

The extension of primary education in the United Provinces has already been noticed; in the Central Provinces the change is largely due to a decrease in the population.

Reasons for  
want of  
progress.

537. In whatever light the subject be regarded the progress of primary education has of late years been most unsatisfactory. Taking all pupils in public primary schools for both boys and girls, the total rose in the fifteen years 1870-71 to 1885-86 from 689,000 to 2,538,000, and in the next 16 years to 3,204,000. In the first period the increase was nearly 2 millions and in the second period only 666,000. In the first year selected the classification of pupils may not have been quite the same as at a later period; but even if allowance be made for this cause the substantial fact remains that the strong impetus with which the movement in favour of primary education started seems in a great measure to have died out. The specially bad results of the period under review are no doubt to be attributed to the calamities: famine, plague and the earthquake in Assam, which impoverished the Government and the people and threw the whole condition of native life into disorder. But these circumstances do not account for the slow progress in previous years, nor would they have caused so complete an arrest in the period during which they operated if the general condition of progress

had been better. Various reasons have been assigned to account for the difficulty experienced in extending primary education among the mass of the Indian population. The main cause is no doubt that numerical progress must be made downwards, and that every step down is attended by greater and greater difficulty and expense. When the Education Departments began to devote their attention to the general furtherance of primary instruction they had in the first place to deal with a portion of the population who were accustomed to and valued education, and who lived in populous and easily accessible parts of the country; and they were aided by a more or less widespread system of indigenous schools. In such circumstances progress was comparatively easy. These favourable conditions have now been to a great extent exhausted, and the portion of the problem which remains to be dealt with is far harder. The benefits of education have now to be conveyed to the poorer raiyats, the lower castes, and the wilder tribes who have from time immemorial lived without instruction, and who are "indifferent to its advantages and can see no reason why their children should be sent to school or taught things of which they themselves are ignorant and in which they can perceive no practical use."\* In many cases the illiterate portion of the population lives in scattered villages and in parts of the country in which the means of communication are still indifferent. To establish small schools in such localities for an indifferent or unwilling population cannot fail to be a difficult and expensive task. Again, except in Burma, the bulk of the more useful indigenous schools have already been incorporated into the system of public instruction, and much additional aid cannot be expected from this source in the future. The burden must therefore be assumed by the State itself, either directly by the Local Governments or indirectly through the instrumentality of the Local Boards. And again, the Boards which have been of great service in the advanced and populous tracts become less and less useful the more remote and primitive is the locality. Whilst the extension of primary education has demanded a continually increasing outlay from public funds, those funds have not been available for the purpose. The income of District and Local Boards, on which rural education primarily depends, is to a considerable extent inelastic, and the circumstances of the country have been such that it has not been possible to make largely increasing grants from Provincial Revenues. During the period under review the provincial and local finances have been disorganized by the special calamities of the times. But the want of funds has not been confined to that period and has operated as a hindering cause for many years past. Since the close of the quinquennium under review the financial position has greatly improved; Provincial Revenues have grown and large contributions have been made in aid of education from Imperial funds. These additions to the education grants will greatly facilitate the growth and improvement of primary education. The more practical trend that is now being given to primary instruction may make it more comprehensible and attractive to the ignorant villagers, and it is likely that the next review will be able to show a far more satisfactory condition of affairs than that which has now to be recorded. The difficulties are, however, immense, and satisfactory progress can only be the result of unremitting care and attention. Another important circumstance which has militated against numerical progress is the gradual raising of the standard laid down by the Education Departments. This cause applies specially to those provinces in which the system of aided education is most prevalent. As the system was extended to each province indigenous schools were admitted more or less indiscriminately to the benefits of recognition and of the grant-in-aid rules. The worthless character of many of these rural schools became more and more apparent, and at the same time the need for a more useful education than the old stereotyped method of instruction by rote was increasingly felt. Accordingly, the weeding out of the worst schools which failed to respond to the invitation to improve themselves has been a constant feature of the history of Indian education, and in some provinces the operation still continues.

538. The general observations made in the last paragraph may be illustrated Examination by the remarks of the Local Governments and Directors with respect to the by provinces. conditions of primary education in particular provinces.

\* Report on the Census of 1901.



539. MADRAS.—In the Report for 1901-02 the Director states : “There was a rise in schools and scholars during the earlier years of the quinquennium, but a fall in the later, and this variation is attributed to the prevalence of distress and epidemics, the stricter enforcement of the rules of recognition, and the inadequate payment of results grants.” The financial position of the Government of Madras during the major part of the quinquennium was very unsatisfactory and education, like other departments, has suffered from want of funds. In a report written in 1900 the Director said : “When the schools already established struggle for existence, owing to the curtailment of their grants, it is idle to expect that new schools will be opened or, if opened, will continue to work for any length of time. Every new school, in fact, increases the difficulty by becoming a competitor for a share in the inadequate sum allotted for results grants and thus diminishing the rates at which grants can be paid.”

540. BOMBAY.—The combined effects of plague and famine have perhaps pressed more heavily on this than on any other province, and had the educational system not been strong the retrogression would have been more serious than that which has taken place. The following interesting quotation is taken from the Director's Report for 1901-02 :—

It was inevitable that primary education should suffer most severely. The actual deaths both of masters and pupils among the poorer classes, the consequent closing of schools, the unavoidable migration of people to Government relief works, the general depletion of Provincial and local revenues, and the general demoralization incident to panic and suffering have worked disastrous results. The following passage from the report of the Inspector of the Central Division will bear out my remarks :—“The districts worst affected by the plague were Poona and Satara. The former lost 85 teachers and 1,476 pupils, and the latter 82 teachers and 1,781 children. About 300 schools suffered in the two districts. Poona, Sholapur, and Nagar were most affected by famine, which led to a sharp fall in the revenue. In Poona, 36 Local Board and 16 Municipal schools had to be closed. In Sholapur, 15 were closed outright and 30 temporarily. In Nagar 13 schools were closed. Nasik Municipality lost 23 teachers from plague and 250 pupils; while the Bombay Marathi schools lost 46 teachers and 794 pupils; and the Gujarati schools 26 teachers and 370 pupils.” In primary schools alone in the Central Division, 315 masters and 5,610 pupils are known to have died of plague. The losses also from plague and cholera in certain districts of the Southern Division since 1897-1898 have been terrible. But it is satisfactory to learn that, even in the most severely affected places, wherever there is the slightest improvement in circumstances, schools begin to revive. This shows the vitality of the educational system and its strong hold on the confidence of the people. It is pleasant also to be able to record that the Deputy Educational Inspectors have as a body confronted a most difficult and depressing situation with unflinching cheerfulness and resource. In Sind where plague has not been widespread and famine has been little felt, there has been a considerable development of education and an increase of expenditure upon it. If the number of public institutions is less that is due to the fact that Government have ceased to recognize mere Koran schools, and that central schools for groups of villages have replaced the schools which formerly existed in each village of a group. The progressive improvement of communications in Sind is favourable to the spread of more enlightened ideas, and there is evidence that the advantages of education are being more and more appreciated by what has been hitherto a very backward population.

541. BENGAL.—In a letter, dated the 20th November 1900, the Director in reviewing the statistics of primary education from 1882-83 to 1896-97 pointed out that the considerable fall in the number of lower primary schools and pupils during the first-half of this period was due to the rigorous weeding out of inferior *pathsalas* and *maktabs*. He went on to describe the difficulties in the way of further progress in the following paragraphs :—

The recommendations of the Education Commission as regards development of primary education by aiding indigenous schools have now been fully carried out, any further multiplication of primary schools can be only brought about by opening out schools in backward tracts, the population of which, as is well known, care little for education, and are hardly able to contribute anything in the shape of fees out of their scanty means. In extending elementary education in such rural tracts for the children of the lowest classes, the Department has to face a difficult problem. There is no groundwork to commence on, and an Inspecting Officer, in attempting to establish a school, is almost unable to find out any means for the *guru's* support. From a population whose average income is probably considerably less than Rs 7 a month per man, with family and children to support, little can be expected in the shape of contribution towards the education of the children. Even in prosperous agricultural villages, the element of stability of a school is frequently wanting. The following extract from the Annual Report of the Presidency Division for 1899-1900 gives a graphic account of what the position is in such villages :—

“In favourable years, when cultivation is over, the well-to-do of the villagers select a *guru* of their own caste \* \* \*. These *gurus* teach their children from August to February, live in their houses, and are allowed to take other children as their pupils, on their agreeing

to give them a fixed quantity of paddy when the harvest is gathered in. Most of such teachers are uncertificated, and cannot teach printed books properly. What they attend to are handwriting, native arithmetic, and zamindari accounts. The paddy which the *gurus* get in lieu of money is generally sufficient for their whole family for a year. The same villages may not have *pathsalas* in them every year, for the condition of their patrons changes from year to year with the nature of the harvest. They come under inspection if the officers are anyhow informed of their existence, and are rewarded, when found deserving, with sums not much *cared for* by the *gurus*."

The cause of education is really very little served by season schools of the kind referred to in the above extract. A boy does not learn sufficient even of the most elementary subjects to be of the slightest service to him, for his education is intermittent, depending on the casual opportunities afforded by the visit of some wandering *guru* to the village. Such a pupil learns little, and rapidly forgets even what he has learned.

Having therefore, utilised the area in which there was groundwork for the establishment of schools of a permanent character, the progress towards further increase in tracts where the local income is precarious must be slow. Hitherto the progress has been smooth, because we have been moving within the track indicated by the indigenous *pathsalas*; but now that we have reached the end of the track, we are beset with grave difficulties. Where the masses do not care to set up *pathsalas* for themselves, the people would be attracted only by strong inducements offered to them. The extension of primary education beyond the point which has already been reached, and the inclusion of the children of those classes to whom education is supremely indifferent, such as the Bagdis, Haris, Doms, and Chandals, is a problem of great difficulty. Unless, therefore, we can insure from public funds an amount sufficient to pay a *guru* a stipend of much more than the minimum of R2 a month laid down by Sir George Campbell, the departmental effort to touch these classes must be slow, and even the giving of any stipend at all is in itself a difficulty. To carry out such a plan, at the lowest computation, the sum required will be so large as can hardly be met if the whole amount now devoted to secondary education can be diverted to primary education.

During the period under review the financial position of Bengal has, despite the famine of 1896, been flourishing and large funds have been available for administrative improvement. The considerable decline that has taken place in the number of primary boy pupils would seem to be largely due to the unsatisfactory and unstable character of the small village schools on which the educational system of Bengal so largely depends. The following remarks are made in the Director's Report for 1901-02:—

It is difficult to account altogether for the diminution in the number of primary schools, and to a smaller extent in the number of primary scholars as compared with 1896-97. In certain districts it is undoubted that the diminution is largely due to more accurate registration in recent years, but this will not account for the whole. Distress or strain of any kind (both financial and agricultural) among the people such as may be due to failure of crops would account for another considerable part; but it would also appear that the old style of primary education does not appeal so much to the masses as was formerly the case. It is to be hoped that the new codes of vernacular and primary education, together with the new conditions of subsidizing and improving primary schools which are now coming into force, will have the effect of materially improving primary education.

542. UNITED PROVINCES.—In a letter, dated the 26th March 1900, the Local Government made the following remarks on the causes of the backwardness of primary education in the United Provinces:—"The main cause . . . is to be found in the inclination, aptitudes, and history of the people, though . . . the unfavourable financial conditions under which this Government has long been placed have impeded the efforts of the Government to surmount the natural obstacles. The village schools existing at present, if they do not place primary instruction within a fair walking distance of every villager's home, at any rate are accessible to vast numbers who never send their children to them. The prime object is to dispel the apathy or unwillingness of rustic parents, and the measure in which this can be done imposes, for the time being, a limit on the amount of money which can be spent." Some years before the above letter was written the Local Government had resolved to work up to the following scheme: "to apply the grant-in-aid system wherever an efficient indigenous school exists, making the necessary provision for inspection, and to promote the establishment of a Government village school at every rural centre where there is no efficient indigenous school, and where a certain minimum attendance may be hoped for." In pursuance of this scheme additional recurring grants were made from Provincial revenues for the furtherance of primary education amounting to R75,000 in 1896-97 and to an additional R54,000 in 1897-98. The number of Board schools was increased, indigenous schools were brought within the scope of the grant-in-aid rules, and numbers of new schools were

opened on a promise of receiving State aid. Many of these indigenous and new schools proved to be poor material, and in the Report for 1901-02 the Director gives the following unfavourable account of the experiment :—

In the year 1896 grants-in-aid were first given to primary vernacular schools under private management. The District Boards were given fixed sums to be spent on this purpose and they were required by the bestowal of small grants-in-aid, both to encourage existing indigenous schools to become more efficient, and to hold out inducements to open new schools. In their anxiety not to let any of the special grant for this purpose lapse, the District Boards distributed aid without much discrimination, with the result that in many instances the money was given to undeserving schools or altogether wasted, steps not being taken to make these schools one jot more efficient. Instances were brought to light of aid having been given to schools in which men, altogether illiterate, drew the grant as teachers, or in which no school meetings were held for months for want of scholars. It was, therefore, seen to be necessary in 1899 to make some modifications in the rules to regulate grants-in-aid. Since then, before the question of giving a grant to a school can be considered, the Deputy Inspector of Schools, or some other person appointed by the Board, is required by the rules to report whether the teacher is competent to give instruction to elementary classes in reading, writing, and arithmetic. If the District Boards had invariably called on the Deputy Inspectors to make the inquiry and report, aid would, in all probability, have been given only to deserving schools, but the Boards, wishing to expend the whole of their grants, welcomed recommendations made by members and others not so able as Educational Officers to judge of the fitness of a school for aid or of the qualifications of a teacher. There are, therefore, still many aided schools which are so inefficient as to be quite undeserving of aid, and there are many others which have been opened in localities where they were not required, and where their work clashes with that of better schools already in existence.

It must be admitted after an experience of five years that the aided school experiment, in the form in which it has been conducted in the United Provinces, has not only not fulfilled expectations, but has led to the creation of a class of schools which has tended to lower the standard of primary education. As a general rule, the aided schools are very inefficient and miserably housed, and attendance at them is most irregular. There is only too good reason for suspecting that the teachers are frequently absent, and that the attendance registers produced for inspection do not represent the real state of things. It is rare at a surprise visit to find as many as a dozen scholars present out of 30, though the registers for previous dates show a high attendance. A consideration of this fact raises a disquieting doubt whether the vast numbers returned as attending aided schools may not after all be fictitious. Some aided schools situated in prosperous tracts are reported to be not much below the standard of District Board schools; but reports from backward parts invariably tell the same tale of wretchedness, and there are districts where not a single aided school is said to be doing even passably well. At least in one circle the teachers are said to remove the names of scholars from the registers when they reach Class II to avoid the ordeal of examination and the consequent exposure of their bad work.

The notion that indigenous systems of education existed, which only needed help and encouragement from the State to serve as instruments for popularizing primary education among the illiterate masses, is now seen to be erroneous, for the aided schools, one and all, shape their studies after the Board school pattern and are, as a rule, only distinguishable from Board schools by their manifest inferiority. The grant of Rs 3 or Rs 4 a month is frequently all that the teacher has to live upon, and it is not therefore surprising that many of the men employed in aided schools are quite unfit for the work of teaching, and that the majority are very inefficient.

To sum up, under the scheme for aided schools as actually put in practice, there has been an extension of primary education, not at an accelerated, but at a retarded rate of growth in comparison with the previous five years (during the last of which the scheme was initiated), while the general results have been on an inferior plane. Had progress been made on the old lines and at the same rate as before, we should have had 10,000 more scholars, real and living, and the education of many thousands of children would have been appreciably sounder and more thorough.

In order still to encourage the system of aided schools, but at the same time to secure greater efficiency, it is desirable to allow larger grants, in other words, to pay the teacher better, since the grant is generally what the teacher gets, and to make the amount depend on the educational qualifications of the teacher; to give higher grants to schools that are properly housed and supplied with at least the minimum of furniture and apparatus; and above all to substitute the certainty of discipline by inspection for the chance of trial by examination. And since the close of the year the orders of Government have been issued to carry out these improvements.

The Local Government made the following comment on the Director's remarks :—“The Lieutenant-Governor is not prepared entirely to accept the Director's view or to abandon, without a longer trial, the experiment initiated by his predecessor . . . With the additional funds placed at this Government's disposal by the Government of India, the district inspecting staff has been materially strengthened; and it is hoped that under more regular inspection, and under revised rules calculated to secure improved pay to competent teachers, aided primary schools may show increased vitality and promise.”

543. PUNJAB.—In a letter, dated the 5th July 1900, the Government of the Punjab said :—

The chief obstacle to the advance of primary education in the villages lies in the absence of any general desire for this grade of education among the people. The expenditure returns for 1898-99 show that the amount spent on primary schools from "other sources" was less than 6 per cent. of the whole; and this was largely on branches to secondary schools. In a word, the education of the rural population is dependent mostly on the District Boards, and on the degree to which the village indigenous schools may be brought under the influence of our educational system. Between 1884-85 and 1896-97 as many as 689 of these schools, with 23,281 scholars, had been led to conform to the requirements for grants; and this constituted the major portion of the advance in primary schools during the quinquennium. But the number remaining of such schools capable of improvement is comparatively small; and, until private enterprise has been awakened in behalf of elementary education for its own sake, which will not be just yet, the advance of this education will depend largely on the District Boards.

The Local Government went on to observe that the margin for increased expenditure from District Board funds was small and therefore that the pecuniary outlook was anything but hopeful. The financial position has since been improved by a grant from Imperial funds. In reviewing the report for 1901-02 the Local Government remarked as follows :—

Primary education cannot be said to have made any marked advance during the quinquennium, and it can hardly be questioned that local bodies have concentrated their attention on secondary education to the detriment of the primary schools. There has in fact been a decrease in the number of both primary and zamindari schools, as well as in the number of boys attending them. The zamindari schools, however, have not fulfilled the object with which they were started, and have failed to gain the approbation of the public. As the Director observes, they cannot flourish in the presence of the ordinary primary schools, and their reconstruction on different lines is now under consideration. There has been also a decline in the number of indigenous and elementary schools examined for grants, due to the instability of these schools, to a reduction in the rates, and to adverse times. It is, however, satisfactory to note that there is a consensus of opinion that there has been a general improvement in the quality and methods of instruction in primary education, and trained and qualified teachers are yearly increasing. As a result of the recommendations of the Educational Conference, the whole system of primary education is now being overhauled.

544. BURMA.—It has been explained above that although the figures for boys in the primary stage of instruction show no increase, a substantial advance has nevertheless been made since the earlier figures included some 40,000 boys in probationary schools in which the instruction was of a very inferior character. Bearing in mind that Burma enjoyed throughout the period a condition of material and financial prosperity, and that the country has the widest indigenous system of any province in India, the progress has not been so great as might have been expected. The following explanation was given in a letter from the Government of Burma, dated the 18th October 1900 :—

The serious fluctuations presented by the statistics of primary education during the past few years are ascribed by the Director to a variety of causes. In the first place he points out that when education was first taken up in Upper Burma, schools were put on the registers too hastily, and that it has since been necessary to effect a considerable amount of pruning by removing from the list numerous schools which failed to attain the minimum standard required by the department. He further dwells on the difficulties with which the department has had to contend, more especially in Upper Burma, the opposition and indifference of the monks, the difficulty of lay schoolmasters gaining a livelihood. Mission schools are brought on to the register and do well for some time and are then suddenly taken off because, owing to the difficulties in the mission, the missionary in charge is removed and his place is not filled. In Mandalay the opposition of the *Pakkhan Sadaw* is stated to be responsible for a large share in the decrease in schools and pupils that were on the public list in the time of the late *Thathanabaing*. The migratory habits of the *pōngyis* who leave their schools to attend every feast or ceremony, and frequently go off to towns like Mandalay and stay away for a year or more is also reported to be a great hindrance to vernacular education.

The Local Government went on to say that the remarks of the Director appeared to be mainly attributable to Upper Burma, whereas the lack of progress had been equally marked in the lower portion of the province. Here, the Lieutenant-Governor considered, the failure appeared to be in great measure due to the District Cess funds not paying in full the grants-in-aid earned by the schools, and generally the Lieutenant-Governor was of the opinion that an undue proportion of the total expenditure from Provincial funds on education had been devoted to the higher branches.

545. The CENTRAL PROVINCES have suffered both materially and financially from a series of years of famine and distress. The population diminished between the census of 1891 and that of 1901 by over one million and the loss of 8,000

primary boy pupils during the quinquennium cannot be a matter for surprise. Allusion has already been made to the endeavour, which is said to be appreciated by the villagers, to popularize the primary course by bringing it into closer relation to the daily life of the people, and to the circumstance that the further extension of the school system by establishing new schools among the more remote and scattered villages must be an expensive enterprise. In this province the future of primary education is to a very large extent a matter of funds, and with better seasons and assistance from Imperial Revenues it may be hoped that the funds available will be much greater than in the past.

### Financial.

General statistics.

546. The total expenditure on boys' primary schools in 1901-02 amounted to 105 lakhs. It increased by less than 7 lakhs during the period under review and by  $12\frac{1}{2}$  lakhs during the previous quinquennium. The evil conditions of the times account for the diminished rate of progress. Every province except Berar and Coorg (which remained about stationary) shows some increase, but the proportion of the increase to the total is considerable only in Burma (56 per cent.) and in the United Provinces (16 per cent.). In Bombay the increase was less than one quarter, and in Bengal only about one-half, of what it was in the previous quinquennium.

Cost of educating a boy in a primary school.

547. The average cost of educating a pupil in a boys' primary school amounts to R3·7 per-annum. The average cost was R3 in 1886-87 and R3·2 in 1891-92 and in 1896-97. The cost varies from R6·4 in Bombay to R2·9 in the United Provinces, R2·8 in Burma, and R2·7 in Bengal—education in a Bombay Board School being much more expensive than in a village school in Burma or Bengal.

Percentage of expenditure on primary to general education.

548. Both in 1891-92 and in 1896-97 the percentage of the expenditure on primary schools (both for boys and girls) to the total expenditure on public education was 31·5, in 1901-02 it had diminished to 29·6. The figure varies greatly from province to province. Among the larger provinces the percentage is highest in Bombay (45·0), in Assam (36·8), and in the Central Provinces (36·3) and lowest in the United Provinces (19·4) and in the Punjab (16·9). It must be remembered that in Bombay the primary schools include the education given in the vernacular middle schools of other provinces.

Expenditure from public and private sources.

549. Of the total expenditure of R1,05,45,000, R60,74,000 was derived from public and R44,71,000 from private sources. Public sources comprise the revenues of Local Governments, of Municipal and Local Boards, and of Native States. Private sources comprise fees, endowments, subscriptions, and other miscellaneous items. They include the funds which missionary societies devote to the maintenance of their schools. Expenditure from public funds increased at the rate of 6·4 per cent. and from private funds at the higher rate of 7·8 per cent.

Expenditure from public sources.

550. Of the expenditure from public funds,  $13\frac{1}{2}$  lakhs were derived from Provincial Revenues,  $34\frac{1}{2}$  lakhs from Local Board funds,  $6\frac{1}{2}$  lakhs from Municipal funds, and  $6\frac{1}{2}$  lakhs from the Revenues of Native States. A part of the Provincial expenditure on primary education is in the form of contributions to local bodies which appear under Local, not Provincial, expenditure.

Local Board expenditure.

551. Local Board expenditure increased by  $2\frac{1}{2}$  lakhs against 4 lakhs during the previous quinquennium. The percentage of Local Board expenditure on primary to total education was 55·3 in 1891-92, 59·3 in 1896-97 and 61·9 in 1901-02. The percentage amounted to 86 in Bombay and to only 47 in the United Provinces. The variation depends to a considerable degree on the extent to which the Local Government has entrusted the care of secondary and special education to local bodies. The hindrance to progress which has resulted from the indigence of the Local Boards in several provinces has already been noticed.

Municipal expenditure.

552. Municipal expenditure increased by R87,000 in the period 1892-93 to 1896-97, and by R54,000 during the period under review. The percentage of expenditure by Municipalities on primary education to education in general was 42·7 in 1891-92, 46·7 in 1896-97, and 50·5 in 1901-02. It varies in the larger provinces from 80 in Bombay to 21 in the Punjab.

553. In some provinces it is laid down that Municipal and Local Boards should devote the main or a defined portion of their educational expenditure to primary or primary and middle education. In the MADRAS Local Fund Code it is said that the provision of improved elementary education for boys is the chief educational duty of the Local Boards, and that a large proportion of the funds allotted to education must be devoted to the promotion of this object. BOMBAY District Boards are required by law to spend upon primary education one-third of the land cess, and Municipalities are required by law to make "adequate provision" for primary education. In BENGAL the function of the District Boards consists to a large extent in the distribution of funds made over by the Local Government for the purpose of primary education. Bengal Municipalities are required to spend 3·2 per cent. of their income on primary education, and, until this condition is fulfilled they may not devote their funds to the aid of secondary schools. In the PUNJAB three-fifths of the expenditure on education must be devoted to primary schools. The accepted principle in BURMA is that Local Funds should spend as much as possible on primary and little or nothing on secondary schools. In the CENTRAL PROVINCES the District Board expenditure on primary schools may not be less than the proceeds of the settlement educational cess, and the Municipal funds set apart for education must ordinarily be spent on primary or middle education. In ASSAM, Municipalities must devote 3 per cent. of their total income to the promotion of primary and middle education.

Rules regarding Local Board and Municipal expenditure.

554. It has occasionally been observed that Municipalities and Local Boards exhibit a tendency to devote their attention to secondary schools to the detriment of their first duty towards primary education. Such complaints do not appear to be common at the present time. The replies of the Local Governments to the observations of the Government of India regarding the slow progress of primary education during the period 1891-92 to 1896-97 do not attribute the circumstance to this cause, and in the Madras letter it was stated that "in most Municipalities, primary education is in a satisfactory condition and those Municipalities do not generally grudge an increase in the allotment for education when it is found to be necessary." In the Resolution of the Government of the Punjab on the Director's Report for 1901-02 it is, however, stated that "it can hardly be questioned that Local Bodies have concentrated their attention on secondary education to the detriment of the primary schools." On the other hand the Director of Public Instruction in the United Provinces defends the position of the Local Bodies in those provinces in the following paragraph:—

Complaint that local bodies devote an undue share of attention to secondary education.

Attention has more than once been drawn to the fact that something like one-half of the expenditure from Local Funds on secondary education throughout India and Burma occurs in these provinces, notwithstanding the orders of the Government of India that primary education has an almost exclusive claim on these funds, so far as they are available for education. The inference has been that this state of things argues a peculiar perversity on the part of Local Bodies in the United Provinces, in that they seem thus to set at defiance the wishes of the Government of India, and to devote themselves to promoting secondary rather than primary education. This, however, is not so, the truth being that, at variance with the practice in the rest of India, the Government of these provinces has imposed on local bodies the duty of supporting secondary education and certain other public objects, in furtherance of the policy of Local Self-Government adopted by the Government of India, and has strengthened their financial position to enable them to bear the burden. Any comparison of the distribution of Local Fund expenditure between primary and secondary education in different provinces which fails to allow for this circumstance, is simply of no value as showing the attitude of the Boards towards the two branches of school education. They would not be permitted to rob their high schools in order to find more money for primary vernacular education.

555. Of the total private expenditure, 30½ lakhs were derived from fees and 14½ lakhs from other sources. The expenditure from fees increased by about 1½ lakhs both in the period 1892-93 to 1896-97 and in the period under review. The average annual fee per pupil was about R1-1 in 1891-92, R1 in 1896-97, and again R1-1 in 1901-02. The average fee in 1901-02 in a British India school under public management was 9·4 annas, in an aided school 20·2 annas, and in an unaided school 22·9 annas. Fees are lower in the schools under public management because the contributions made by the agricultural population towards the local cesses stand in a measure in the place of fees. In Bombay, the United Provinces, and the Punjab, the three provinces in which the public management system is most prevalent, the average fee per pupil in 1901-02

Expenditure from private sources, Fees.



was 12 annas, 3·7 annas, and 11·6 annas, respectively. In Bengal and Madras on the other hand, the average fee was 26·4 annas and 16·3 annas, respectively. Burma, where the management is almost entirely private, affords a sharp contrast to Madras and Bengal. The average fee in that Province was only 2·8 annas. The reason for this is that the monastic schools levy no fees. Lay school managers, who have to make a living out of their schools, levy fees at rates varying from 2 annas to 8 annas a month, and the payment of fees is said to be becoming a recognized part of vernacular education. In Bombay the prescribed rates of fees vary from 2 to 6 annas a month according to the standard, but half the fee is remitted in the case of the children of cess payers. In vernacular primary schools in the United Provinces the charge of a small fee, varying with the standard of education, and not exceeding two annas a month in the highest class, has been approved of in principle by the Local Government. It rests with the District Board to decide what fee, if any, shall be levied; in some districts no fee is charged, and in others the rate varies considerably. In the Punjab the fees in primary vernacular schools vary from one to 5 annas a month; they are less in zamindari schools, and the children of agriculturists are altogether exempt. In Madras the levy of fees in primary schools under public management is left to the discretion of the local authorities, and in schools under private management to the discretion of the managers. In Bengal no scale of fees is prescribed for aided and unaided schools, and the fees actually paid are often in kind as well as in cash. In the report for 1901-1902 the Director makes the following remarks on this subject:—

In rural tracts the monthly fee is always supplemented by *sidhas*, or presents in rice, vegetables, oil, pulse, etc., once or twice a month, besides customary gifts in kind on the occasion of a marriage or other ceremonies in the pupil's house, as also on the occasion of a pupil learning to write out correctly the alphabet, or beginning to write on paper, or being promoted from class to class. This system of *sidhas* obtains, although to a smaller extent, in urban primary schools also, and forms an integral part of the system of payment of fees in these schools. The accounts of fee-income submitted by the teachers do not, therefore, represent the whole of the income of the *guru* from his pupils. It is not, again, uncommon to find a *guru* putting down the fee-income of his school at a lower figure than his actual receipt, for fear lest the amount of aid from public funds would be reduced if a high fee-income is shown. It may be added that the scale of fees and the percentage of free and half-free pupils in primary schools is entirely regulated by the teacher, the Department never interfering in this matter.

#### Scholarships.

556. Lower primary scholarships, *i.e.*, scholarships granted on the result of the lower primary examination, are sometimes tenable in upper primary schools; but the great bulk of them are held in the primary departments of secondary schools and have been noticed under the head of secondary school scholarships. The whole expenditure on primary school scholarships in 1901-02 amounted only to R82,594, and of this total R49,281 was held in BOMBAY where, since the primary school includes the whole vernacular course, the primary school scholarships correspond in a measure to the middle vernacular school scholarships of other provinces. The Bombay total expenditure was made up of R14,747 derived from public, and R34,534 derived from private, sources; 2,013 boys held scholarships derived mainly from local and municipal funds, and 1,637 girls were in receipt of scholarships mostly contributed by private persons. During the quinquennium expenditure on primary school scholarships in Bombay increased by R30,731, mainly as a result of private munificence. Expenditure on scholarships in BENGAL amounted to R15,005 derived almost entirely from public funds; there are no special primary school scholarships, but some of the general scholarships gained on the results of the lower primary examination are held in upper primary schools. The same remark applies to ASSAM where the expenditure on primary school scholarships amounted to R4,672. The figures for other provinces stand as follows:—

	Expenditure.	Scholarship holders.
Madras . . . . .	2,785	292
United Provinces . . . . .	1,091	85
Punjab . . . . .	7,375	75 boys and a larger number of girls.
Central Provinces . . . . .	1,457	36 scholarships of the value of R12 available.
Berar . . . . .	182	11 girls.

In the Punjab, scholarships for boys tenable in primary schools are granted only in backward districts, but about half the total number of girls in the upper primary stage are in receipt of scholarships.

## CHAPTER VI.

## EDUCATION OF CHIEFS AND NOBLES.

**Introductory.**

557. Like so many other branches of Indian education, the special institutions for the instruction of young Chiefs and Nobles have recently been the subject of careful scrutiny, and are now undergoing substantial reform with a view to make them more useful in themselves and more acceptable to those for whose benefit they are intended. The account given in the body of this chapter represents the position as it stood when this scrutiny was undertaken, and before these reforms were introduced.

558. The subject of the Chiefs' Colleges was discussed at a Conference convened at Calcutta in January 1902, and in opening the proceedings on the 27th of that month, His Excellency the Viceroy gave the following account of the origin and scope of the colleges :—

Chiefs' Colleges in this country, or Rajkumar Colleges as they are sometimes called, are the growth entirely of the last 30 years. They are the outcome of the growing desire, which has manifested itself in every class of the community, to keep abreast of the times, and to give to the rising generation in India an education that shall enable them to hold their own in a world of constant change and ever increasing competition. These ideas have found their way into the minds even of the most conservative classes. It has become apparent that neither private tuition, nor the practices and institutions of Native States or territories, succeed altogether in giving to the sons of Chiefs and Nobles that all-round education, particularly in relation to character, that is admittedly the product of the English public school system. To many of the Indian nobility the discovery has come slowly; to some perhaps it has not yet come at all. Nevertheless, of the general existence and steady growth of this feeling among the upper classes of Indian society, there can be no doubt, and it was partly to meet the demand, where it already existed, partly to anticipate it where it had yet not found expression, that Government has interested itself in the foundation of a small number of Colleges, directly designed to provide a superior type of education for the sons of the princely and aristocratic families of India.

The first of these colleges to be started was the Rajkumar College at Rajkot in 1870. This was originally intended for the Chiefs and noble families of Kathiawar, but has, in recent times, acquired a wider scope, and is now recognised as the Chiefs' College for the entire Bombay Presidency. Next came the Mayo College at Ajmere, the idea of which originated with Colonel Walter as far back as 1869, but which only took concrete shape after the lamented death of Lord Mayo in 1872, and in memory of him. Planted in the heart of Rajputana, and intended to provide more especially for the youth of the Rajput titled houses, this college has perhaps excited the most widespread attention. A Rajkumar College was also founded in memory of the same illustrious Viceroy at Nowgong for the Chiefs of Bundelkhand. At Indore there was a Residency College which had been instituted at about the same time by Sir H. Daly for the families of the Chiefs of Central India: and which afterwards developed into a more ambitious concern, and received the designation of the Daly College, in honour of its original parent. There not being scope for two such institutions within so short a distance of each other, the Nowgong College was in 1898 amalgamated with the Daly College at Indore. Next in date followed the Aitchison College at Lahore, which was founded in 1886 by the distinguished Lieutenant-Governor of that name as a school for the nobility and gentry of the Punjab. Smaller and less influential schools have been started in different parts of India for the education of the sons of Chiefs and gentry of lower rank or more humble means. Such are the Colvin School at Lucknow for the sons of the Oudh Talukdars and the Raipur College for the sons of the Chhattisgarh Chiefs. I might also mention the Girasia Colleges at Gondal and Wadhwan in Kathiawar. I am not called upon to deal with this latter class of institutions on the present occasion. Similarly, the Mahomedan College at Aligarh stands outside of my present inquiry; since, although, it is patronised by families of very good position, it is not a Chiefs' College, and is founded upon the basis of creed rather than of rank. It is with the four Chiefs' Colleges at Ajmere, Lahore, Rajkot and Indore, that I am principally concerned to-day, and it is their condition and prospects that I am about to submit to examination.



Of the apparent success of these colleges there are many external symptoms. They have attracted the abilities and have inspired the life-service of more than one remarkable man, foremost among whom I would name Mr. Chester Macnaghten, who devoted 26 years of a short but noble life to the Rajkumar College at Rajkot. They have sent out into the world a number of distinguished pupils, some of whom are now Ruling Chiefs, while others have carried the name of their College on to even wider fields. They have attracted the quinquennial visits of Viceroys and the more frequent patronage of the heads of Local Administrations. They have even given birth to a school literature, specially designed to commemorate the exploits and fame of the particular *alma mater*. Three of the colleges I have had the good fortune to visit myself, since I have been in India, and I have devoted a good deal of attention to the subject of their management and curriculum. More recently my interest in them has been guided into a fresh channel by the gracious permission of His Majesty the King-Emperor to institute an Imperial Cadet Corps, which will be recruited in the main from the Chiefs' Colleges, and will provide for the pick of their pupils that opening in the field of military service which has hitherto been denied to the aristocratic ranks of India. In connection with the first formation of this Corps, it became my duty to institute a somewhat close examination into the circumstances of each college. I became familiar with many virtues, but I also learned many defects which, I believe, have long been recognised and bewailed by those who have far more right to speak than I. It is in order to strengthen and extend the good features of the system, and, if possible, to purge away the blemishes that I have invited you to this conference.

The original object with which these colleges were founded has often been defined. It was in order to fit the young Chiefs and Nobles of India, physically, morally, and intellectually, for the responsibilities that lay before them, to render them manly, honourable, and cultured members of society, worthy of the high station that as Ruling Chiefs, as thakors or sirdars, as landlords or *jagirdars*, or in other walks of life, awaited them in the future. With this object in view the founders of these institutions, deliberately selecting the English public school system as that which had best succeeded in doing a similar work among the higher ranks of English society, sought to reproduce its most salient features here. Indian boys of the upper classes were taken away from the narrow and often demoralising existence of their homes, and were thrown together in the boarding-house, the class room, and the play-ground. Instead of being the solitary suns of petty firmaments, they became co-ordinate atoms in a larger whole. In the colleges they were taught exercises and drill and games. They received the elements of a liberal education. They learned that there was a wider life than that of a Court, and larger duties than those of self-indulgence. In all these respects the Chiefs' Colleges in India have followed, at a distance it may be, but with anxious fidelity, their English prototypes.

We will deal firstly with the four Chiefs' Colleges at Ajmere, Lahore, Rajkot, and Indore, and afterwards with the minor institutions to which His Excellency alludes in the above quoted passage.

### The four Chiefs' Colleges.

#### Government.

559. All the Chiefs' Colleges, except that at Indore, are governed by Councils or Committees on which the Chiefs who are interested in the colleges are represented. The Council of the Mayo College is composed as follows:—

*President*—His Excellency the Viceroy.

*Vice-President*—The Hon'ble the Agent to the Governor General for Rajputana.

*Members*—The Commissioner of Ajmere.  
17 Chiefs of Rajputana.

The Political Officers accredited to the several States.

*Secretary*.—The Principal of the College.

Subject to the general control of Government, the administration of the Rajkot College is vested in a Council of Governors, consisting of a Chairman and 16 members, the Chairman being the Agent in Kathiawar, save when His Excellency the Governor of Bombay can preside. Eight of the members are elected by the Chiefs and four are nominated by the Government from among officers of the Government serving in Kathiawar; the Principal of the College is *ex-officio* a member of the Council. The Governing Council is appointed from a Board of Directors, consisting of 50 members in addition to the President (His Excellency the Governor of Bombay); of these 5 are members *ex-officio*, 35 are elected by the Chiefs, and the remainder are nominated by the Government. The government of the Aitchison College is conducted on similar lines.

#### Management and staff.

560. The following table shows the strength and monthly salaries of the managing and tuitional staff employed in each of the colleges as well as the total annual cost of staff and establishment:—

Mayo College.		Aitchison College.	
	R		R
Principal . . . . .	1,250	Governor, allowance of . . . . .	400
Headmaster . . . . .	500	Principal . . . . .	500—50—1,000
9 Assistant masters . . . . .	50 to 150	Vice Principal . . . . .	400
3 Drill instructors . . . . .	27 (average.)	4 Assistant masters . . . . .	50 to 100
		Science master . . . . .	70
		Drawing master . . . . .	25
		3 Oriental teachers . . . . .	30 to 60
		Gymnastic instructor . . . . .	25
		Drill instructor . . . . .	25
		2 Boarding House Musabibs . . . . .	40
		Assistant Musahib and riding master . . . . .	35
		Assistant Musahib . . . . .	25
<b>Total annual cost of staff and establishment . . . . .</b>	<b>41,520</b>	<b>Total annual cost of staff and establishment . . . . .</b>	<b>33,000</b>
Rajkot College.		Daly College.	
	R		R
Principal . . . . .	1,166½	Principal . . . . .	750—50—1,000
Chief Assistant master . . . . .	250	Superintendent . . . . .	180
8 Assistant masters . . . . .	50 to 100	4 Assistant masters . . . . .	30 to 100
Cricket coach . . . . .	75	Riding master . . . . .	85
Gymnastic teacher . . . . .	50	Drill instructor . . . . .	10
Riding master . . . . .	15		
<b>Total annual cost of staff and establishment . . . . .</b>	<b>35,424</b>	<b>Total annual cost of staff and establishment . . . . .</b>	<b>8,400</b>

561. In the Mayo College the Principal is a Military officer and the Headmaster is also a European; in the Aitchison College the Governor is a Military officer, and the Principal and Vice Principal are both Europeans; in the Rajkot and Daly Colleges the Principal is the only European officer on the staff.

The Principal of the Mayo College (who is directly subordinate to the Agent to the Governor General for Rajputana, the Vice President of the College Council) has supervision over the whole institution and is responsible for its working. The Headmaster is subordinate to the Principal; he inspects the classes and takes part in the working and in the college games. Subject to the control of the Committee of Management, the Governor of the Aitchison College has full authority over the students both in and out of college and the whole general supervision lies in his hands. The Principal superintends the instruction and physical training of the boys, takes part in their teaching, and assists in the general management. The Vice Principal is an assistant master and is superintendent of the boarding houses under control of the Governor. The assistant masters are directly subordinate to the Principal, subject again to the Governor's general control. The management of the Rajkot College is vested in the Principal, who is directly responsible for the teaching as well as for the internal economy. The Daly College is managed by the Principal who is assisted by the Superintendent both in general control and in teaching.

The native masters of the various colleges are of much the same calibre as in a State high school; a few of them are graduates of Indian Universities, but the majority possess lower educational qualifications. In the higher classes English is usually taught by the European members of the staff.

Pupils.

562. The Chiefs' Colleges are none of them large institutions, and the whole four contain between them only 180 to 190 pupils; the Mayo and Aitchison Colleges have each about 60 boys, the Rajkot College about 40, and the Daly College about 20.

The colleges are all maintained on an aristocratic basis; they only admit pupils of rank. In his speech of the 27th January 1902, His Excellency commented on the contrast which the Chiefs' Colleges present in this respect to the system which prevails in England. He said:—

Eton is an aristocratic school organised upon a democratic basis. It was not always so. It has become so in the process of time. The scions of the nobility are commonly sent there by their parents: but there is nothing to prevent the son of the *parvenu* from being sent too. All mix together on a footing of social equality. That is impossible in India, and will be impossible—even if it were desirable, which I think it is not—for many a long day to come. Here the class distinctions are much sharper and more stubborn than in the West. They are ingrained in the traditions of the people, and they are indurated by prescriptions of religion and race. You do not, therefore, get here, and you cannot expect to get, that easy intercourse between high and low, titled and untitled, rich and poor, which is the most striking external symptom of public school life in England. You have to deal with a more primitive state of society and with feelings whose roots are intertwined in the depths of human nature. That levelling down of class distinctions without detriment to the sanctions of class respect, which is so marked a characteristic of English civilisation, cannot be expected ready made in a country like this.

563. The Mayo College is maintained for the education of the sons of the Rajputana Chiefs and Nobles. The list of pupils in the Aitchison College is fairly representative of the lesser nobility of the Punjab, but most of the Ruling Chiefs do not send their sons to the college. A few boys come from Sind and the frontier. With a few exceptions the aristocracy of Kathiawar have patronised the Rajkot College, and about one-third of the students are recruited from the families of Chiefs in other parts of the Bombay Presidency. Former pupils of the college in a large proportion of cases send their sons or relatives to it. The Daly College receives members of the families of the Central India Agency, but the Chiefs of the largest States, such as Gwalior, Bhopal, and Rewa, have never sent boys to the college.

564. On the whole, the colleges have not been cordially supported by the distinguished class for whose benefit they are maintained. His Excellency drew prominent attention to this circumstance in the following passage of the January speech:—

The first point that strikes me is the relative paucity of the numbers that are being educated in the Chiefs' Colleges in India. The Mayo College, I believe, contains accommodation for 140 pupils; but there are at the present time only about 60 on the rolls and the maximum number ever entertained there has not been more than 79. Yet there are some 20 Ruling Chiefs in Rajputana, while I have seen the number of aristocratic families reckoned at 300. The Aitchison College contains less than 70 boys, but the Punjab should be capable of furnishing double that number. The Rajkot College has about 40 pupils; but if its area of recruitment be the entire Bombay Presidency or even if it be the northern half of it alone, the total ought, I should think, to be very much greater. The highest number contained in the Indore College has, I believe, been 24. There are now 16; and in what relation such a figure stands to the capacity of the Central Indian States it is unnecessary for me to point out. The closing of the Nowgong College has not diverted the current of Bundela recruits to Indore, for I learn that no pupils from those States are being educated in the Daly College. The reflections suggested by these figures are not altogether encouraging; and their effect is not diminished but enhanced when we remember how many of the existing students have been sent to the colleges as minors or wards of Court, in other words, not owing to the spontaneous choice of their parents or families. A number of Chiefs, more enlightened or less conservative than their fellows, have given to the colleges their continuous support. They have sent their sons there, or been educated there themselves, and in the next generation the sons of these old boys are, in some cases, already following their fathers. But we all know that there is a large number who have stood, and who continue to stand, aloof, and it is their attitude that we must make a serious attempt to understand, and their sympathies that we must endeavour to enlist.

His Excellency had been led to think that the want of co-operation on the part of the Chiefs sprang in the main from three causes. In the first place he pointed to "the deeply embedded conservatism of the States, the tradition that the young Chief or Noble should be brought up and trained among his own people, the zenana influence which is frightened at the idea of an emancipated individuality, and the Court surroundings, every unit in which is conscious of a possible loss of prerogative or authority to itself in the future, should a young recruit

from the West appear upon the scene, and begin to stir up the sluggish Eastern pools." Next His Excellency placed the belief that the education given in the Chiefs' Colleges is too costly; and lastly His Excellency was doubtful whether the Chiefs were entirely satisfied with the class and quality of education that the colleges provide.

565. The average age of boys entering the Mayo College has been  $12\frac{1}{4}$  years and the average age of boys leaving has been  $17\frac{3}{4}$  years. In the Aitchison College boys of any age are received; the average age on entering is about 11 years, and those who complete the course stay until they are about 18 to 20 years old. At Rajkot the average age on entry is about 10 years and on leaving about 18 years. Boys enter the Daly College at any age from 10 to 17, and they leave between 20 and 23.

566. The four Chiefs' Colleges are all residential institutions, and the residential system is similar to that which obtains in ordinary Indian colleges inasmuch as it involves living in boarding houses supervised by special superintendents (called usually *Musahibs* or *Motamids*). But the higher rank, and often the comparatively large means, of the boys causes the boarding house life in the Chiefs' colleges to differ in many respects from that described in other chapters of this Review. Each boy has his own room, and often his own guardian or tutor and establishment of servants, most of them keep one or more ponies or horses, and a few have their own carriages.

The Mayo College has ten boarding houses organized on a territorial basis, that is to say, boys from the same State or group of States live together. Each boarding house is managed by a resident *Motamid* and the whole are supervised by the Principal. Only two of the *Motamids* are college masters. The boarding houses are grouped round the handsome college building. Only one boarding house has a common mess.

There are three boarding houses at the Aitchison College, one for Muhammadans, a second for Hindus, and a third for scholarship holders, one half of which is occupied by Hindus and the other half by Muhammadans. All three boarding houses are inside the college premises. The Vice-President of the college supervises the management of the boarding houses and has a house close to them; a Muhammadan *Musahib* has charge of the first house, a Hindu *Musahib* of the second house, while Muhammadan and Hindu Assistant *Musahibs* look after the two portions of the scholars' house. The *Musahibs* live in their respective houses. They are retired native cavalry officers, and their duties extend to assisting in the supervision of the boys out of school hours, and to inculcating habits of diligence, self-control, and good manners. The Muhammadan house has a common mess which all but a few of the inmates join.

In the Rajkot College there are two boarding houses, or sets of quarters, in two wings or blocks of buildings projecting from either end of the main college building which consists of a central hall and class rooms. The three classes of students, Rajputs, Kathis, and Muhammadans, occupy sets of quarters without any separate grouping, rooms being allotted as they become vacant. A resident wing master, who has a set of quarters in the centre of the wing, is responsible for supervision. In subordination to the wing master the *Musahib* (or private guardian) of each boy is responsible for his conduct, the tidiness of his rooms, and the behaviour of his servants. The wing masters are members of the teaching staff and receive an allowance for their special work.

There are four boarding houses attached to the Daly College of which only three were in use at the end of the quinquennium. Marathas and Rajputs live together in the boarding houses, and the average number of boys in each house is five. The old boarding house in the college compound is supervised by the Superintendent of the college, who lives in one of the rooms. The smaller house in the same compound is supervised by an assistant master under the eye of the Superintendent. The Gwalior House is about half a mile from the main college building.

567. The arrangements with regard to private tutors and guardians differ in the several colleges.

About a dozen boys in the Mayo College have private tutors ; they are appointed by the boys' natural guardians or by the Political Officers, and are under the control of the Principal. Two of the tutors are members of the college staff. Only Ruling Chiefs or heirs-apparent have guardians. If the guardian is a native, he is wholly under the Principal. If he is an Englishman, the boy is under the control of the Principal during his studies, and generally when inside the college precincts ; otherwise he is in charge of his guardian. There have been three English guardians in the college since 1875.

In the Aitchison College, guardians (called "personal attendants or companions" in the rules) are allowed, but altogether there are only two or three in the college. They are nominated by the boys' parents, but must be approved by the Governor and are under his control. European private tutors or guardians are sometimes appointed by the Government to look after boys of specially high rank. Private tuition is ordinarily given by members of the teaching staff ; masters are assigned as tutors to backward boys by the Principal with the Governor's sanction, and are paid special fees. Each master has as a rule two private pupils, whom he coaches for two hours, usually in the evening.

At Rajkot a *Musahib* accompanies each boy to college ; he is selected in the first instance by the parent or Political Officer, but in college is under the control of the Principal. He is often a relative (usually the boy's maternal uncle) or a retainer of the Durbar. He is required to be present in the boy's room at all times when the boy is not in the class or in the play-ground, and is responsible for the economy of his establishment. Private tutors are not allowed except with the special sanction of the Council on the recommendation of the Principal. There were no private tutors in the college at the end of the quinquennium, but in some cases a former tutor had replaced the *Musahib*.

In the Daly College the boys who live in the old boarding house have non-resident private tutors who come in the morning and evening to help them to prepare their lessons. Chiefs have resident tutors, who not only help their pupils in their studies, but also, under the Superintendent, look after their establishments. They accompany their charges during vacation time. Special arrangements have been permitted in the cases of one or two Chiefs.

Other  
features of  
the college  
life.

568. Discipline appears to be reasonably strict and well maintained, and the boys are subject to constant and careful supervision. The difficulty of irregular attendance is met with in Chiefs' colleges, as in all classes of Indian educational institutions. It is a defect of the system that the boy is brought under the influence of his teachers only during the few hours in which he is being taught, or sometimes in the play-ground. For the rest of the day he remains in the boarding house where he is surrounded by *Motamids* or *Musahibs*, or private tutors or guardians, who are separated off from the staff, the curriculum, and the educative influence of the college. Arrangements for religious instruction and observances differ in the various institutions and are regulated so as to meet the wishes of the parents of the pupils. Great care is taken with regard to physical education. Thus in the Mayo College riding and equestrian sports, such as tent-pegging and lime-cutting, are encouraged ; every boy attends gymnastics twice or thrice a week ; and cricket or hockey are played practically every day. House matches are often arranged, and sometimes matches are played against other colleges or against teams of officers quartered in the neighbourhood. The senior division attend target practice twice a week at a rifle range in the college grounds. Fairly long holidays are given in all the colleges. In the Mayo College the holidays are : May and June, 14 days at the time of the *Dasehra* festival, and 29 days in December. The Aitchison College has a vacation extending from the 1st August to the 15th October ; the college also gets the usual Government holidays (including the Christmas holidays), and a short holiday after the test examinations. At Rajkot the total of the holidays amount to about 3½ months, and at Indore only to about 10 weeks.

Course of  
study.

569. The character and standard of the education hitherto given in the Chiefs' colleges is similar to that of an ordinary high school. The Mayo, Rajkot, and Daly Colleges have special courses of their own ; in the Aitchison College the courses prescribed by the Education Department and the University are followed. There is no educational test for boys wishing to enter any of the colleges.

In most cases the boys come up with little or no previous training, and very few of them continue their studies in a University college or elsewhere after they leave. The Mayo College receives some of its students from the Nobles' schools of Jodhpur, Kota, Alwar, and Bikaner. The full Mayo College curriculum extends over 8 years; in the Aitchison College it takes a boy 8 to 10 years, and in the Daly College about 9 years, to pass through the entire course; the Rajkot College has 6 or 7 classes. English forms everywhere a very important part of the course; under the arrangements which have hitherto prevailed, it is found that the boys acquire a fairly good colloquial knowledge, but that writing correctly on general topics and discussion in English on other than quite simple questions are beyond their powers.

The highest class of the Mayo College is practically on a level with the University entrance standard. English and subjects such as history, geography, science, and mathematics are taught for five hours a day, and a language for one hour. The six lowest classes learn Urdu or Hindi, and the two highest Persian or Sanskrit. As regards English, special stress is laid on composition, translation into English, and speaking; and the first two classes are exercised in original composition every day. In the first four classes the examinations are held entirely in English. Drawing is an optional subject; agriculture is taught in all classes; and sanitation forms part of the course in the highest class.

In the Aitchison College the boys read for the Departmental and University examinations; the highest class teaches for the University entrance examination. Twenty-five students passed this examination in the five years 1896-97 to 1900-01; in 1898-99, 11 candidates were sent up all of whom were successful. A revised course, independent of the University, had been prepared at the end of the quinquennium.

The course in the Rajkot College approximates to the high school course and leads up to the matriculation standard in its highest class. The languages taught are English, Gujarati, and Urdu; only a few Muhammadan boys read either Persian or Arabic. English is the medium of instruction and examination in the higher classes.

In the Daly College also the course rises to about the level of the University entrance examination. The three highest classes do 12 hours English a week, and the lower classes 6 hours. In the final class the boys are taught Euclid and Algebra, and that class and the two next below it also receive instruction in elementary science. The text book for literature in the highest class is "Palgrave's Golden Treasury", and for history Buckley's "History of England for Beginners." Occasionally a land survey class or a law class is formed. During the period to which this Review relates no very high standard of literary education was aimed at in the Daly College. Until recently boys did not, as a rule, join until the age of 14 and were then still very ignorant; there was, in all cases, the prospect of their being taken away at the age of 19 at latest, and the college had to utilise as best it could the few intervening years of schooling.

570. The following table shows the distribution of the hours of class study included in one week in each of the colleges:—

Subject.	MAYO COLLEGE.		AITCHISON COLLEGE.	RAJKOT COLLEGE.	DALY COLLEGE.
	First class.	Second and third classes.	First and second classes.	First, second, and third classes.	First, second, and third classes.
English . . . . .	9	15	9	9	6
Vernacular language . . . . .	...	...	...	6	4
Classical language . . . . .	4½	4½	2½	...	...
Mathematics . . . . .	10½	4½	7	5	8
History . . . . .	...	4½	3	5	6
Geography . . . . .	...	4½	3	5	2
Science . . . . .	9	4½	2½	4	...
Drawing . . . . .	...	...	1½	...	...
<b>TOTAL</b> . . . . .	<b>33</b>	<b>33</b>	<b>25½</b>	<b>29</b>	<b>26</b>

It will be noticed that in three cases the items do not work up to the total; the explanation is (presumably) that some of the subjects are elective in the Mayo, Aitchison, and Rajkot colleges.

571. On the whole good instruction has been given in the Chiefs' colleges; but they have suffered, like other Indian institutions, from want of definiteness of aim: there has been too great a tendency to follow the ordinary provincial literary curriculum without sufficient consideration as to how far it forms a suitable training for the young Chiefs and Nobles, and the instruction in some subjects (notably in English and vernacular languages) has not been as thorough as it might and should be. Of the students of the Chiefs' colleges some are ultimately called on to rule Native States, others to the care of their landed estates, others embark on a military career, or enter the civil service of the British Government or of Feudatory States. The adaptation of the curriculum to the needs of these various classes of pupils was one of the important subjects discussed in the Conference of January 1902.

## Finance.

572. The following table shows the total revenue of each college and the principal items of which it is composed:—

Mayo College.		Aitchison College.	
<i>Budget Estimate, 1901-02.</i>		<i>Accounts, 1900-01.</i>	
	R		R
Interest . . . . .	25,488	Fees . . . . .	36,629
Government contribution . . . . .	12,000	Government grant-in-aid . . . . .	9,000
Native States contribution . . . . .	4,728	Interest . . . . .	8,256
Other receipts . . . . .	5,610	Other receipts . . . . .	5,862
<b>TOTAL</b> . . . . .	<b>47,826</b>	<b>TOTAL</b> . . . . .	<b>59,747</b>
Rajkot College.		Daly College.	
<i>Present minimum standard.</i>		<i>Present standard.</i>	
	R		R
Fees and miscellaneous receipts (a) . . . . .	44,000	Fees . . . . .	13,941
Interest . . . . .	9,000	Interest . . . . .	850
Government grant-in-aid . . . . .	(b) 5,000	Rent(c) . . . . .	2,520
<b>TOTAL</b> . . . . .	<b>58,000</b>	<b>TOTAL</b> . . . . .	<b>17,311</b>

(a) The college is dependent on fees for four-fifths of its income.

(b) The grant-in-aid varies from R3,000 to R5,000.

(c) Paid by the Principal and students, and for the Holkar house.

The Mayo College has an endowment fund amounting to R7,34,200, the interest on which forms the main source of income.\* The R9,000 interest received by the Aitchison College is on scholarship endowments, in return for which the college grants tuition and accommodation for 30 scholarship holders. The Rajkot College has a general endowment fund of nearly 3 lakhs, and the Daly College draws interest on a reserve fund of R24,000.

573. In the Mayo College no tuition fees are charged, except a fee of R10 a month for the optional subject of drawing. In other colleges fees are the principal item of receipts. In the Aitchison College the ordinary fee is R600 a year; this may be reduced to R300, by special orders of the Committee. Wards pay a percentage on the income of their estates. At Rajkot the fees vary from R2,400 to R600 a year, and average nearly R1,000. The fees are proportionate to the means of the parent or estate, and are fixed in the case of Kathiawar boys by the Political Agent. In the Daly College the fees vary from R1,800 to R60 a year, and the average amounts to R600 a year. The fees are fixed by rule according to the income of the State or estate, and may be (and often are) modified by the Agent to the Governor General.

\* The endowment fund was subscribed by the Chiefs of Rajputana, who also paid for the building of their own boarding houses, and to a large extent for the building of the college.

574. The Government grants R12,000 a year to the Mayo College, R9,000 to the Aitchison College, and from R3,000 to R5,000 to the Rajkot College.

Only the Aitchison College has scholarships.

575. In the Mayo College the annual cost of maintenance and education is R4,300 for a Ruling Chief or heir-apparent; R2,940 for a wealthy Thakur, R780 for an ordinary boy who keeps a horse, and R540 for a boy who does not keep a horse. The cost of board in the Aitchison College varies according to the mode of living, especially in the case of Hindus who eat separately. The total average annual cost for a Muhammadan boy is R1,250 and for a Hindu boy R1,300. In the case of wards of Government in the Rajkot College, the cost of board and tuition, including all charges for the holidays as well as in term time, varies from R2,200 to R5,000, a year. At Indore, the average cost for boys living in the college is about R2,250, a year. Cost of education.

### Other Institutions.

576. MADRAS.—There is no institution in the Madras Presidency specially intended for the education of Chiefs or Nobles; but the education of landholders is to some extent provided for by an establishment maintained by the Court of Wards at Newington, Madras. The staff of this institution consists of two European tutors and three native assistants. Fourteen wards were under instruction at Newington on the 31st March 1902. Agriculture is included in the course and is taught by an assistant from the College of Agriculture.

577. BOMBAY.—Apart from the Rajkumar College at Rajkot there are several special institutions in the Bombay Presidency for the education of boys belonging to aristocratic families. A school has been founded by His Highness the Thakur Sahib of Gondal for his *Girasias* which is specially commended by the Director. There were 74 students on the rolls in 1901-02, and the total cost of the institution during the year was R30,000 of which over R13,000 was derived from fees. There is a Talukdari *Girasias'* school at Wadhwan which had 63 pupils in 1901-02. In the Northern Division a small school is maintained at Vagipia for the sons and relatives of petty *Talukdars* of the Rewa Kantha Agency, and there is another small school of the same kind at Sadra in the Mahi Kantha Agency. The attendance at both these schools has slightly declined. The two school for *Talpurs*, formerly maintained by the Government in Sind, were closed in 1897-98 on account of plague. Many of the pupils were transferred to the Madrassah at Karachi, where they have improved greatly. In Kolhapur (in the Southern Division) a special class for *Sirdars* is attached to the Rajaram High school. A considerable number of sons of minor *Sirdars* also attend the ordinary Government schools, and the reports with regard to them are favourable. A few go on to the colleges.

578. BENGAL.—The only special institution in Bengal of the class dealt with in this chapter is the Nawab of Murshidabad's Madrassah, a high English school in which only the direct descendants and relatives of His Highness the Nawab Bahadur of Murshidabad are educated. It is maintained and managed by the Government, and since February 1899 has been under the direct supervision of the Director of Public Instruction. There were 48 pupils on the rolls at the end of 1901-02, against 60 in 1896-97, and the total cost was R14,558 in the later, against R16,157 in the earlier, year. Two of the students passed the University entrance examination in 1901-02. A boarding house is attached to the school and maintained at Government expense. No school-fees are charged.

The sons of the Chiefs of the Tributary State of Orissa and Chota Nagpur, and of other persons of rank in the latter Division, read in the ordinary schools, the former in the Ravenshaw College at Cuttack, and some of the latter in the Government high schools of their districts. Others read in the local middle schools.

579. UNITED PROVINCES.—The Colvin School for the sons of Taluqdars at Lucknow is managed by a committee, and the staff consists of a European Principal, a native head-master and seven assistant masters. It has about 40 pupils; more than half of these are Hindus and the rest Muhammadans; about half the total are Government wards. A few boys from outside Oudh are admitted. All the pupils reside in the school, and ten new sets of quarters were constructed during



the quinquennium. The school teaches the ordinary high school course and sends boys up for the middle English and entrance examinations. The annual reports give, on the whole, satisfactory testimony as to discipline and conduct; irregular return after vacations caused some trouble in the past, but there has been considerable improvement in this respect of recent years. The boys are said to take a healthy interest in athletics and they have a riding school. The ordinary fee rates are R30 a month for Oudh boys and R50 for outsiders.

580. PUNJAB.—The Director says that the desire for education among persons of good family continues to spread. We have already seen that the number who attend the Aitchison College (the only special institution in the province for boys of rank) is small; but a much larger number, mostly no doubt of lower status, attend the ordinary institutions of the province, and others are educated privately. In 1901-02, the total number of boys of school-going age belonging to aristocratic families was returned at 482; 41 were in the Aitchison College, 8 in other colleges, 349 in ordinary public schools, 62 under private tuition, and one in a school in a Native State. Only 21 were returned as not being educated.

581. BURMA.—Up to the end of the quinquennium under review there was no separate scheme of education for boys of rank in Burma. *Sawbwas* and Chiefs have attended ordinary schools, or in some cases have been sent to England. A school for the sons of *Sawbwas* was opened on the 1st April 1902 at Taunggyi in the Southern Shan States.

582. CENTRAL PROVINCES.—The Rajkumar College at Raipur is maintained for boys belonging to the families of the Chiefs of the Chhattisgarh Feudatory States. There were 22 boys on the rolls on the 31st March 1902; the average attendance increased from 13 in 1896-97 to 19 in 1901-02, owing to the steps which have been taken to secure greater punctuality in the return of the wards to college. The staff consists of a European Principal on R700 a month, a head-master on R120, and four assistant masters on R30 to R80. The boys live in boarding houses and have their own servants, as in the four principal colleges; private tutors are only employed in special cases. An arrangement for messing in a common dining hall has been under consideration for some little time. Physical training has received attention, but the arrangements for teaching riding and gymnastics as they stood at the end of the quinquennium were not considered satisfactory by the Chief Commissioner. For purposes of instruction, the college is divided into five classes, and hitherto English has been taught in all the classes. A committee was appointed in 1901 to consider the curriculum of the college, and, under their advice, the standard of instruction and the course of studies were assimilated to those in force in Government schools. The Principal was authorised to teach up to the entrance examination of the Allahabad University, but the entrance class has consisted only of two boys. Parallel courses in Hindi and Uriya were introduced, and special arrangements were made for teaching their own vernaculars to Marathi, Telugu and Bengali wards. Up to the end of the quinquennium the arrangements for teaching Uriya, which is the vernacular of many of the pupils, were not satisfactory, but steps were being taken to remedy this defect. Instruction in mensuration and surveying, and in *patwaris'* papers and *bantias'* accounts has been introduced, and it was decided that a member of the staff should be sent to the agricultural class at Nagpur for training. The total expenditure aggregated R15,399 in 1901-02, the fee receipts amounting to R8,832; the average rate of fees is R40 a month, but some of the boys from the small and indebted zamindaris pay only R15 a month. The general arrangements of the Raipur College are being modified in the same direction as those of the principal colleges.

583. HYDERABAD (DECCAN).—The Madrassah-i-Aliya was founded by the first Sir Sala Jung; it is intended for the sons of the Nobles and chief officials of Hyderabad, and is worked on the principles of an English public school. The Principal and Vice-Principal are Englishmen, and there is a large staff of English and native professors and masters. A boarding house for Muhammadans was started in 1891, and, with the new buildings opened in 1895, provides accommodation for 30 boarders. In June 1887 the Hyderabad College, which numbered 11 students only on its rolls, was abolished, and its classes (affiliated to the Madras University) were added to the Madrassah-i-Aliya, the combined institution receiving the name of the Nizam College.

NOTE.

584. The date of publication of the Quinquennial Review makes it possible to carry the account of the Chief's Colleges down to a later date than the 31st March 1902; and although the later information does not properly fall within the scope of the Review, yet the following epitome of the changes which have been effected, or are in progress, is added, in order that an incorrect impression may not be given of the present state of affairs.

585. The discussion which was initiated by the Conference of January 1902 showed that genuine and widespread interest had been aroused in the projected scheme of reform, and that the attitude of the Chiefs towards the policy then initiated was one of sympathy and loyalty. In July 1903 the scheme was placed before His Majesty's Secretary of State, and having received his sanction, immediate steps were taken to bring it into operation.

586. It was in the first place decided that the Daly College at Indore should be reduced to the status of a school for less important Chiefs and Thakurs and of a feeder, in certain cases, for the Mayo College at Ajmere. The change having been effected, attention and energy were concentrated on improving the education and elevating the general tone of school life in the three centres of Ajmere, Lahore, and Rajkot.

587. The most important feature in the new scheme was the provision of an adequate, and suitably paid, staff of European masters. The European staff is to consist of 12 officers, including the head of the re-organized Daly College at Indore, who is to be an officer of the standing of the European assistants of the three leading institutions. The European officers will be included in the Bombay, Punjab, and United Provinces lists of the Indian Educational Service, and the scale of the European establishment will be as follows:—

	R
1 Principal on . . . . .	1,250 50-1,500
1 Principal on . . . . .	1,200-10-1,250
1 Principal (Rajkot) on . . . . .	1,000-50-1,250
1 Vice-Principal (Mayo College) on . . . . .	750-50-1,000
7 Assistants (including leave reserve) on . . . . .	500-50-1,000
1 Assistant (for the Daly College) on . . . . .	500-40-700
1 Assistant (for the Daly College) on . . . . .	500-40-700

This gives a total of 12 officers and an average expenditure of rather less than R 11,000 a month. For the native staff the scale (with certain minor modifications, (if found necessary) will be as follows:—

	R
3 teachers on . . . . .	300-40-500
1 teacher on . . . . .	250-25-400
4 teachers on . . . . .	200-20-300
2 teachers on . . . . .	150-25-300
9 teachers on . . . . .	100-20-200
3 teachers on . . . . .	100-10-150

or, in all, 22 teachers and a total average expenditure of a little over R5,000 a month.

588. The dual control which formerly existed in the Mayo College ceased with the opening of the current calendar year, and a similar change will be made in the Aitchison College. The Principal of each College will then have undivided authority over the teaching staff, the boarding house arrangements, and *Motamids*, servants, etc.

589. A suitable and practical curriculum has been drawn up including English, vernacular languages, arithmetic, history and geography, political economy, political science, and an elementary study of law and revenue. The hours of study have been re-arranged; additional interest is being imparted to the course

by the delivery of lectures by outsiders in addition to the general instruction given by the college staff. Due provision for physical exercise and training is made in the revised regulations; particular attention continues to be given to riding—riding in the open being encouraged in preference to riding school practice. A mounted cadet corps already exists at Rajkot, and steps are being taken to constitute similar corps in the Mayo and Aitchison Colleges. A leaving examination will be held at the end of the course, and a certificate or a diploma will be granted to successful students under the authority of the Government of India. Arrangements are being made for the holding of common examinations for the three colleges. It has not hitherto been considered desirable to lay down any precise limits of age for entering or leaving college.

Alterations  
in the system  
of college  
life.

590. Measures have been adopted to improve and render more simple the tone of college life and to guard against extravagance. The principle to be followed with regard to boarding houses will be concentration and supervision by resident European masters; the association of native assistants of good family with the European house masters is regarded as desirable. There is a consensus of opinion that the number of servants in attendance on each boy should be kept down to the necessary minimum; the use of carriages will be restricted to exceptional cases, if it is not entirely prohibited; and polo will not be authorized as a college game. Great care is to be taken in the selection of *Motamids*; they should, if possible, be relatives of the Chief of the State concerned, and should be elderly men of higher character, who have been previously employed in the service of the State, and who are of such standing as to carry due weight. Private tutors who are not members of the college staff will not be employed under ordinary circumstances.

School Celebration Days are already held at the Rajkot and Aitchison Colleges, and the practice of holding such celebrations will be introduced into the Mayo College.

Inspection.

591. Hitherto the Chiefs' Colleges have been inspected at rare intervals; all the Colleges have welcomed the proposal that the benefit of regular inspection should be afforded them, and an inspecting officer has therefore been appointed; the post is now filled by the Director of Public Instruction in the Punjab.

Introduction  
of the  
scheme into  
the Mayo  
College.

592. The Mayo College has been at work since October 1903 with a staff upon the new scale, consisting of a European Principal and three European Assistants, of the rank of members of the Indian Educational Service, and with an improved staff of native teachers. A considerable accession to the number of the pupils has accompanied the change.

Conference  
at Ajmere.

593. At the time of writing this note a Conference of Chiefs and Political and Educational officers is being held at Ajmere and important details relating to the boarding house system, *Motamids*, religious instruction, common messing, etc., are being discussed. The great interest in the scheme of reform evinced by the Chiefs augurs well for the future of the colleges, and it may be confidently anticipated that they will become popular institutions capable of affording to the young Chiefs and Nobles of India a training well adapted to fit them for the careers to which they are destined.

CHAPTER VII.  
TRAINING OF TEACHERS.

**Male Teachers.**

**Certificate System.**

594. The training courses and teachers' examinations are arranged with reference to the various classes of certificates which are prescribed by the regulations, and it will therefore be convenient, at the outset, to examine the certificate systems in vogue in the different provinces. The following table shows the various grades of certificates which are granted in each province and the posts for which they render the holders eligible:—

Province.	Grade of certificate.	Posts for which the certificate qualifies.
Madras	Licentiate in Teaching	} Upper secondary teacher.
	Second grade collegiate	
	Upper secondary	} Lower secondary teacher.
	Lower secondary	} Upper primary teacher.
	Primary	} Lower primary teacher.
Bombay	Secondary teacher's certificate	Secondary school teacher.
	Primary teacher's certificate—	Primary teacher on pay of:—
	Third year's training certificate.	{ First class . . . . . R25
	Second year's training certificate.	{ Second class . . . . . R20
	First year's training certificate	{ First class . . . . . R15 Second class . . . . . R12 R9
Bengal	English secondary teacher's certificate—	} Teachers in English schools.
	First grade	
	Second grade	
	Third grade	
	Vernacular master's certificate—	} Vernacular teachers in middle schools. Primary school teacher.
	First grade	
Second grade		
United Provinces	Anglo-vernacular teacher's certificate—	} English high department.
	Senior	
	Junior	} English middle and primary departments.
	Vernacular teacher's certificate—	
	First grade	Head master, vernacular middle school.
	Second grade	Assistant master, vernacular middle school, or head master, vernacular primary school.

Province.	Grade of certificate.	Posts for which the certificate qualifies.
Punjab	Anglo-vernacular teacher's certificate— Senior . . . . . { First grade . . . . . { Second grade  Junior . . . . . { First grade . . . . . { Second grade  Vernacular teacher's certificate— Senior . . . . . { First grade . . . . . { Second grade Junior . . . . . { First grade . . . . . { Second grade Zamindari certificate . . . . .	Head master, high school. Head master, middle school, or assistant, high department. Assistant master, middle department. Head master, primary school.  } As above. Head master, zamindari school.
Burma	Anglo-vernacular teacher's certificate— Higher grade . . . . . Secondary grade . . . . . Primary grade . . . . .  Vernacular teacher's certificate— Secondary grade . . . . . Primary grade . . . . .	High department. } of an Middle department. } Anglo- Primary department. } vernacular school.  Middle department. } of a ver- Primary department. } nacular school.
Central Provinces	Collegiate grade . . . . . Secondary grade . . . . . Primary grade . . . . . { First class . . . . . { Second class	} Teachers in colleges and English secondary schools. } Primary teachers.
Assam	English teacher's certificate— Higher standard . . . . .  Lower standard . . . . .  English trained teacher's certificate, Khasi and Jaintia Hills— Fourth year class certificate . . . . . Third year class certificate . . . . . Second year class certificate . . . . .  Vernacular master's certificate— Third year class certificate . . . . . Second year class certificate . . . . . First year class certificate . . . . .  Guru's certificate . . . . .	Fourth and higher masters of high schools, head masters of middle English schools, and other masters drawing R35 a month and over. Masters drawing less than R35 a month.  Middle school master. Upper primary school master. Primary school master.  Head pandits and pandits drawing above R20, middle schools. Second pandits, and pandits drawing between R10 and R20, middle schools. Third and lower pandits of middle schools, head pandits of upper primary schools, and pandits drawing R10. Guru of a lower primary school.

Province.	Grade of certificate.	Posts for which the certificate qualifies.	
Berar .	Vernacular Teacher's certificate -	Vernacular teachers on pay of -	
	Third year's certificate	R	
	Second year's certificate	{ First class . . . . .	25
		{ Second class . . . . .	20
	First year's certificate	{ First class . . . . .	15
{ Second class . . . . .		12	
		10	
Coorg .	Primary teacher's certificate	Primary school or department.	

595. In general the certificates are granted on the result of departmental examinations at which two classes of candidates may present themselves: (a) students of training colleges and schools who have completed a prescribed course of theoretical and practical study; and (b) teachers of recognized schools who have rendered a certain period of service and hold certain general educational qualifications.

General features of the system.

596. Some special features of the provincial systems require separate notice. In MADRAS the certificate holders are classed as *trained* or *untrained* according as they come under head (a) or head (b) above. Untrained candidates must have served as teachers in recognized schools for at least two years. The Madras degree of Licentiate in Teaching is granted by the University; and this is the only recognition of teaching as a subject of study which has hitherto been accorded by the Indian Universities. In BOMBAY there are no training schools for secondary teachers, and the examination for the secondary teacher's certificate is open only to teachers who have served for at least one year in a recognized secondary school, and who possess certain general educational qualifications. Untrained teachers may appear for the first and second year's vernacular certificate in Bombay, but they must go through the last year's course of a training college if they wish to take the third year's certificate. In BENGAL the highest grade of English teacher's certificate is granted after examination to graduates without any prescribed preliminary training. Examinations for the two lower grade certificates are open to training class students and to teachers with three years' approved service. A teacher who holds a lower grade certificate may present himself for a higher grade certificate after five years' approved service. Teachers with prescribed educational qualifications who have rendered at least one year's service, are encouraged to appear at the examinations for vernacular mastership certificates. The UNITED PROVINCES and the PUNJAB have a system of provisional and permanent certificates; the system originated in the latter and was adopted by the former province. In the Punjab, provisional second grade senior and junior certificates, either vernacular or Anglo-vernacular, are awarded to normal students and to teachers of at least two years' standing (possessing prescribed general educational qualifications) who pass the corresponding examinations. Provisional second grade certificates are made permanent after a prescribed period of approved service; holders of second grade certificates may obtain provisional first grade certificates after a further period of approved service, and these are made permanent after yet another such period. In the United Provinces teachers, as well as students of normal institutions, are admitted to the vernacular certificate examinations, but only students from the training college may enter for the examination for the Anglo-vernacular certificates. Provisional first and second grade vernacular certificates are granted on the results of the vernacular certificate examination according to the division in which the student passes; they are made permanent after approved service, and the holder of a permanent second grade certificate may obtain first a provisional, and then a permanent, first grade certificate by rendering approved service. In BURMA *trained* and *untrained* teachers' certificates are granted on a system somewhat similar to that which obtains in Madras. The theoretical examination is the same for both classes, but the trained men have attended a normal school while the untrained men have not done so. The former partly acquire their practical

Provincial characteristics.

training in the school, the latter have to acquire it by teaching, either before or after passing the theoretical test. In the case of both a strict practical test is required, which includes reading, dictation, penmanship, repetition, class management, and oral lessons to classes. This test has to be undergone in two or three successive years, as the case may be, before a full certificate is given. No institutions give instruction for the higher grade English course, and the few persons who take the certificate are private candidates. In the CENTRAL PROVINCES *untrained* teachers' certificates are granted on the results of the certificate examinations (a) to teachers who have served for a year in a school under Government inspection, or (b) to pupils who have studied for not less than two years in a training class attached to a middle vernacular school. In ASSAM, the higher and lower English certificates are granted after examination to untrained teachers, and teachers who have not passed through the training schools are required to present themselves for the vernacular masters' certificate examination.

Approved service certificates.

597. In MADRAS and the CENTRAL PROVINCES some teachers hold "approved service" certificates. In Madras an approved service certificate may be awarded to a head master who possesses no professional certificate, but who, on the 1st April 1895, had seven years' approved service in recognized schools; for a teacher the period is five years. A batch of these certificates was granted to persons fulfilling the required conditions, and who, by reason of their age and standing, were unlikely to undergo professional training; the practice is no longer followed. In the Central Provinces, approved service certificates may be given by the Director, on the recommendation of an Inspector only, to such uncertified schoolmasters in vernacular schools as, being over 30 years of age, have rendered conspicuously efficient service.

Regulations regarding the employment of certificated teachers.

598. The heading "posts for which the certificate qualifies" in the statement at the beginning of this Chapter, must not be taken to mean that no head master or teacher is employed in a school unless he holds the appropriate certificate. This is still far from being the case. The regulations governing the professional qualifications of teachers vary in the several provinces, and are laid down with greater precision in some cases than in others. The purport of the regulations is summarized below:—

599. MADRAS.—The permanent head master of every newly-opened school, and every newly-appointed head master, must (1) hold a trained teacher's certificate,\* or (2) hold an untrained teacher's certificate\* with not less than four years' approved service, or (3) hold an approved service certificate. At least one-half of the staff of assistants must hold similar qualifications, except that the period of approved service under (2) is two instead of four years.

The Madras Education Department maintains a register of certificated teachers. The work was begun in the year 1896-97 and was completed during the quinquennium under review. The register contains in three separate parts the names of those to whom trained teachers' certificates, untrained teachers' certificates, and certificates of approved service, have been awarded. The inspecting officers are required to keep the registers corrected up to date.

600. BOMBAY.—Teachers of secondary schools are not required to hold the secondary certificate, but the possession of the certificate is taken into account in all questions of promotion. The number of teachers who hold the certificate is also considered in deciding on the adequacy and competency of the school staff in aided schools. Out of the 16,000 teachers in primary schools for boys, about 10,000 have passed the highest vernacular test for general education—the vernacular public service certificate examination; the residue are those lower assistants in schools who are either temporarily employed or who are preparing during their employment as assistants to pass the public service certificate test, and thus qualify for admission to a training college. Among the 10,000 who have passed the test nearly 5,600 have been trained in one of these colleges.

601. BENGAL.—Most of the teachers in the private managed schools, which form the bulk of the Bengal institutions, are untrained. Shortly after the close of the quinquennium a system of registration was introduced with a view to raise the standard.

\* This term includes the degree of Licentiate in Teaching.

602. UNITED PROVINCES.—Secondary schools. Uncertificated men may not be appointed to masterships in Government or aided Anglo-vernacular, or in State vernacular, schools, except in the absence of certificated candidates. At the close of the quinquennium this rule had not been enforced in Municipal schools. There are no rules which require that certificated men should be employed in the few aided vernacular secondary schools.

603. PUNJAB.—No substantive teachership may be conferred on any person in a Board school, who does not hold the prescribed professional certificate. Aided schools are encouraged to engage certificated teachers by a regulation which makes part of the grants depend on the employment of such teachers.

604. BURMA.—No teacher may be appointed in a Government or Municipal school, or in schools under the salary grant scheme, who has not obtained a trained or untrained teacher's certificate. In promoting from one department to another, preference is given to teachers who hold the required certificate. Should candidates with the necessary qualifications not be available, other candidates may be appointed, but they must pass the appropriate test within a specified time. Aided schools must employ certificated teachers, or require uncertificated teachers in their employ to qualify.

605. CENTRAL PROVINCES.—Without the written permission of the Inspector, no teacher may be appointed permanently to a Board school unless he holds the requisite certificate. It is a condition for the grant-in-aid of private-managed schools that the staff of teachers must possess either trained or untrained teachers' certificates.

606. ASSAM.—With the exception of certain persons exempted in 1884, every master of a Government or aided high or middle English school must pass by the appropriate English certificate standard within two years of his appointment on probation, and if permanent he must pass before he can be promoted. Pandits of vernacular schools may not be confirmed or promoted until they have passed by the appropriate vernacular certificate standard.

#### Institutions.

607. Table 114 gives a list of the institutions or classes of institutions, for the training of teachers which are maintained in the various provinces. The total comprises 6 English colleges or collegiate classes, 50 secondary teacher's schools, and 54 primary teachers' schools. Speaking generally the colleges train teachers for the high departments of secondary schools; the secondary schools, teachers for the high, middle or primary departments of English or vernacular secondary schools; and the primary schools, teachers for primary schools or primary teachers in secondary schools. All the colleges and 76 of the schools are maintained by the Government; one school belongs to a Native State, and the remaining 27 institutions are mission schools, and all but 4 of them are aided. General statistics.

608. MADRAS.—A regularly graduated series of institutions has been established in the Madras Presidency; at the head of the series are the Saidapet (near Madras) and Rajamundry colleges which train teachers for the Licentiate in Teaching of the Madras University and the second grade collegiate certificate; then come 7 upper secondary schools, 18 lower secondary schools, and 17 primary schools. A school usually has departments of all grades below that which is implied by its title. Thirty-one of the schools are managed by Government, and the remaining 11 by mission societies. Formerly a number of schools were maintained from local funds; in 1892 they were all taken over by the Government except two, which were transferred in 1898-1900. Of the Government schools one is intended for Muhammadans, one for Panchamas, and one for Mappillas, while two are for teachers of aboriginal schools in the hill tracts of Ganjam and Vizagapatam. Every district has at least one training school, and most of them more than one, the largest number (4) being in Malabar and Kistna. Description by provinces.

In addition to the ordinary schools there are a number of "sessional schools" for the improvement of primary teachers. These are established temporarily by Local Boards in places where there are a number of unqualified primary teachers, the object of the sessional school being to prepare the teacher to pass the primary examination and thus qualify for admission to a primary training school. Schools for imparting general education to primary teachers



were at one time fairly common in several parts of India (*e.g.*, the *guru* training schools of Bengal), but with the development of educational facilities they have been nearly all abandoned. Fifty-four sessional schools were at work during 1901-02, as compared with 76 in 1896-97; they were opened in all but six districts.

609. BOMBAY.—It will be remembered that in the Bombay Presidency the terms primary and secondary education are synonymous with the terms vernacular and English education. There are no institutions in the province for training English or secondary teachers. For the training of primary teachers there is a college in each of the four divisions of the Presidency, and two institutions of a lower grade, one at Dhulia (in Khandesh) and the other (a Native State school) at Rajkot in Kathiawar. The four colleges and the school at Dhulia are maintained by Government; students from Dhulia and Kathiawar who wish to complete the full course go to the Poona and Ahmedabad colleges, respectively. There is also an aided school belonging to the Christian Vernacular Education Society at Ahmednagar which trains teachers for the primary schools of the mission.

610. BENGAL.—There is a small class for native teachers in the Government European training college which was established at Kurseong in the year 1899-1900. The native teachers trained in this institution are posted to the various vernacular training schools for masters. For the training of English secondary teachers there were during the quinquennium special English classes in connection with the Government vernacular training schools at Calcutta, Dacca, Patna, and Cuttack. These English classes, which were started in the year 1896, have not been a success. Being an integral part of normal schools for the training of vernacular teachers, the classes were naturally regarded as having a low status, and failed to attract good candidates. They were consequently obliged to admit such students as they could obtain, and contained students whose educational qualifications differed too widely to admit of their being properly taught together. Even had the classes been well filled, the means of giving a proper training did not exist, since the practising schools attached to these institutions were not English high schools, such as the students were to be afterwards employed in, but vernacular schools. Moreover, the graduates in charge of the classes were themselves untrained men, without any acquaintance with the training of secondary teachers. They were unequal to the task of creating the art which they were called upon to impart, to students ill qualified to receive it, in institutions not equipped for the purpose. In December 1901 the Government of Bengal made proposals for replacing the unsatisfactory classes by a more suitable system, and these proposals were under consideration at the end of the quinquennium. The training of secondary vernacular teachers is conducted in eight Government schools, and one recognized aided mission school. The Government schools are situated at Calcutta, Hooghly, Dacca, Rangpur, Chittagong, Patna, Ranchi, and Cuttack; the mission institution is the Church Mission Society's training school at Krishnagar. For the training of primary school teachers there are lower grade classes in the Government schools at Cuttack and Balasore, and lower grade schools at Motihari (Champanan District) and Daltonganj (Lohardaga District). There are also six mission schools (five aided and one unaided) for training primary teachers. The few primary classes and schools are, of course, incapable of making any serious impression on the vast number of *gurus* who teach in the lower primary schools of Bengal. In former days an attempt was made to deal with the subject on a more comprehensive scale by a system of *guru training classes*. These classes were started in the year 1885-86. The head masters of certain selected middle schools were authorized to open classes for instructing the *gurus* of neighbouring *pathsalas* in the subjects of the upper primary examination, and to give them an elementary knowledge of school method. The course of instruction extended over one year, and a reward of one rupee a month was given to the head master for each *guru* trained by him. No special inducements were offered to the *gurus* to undergo this training. In 1885-87 there were 104 of these classes attended by 299 *gurus*, the number rose rapidly until 1890, when there were 212 classes containing 796 *gurus*. In 1891-92 the number dropped to 174 classes with 756 pupils, and as a stimulus rewards were offered to the *gurus* themselves. The popularity of the system continued, however, to decline, and in 1893-94 the

utility of the whole system came under discussion, with the result that it was abandoned. The failure of the scheme is attributed to the circumstance that, with the limited funds available for primary education, and under the system of payments by results, very little inducement could be held out to the *gurus* to qualify themselves by a course of training. A few days after the close of the quinquennium under review, orders were issued by the Government of Bengal for the establishment, under a new system, of a *guru*-training school in each sub-division, with a practising *pathshala* attached to it.

611. UNITED PROVINCES.—For the training of Anglo-vernacular teachers the Government maintains a college at Allahabad. There are four Government schools for the training of vernacular masters -- at Allahabad, Agra, Lucknow, and Moradabad. This distribution gives one school to each of the four circles of the plains, and leaves only the hill division of Kumaun unprovided for. There is also a small aided school which had only five pupils on the 31st March 1902.

612. PUNJAB.—The Government Central Training College at Lahore provides training for Anglo-vernacular teachers and for vernacular secondary teachers. For primary vernacular teachers, there is a normal school at the headquarters of each circle, namely, at Delhi, Jullundur, Lahore, Rawalpindi, and Multan.

613. BURMA.—The Government of Burma maintains three training schools, at Moulmein, Mandalay, and Toungoo, respectively. The Moulmein and Mandalay schools are for Anglo-vernacular and secondary vernacular teachers, and the Toungoo school is for primary vernacular Karen teachers. There are also three aided mission schools for masters. The Baptist college, Alôn, Rangoon, trains Anglo-vernacular and secondary vernacular teachers; the S. P. G. St. John's college, Rangoon, trains Anglo-vernacular secondary teachers; and the Roman Catholic school at Thonzè, vernacular secondary and primary teachers. The Burma Education Code makes provision for the payment of grants for pupil teachers employed in approved schools under prescribed conditions.

614. CENTRAL PROVINCES.—The Government training institution at Jubbulpore contains two departments, one for the training of teachers of the collegiate and secondary grades for employment in colleges and English schools, the other for the training of primary school masters. The Government also maintains normal schools at Nagpur and Raipur for the training of masters for the primary schools of the Marathi districts, and of the Hindi-speaking districts of the Eastern circle, respectively. There is no separate school for the training of Uriya teachers, but 20 pupil teachers' scholarships are attached to middle schools in the Sambalpur District. In addition to the normal schools proper, 62 vernacular middle schools are recognized by the department as competent to train teachers for the vernacular certificate examination on the bonus system, under which teachers are offered rewards for each student who passes the examination. These schools have not proved altogether a success, and the question of their re-organization is under consideration.

615. ASSAM.—The only institution for training English teachers is a Government second grade training school, which is combined with the high school at Shillong, and prepares teachers for the aboriginal schools of the Khasi and Jaintia hills. The Government first grade training school at Gauhati trains vernacular masters for middle and primary schools. The Government maintains four third grade schools for training primary school *gurus*, situated at Haflong (Cachar), Tezpur (Darrang), Sibsagar, and Dibrugarh, and *guru* training classes are also attached to 12 middle vernacular schools. There are three aided mission schools for primary teachers situated at Darrang, in the Naga hills; and in the Garo hills, respectively, and there is an unaided mission school at Kamrup.

616. BERAR and COORG.—Each of these small provinces has one Government school for training vernacular primary teachers. The Berar school is at Akola, and the Coorg school at Mercara.

617. There have been few important changes in the number, location, and management of the training institutions during the quinquennium under review. In MADRAS two Board schools were transferred to Government management, and the Hindu Branch Training School at Madras was amalgamated with a similar institution at Saidapet. The number of aided mission schools increased by two, and the number of unaided schools diminished by one. In BOMBAY the

Changes during the quinquennium.

only change was the abolition of the Native State school at Kolhapur. In BENGAL the Kurseong college was opened, the English class at Hooghly was closed, the number of Government vernacular schools increased by 4, and the mission list showed 6 aided and one unaided school against 7 aided schools in 1896-97. In the UNITED PROVINCES the training college was transferred from Lucknow to Allahabad, a new Government school was opened at Moradabad, and a small aided school came on the list. In the PUNJAB the only change was the abolition of all the zamindari classes formerly attached to each normal school, except that at Lahore. In BURMA, Government schools were opened at Mandalay (secondary) and Toungoo (primary); the S. P. G. St. John's training class at Rangoon and the Roman Catholic Thonzè school were also started during the quinquennium. In the CENTRAL PROVINCES there was no change in numbers, but the training institution was transferred from Nagpur to Jubbulpore. In ASSAM 7 of the *guru* classes attached to middle schools were abolished, an aided school was opened by the American Baptist Mission at Kohima, and the unaided mission schools decreased from two to one. There was no change in BERAR or COORG.

#### Control.

618. MADRAS.—The responsibility for the management and discipline of Government training colleges or schools is vested in the heads of those institutions, under the control of the Director in the case of colleges and of the Circle Inspector in the case of schools.\* The control of primary schools may, with the sanction of the Director, be entrusted to the Assistant Inspector. The responsibility for the management and discipline of mission schools is vested in the Manager recognized by the Department.

BOMBAY.—The general control of the Bombay schools is entrusted to the Circle Inspectors and their staff.

BENGAL.—Divisional Inspectors have under their special care first grade training schools, and Assistant Inspectors lower grade schools.

UNITED PROVINCES.—Normal schools are controlled by the Circle Inspectors to whom headmasters must submit quarterly reports.

PUNJAB.—The Central Training College is managed by the Principal, subject to the general control of the Director. The normal school at Lahore is under the immediate control of the Principal of the Training College. The other four normal schools are controlled by the Circle Inspectors, and are visited periodically by the Principal of the Training College.

BURMA.—During the last two years of the quinquennium all normal schools were placed under one Inspector, in order that a uniform plan of inspection might be followed. This has been greatly to the advantage of the schools, but has been a strain on the Inspector who performs the work in addition to the duties of his circle.

CENTRAL PROVINCES.—Both the training institutions and the normal schools are inspected by the Circle Inspectors.

ASSAM.—As a rule, the Director himself visits the training schools.

#### Staff.

619. The following table shows the strength of the teaching staff in selected institutions of various grades:—

Teachers' College, Saidapet.	Training College, Allahabad.
	₹
1 Principal (Indian Educational Service).	1 Principal . . . 300—400
1 Vice-Principal. (Ditto, ₹400—20—500).	1 Vice-Principal . . . 250—350
6 Senior Assistants. (Two belonging to the Provincial Service on pay which may vary between ₹200 and ₹700, the remainder on pay varying between ₹75 and ₹200).	1 Assistant . . . 125—175
3 Junior Assistants. (₹10 to 30).	1 Teacher of Sanskrit . . . 100
1 Drawing Instructor. (₹40—60).	1 Teacher of Arabic . . . 100
1 Gymnastic Instructor. (₹20—40).	1 Drill Master . . . 25

\* A special Inspector of European and training schools was appointed after the close of the quinquennium.

Central Training College, Lahore.	Normal School, United Provinces.
1 Principal (Indian Educational Service). 1 Assistant Superintendent, R150—350. 2 Assistant Masters. 1 Science Master. 1 Maulavi. 1 Gymnastic Instructor.	1 Headmaster (pay varies from R100 to R175 in different schools). 2 General Assistants. (R40 to R90.) 1 Urdu Teacher. (R30—40.) 1 Hindi Teacher. (R30—40.) 1 Gymnastic and Drill Instructor.
Normal School, Punjab.	Guru School, Assam.
1 Headmaster. 1 Second Master. 1 Oriental Teacher. 1 Vernacular Teacher. 1 Gymnastic Instructor.	1 Head Pandit. 1 Assistant Pandit. (Paid by a system of fixed pay combined with rewards on the result of examinations.)

**Buildings and Equipment.**

620. The following summary will show that the normal colleges and schools are, with some exceptions, well housed and equipped.

**MADRAS.**—The Saidapet College is a well-equipped and managed institution capable of affording an excellent training for teachers. The accommodation is, however, insufficient and a new building is to be constructed. Besides the ordinary class room equipment, the college has a circulating and consulting library, a museum, a teachers' association in which papers are read on various educational subjects, a popular science club, and a recreation club. The Rajamundry College is a smaller institution; a building was constructed for it during the quinquennium. For normal schools, it is laid down in the Education Rules that every institution shall be provided with the necessary furniture and gymnastic apparatus; and with appliances, models, pictures, and specimens needed for giving instruction in object lessons and elementary science. It must also be provided with a library containing, among other books, suitable works on the theory, history, and practice of education.

**BOMBAY.**—The Director states that the training institutions at Hyderabad, Ahmedabad, and Dharwar are excellently equipped, but that at Poona the college and students are located in separate hired buildings, situated in the heart of the city and generally unsuitable for the purposes assigned to them. The question of providing better accommodation for the Poona school is recognized to be an urgent one.

**BENGAL.**—No special information is available regarding the buildings and equipment of the Bengal schools.

**UNITED PROVINCES.**—The Director states that the Allahabad College building is neither adapted nor adaptable to its work. The need of a 'theatre' room is greatly felt, several of the class rooms are too small, and the laboratory is badly lighted. He says that it will be impossible to carry on work in the building if the numbers rise to anything like the total for which stipends are provided. The college is, however, well equipped: it has a spacious play-ground and good gymnastic apparatus; its laboratory is supplied with all that is required for science teaching in schools, and every year money is spent in adding to the appurtenances. The four normal schools have sufficient accommodation and are well equipped.

**PUNJAB.**—The Lahore Central Training College is well provided for in the matter both of buildings and of equipment; and all the normal schools, except that at Delhi, have suitable buildings. The erection of a new building at Delhi was begun before the quinquennium closed.

**BURMA.**—The Director praises highly the equipment of the Burma schools for which the Government has made liberal grants.

**CENTRAL PROVINCES.**—The principal training institution was formerly situated at Nagpur in an inconvenient quarter of the town. In 1901-02 the institution was removed to Jubbulpore, which is "by far the most important centre of normal educational life and influence, and demands the most attention." Nagpur was thus left with only a normal vernacular school, which the Director selects for special praise in the matter of its building and surroundings.

### Hostels.

621. Hostels are attached to all the training colleges, and to all or most of the training schools of the large provinces, except (apparently) in the Madras Presidency. In some provinces residence in the boarding-house is compulsory, and everywhere the majority of the pupils reside in the schools. They thus have the advantage of a more thorough and satisfactory training than could be given to them in non-residential institutions. The arrangements for the accommodation and supervision of students appear to be, in general, adequate. The following is a summary of the information to be gathered about the different provinces :—

**MADRAS.**—During the quinquennium under review three hostels were attached to the Saidapet College—one for Smartha Brahmans, one for Vaishnava Brahmans, and one for Native Christians; a fourth hostel for Sudras was constructed during 1901-02. All pupils of the college live in these hostels, and their effect on the training of the students has been excellent. In his Report for the year 1901 the Principal says :—

The hostels attached to the college are very popular with the students. Every student is now in residence within the college compound, and is living under a supervision, mild but effective. The experience of every year strengthens what I have written before in this annual report. It is impossible for the Government and the Director to overestimate the far-reaching effect for good that the hostels have both on the bodies and on the minds of the students. There is much less sickness now, a breach of discipline is almost unknown, the college societies flourish, and numerous little societies, which are not public, but which exercise a wholesome influence on those who join them, are the direct outcome of the students living in the hostels. In a marked degree, but still in a lesser degree, the gratifying results of the various examinations, especially of the L. T. Degree examination, are to be attributed to these voluntary associations of students for purposes of reading made possible by their living together in common.

**BOMBAY.**—The boarding arrangements are satisfactory, except at Poona where the students are located in separate hired buildings.

**BENGAL.**—Hostel accommodation is attached to the Kurseong College and to the Bengal schools, but there is no special information available with regard to it.

**UNITED PROVINCES.**—Except for special reasons, all students of the Allahabad College must reside on the college premises. The Director says that the new boarding-house is in every way satisfactory, and is admired by all who visit it. Students of normal schools must reside in the attached hostels.

**PUNJAB.**—Boarding-houses are provided at the Central Training College and all the normal schools; residence is compulsory except on special exemption. The Director reported in 1900 that the boarding-houses are carefully managed and supervised.

**BURMA.**—Residence in a boarding-house is compulsory and a boarding fee is charged.

**CENTRAL PROVINCES.**—Boarding-houses are attached to all the schools; the accommodation is said to be specially good at Nagpur, and to be hardly adequate for the large number of pupils at Jubbulpore.

### Practising Schools.

622. All training colleges and schools have practising or model schools attached to them, in which the students receive practical instruction in the art of teaching. In general, the practising schools are well managed and give an education which is probably superior to that obtainable in an ordinary school. The following notes on the practising schools of Madras, Bombay, the United Provinces, and the Punjab illustrate the system :—

Each training institution in MADRAS has a practising school attached to it of grade one lower than itself; thus a training college has a full upper secondary practising school, an upper secondary training school has a lower secondary practising school, a lower secondary training school has an upper primary practising school, and a primary training school has a lower primary practising school.

The practising school attached to the Saidapet College gives instruction to about 420 boys in all stages from kindergarten to matriculation. In his report for 1901 the Principal says :—

We have again for the third year a large increase in the number of children in the practising school, a most necessary adjunct to the college. For years after the college was removed

to Saidapet, the people of this locality looked on the teaching by the normal students with suspicion, and in many cases they sent their children by train to the Madras schools. But in recent years the marked and continued success of the boys in the various public examinations has broken down all opposition and swept away all prejudice, so that all the boys of Saidapet are in the practising school until they have passed the matriculation. I mention this, because I believe this prejudice against the teaching in practising schools is universal, whereas, if the school is well organised, the teaching should be above the average.

The Director mentions in his Report for 1901-02, the difficulty with regard to securing an adequate attendance of pupils for the practising schools. He says:—

One defect (of the system) is that the practising schools are seldom large enough to afford the necessary practice for students. Parents do not care to send their children to be made the subject of experiment, and the attraction of extremely low fees is insufficient to overcome their objection. A remedy is to give each practising section a complete and efficient staff of its own independent of the training school, so that pupils may not have to depend on the lessons given by students under training to such an extent as they do at present.

623. The BOMBAY training colleges have primary schools attached to them. To take one instance, the practising school of the Ahmedabad college has nearly 200 boys, and a staff comprising an ex-training college student, and four assistants, all picked men. The UNITED PROVINCES training college suffered whilst at Lucknow from the want of a suitable practising school, but at Allahabad it is well served by the Government High School. The normal schools of the United Provinces have vernacular middle grade practising schools. The PUNJAB Central Training college has a practising high school with about 700 pupils, under the management of a trained officer of the Indian Educational Service, who is subordinate to the principal of the college. The Director reports that the quality of the teaching in the school compares favourably with that of other schools in the province. After noticing the examination results he says:—

Much of the work, perhaps the most important part of it, cannot be estimated by examinations, and it is gratifying to note that the teachers do not confine themselves entirely to the prescribed course. Kindergarten occupations and drawing have been introduced into the primary department; the teachers make good use of objective illustrations; in physical training—cricket and football—the school still stands first in the circle; and there is a good tone in the school. The formation of character is regarded by the head master as the most important part of the teacher's work.

The practising schools attached to the normal schools of the Punjab are Anglo-vernacular, and they provide instruction up to the upper primary standard. It is necessary that the schools should be of the Anglo-vernacular type, because schools teaching the vernacular course would not find pupils in the large towns in which the normal schools are situated.

#### General and Physical Training.

624. The reports which deal with this subject are almost unanimous in their praise of the general training afforded by the normal colleges and schools; the opportunity for imparting such training is greatly increased by the circumstance that in most cases the students reside in the institution under the supervision of the staff. The good results which have been achieved at SAIDAPET have already been noticed. The Director of the UNITED PROVINCES states of the normal schools that: "The conduct of students has generally been satisfactory. They are, of course, somewhat uncouth and mannerless when they first join, being but simple villagers, but they are tractable, and, being anxious to improve, soon learn how to behave. Altogether the normal school students are the highest product of purely vernacular education in the United Provinces, and the system which places the instruction of the children of the people in their hands, under proper supervision, is full of promise." Some disciplinary difficulties occurred in the Lucknow school during the year 1901-02. The training college for English teachers receives a good class of students, among whom an excellent tone prevails, and a spirit of enthusiasm is developed. In a letter, dated the 13th July 1900, the Government of the PUNJAB remarked that the discipline maintained in the normal schools of that province is strict but wholesome. With regard to the Central Training College the Local Government said: "The students are carefully selected; a high standard of discipline is maintained; and it is believed that the young men sent forth are not only fitted, by their training, to be efficient teachers, but to have an uplifting influence on the schools." In

Discipline  
and  
training.

the Report for 1901-02, the Director says that the conduct of the college students throughout the year was excellent. The Director of the CENTRAL PROVINCES states, in his report for 1901-02, that the Nagpur school "has maintained its reputation for soundness of instruction, and excellence of tone and discipline." The discipline of the Raipur school, on the other hand, was not quite so satisfactory as it should have been.

Physical training.

625. In a normal school, physical training is important both from the point of view of the physique of the students themselves, and from the point of view of their duties towards the pupils they will afterwards be called on to educate. In general, adequate attention appears to be paid to this subject and the pupils of all normal institutions are taught drill, or gymnastics, or both, and are also given facilities for the enjoyment of out-door games. At SAIDAPET all students are taught drill and gymnastics throughout the year, and they compete successfully in the Madras Athletic Association sports. In BENGAL drill was made compulsory for training school pupils towards the end of 1901. The UNITED PROVINCES Director states that: "Physical education receives plenty of attention in all normal schools, and there is a marked improvement in the physique of the pupil teachers at the end of the two years' course. At first they do not take kindly to athletics, but they soon overcome their reluctance, and many of them before they leave are quite proficient in drill and gymnastics." In the training college for English teachers drill is well looked after, and the students are trained to teach drill and gymnastics; the course which they undergo produces excellent results on their own physical development and health. The PUNJAB Director states that: "All the students are required to devote three hours a week to drill and gymnastics and one hour a week to the principles of physical training. Tennis, cricket, and football were played regularly throughout the year, but in the matches the college team did not do well. The great want has hitherto been a cricket ground; and now, that this want has been supplied, it is hoped that the students will take a keener interest in games, and that out-door sports will be better organized." In BURMA great attention is paid to discipline, to physical training, and to games. The CENTRAL PROVINCES Director praises especially the physical instruction given in the Jubbulpore institution.

Course of Instruction.

General features of the higher grade courses.

626. Although the line of demarcation cannot be precisely drawn, it may be said that, speaking generally, the preliminary qualifications and general course are of a higher character in the two Madras colleges, the Kurseong College, the Bengal English classes, the Allahabad Training College, the Central Training College at Lahore, and the collegiate branch of the Jubbulpore Training Institution, than they are in the normal schools generally. It will therefore be convenient, in describing the general features of the system, to deal first with the institutions of higher grade and then with the rest.

627. The following table shows, for the higher grade institutions, the general arrangements with regard to entrance qualification, length of course, examinations, and certificates. The classes of appointments which correspond to the various grades of certificates have already been stated:—

Institution or Class.	Department.	Preliminary educational qualifications.	Length of course.	Examinations.	Certificates.
Teachers' College, Saidapet, and Training College, Rajamundry.	Senior section	University degree	One year	At end of course.	Licentiate in Teaching of the Madras University.
	Junior section	F. A. examination	Ditto	Ditto	Second grade collegiate teacher's certificate.
Training College, Kurseong.	No prescribed course. Selected teachers are sent for four months' training to the European College. Two batches are trained each year.				
English classes, Bengal.	Second class	F. A.	One year	At end of course.	Second grade certificate.
	Third class	Entrance examination	Ditto	Ditto	Third grade certificate.

Institution or Class.	Department.	Preliminary educational qualifications.	Length of course.	Examinations.	Certificates.
Training College, Allahabad.	Senior department	University degree	One year	At end of course.	Senior Anglo-vernacular certificate.
	Junior department	F. A. or entrance examination.	One year for F. A. students and two years for other students.	Ditto	Junior Anglo-vernacular certificate.
Training College, Lahore.	Senior Anglo-vernacular class.	University degree	One year	Ditto	Provisional second grade senior Anglo-vernacular certificate.
	Junior Anglo-vernacular class.	Study up to the intermediate standard.	Ditto	Ditto	Provisional second grade junior Anglo-vernacular certificate.
	Senior vernacular class.	Entrance examination or junior vernacular teacher's certificate.	Ditto	Ditto	Provisional second grade senior vernacular certificate.
Collegiate Branch of the Jubbulpore Training Institution.	Collegiate grade	University degree	Two years	Ditto	Collegiate grade certificate.
	Secondary grade	F. A., matriculation, or school final examination.	Ditto	Ditto	Secondary grade certificate.

628. The system is much the same in all these institutions. The general type is a course extending over one year (a) for graduates, and (b) for students who have passed the school final, University entrance, or F. A. examination. The course differs for each class of students; it is designed for English school teachers, and instruction is given through the medium of English. The only exception to this is the senior vernacular department of the Lahore College, which trains vernacular secondary teachers through the medium of Urdu. The Kurseong course for training normal school masters is on a different footing from the rest. Bengal gives a teachers' certificate to graduates, but, as already stated, candidates for the examination do not go through a preliminary period of instruction. Candidates for the higher grade Burma Anglo-vernacular certificate (for which also there is no special instruction) must have passed the secondary grade examination with half marks; and must be at least University matriculates. The course in the Central Provinces has recently been raised from one to two years; it is still one year in the case of students who have taught for two years in a recognized English school.

629. The following table gives details for the lower grade institutions and classes:—

Province.	Grade of institution or class.	Preliminary educational qualifications.	Length of course.	Examinations.	Certificates.
Madras	Upper secondary	Matriculation or upper secondary examination.	One year	At end of course.	Upper secondary certificate— First class. Second class.
	Lower secondary	Lower secondary examination.	Ditto	Ditto	Lower secondary certificate— First class. Second class.
	Primary	Primary examination	Ditto	Ditto	Primary certificate— First class. Second class.
Bombay	Primary (vernacular).	(1) Public service certificate or University examination. (2) Competitive examination.	One, two, or three years. (One or two at Dhulia and in Kathiawar.)	Two each year: the first a term examination, and the second a certificate examination.	First year's certificate. Second year's certificate— First class. Second class. Third year's certificate— First class. Second class.

General features of the lower grade courses.



Provinces.	Grade of institution or class.	Preliminary educational qualifications.	Length of course.	Examinations.	Certificates.	
Bengal :	First grade (vernacular).	Middle vernacular scholarship examination, or special examination (in Behar, Chota-Nagpur, and Orissa only).	One, two, or three years.	First year . Second year . Third year .	Vernacular master's certificate, third grade. Ditto, second grade. Ditto, first grade.	
	Lower grade (vernacular).	Varies from middle scholarship examination downwards.	One or two years.	At end of each year.	Third grade or primary certificate.	
United Provinces.	Vernacular . . .	Vernacular middle examination.	Two years .	At end of course	First grade (provisional). Second grade (provisional).	
Punjab	Junior vernacular .	Middle school examination.	One year .	Ditto .	Provisional second grade-junior vernacular certificate.	
	Zamindari class .	Ditto	Ditto .	Ditto .	Zamindari certificate.	
Burma .	<i>Anglo-vernacular.</i>					
	Secondary grade class.	Seventh standard, Anglo-vernacular.	Three years . (One year if the student has already passed the University Entrance examination)	Annual, also entrance examination before certificate is given.	Secondary grade certificate.	
	Primary grade class.	Fifth standard, Anglo-vernacular.	Ditto .	Annual, also 7th Anglo-vernacular standard before certificate is given.	Primary grade certificate.	
	<i>Vernacular.</i>					
	Secondary grade class.	Fifth standard, vernacular.	Ditto .	Annual, also 7th Vernacular standard before certificate is given	Secondary grade certificate.	
Central Provinces.	Primary grade class.	Fourth standard, vernacular.	Two years .	Annual .	Primary grade certificate.	
	<i>Vernacular.</i>					
	First class . . .	At least the primary examination.	Ditto .	Special test examination at end of course, and Anglo-vernacular, 4th class.	Primary grade certificate, first class.	
	Second class . . .	Ditto .	Ditto .	Special test examination at end of course, and vernacular, 6th class.	Primary grade certificate, second class.	
Assam .	English, second grade.	English middle standard or less.	Two, three, or four years.	Second year . Third year . Fourth year .	Primary school master's certificate. Upper primary school master's certificate. Middle school master's certificate.	
	Vernacular, first grade.	Vernacular middle examination or special test.	One, two, or three years.	First year . Second year . Third year .	Third grade vernacular-master's certificate. Second grade ditto. First grade ditto.	
	Guru training school or class.	Up to first class of a lower primary school.	Two years .	End of course .	Guru certificate— High. Medium. Low.	
	Berar .	Primary, vernacular	(1) Vernacular standard VI or Anglo-vernacular standard III. (2) Entrance examination.	One, two, or three years.	As in the Bombay course.	As in the Bombay course.
Ditto . . .		Lower secondary examination.	One year .	End of course .	Primary master's certificate.	
Coorg . . .	Ditto . . .	Lower secondary examination.	One year .	End of course .	Primary master's certificate.	

630. Here we find much greater variety than in the higher grade institutions. The qualifications prescribed for entry into the schools vary in some cases according to the standard of certificate for which the student is to be trained. Generally, the middle school examination or an equivalent is the lowest standard recognized, but in some cases a still lower standard is accepted for primary teachers. The length of the course is one, two, or three years in Bombay, Bengal (first grade schools), Assam (first grade vernacular schools), and Berar; and two, three, or four years in the Assam second grade English schools. In Burma the course extends over three years, except the primary course which is only of two years' duration. In the United Provinces and the Central Provinces the course lasts for two years, and in Madras, the Punjab, and Coorg for one year only. Where it is said that the course extends over one, two or three years (or over two, three or four years), students leave after one or other of the periods stated, and the grade of certificate which they receive depends on the length of the period of instruction. In Bombay after the annual certificate examination a certain number of men who score a high percentage among the first or second year's students are retained according to the requirements of the department to go through the second or third year's course. The rest who pass are given the certificates which they have earned, and are sent out for employment. After two or three years' service they can, if they wish to improve their prospects, present themselves for examination for the third year's certificate. The variation in length of the course which exists between one province and another is due in great measure to the extent and character of the general education, if any, which is given alongside the professional instruction. Instruction is given through the medium of the vernacular everywhere, except in the Madras upper secondary schools, the Burma Anglo-vernacular schools, and the Shillong school.

631. The following table shows in outline the subjects of study followed in the several institutions and classes, beginning with those of the higher grade and proceeding to those of the lower grade :—

*I.—Higher grade institutions and classes.*

Institution.	Department.	Subjects of study.
Teachers' College, Saidapet, and Training College, Rajamundry.	Senior section . . .	<ol style="list-style-type: none"> <li>1. Principles of education.</li> <li>2. History of education.</li> <li>3. Methods of teaching and school management.</li> <li>4. Reading and recitation.</li> <li>5. Black board exercises.</li> <li>6. Free-hand drawing.</li> </ol>
	Junior section . . .	<ol style="list-style-type: none"> <li>1. Organization.</li> <li>2. Discipline and moral training.</li> <li>3. Methods of teaching.</li> <li>4—6. As in senior section.</li> </ol>
Kurseong Training College.	...	Art of teaching, discipline, organization, and kindergarten methods.
English classes, Bengal	...	<ol style="list-style-type: none"> <li>1. Class management.</li> <li>2. Methods of teaching.</li> <li>3. Organization.</li> <li>4. Registration.</li> <li>5. The school building and equipment.</li> </ol>
Allahabad Training College.	Senior class . . .	<ol style="list-style-type: none"> <li>1. English reading and conversation.</li> <li>2. Mathematics.</li> <li>3. One of the following :—                             <ol style="list-style-type: none"> <li>(a) English.</li> <li>(b) Science.</li> <li>(c) Classical language.</li> </ol> </li> <li>4. School management and criticism lessons.</li> <li>5. Practice of teaching.</li> </ol>

## 1.—Higher grade institutions and classes—contd.

Institution.	Department.	Subjects of study.
Allahabad Training College—contd.	Junior class	1. English. 2. Translation and re-translation. 3. Mathematics. 4. Drawing. 5. Elementary science. 6. School management and criticism lessons 7. Practice of teaching.
Central Training College, Lahore.	Senior Anglo-vernacular class.	1. English. 2. Mathematics. 3. Elementary science. 4. School management. 5. Practice of teaching.
	Junior Anglo-vernacular class.	1. English. 2. Arithmetic and mensuration. 3. Geography. 4. School management. 5. Practice of teaching.
	Senior vernacular class.	1. Vernacular language. 2. Persian. 3. Mathematics. 4. History and geography. 5. Elementary science. 6. School management. 7. Practice of teaching.
Collegiate Branch of the Jubbulpore Training Institution.	Collegiate class*	1. Principles of education. 2. History of education. 3. Practice of education :— (a) Organization. (b) Methods of teaching. (c) Discipline.
	Secondary grade class*	Same as the above (omitting 1.) for the class of school concerned.

\* Physical science, drawing, and manual training are optional.

## II.—Lower grade institutions and classes.

Province.	Class or grade of institution.	Subjects of study.
Madras	Upper secondary grade	1. Organization. 2. Discipline and moral training. 3. Teaching. 4. Reading and recitation. 5. Black board exercises. 6. Free-hand drawing. 7. Model lessons and criticism lessons. 8. Teaching in the practising school.
	Lower secondary grade	Same as the upper secondary grade, items 3 and 8 being modified to suit the grade of school for which the teachers are being trained.
	Primary grade	Ditto ditto.
Bombay	Primary	1. Vernacular language. 2. Classical language. 3. Mathematics. 4. History and geography. 5. Elementary science. 6. Political economy (third year). 7. Drawing. 8. School management and teaching.

II.--Lower grade institutions and classes--contd.

Province.	Class or grade of institution.	Subjects of study.
Bengal	First grade . . . . .	1. Vernacular language. 2. Classical language. 3. History. 4. Geography and elementary descriptive astronomy. 5. Mathematics and surveying. 6. Drawing. 7. Elementary physics and sanitation.* 8. Art of teaching.
	Lower grade . . . . .	A similar but more elementary course.
United Provinces	Vernacular . . . . .	1. Vernacular language. 2. Mathematics. 3. History and geography. 4. General knowledge (agriculture, rent and revenue law, obligations imposed on the public by the criminal law). 5. Elementary science. 6. School management. 7. Practice of teaching. (also practical agriculture at Moradabad.)
	Junior vernacular . . . . .	1. Vernacular language. 2. Classical language. 3. Mathematics. 4. Geography. 5. Agriculture. 6. School management. 7. Practice of teaching.
Punjab	Zamindari . . . . .	1. Vernacular language. 2. Arithmetic. 3. Agriculture. 4. School management. 5. Practice of teaching.
	<i>Anglo-vernacular.</i>	
Burma . . . . .	Secondary grade . . . . .	1. Subjects of the 8th and 9th Anglo vernacular standards. 2. Practice of teaching. 3. School management.
	Primary grade . . . . .	1. Subjects of the 6th and 7th Anglo-vernacular standards. 2 and 3. As above.
	<i>Vernacular.</i>	
	Secondary grade . . . . .	1. Subjects of the 6th and 7th vernacular standards. 2 and 3. As above.
	Primary grade . . . . .	School management and practice of teaching.
Central Provinces	First class . . . . .	School management and practice of teaching.
	Second class . . . . .	1. Vernacular middle course. 2. School management and practice of teaching as above.
Assam . . . . .	English second grade . . . . .	1. High school course. 2. Theory and practice of teaching. 3. Sanitary science.

\* Towards the latter part of 1901 the curriculum was modified so as to include chemistry, botany, agriculture, and natural history, in addition to physics and sanitation, and manual work was made an optional subject.

## II.—Lower grade institutions and classes—concl'd.

Province.	Class or grade of institution.	Subjects of study.
Assam--cont'd.	Vernacular first grade .	1. Vernacular literature. 2. Sanskrit. 3. Mathematics. 4. Surveying. 5. History and geography. 6. Hygiene. 7. Rudimentary science. 8. Theory and practice of teaching.
	Vernacular third grade or <i>guru</i> class.	1. Vernacular literature. 2. Arithmetic. 3. Mensuration. 4. Geography. 5. Hygiene. 6. Theory and practice of teaching.
Berar . . . . .	Primary . . . . .	Similar to the Bombay course; but the amount of science required is less and there is no political economy.
Coorg . . . . .	Primary . . . . .	Teaching and school management.

General education in training institutions.

632. The first point to attract attention is the different degree to which general education enters into the course in the various institutions and classes. Among institutions of the higher grade the course is wholly, or in the main, professional, except at the Allahabad and Lahore Colleges where only about one-third of the working hours are devoted to professional subjects. At Saidapet attention is directed to English reading and recitation and to free-hand drawing, subjects specially required to enable an Indian to teach well in an Anglo-vernacular school. In lower grade institutions general subjects form an important portion of the course everywhere except in Madras and Coorg; and in the courses for the first class primary certificate in the Central Provinces, and for the primary vernacular grade certificate in Burma. In most cases a special course of instruction is given in general subjects; but in Burma, the Central Provinces, and the Assam English school, the general school course is taken up at the stage at which the students have arrived when they begin their normal training.

633. The following table illustrates the division of the hours of class study contained in one week in the United Provinces and the Punjab:—

Senior Anglo-vernacular class, Allahabad.	Senior Anglo-vernacular class, Lahore.	Normal school, United Provinces.	Normal school, Punjab.
Hours.	Hours.	Hours.	Hours.
English reading and conversation . . . . . 3	English reading and conversation . . . . . 6	First language . . . . . 3	Urdu . . . . . 3
Mathematics . . . . . 3	Translation, re-translation, and letter writing . . . . . 3	Second language . . . . . 3	Persian . . . . . 3
English, elementary science, or a classical language . . . . . 12	Grammar and analysis . . . . . 2	Mathematics . . . . . 6	Mathematics . . . . . 10
School management and criticism lessons . . . . . 10	Elementary science . . . . . 5	History and geography . . . . . 2	Geography . . . . . 2
Drill and gymnastics . . . . . 3	Mathematics . . . . . 2	Agriculture, sanitation, and rent and revenue law . . . . . 2	Agriculture . . . . . 2
	School management and criticism lessons . . . . . 12	Geometrical drawing . . . . . 2	Object lessons . . . . . 3
	Gymnastics . . . . . 3	Object lessons . . . . . 3	School management . . . . . 5
		Physical science . . . . . 3	Practice of teaching . . . . . 5
		School management . . . . . 3	Drill . . . . . 3
		Practice of teaching . . . . . 3	
		Drill and gymnastics . . . . . 6	
31	33	36	3

634. The system under which the Madras training school course is confined to professional subjects is found to work badly, especially in the primary schools, and it has been decided to modify it. In the Report for 1901-02 the Director states as follows :—

As their knowledge of the subjects which they have to teach is when they enter the school so it remains when they leave it: a trained teacher may often know all about methods of teaching and yet not be able to apply them because there is no subject that he knows well enough to be fit to teach it. The theory is that general knowledge should be acquired at ordinary schools; knowledge of the art of teaching at training schools. In practice, however, it is found that ordinary schools do not give the kind of general knowledge which a teacher should possess. It is therefore now proposed that this defect should be supplied in the training school itself. A beginning will be made with primary training schools, as it is in these schools especially that the defect is noticed. The course will be extended to two years, perhaps ultimately to three and at least half the time will be devoted to improving the student's knowledge of the subjects he will have to teach. A similar change will in time be made in secondary training schools and in training colleges.

In Coorg a change has been made in the opposite direction. Formerly the course in the Mercara school extended over three years; during the first two years pupils were prepared for the lower secondary examination, and during the third year they received professional instruction. In 1901 the standard for admission to the school was raised to the lower secondary examination, and the first two years of preliminary study were abolished. It is observed in the General Administration Report, that this reduction in the length of the course trebles the rate at which trained teachers can be made available at the expenditure of the limited allotment for stipends.

635. The character of the theoretical instruction in professional subjects which is given in the Indian training colleges and schools is illustrated by the following abstract of selected courses of various grades :—

Theoretical  
course of  
professional  
instruction.

#### COURSE FOR THE L. T. DEGREE OF THE MADRAS UNIVERSITY.

##### I. Principles of education—

- (1) The relation of education to the science of mind.
- (2) The various modes of mental activity and their connection with bodily structures and functions.
- (3) The relation of the teacher to each mode of mental activity.
- (4) Characteristics of different ages.
- (5) The natural order of the acquisition of knowledge during these periods respectively, as determined by the order of development and the laws of growth and operation of the intellectual faculties.

##### II. History of education—

- (1) History of education (general), education in Europe from the rise of the Universities to the present time.
- (2) Special periods or writers.

##### III. Methods of teaching and school management—

- (1) The site, structure, fittings and furniture of school buildings.
- (2) Sanitary conditions of effective teaching.
- (3) Physical exercises.
- (4) Books and appliances.
- (5) Registers and returns.
- (6) Organization of schools.
- (7) Classification of scholars.
- (8) Means for securing discipline, order, regularity, and punctuality.
- (9) Distribution of school-work among the teachers.
- (10) The apportionment of time.
- (11) Order and co-relation of studies.
- (12) The art of questioning as a means of instruction.
- (13) The use of lectures, of catechetical *vivā voce* teaching from a text-book, and of catechetical *vivā voce* teaching without a text-book.
- (14) Methods of teaching and of illustrating each of the subjects in an ordinary school course, with special reference to the English and vernacular languages (including all the various branches of instruction falling under those two heads), mathematics, geography, history, and physical science.
- (15) Preparation of teaching notes.
- (16) Examination, *vivā voce* and in writing.
- (17) The management of a class.
- (18) The use of the black board and other appliances.

LAHORE CENTRAL TRAINING COLLEGE, SENIOR ANGLO-VERNAICULAR COURSE.

The theoretical test for the Senior Anglo-vernacular certificate includes the methods of teaching mathematics, natural science, a foreign language, and all the subjects taught in schools, as in Currie's "Common School Education" and a "Manual of the Science and Art of Teaching." A knowledge of the Punjab Education Code and of school registers is also required.

JUBBULPORE INSTITUTION, COLLEGIATE GRADE COURSE.

The subjects of examination for the professional test are as follows :—

*I. Principles of education—*

- (1) Physiology in relation to education.
- (2) The science of mind in relation to education—
  - (a) the faculties, order of development, growth and exercise ;
  - (b) the emotions and the will, with reference to discipline.

*II. History of education—*

The history of education with special reference to the educational theories of Rousseau, Pestalozzi, Froebel, and Herbert Spencer.

*III. Practice of education—*

- (1) The organization of a school containing standards from the first to the entrance class—the school building and its surroundings ; the furniture, apparatus, and library ; time-tables, the classification of pupils and the distribution of the teaching staff, school registers, returns and official correspondence.
- (2) Methods of teaching—(a) Notes on lessons. (b) Oral teaching, with or without a text-book, with special reference to the art of questioning, and of bringing home to the pupil the lessons of truthfulness, sobriety, respect for authority, obedience, and general morality, which the text-book may suggest. (c) The best methods of teaching the subjects prescribed in the curriculum for primary, middle, and high schools.
- (3) Discipline.

MADRAS, LOWER SECONDARY GRADE COURSE.

The following is the theoretical test for the Madras lower secondary certificate :—

*I. Organization—*

Site, plan, and dimensions of school buildings. Sanitary requirements. Fittings and furniture. Apparatus. Libraries. Qualifications of teachers. Teaching staff. Distribution of work among the teachers. Time-tables. Registers and returns.

*II. Discipline—*

Elements of discipline. Aims of discipline. Means of securing discipline. Rewards and punishments.

*III. Teaching—*

Preparation of lessons both by the teacher and the pupils. Questioning. Illustrations. Use of the vernacular languages in teaching English and other subjects. Use of apparatus. Methods of teaching the various subjects included in the curricula of primary schools, with or without text-books. Physical exercises.

BURMA, ANGLO-VERNAICULAR AND VERNAICULAR SECONDARY GRADE COURSES.

The following are the special tests for the Burma Anglo-vernacular and vernacular secondary grade certificates :—

*First year.*—Questions on the best method of teaching English and vernacular reading, spelling, grammar, composition, translation, and writing in a high school. Writing notes of lessons.

*Second year.*—First year's course and questions on the best method of teaching arithmetic, geography, and drawing in a high school. Questions on the art of oral teaching. Questions on the principles of the kindergarten system. Writing notes of lessons.

*Third year.*—The subjects of the first and second years. Questions on the form of school registers, the mode of keeping them, making returns from them, and regarding the correct forms of official correspondence. Writing notes of a lesson on a given subject. Questions on the organization of a high school. Questions connected with moral discipline as affecting the character and conduct of the pupils of a high school.

POONA, TRAINING COLLEGE FOR PRIMARY TEACHERS.

*First year.*—General principles and practice of teaching and school management. Vernacular masters' code and official forms and returns.

*Second year.*—A more advanced knowledge of the subjects of the first year's course. Training of the senses and memory, and the order in which the faculties of children are developed.

*Third year.*—Thorough knowledge of the theory and practice of teaching. Practical details of school management. Formation of habits and character, and principles of moral discipline.

CENTRAL PROVINCES, PRIMARY GRADE COURSE.

The following are the subjects of examination for the primary grade certificate in the Central Provinces :—

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. Notes on a lesson on a given subject. The organization of a primary school, and proof of ability to maintain order and inculcate principles of truthfulness, obedience, and general morality.

636. The practical course of training comprises teaching in the model or practising school, participation in "criticism lessons," and attendance at model lessons. The character of the instruction is illustrated by the following summary of the work done under the above heads in the Saidapet and Lahore Colleges; in the training schools of the United Provinces and the Punjab; and in the Ahmedabad training college for primary teachers.

Institution.	General practice in the model school.	Criticism lessons.	Model lessons.
Teachers' College, Saidapet.	The practising school is divided into three blocks. Each block consists of three classes, and over each block is placed one permanent assistant called a Superintendent. The students teaching the classes in these blocks are supervised and controlled by the Superintendent. At the beginning of each period the student brings to the Superintendent 'notes of lessons,' which he has previously prepared and which show exactly what he is going to teach. The Superintendent watches the student's teaching, and he notes in a note book the good and bad points that he observes. After the lesson is over, he shows to the student the mistakes he has made. This is regarded as perhaps the most important part of the work of the college. For the purpose of diversifying the training, the subjects and classes are changed every two months. At the end of every two months' period the Superintendents report on the work of the pupils under them.	Each student, during the period of his training, gives three criticism lessons. A student who is selected to give the lesson prepares beforehand 'notes of lessons' on some subject which has been selected by the Principal. He then teaches the lesson to a class brought from the practising school, before the Principal and the normal students of his section. At the conclusion of the lesson the Principal calls upon two or three of the students to criticise the teaching of the teacher and to notice specially faults in language, manner, questioning, and method. The Principal finally criticises the teacher, and the remarks on the lesson are noted in a criticism register as a guidance to the Principal and to the students.	Model lessons, which are given once a week, are used to illustrate the lectures on method. Suppose, for instance, that the method master has been lecturing on the proper mode of teaching arithmetic. He arranges a class from the practising school and he exemplifies his lectures by teaching this class arithmetic before the students. A discussion is held afterwards between the lecturer and the students.
Central Training College, Lahore.	During the course of the session every student devotes a certain time, fixed by the Principal, to actual teaching in the practising school. Students when teaching (or attending model lessons) are accompanied as often as possible by the Principal or Assistant Superintendent, and on other occasions by a master.	Every student gives not less than two model lessons before his class-fellows during the session, under the eye of the Principal or Assistant Superintendent. The other students criticise freely at the close, and finally the officer in charge sums up the merits and defects.	Students are required to be present at lessons given by teachers of the practising school. On such occasions they observe and take notes with regard to manner and method of teaching.
Normal Schools, United Provinces and the Punjab.	Students give instruction in the model school in rotation, each student taking the class for one hour daily during a week. The head master and second master superintend this work, each having two classes under his supervision, and they take one of the classes for a quarter of an hour before handing it over to the student.	During half the year criticism lessons are given daily to one or other of the classes. Students teach and criticise in rotation, two or three students being appointed to criticise the lessons for each day. The head master sums up, and the students enter notes of the lesson in a book which is submitted to, and criticised by, the head master.	The head master occasionally teaches a class from the model school in the presence of the students.



Institution.	General practice in the model school.	Criticism lessons.	Model lessons.
Normal School, Ahmedabad, Bombay Presidency.	Each student teaches for half a day during one week in each term (i.e., during two weeks in the year), taking the same class through all its subjects. He is supervised by one of the teachers in the practising school, and also, sometimes, by one of the staff of the training college. The supervising teacher explains and corrects the faults of the student.	Criticism lessons are given once a week for each class under the guidance of the Principal and head master. Each student gives about one criticism lesson during the year, or sometimes two short ones. In arranging the criticism lessons each subject of study is taken in consecutive order.	Model lessons are sometimes given by the head master of the practising school, e.g., when a criticism lesson breaks down.

#### Special subjects of instruction.

Special subjects in particular provinces.

637. MADRAS.—For the purpose of giving normal students an opportunity of acquiring professional knowledge of, and skill in, teaching special or technical subjects, they may be permitted to attend the College of Engineering, or the College of Agriculture, or the School of Arts, or such other institution as the Director may approve of. Persons who have passed the advanced, intermediate, or elementary technical examination in any of the subjects included in the Madras technical scheme may be admitted to the test for a technical teacher's certificate. Candidates are required to show their ability in teaching a class in each of the special subjects in which they wish to obtain a certificate. Ordinarily a candidate for an advanced teacher's certificate is required to teach a class preparing for the intermediate examination, and so on down the scale. The reports do not show to what extent these provisions of the Code are utilized.

638. BOMBAY.—Certificates are granted for teaching art, agriculture, and industrial arts; and technical workshops are attached to the training schools at Dharwar and Hyderabad (Sind).

639. PUNJAB.—Certificates are granted in the Punjab for the teaching of art and technical subjects. There are two groups of art subjects and three groups of technical subjects. The main subjects of the three technical groups are architecture and building, cabinet making, and metal work, respectively. Agriculture is a compulsory subject in all normal schools; and the Director makes the following remarks regarding the teaching of this subject in his Report for 1901-02:—

Instruction in agriculture includes demonstration lessons on the principles of the science, practical work in the school gardens, and excursions to the surrounding fields. As far as possible the subject is taught experimentally, the lectures being illustrated by plants grown or collected by the students and simple experiments performed by the teachers. At Multan, Rawalpindi, and Lahore, the students in training cultivate a part of the school compound, and are required to carefully keep a diary of agricultural operations. In this they record concerning each crop the method of preparing the ground, the date and method of sowing, and the date of coming up, flowering, ripening, etc. At Jullundur the difficulty of obtaining water has hitherto made this practical instruction impossible; and the Delhi Normal School possesses no compound. Once a month, or more frequently if occasion offers, the teachers are required to take the students to the surrounding fields; and to require them to note carefully the agricultural operations in progress and the state of the crops under cultivation. On returning to the school the students make a record of their observations. At Lahore the normal school students visit the horticultural gardens twice a week. Mensuration is also taught practically. Concrete illustrations are used to demonstrate the rules, and the students are required to measure, draw, and estimate the area of fields in the vicinity of the schools.

Teaching of drawing in training institutions.

640. In the MADRAS colleges and schools free-hand drawing, blackboard exercises in map-drawing, and the drawing of illustrations for class teaching form a part of the compulsory course. Special attention is paid to blackboard drawing at Saidapet; no attempt is made to secure artistic excellence, but every student is taught to be neat, clean, and ready in sketching illustrations. The students are very clumsy at the work when they come to the college, but soon make rapid progress. In the BOMBAY schools the first grade art course in free-hand drawing and blackboard drawing (including outline maps and sketches in illustration of lessons) are compulsory, and the second grade art course forms an optional subject. In BENGAL, free-hand and model drawing and

practical geometry are compulsory. In the UNITED PROVINCES, geometrical drawing is compulsory in normal schools, whilst blackboard drawing is compulsory for all students. Drawing is a compulsory subject for every student in the Central Training College of the PUNJAB. Drawing on the black board is taught for two hours a week to the students of the Lahore Normal school, but at the end of the quinquennium arrangements had only just been made for giving similar instruction in other normal schools. Drawing, and the method of teaching drawing, form a part of the BURMA secondary teachers' course and drawing and slöjd are compulsory in all training schools for masters. In the CENTRAL PROVINCES collegiate and secondary classes drawing is an optional subject.

641. In MADRAS, drawing teachers' certificates are granted under the general scheme described above. The BOMBAY drawing teachers' examination qualifies the holder to teach drawing up to the standard of the highest art certificate he may hold, and no one may enter for the examination unless he has taken at least the school of art second grade certificate. The examination comprises: (1) a paper examination in which the candidate has to give practical illustration of his knowledge of the method of teaching drawing, and (2) blackboard drawing. The examination is conducted by the staff of the School of Art. In BENGAL elementary and advanced drawing teachers' certificates are granted on the result of the School of Art examinations—unlike the certificate examinations of Madras and Bombay, these examinations are held on the subjects themselves, not on the method of teaching them. In the PUNJAB there are examinations for junior and senior drawing teachers' certificates, at which students of normal institutions and teachers may present themselves; the former qualify the holder to teach the middle school course, and the latter the high school course. The examinations are conducted by the Principal of the Mayo School of Art. The subjects of examination comprise various forms of drawing and include blackboard drawing. Of the 75 students presented in each subject from the Central Training College in 1901-02, 57 passed in free-hand, 42 in model drawing, and 42 in geometry. Two students gained the junior drawing masters' certificate. Fifteen teachers of the central model and normal schools also went up for the examination, and succeeded in passing in one or more branches. "The results show that, although the standard may be high, and the subject entirely new to the majority of the students, many of the students while under training make substantial progress in the subject of drawing, and leave the college qualified to teach the subject intelligently and successfully."\* In BURMA, primary and secondary grade examinations are held for normal students and teachers; the former qualify to teach in a vernacular school or in the primary department of an Anglo-vernacular school, and the latter in a school of any grade. The subjects of examination are similar to those prescribed for the Punjab. In 1901-02, 384 candidates passed the primary grade, and 134 the secondary grade, examination. The Director states that the examination is popular, and that there has been a considerable rise in the standard of proficiency.

642. MADRAS.—Special classes for the training of gymnastic instructors are attached to the Saidapet and Rajamundry Colleges; on the 31st March 1902 there were 12 pupils in the former and 3 in the latter. The Saidapet gymnasium has a staff consisting of a gymnastic instructor, a drill instructor, and a pensioned *jemadar*. It gives a year's training at the end of which the certificate examination is held. For want of space a regular gymnasium has not yet been established at Rajamundry; candidates for the gymnastic certificate examination receive instruction in the gymnastic class attached to the college. During the quinquennium under review 169 candidates qualified from the two institutions. The supply has been in excess of the demand, and a large number of passed students have remained without employment. Steps have been taken to diminish the number of gymnastic pupils.

643. In the PUNJAB, senior and junior gymnastic certificates are granted, which qualify the holders to teach the high school course and the middle or primary course, respectively. The 75 candidates sent up from the Central

\* Director's Report for 1901-02.

Training College for the senior and junior certificate examinations in 1901-02 were only moderately successful. The Director says:—

The comparatively unsatisfactory character of these results is attributed by the Principal partly to the following causes: *first*, the gymnastic master is not borne on the roll of the Central Training College, and is therefore not under the immediate control of the Principal; *secondly*, the fact that the gymnasium is situated in the grounds of another institution makes effective supervision of the gymnastic instructor's work difficult, and practice by the students after college hours an impossibility; and *thirdly*, as the examinations are conducted by four different examiners at different centres and each examiner sets his own tests, it is possible that the standard is not uniform. Still, when every allowance has been made, it is clear that the results in this subject are far below those in other subjects, and that the physical training is the weakest point in the work.

#### Pupils.

General  
remarks.

644. With few exceptions all the pupils in the normal colleges and schools receive Government stipends, in return for which (in most provinces) they bind themselves to teach for a certain period on the completion of their course of training. The number of pupils under instruction depends therefore in great measure on the number of stipends offered by the Government, and this number, again, is determined by recruitment needs and by what the Local Government can afford to spend on training teachers. Some schools make provision for non-stipendiary pupils, but the number of persons who avail themselves of this opportunity is small. The number of pupils on the rolls is affected, in comparing one province with another, by the length of the course.

Statistics.

645. On the 31st March 1902 there were 4,384 pupils under training in all grades and classes of normal institutions. They were distributed as follows:—

Government colleges and schools . . . . .	3,423
Mission schools . . . . .	917
Bombay Native State school . . . . .	44

The number of mission pupils is greatest in Bengal, Assam, Madras, and Burma, in the order named. Table 119 shows the distribution of the pupils by race or creed. In Table 116 the pupils are classed according to the grade of institution in which they are being trained. The division is a rough one, because in some provinces primary teachers are trained in secondary schools, whilst in others all primary teachers are trained in schools of the primary grade. It gives the following result:—

In English collegiate grade institutions . . . . .	231
In secondary grade institutions . . . . .	1,980
In primary grade institutions . . . . .	1,773

646. Table 118 contrasts for six provinces the number of pupils under the table training with the total number of teachers in primary and secondary schools. It shows that the ratio of teachers to normal students is as follows:—

Assam . . . . .	9
Punjab . . . . .	19
Madras . . . . .	26
United Provinces . . . . .	26
Bombay . . . . .	29
Bengal . . . . .	77

The apparent result is unduly favourable to Assam where the figures are swelled by a number of *gurus* in third grade schools and classes who receive a very elementary training.\* Assam has, also, a much larger proportion of mission pupils than any other province. In the PUNJAB there is an outturn of between 200 and 300 newly trained primary teachers a year, and this provision is considered to be almost sufficient. In Madras, the United Provinces, and Bombay the proportion of students to teachers is much the same, but as the Madras course lasts for only one year the annual outturn is larger. BOMBAY, it has already been stated, has no colleges for training secondary school teachers; for primary schools the ratio of pupils under training to teachers is roughly 1 to 26. In the UNITED PROVINCES the 480 vernacular stipends allow of a maximum number of 240 trained teachers, or about 5 a district, being produced each year; failures, withdrawals, etc., reduce the number considerably below this figure. In

\* Pupils in the session schools of Madras are excluded from the figures on which Table 118 is based.

praising the work of the vernacular normal schools the Director laments (Report for 1901-02) "that with so much work to do there are so few qualified labourers available for it; and that the majority of teachers have to be employed without undergoing a course of training." The arrangements for the supply of teachers for vernacular secondary schools in BENGAL are fairly adequate, but the attempt formerly made to give some sort of training to the village schoolmasters failed, and the new enterprise in this direction had not been started at the end of the quinquennium under review. The Government and mission schools train a good proportion of teachers for secondary schools in BURMA; something has been done for the indigenous primary school teachers through the agency of the "itinerant teachers" and the teachers' examinations, but regular training for this class has not yet been introduced on a considerable scale. Each year 20 pupil-teachers (vernacular) who have completed their course, are sent to a Government normal school for one year's practical training. The proportion of trained to untrained teachers in the several provinces has already been examined in the Chapters on Primary and Secondary Education.

647. The total number of pupils under training rose from 4,319 in 1896-97 to 4,384 in 1901-02. Mission pupils increased by 185 and Government pupils (including the pupils of Native State schools) diminished by 120. These differences are not great, and on the whole there has not, in most provinces, been any very important change in the rate at which trained teachers are produced. The change in the several provinces was as follows:—

Burma . . . . .	+ 230
Assam . . . . .	+ 56
Bombay . . . . .	+ 22
Central Provinces . . . . .	+ 7
Coorg . . . . .	+ 3
Berar . . . . .	constant
Punjab . . . . .	— 15
United Provinces . . . . .	— 37
Bengal . . . . .	— 68
Madras . . . . .	— 133

Progress during the quinquennium.

Details of the changes are shown in Table 114. BURMA is the only province which shows a large rise; the facilities for training teachers have been greatly increased in this province by the opening of two new Government, and two new mission, schools. In MADRAS the fall occurred in the upper and lower secondary schools; there was a rise in both the colleges and primary schools. In BENGAL the pupils of the English classes fell from 76 to 27, and those of the primary schools from 331 to 266, whilst in the vernacular secondary schools there was a rise from 458 to 488.

In the UNITED PROVINCES there were 24 pupils in the Allahabad college in 1901-02 against 23 in 1896-97, and the number of pupils in the vernacular schools fell from 480 to 447. The Allahabad college was not working up to its full strength, and the Director made the following comments on the situation:—

The number of students on the rolls has again diminished. The numbers for the last three years have been 43, 32, and 24, the present enrolment. The reason for the decline is that for the last two years untrained men have been offered as good appointments as trained men, *i.e.*, practically candidates for masterships have not been required to go to the training college, nor encouraged to do so by the offer of any advantage compensating them for the loss of pay and the postponement of service which they would incur by attendance at the course. The claims of trained men to promotion appear also to have been disregarded. A continuance of this policy would have emptied the college. The managers of aided and recognized schools, owing to the dearth of trained men, are still appointing untrained men in large numbers. There is also some prejudice against the methods of the training college which only time can overcome. But the new methods are not depreciated in all quarters, and it is already beginning to be recognized in the better schools that a trained teacher is an acquisition to the staff.

648. The results of the examinations for the various grades or certificates are compared for the years 1896-97 and 1901-02 in Table 120. The figures do not show any important general progress or many considerable changes. Looking at the number of passes the following appear to be the most noticeable features:—

MADRAS.—Increase in Licentiate and lower secondary, and decrease in upper secondary and primary.

Examination results.

**BOMBAY.**—Decrease in first and second years' examinations.

**UNITED PROVINCES.**—Decrease in Anglo-vernacular,\* and increase in vernacular.

**PUNJAB.**—Decrease in the secondary examinations.

**BURMA.**—Increase in primary, and in untrained teachers' passes.

**CENTRAL PROVINCES.**—Large number of failures in the primary grade examination.

The examinations are, as we have already seen, open both to normal students and teachers; the proportion of teachers is, in most cases, small. In Burma and the Central Provinces, however, a large number of certificates are granted to untrained teachers who pass the prescribed tests.

#### Financial.

Expenditure on higher grade institutions.

649. Tables 121 and 122 show the expenditure on higher and lower grade institutions, respectively. The total expenditure on institutions of the first class rose from R64,000 to R90,000. The latter figure includes R7,890 for the new Kurseong college. Almost the entire expenditure on the higher grade institutions is derived from Provincial Revenues. The average cost of educating a pupil in 1901-02 was highest in the Allahabad college (R635); the figure was swelled by the fall in the number of pupils. Next in order came the Saidapet college (R515), with its strong staff and ample equipment. In other institutions the average cost varied from R493 at Kurseong to R328 at Jubbulpore.

Expenditure on lower grade institutions.

650. Expenditure on lower grade institutions decreased from R5,51,000 in 1896-97 to R5,33,000 in 1901-02. Of the latter sum R3,77,000 was derived from Provincial Revenues; the expenditure from this source diminished by nearly R10,000 during the quinquennium. The expenditure included under the head "other sources" consists to a large extent of the funds spent by the mission societies on their training schools. The amount derived from fees is inconsiderable. There was a large increase of expenditure in the United Provinces and Burma, Assam remained about stationary, and expenditure decreased in all the other large provinces.

Stipends.

651. The number and value of the scholarships and stipends available in the higher grade institutions and in the various classes of lower grade institutions are shown in Tables 123 and 124.

### Female Teachers.

#### Introductory.

652. The general system for the certificating and training of female teachers is based on that for male teachers; but a large proportion of the former are instructed in mission institutions and for employment in mission schools. In some provinces the arrangements in these private managed institutions are less definite and precise than in the Government colleges and schools for male teachers. In many cases instruction is given in small classes attached to schools for general education.

#### Institutions.

General statistics.

653. The list given in Table 125 shows a total of 51 schools and classes, of which 13 are under State and 38 under private management. All the State schools are managed by the Government, except three Board schools or classes in Bombay, a Board class in the Punjab, and a Native State school in Bombay. The private managed institutions belong to mission societies, except a few denominational schools for Europeans and one or two classes managed by local committees in the Punjab; all but one are aided.

Description by provinces.

654. The MADRAS Presidency has the largest number of schools; they are arranged by standards in the same manner as the schools for male teachers, and the private managed schools send up pupils for the Government teachers' examinations. The largest institution is the Government Upper Secondary Presidency Training School at Madras, almost half the pupils in which are Europeans and Eurasians. The Government also maintain three lower secondary

\* The decrease was a temporary fluctuation due to the causes explained above.

schools in the districts, and a small primary training class for Muhammadan mistresses in connection with the Government girls' school at Gunairbeed, in Vizagapatam. The mission institutions comprise 4 upper secondary and 9 lower secondary schools, scattered among various towns in the Presidency. On the whole 12 out of 22 districts are provided with training schools for mistresses.

655. The institutions under public management in the BOMBAY Presidency comprise the Government colleges at Poona and Ahmedabad; Board schools at Dharwar, Karachi, and Hyderabad; and a Native State college at Rajkot in Kathiawar. Both the Government colleges have resident quarters for the pupils; in Ahmedabad the number of students rose from 86 to 110 during the quinquennium under review and new quarters are to be built to meet the growing demand for admission. The Inspector of Schools remarks of the Poona College: "I believe that the college is as efficient as it can be in the present social condition of the people. I cannot, however, observe that native mistresses have yet developed any great power of administration, and do not think that their creation has so far greatly affected the cause of female primary education, though there is never any difficulty in finding places for them." The Dharwar school is in part of a public building in the middle of the town, and it has no quarters for the pupils, who live with their parents or friends. "The trained mistresses are appreciated by the people, and the little school, which was started as an experiment, is deserving of all encouragement."\* The Hyderabad school was closed at the end of the quinquennium pending the arrival of a Principal and an Inspectress from England. The Director says that it has been found very difficult in Sind to induce Hindu and Muhammadan women of unblemished character to leave their homes and attend the training schools. The Kathiawar College is said to be excellently managed by the Lady Principal. The aided institutions comprise classes attached to three European schools, and a small normal class at Hyderabad maintained by the Bombay Education Society. The European classes belong to the Roman Catholic Convent schools at Byculla and Karachi, and to the Girgaum girls' school. They are small institutions, but do useful work.

656. The 9 mission schools of BENGAL are intended to supply teachers for the schools belonging to the various mission societies. They are chiefly schools for general education, and they are classified as training schools on the ground that some of the students brought up in them are designed for employment as teachers.

657. The principal institution for training female teachers in the UNITED PROVINCES is the normal school belonging to the Church Missionary Society at Sigra, Benares. The Director says that it does good and useful work, but as a matter of fact only turns out Christian teachers, though willing to receive and train others. It has a regular curriculum, and gives a good course of practical training, the classes of the mission school to which it is attached serving for practising purposes. The other institution included in the returns is the training class for European female teachers connected with the All Saints Girls' School at Naini Tal. A thoroughly competent training college mistress has been appointed, and the necessary accommodation for 8 resident and 12 non-resident teachers has been provided by the managers. A training class for teachers has also been in existence for some time at the European Girls' High School at Allahabad, without receiving any Government grant. There are other aided schools which profess to train teachers. Of these, the most prominent is the American Methodist Mission School at Lucknow, which has an Anglo-vernacular course. At the end of the quinquennium arrangements had been made to open a Government school at Lucknow.

658. Owing partly to the backwardness of female education, but mostly to the parda system, there are, at present, no training schools for female teachers in the PUNJAB. In lieu of these, normal classes are attached to 5 of the ordinary girls' schools (1 Board and 4 private managed) in which girls are prepared for the certificate examinations prescribed for female teachers. The Inspectress of Schools frequently visits these classes to see that they are efficiently conducted. In a letter dated the 13th July 1900 the Punjab Government said: "The plan is not an entirely satisfactory one, and yields only a very small

\* Director's Report for 1901-02.

addition yearly to the number of trained teachers; but, so long as the social system of the Province renders it impossible to have a well-organized female normal school, it will be difficult to improve upon it."

659. BURMA has 1 English and 5 vernacular aided mission normal schools or classes for female teachers. In the CENTRAL PROVINCES the Government maintains a female normal school at Jubbulpore. Writing in 1900 the Director acknowledged that the institution was in several respects defective. There was no mistress of method and the school was located in an unsuitable hired building in the heart of the town.

Changes  
during the  
quinquen-  
nium.

660. There have not been many important changes during the quinquennium. In MADRAS the small Government Muhammadan class at Vizagapatam was newly opened, and mission schools were closed both at Black Town and at Masulipatam. In BOMBAY a normal class was attached to the Girgaum Girls' School, and the Native State School at Kolhapur was abolished. In BENGAL the number of mission schools remained unaltered. In the UNITED PROVINCES the normal class of the All Saints' School at Naini Tal was started during the year 1897. There was no change in the PUNJAB. The number of mission schools in BURMA increased from 4 to 6; and the American Mission School at Tura in the Garo Hills of ASSAM ceased to exist.

#### Course of Study.

661. In MADRAS the female normal schools follow the general course for the training of teachers. The examination returns deal only with the written portion of the examination, but the female students undergo the same practical training as the men, and generally do better than the men in the practical test.

662. In BOMBAY each female normal college has its own code and curriculum and the normal schools follow curricula approved by the Department. The annexed outline of the courses in the Mahalakshmi Female Training College, Ahmedabad, and in the aided normal school attached to the Girls' High School, Girgaum, illustrate the Bombay system for training female teachers.

The *Mahalakshmi College* course extends over one, two, or three years, and, as in the case of male colleges, certificate examinations of different grade are held at the end of each year of the course. The entrance qualification is equivalent to the fifth vernacular standard. The subjects of study are Gujarati, arithmetic and household accounts, history and geography, physical geography, domestic economy, needlework, and theory and practice of teaching. Drawing and English are optional subjects. The test in professional subjects at the end of the three years' course is divided into (a) general and (b) kindergarten. Under the first head the student is examined on a prescribed text-book, and must give a lesson before the examiner. The quality of the teaching given by the candidate in the model school during the year is also taken into account. A thorough knowledge of the practical details of school management is required. Under the second head the candidate must show a good knowledge of the elements of the kindergarten system, and must exhibit a drawing and a painting book.

The *Girgaum School* has courses for both secondary and kindergarten teachers. The secondary school course includes the theory and history of education, method, and school management. Elementary and higher certificates are granted for kindergarten teaching; the subjects for the elementary and higher courses are as follows:—

#### ELEMENTARY CERTIFICATE.

*Compulsory subjects*:—(1) Biographies of Frœbel and Pestalozzi, (2) nature knowledge, (3) kindergarten gifts and occupations, (4) music and singing, (5) class teaching, and (6) black-board drawing.

*Optional subjects*:—(1) Knowledge of child nature, and (2) practical geometry.

#### HIGHER CERTIFICATE.

*Part I*:—(1) Geometry, (2) botany or zoology, (3) physiography, or elementary physics, or chemistry of common life, (4) music and singing, (5) kindergarten gifts and occupations, and (6) history of education.

*Part II*:—(1) Theory of education, (2) Frœbel's principles, (3) organization and methods of education, (4) physiology, (5) class teaching, and (6) blackboard drawing.

663. It has already been said that the instruction in most of the BENGAL schools is little more than general schooling. Senior and junior female teachers' certificate examinations are held by the Inspectress of Schools, but very few



students appear at them. Girls who pass in the 'art and theory of teaching, including class management, are awarded junior certificates if they pass in Standard VII, and senior certificates if they pass in Standard VIII, of the special standards prescribed for girls' schools in Calcutta and the neighbourhood. These two standards immediately precede the matriculation standard.

664. At the Sogra School in the UNITED PROVINCES the entrance qualification is the upper primary examination, and the course provides for further education up to the vernacular middle standard simultaneously with professional teaching. The course extends over 3 years and includes:—

- (1) Object lessons—to be given to the class one hour a week in the first and second years, and by the pupils for one hour a week during the second and third years.
- (2) Practice in teaching—one hour a week for each pupil during the second year, and five hours a week during the third year.
- (3) School method and management—two hours a week during the second and third years.
- (4) Sewing and cutting out—two hours a week during the first and second years, and one hour a week during the third year.

The arrangements for teaching in the practising school, criticism lessons, and model lessons, are similar to those described in the first section of this Chapter. In the third year of the course pupils are required to pass the lower middle examination, and a professional examination conducted by the Inspector of Schools. Certificates are given by the Department to successful pupils.

665. In the PUNJAB classes, the course extends over two years during which regular instruction is given in the subjects laid down for the certificate examinations, with daily practice in teaching under supervision. For Anglo-vernacular students the course is the same as in the male normal schools; for vernacular students there is a separate course with separate senior and junior certificates. The course for the senior certificate includes: vernacular language; arithmetic; history and geography; physiology and domestic economy; Euclid and algebra, or elementary physical science, or a classical language; needlework; school management; and practice of teaching. In BURMA the course is the same as in the male schools, and in the CENTRAL PROVINCES it has been made simpler than that prescribed for male students.

#### Pupils.

666. The total number of pupils returned as under instruction in training schools for mistresses (Table 126) was 1,252 on the 31st March 1902 against 1,045 on the 31st March 1896. The number of pupils in State schools increased by 67, and in private managed schools by 140. Among State schools the increase occurred in Bombay, and among private schools it was greatest in Bengal, Burma, and the United Provinces. Bengal shows much the largest number of pupils, but the training they receive is, as already stated, more of a general than of a professional character. A number of female teachers are trained in the colleges and schools for men, and including these the total number of females under training was 1,383 in 1901-02 and 1,093 in 1896-97. Statistics.

667. The conditions of social life in India have hitherto prevented anything but a meagre recruitment of Indian ladies for service as teachers, and the great majority of the students under training are Europeans, Eurasians, or Native Christians, and are destined for European and mission schools. Table 128 which classifies the female students according to race or creed, shows that over 1,000 of the female pupils belonged to the three classes named above, and that the number of Hindu students was only 197, and of Muhammedan students only 20. Buddhists show the comparatively large total of 108. Race or creed.

668. Table 129 gives the results of the examinations held in 1901-02. Madras and Bombay show the largest number of candidates and passes, and in Bombay there has been a considerable increase. The Punjab, which had no candidates in 1896-97, returned 13 candidates and 6 passes in 1901-02. Out of the large number of Bengal students only 18 gained certificates. Examination results.



## Financial.

**Expenditure.** 669. The total expenditure on training schools for mistresses (Table 130) was returned at over ₹1,79,000 in 1901-02, Provincial Revenues contributing 53 per cent. of the total. The amount increased by ₹10,424 during the quinquennium under review: there was a rise of ₹12,317 in the sum derived from Provincial Revenues, and a decrease of ₹1,967 in the allotment from local funds. Table 130 shows a considerable expenditure from fees in Bombay, Bengal and the United Provinces. In the last case it is probably due to the inclusion of the whole Sogra School instead of the normal section only. In Bombay the entire amount was derived from the three European schools, and probably European schools account for the considerable Bengal figure.

**Stipends.** 670. In MADRAS, female students receive stipends under the same regulations as male students. Stipends are paid in the Government training colleges of the BOMBAY Presidency. Thus at the Mahlakshmi College stipends of the respective values of ₹6, ₹7, and ₹8 a month are awarded to first, second, and third year students, who enter into an agreement to serve the Government after their course of training is completed; minor stipends of the value of ₹5 a month are granted under similar conditions to students who are not able to pass the entrance examination; and small stipends may be granted under special circumstances to students who do not bind themselves to serve the Government. The Government does not grant any stipends to pupils in the Sogra School in the UNITED PROVINCES. In the PUNJAB, upper primary scholarships of the value of ₹2 a month, and middle vernacular scholarships of the value of ₹3 a month, are granted to girls who intend to undergo a course of training in a recognized normal class. In BURMA, there are stipends tenable for three years and of the value of ₹7 a month. In the CENTRAL PROVINCES, the Government grants 26 stipends of the value of ₹10 a month, tenable in any recognized normal class.

## PROFESSIONAL AND TECHNICAL EDUCATION.

## Introductory.

671. In the present chapter an attempt is made to give a general account of the progress and present condition of the principal forms of professional and technical education which have been developed in India. The subject is a wide one and includes the following main heads: law, medicine, engineering and surveying, mining, agriculture, village officers, veterinary science, forestry, commerce, art, and industry. Scope of the Chapter.

672. Professional and technical, like general, education is administered by the Local Governments, and the only Imperial institution which is mentioned in this chapter is the forest school at Dehra Dun. In dealing with various forms of special training the departments of education (including in this term the universities) come into contact with those other departments of the Government within whose province lie the occupations for which the students are trained. In law they meet the Judicial Department, in medicine the Medical Department, in engineering the Public Works Department, in agriculture and veterinary science the Agricultural Department, and in forestry the Forest Department. In such cases the two departments concerned act in concert, and the direct control of the colleges or schools lies sometimes with the one and sometimes with the other. It will be convenient to summarize in this place the distribution of control over the various branches of study. In law, the Education Department controls the colleges and schools, and the High Court (or other chief tribunal of the province) prescribes the qualifications for entry into the legal profession; the latter accepts the University degree as the principal qualification but also holds its own examinations, chiefly for the lower grades. Medical colleges and schools are under the direct control of the Medical Department in Bengal and the Punjab, and of the Education Department in other provinces. In Bombay the control is divided: the Government medical schools are under the control of the Medical Department and only submit returns to the Director of Public Instruction; the Grant Medical College, on the other hand, is administered by the Education Department, but the Surgeon General with the Government of Bombay is also partly responsible for its management. The colleges and schools of engineering are administered by the Education Department. The Madras Agricultural College, the agricultural classes attached to the College of Science at Poona and the Engineering College at Sibpur, and the Bombay Veterinary College, are under the immediate supervision of the Education Department which acts in consultation with the Provincial Directors of Agriculture; whilst the Cawnpore and Nagpur agricultural schools and the Calcutta and Lahore veterinary colleges are under the immediate control of the latter. In the case of the veterinary colleges, the Inspector General, Civil Veterinary Department, exercises a general supervision. The *patwari* schools of the United Provinces and the Punjab are controlled by the provincial Directors of Land Records, and the school for village officers in Sind and the survey schools of Burma by the Education Department. The Dehra Dun Forest School is under the administrative control of the Inspector General of Forests, the Burma school is under the provincial Forest Department, and the forest branch of the Poona College of Science is under the Department of Education. The commercial, art, and industrial schools are supervised by the Education Department. Controlling agencies.

673. Before taking up the subjects in order, it is necessary to give a preliminary account of the Madras system of technical examinations, since it influences most branches of professional and technical education in that province, and will be frequently alluded to in the course of the chapter. The general Madras scheme of technical examinations.

objects of these examinations are described in the following terms in the calendar of the Commission for Government Examinations for 1901-1902 :—

The Government Technical Examinations, formerly known as the Examinations in Science, Art, Industries and Commerce, are intended for the encouragement of scientific and technical instruction, with special reference to manufactures and industries, and generally to the necessities of the practical side of life ; and for the purpose of testing the qualifications of persons desirous of becoming—

- i. Teachers of science, art, or commercial, or industrial subjects ;
- ii. Civil, mechanical, and electrical engineers ; draughtsmen and telegraphists ;
- iii. Designers, engravers, decorative artisans, and art workmen in any branch of artistic industry included in this notification ;
- iv. Agriculturists, foresters, veterinarians ;
- v. Reporters, auditors, actuaries, and commercial employés ;
- vi. Managers and foremen of manufacturing, printing and other industrial establishments suitable for this Presidency ;
- vii. Employés under Government, Local Boards, or Municipal councils, in any department in which a practical knowledge of any of the subjects included in this notification is required ;
- viii. Chemists and Druggists ; Compounders.

674. The examinations are held once a year by Boards of Examiners appointed by, and under the control of, the Commissioner for Government Examinations. They are of three grades, elementary, intermediate, and advanced. The examinations are open to all persons who have completed the prescribed course of study in a recognized technical school, or who have passed the compulsory subjects of the lower secondary examination (in the case of elementary examinations), or of the upper secondary examination or the matriculation examination (in the case of intermediate or advanced examinations). The subjects in which the examinations are held are classed under the following heads :—

Civil Engineering.	Commerce.
Mechanical Engineering.	Music.
Electrical Engineering.	Drawing, etc.
Physical Science.	Jeweller's work.
Geology.	Printing, book-binding, and type founding.
Biology.	Wood-work and metal-work.
Sanitary Science.	Leather-work.
Pharmacy.	Textile fabrics.
Agriculture.	Glass and pottery.
Veterinary Science.	Tailoring and dress making.
	Cookry.

A certificate is granted to a candidate passing in any subject. To meet the requirements of candidates desirous of qualifying for a profession requiring a knowledge of more than one subject, certain of the subjects are formed into groups. These groups are of two kinds : (1) groups of a lower standard, for passing in all the subjects of which a *group certificate* is awarded, and (2) groups of a higher standard, for passing in all the subjects of which a *diploma* is awarded. Diplomas are granted only for agriculture, veterinary science, electrical engineering, drawing, commerce, and the trade of the chemist and druggist.

## Law.

### Introductory.

Admission  
to the legal  
profession.

675. The legal profession in India is popular and remunerative, and the recognized institutions for legal instruction are, therefore, always well attended. On the 31st March 1902, there were 2,767 students on the rolls of the law colleges, against 1,466 students in the medical colleges, 865 students in the engineering colleges, and 190 students in the normal colleges.

The qualifications for entering the legal profession are prescribed by the High Court or other chief tribunal of the province ; a University law degree or success in a professional examination held under the orders of the High Court or other chief tribunal is, in general, an essential preliminary. The University degree is usually the door for entry into the highest grade of the profession, and in some provinces it is obligatory. For the next grade either the University degree or the High Court examination is used ; and where there is a third grade the qualifying test is usually a High Court examination.

676. The system may be illustrated by the practice in the provinces of Madras, Bombay and Bengal. In Madras there are three grades : High Court

pleaders, and subordinate court pleaders of the first and second grades; in Bombay there are two grades: High Court pleaders and subordinate court pleaders; in Bengal there are three grades: High Court pleaders, subordinate court pleaders, and *mukhtiyars*. The following table shews the educational and professional qualifications prescribed for entry into these various grades:—

Province.	High Court Pleader.	Subordinate Court Pleader (1st grade in Madras).	Subordinate Court Pleader, 2nd grade, Madras, and <i>Mukhtiyar</i> , Bengal.
Madras . . .	Law degree and prescribed professional experience.	Law degree or B. A. and High Court examination for 1st grade pleaders.	F. A. examination and High court examination for 2nd grade pleaders.
Bombay . . .	Law degree or University entrance examination and High Court pleaders' examination, higher standard.	Law degree or University entrance examination and High Court pleaders' examination, lower standard.	—
Bengal . . .	Law degree and prescribed professional experience.	Law degree, or F. A. examination, two years' study in a law college affiliated to the University, and High Court examination for subordinate court pleaders.	University entrance examination and High Court examination for <i>mukhtiyars</i> .

In the United Provinces the system runs on similar lines, but is more complicated; in the Punjab different grades of University qualifications are prescribed, the Bachelor's degree for Chief Court pleaders, the Licentiate for subordinate court pleaders, and the first certificate in law examination for *mukhtiyars*. Attendance at a law college affiliated to the University is in some cases compulsory for candidates for the High Court examinations, but more commonly no preliminary course of study is prescribed. The returns do not always distinguish between the number of students in the law colleges who are reading for the University degree and for the High Court examinations, but the great majority are following the University course.

677. The Despatch of 1854 which founded the Indian Universities made special mention of the subject of law, and alluded to it as the most important of those branches of learning with regard to which facilities did not exist for the acquisition of a high degree of knowledge, and for which professorships might therefore be instituted. The Acts of Incorporation empowered the Universities to grant degrees in law, and arrangements were made to provide instruction for candidates for those degrees. A single sub-committee was appointed to consider the regulations for the three Universities of Calcutta, Madras, and Bombay. It was instructed to follow the model of the London University, but found it impossible to do this closely since it was necessary to take into account the systems of Hindu and Muhammadan Law and the procedure and practice of the Indian Courts. After much discussion a scheme was evolved which constituted the beginning out of which arose the existing systems of legal instruction.

**Institutions for Legal Instruction.**

678. Two systems of opposite character have been evolved in different provinces for affording instruction in law. In one system teaching is concentrated in a central institution under Government or University management; in the other law classes are attached to a number of local arts colleges. Madras, Bombay, and the Punjab follow the former, and Bengal and the United Provinces the latter, system.

679. MADRAS.—The only law colleges recognised by the Governor in Council under the statutes of the University are the Government Law College at Madras and a small College at Trivandrum in the Native State of Travancore (not

included in the general statistics). The regulations allow private pupils to present themselves for examination under special exemption, but the number of such candidates is inconsiderable. Legal education in the Madras Presidency is, therefore, almost entirely confined to the Government Law College. This college was established in 1891 in place of the old law classes of the Presidency College which were not found to work satisfactorily. The institution was placed under a full-time principal, but as many of the students were occupied during the day in Government and private offices, and as the professors were practising lawyers, the lecture hours were confined to the morning and evening. This scheme did not result in the improvement which was anticipated from it, and the progress of the pupils was disappointing. Towards the end of the quinquennium the arrangements of the college were re-modelled. As now constituted, the college is intended to afford instruction to students preparing for the B. L. and M. L. examinations of the Madras University, for the pleaders' examinations, and for the civil and criminal special test examinations.\* The college is divided into classes corresponding to the three branches of its work. It is a whole-time institution, and the lectures and tutorial classes are held from 10 A.M. to 5 P.M. Subject to the control of the Director of Public Instruction, the general management of the college is vested in a Council which consists of two or more Judges of the High Court, the principal, the junior professor, and such other members as may be appointed by the Government. The staff consists of a principal (who is also senior professor), a junior professor, and two assistant professors. The staff gives tutorial instruction in addition to delivering lectures. Early in 1899 the college was transferred to the new buildings erected for it. The strength of the college which was 620 at the beginning of the quinquennium, diminished to 417 at the close of 1898-99 and to 267 at the close of 1899-1900, partly owing to the large number of failures in the B. A. degree examinations of 1897 and 1899, and partly on account of a change made in the regulations by which students who fail in the first examination in law are prohibited from continuing their studies in the college in the B. L. class. Since 1899-1900 the strength has again risen, reaching 310 on the 31st March 1901 and 387 at the close of the year 1901-1902. On the 31st December 1902 there were 15 students in the pleaders' class and all the rest were in the B. L. classes.

680. BOMBAY.—The Government Law College at Bombay is the only institution which teaches the full course for the degree of Bachelor of Laws; but, to facilitate the arrangement under which students are permitted to take up the first year of the course concurrently with their studies in arts, certain institutions in the interior are permitted to give instruction up to the standard of the preliminary or first LL. B. examination. These institutions include the Government Law College at Poona, and the law classes attached to the arts colleges at Ahmedabad and Karachi, and in the Native States of Baroda and Bhavnagar. Among these only the Poona College is included in the general statistics. The law classes at Poona are held in the Deccan College and the law library is also located there. The institution is regarded as a separate college because it is independent of the arts college, and is largely attended by outside students. The remaining law classes are portions of the colleges to which they are attached, and are attended only by members of those colleges.

681. Unlike the Madras college, as now constituted, the Bombay college is conducted as an evening school, the teachers being practising lawyers. The classes are held in the Elphinstone College. The institution was founded with an endowment derived from subscriptions raised in honour of Sir Thomas Erskine Perry, Chief Justice and President of the Board of Education, in the year 1852. The endowment yields a monthly income of ₹169. The history of this college, like that of the college at Madras, has not been satisfactory, and complaints have been made from time to time that the teaching is insufficient and the work of the students perfunctory. In 1890, various reforms were suggested, but the discussion came to nothing. In 1898, the matter was again brought under consideration, in connection with a proposal that a new private college of law should be recognized by the University. In the course of the discussion in the Senate, the existing college underwent severe criticism, and

\* There are public service examinations held by the Commissioner for Government Examinations.

the promoters of the new institution alleged that the proposed college was meant to supply its deficiencies. The chief grounds of complaint were that the staff and course of lectures were inadequate, that the attendance of the pupils was irregular, that there was no system of college examinations to test their progress, that certificates enabling candidates to present themselves for the University examinations were granted for mere attendance, and that students often attended, not for the sake of the instruction, but merely to obtain the certificate. Sometimes, it was said, they went up for the examination, long after they had completed their terms. The Bombay Government declined to authorize the establishment of a new law college, but they appointed a Committee to enquire into the working of the existing institution and remodelled it on their advice. It was decided that, in the interest both of the professors and the students, the classes should continue to be held in the evening only; but the staff was increased, the course of lectures was extended, personal tuition was provided, a Board of Directors was appointed, and funds were set apart for prizes to encourage the industry of the students. The staff now consists of a principal on R350 a month, and five professors each on R300 a month. The full course occupies three years, and each year is divided into two terms. The principal and professors each deliver 60 lectures a year. Class examinations are held, but are attended by very few of the students. The reforms introduced at the suggestion of the committee have not been altogether successful. It is found difficult to provide an adequate course of instruction in an institution which is open only in the evening; and the students still pay insufficient heed to the lectures, and prepare for the examination by cramming the text-books at home. The number of students on the rolls of the Bombay and Poona colleges was 223 in 1891-92, 406 in 1896-97, and 348 in 1901-02. All the 348 students were in the LL. B. classes. The decrease in the number in 1901-02 was due largely to the greater strictness shown by the Principal of the Bombay college in allowing pupils to take advantage of the permission accorded by the University to keep terms without attendance in times of plague. The concession had been abused and had been taken advantage of by persons for whom it was not intended.

682. PUNJAB.—The only institution teaching law in the Punjab is the law college at Lahore. This institution was founded as a school in 1870 for the instruction of candidates for the *mukhtiyarship* and pleadership examinations. In 1882 it was transferred to the University; and it is now maintained by that body, and prepares candidates for its examinations. During the quinquennium the institution was raised to the status of a college, a whole-time principal and an additional law lecturer being appointed. It was at first aided by the Government, but is now maintained chiefly from fees. The management of the college is, subject to the approval of the Law Faculty and to the control of the Syndicate and Senate, vested in a committee consisting of the Vice-Chancellor, the three members of the Board of Studies of the Law Faculty, and two members elected annually by that Faculty. The staff consists of a whole-time principal and five assistant lecturers or readers. The number of pupils on the rolls has diminished of late years. In 1901-02 the number was 159, against 248 in 1900-01 and 433 in 1896-97. The Director says that, "as attendance at the law college is, except under special circumstances, compulsory on persons wishing to enter the legal profession in the Punjab, the decline in attendance clearly points to the diminishing attractions of that profession." The Director also says that there is no boarding house attached to the institution, and that the classes are held in an unsightly hired building. The library is also inadequate. The college has a vernacular section.

683. BENGAL.—There is no central law college in Bengal. Formerly classes were held in the Presidency College, but they were given up when a large number of students began to attend law lectures in private colleges. Four of the private Calcutta colleges have large law classes, and a number of mofassal colleges have a law department consisting of one lecturer, or in some few cases, of two. The lecturer is usually a local pleader, who gives an hour in the morning or evening to the work of instruction. As a rule the students have not access to any law library. The number of, and the attendance at, the law classes have increased considerably during the past fifteen years. In 1886-87

the total number of classes was 10, in 1891-92 it was 12, in 1896-97 it was 16, and in 1901-02 it was 17. Seven of the classes are attached to Government colleges in the mofassal, one (at Midnapore) is under Municipal management, and the remainder belong to unaided colleges under private management. The law class is often regarded as a valuable adjunct to an arts college, since students are willing to pay a comparatively high rate of fees for the privilege of keeping their terms, and the receipts, being more than sufficient to pay for the cost of instruction, help to maintain the arts department. The four Calcutta classes belong to the Metropolitan Institution, the City College, the Ripon College, and the Bangabasi College. In 1901 nearly one-third of the total number of law students were in the Ripon College. The students study both for the University and the pleadership examinations. The professors in the colleges are all Calcutta graduates and some are Barristers-at-Law. They are all Indians. The Ripon College, the Metropolitan Institution, and the Bangabasi College each have four professors, and the City College three professors. The professors in the Government colleges are paid by fees, and their emoluments are subject to a maximum limit of ₹2,400 a year. The system under which arts colleges have been allowed to maintain law classes has not answered well. In reviewing the progress of education during the period 1887-88 to 1891-92 Mr. Nash remarked that there was little, if any, real teaching in these classes. "The students rely solely upon their own unaided efforts to pass the University examination, and attend lectures merely for the purpose of obtaining the certificate of attendance which is required by the University. If this certificate was not required every student would at once leave the colleges." In his report for the period 1892-93 to 1896-97 the Director of Public Instruction reiterated Mr. Nash's statement, and his remarks apply with equal force to the period at present under review.

684. There is an endowed professorship of law styled the Tagore Law Professorship attached to the Calcutta University. The professorship is maintained from a monthly allowance of ₹1,000 which was bequeathed under the will of the late Prosanna Coomar Tagore for this purpose. The professor is elected annually by the Senate and delivers a course of lectures during the months of November to January. The professorship has been in existence since the year 1870, and Professor Herbert Cowell was the first holder of the appointment.

685. UNITED PROVINCES.—In these provinces the system is similar to that which prevails in Bengal. In 1901-02, seven of the principal arts colleges had law classes attached to them, one of these was a Government institution and the rest (two aided and four unaided) were under private management. In 1901 a step was taken towards centralization by the abolition of the law class of the Government Queen's College at Benares, the law staff of the Muir Central College at Allahabad being at the same time strengthened. In other colleges there is, as a general rule, only one professor for the legal work, which includes courses for the *vakil* and pleadership examinations as well as for the University degree. In the Muhammadan College at Aligarh this arrangement was found to be so unsatisfactory that five old students of the college, residing in Aligarh, arranged to give lectures supplementary to those of the regular law professor. Each lecturer takes a separate subject and gives instruction on one evening during the week; attendance at these lectures is made compulsory on all law students who hold scholarships. The law class system has had no better success in the United Provinces than in Bengal. In 1892-93 and in 1896-97 remarks made by the principals of various colleges showed that many students attended the classes merely in the belief that a certificate of attendance would be of use in seeking employment. In 1899-1900 the professor of law at the Canning College, Lucknow, said that: "a great many of the students take very little interest in their work and merely attend the class with the object of obtaining the certificate to enable them to present themselves for examination: it is therefore no great matter for wonder that numbers fail to pass." The principal of the same college observed that the majority of the students do not go up for the examination until some years after completing their compulsory course of lectures.

Minor  
Provinces.

686. BURMA.—In this province the only institution for legal instruction is a law class attached to the Rangoon College. This class was abolished in 1898-99

but was again opened in 1900-01, and was re-organized to meet the change of conditions resulting from the establishment of a Chief Court for Burma. It has now two lecturers, and from the 1st April 1902 it has made provision for teaching the B. L. course of the Calcutta University, and the first and second grade pleaders' courses. On the 31st March 1902 it had seven students under one lecturer, two of whom were reading for the B. L. degree.

687. CENTRAL PROVINCES. — There are two law classes in the Central Provinces, one (affiliated to the University of Allahabad) attached to the Jubbulpore College, and the other (affiliated to the Calcutta University) attached to the Morris College at Nagpur. In the Nagpur class, Government contributes ₹100 towards the upkeep, whilst half the fee receipts are credited to Provincial Revenues. In the Jubbulpore class the entire cost is met, in the first place, from Provincial Revenues. The strength in the Jubbulpore class has decreased from 17 in 1896-97 to 9 in 1901-02, mainly because the rate of fees has been enhanced. The strength of the Nagpur class has risen from 4 in 1896-97 to 28 in 1901-02.

688. ASSAM.—There are four law classes in Assam, attached to high schools, and preparing candidates for the pleadership examination. In 1901-02 there were 34 pupils on the rolls. The Director states that the law classes are, without exception, in a bad state. "The total number of pupils since 1896-97 has fallen off by 13, and the proportion of passes to the number sent up for examination (6 out of 51) is disgracefully low." All four classes are unaided, and they are maintained entirely from fees.

689. It will be gathered from the above analysis that although as regards numbers the arrangements for legal instruction are sufficient, no province has hitherto succeeded in establishing a system which provides an adequate training for young men entering the profession of law. The Indian Universities Commission commented on the unsatisfactory character of the arrangements and recommended that "the question of creating or maintaining and improving an adequate central school of law should be taken up without delay at each of the Universities."

General remarks

#### University Courses.

690. All five Universities grant the degree of Bachelor of Laws, and the Punjab University also grants the diploma of Licentiate in Law. The Punjab system differs considerably from that of the other Provinces and will be noticed separately. At Madras, Calcutta, and Allahabad the course extends over two years and may not be begun until the student has graduated in arts or science. At Bombay the course extends over three years. The first year of the course may be taken concurrently with the course in arts at any time after the student has passed the previous examination; but he may not enter on the second year of the course until after he has graduated. In all Universities (including the Punjab) the student must ordinarily keep his terms in one of the law colleges or classes described in the last section of this chapter. At Calcutta and Allahabad there is only one examination for the Bachelor's degree; whilst at Madras and Bombay there is also a preliminary examination at the end of the first year of the course. These regulations have varied considerably from time to time, the principal questions on which hesitation has been displayed being whether the course should extend over two or three years, and whether it should be deferred until after graduation in arts or science.

Course for the Bachelor's degree.

691. In the Punjab there is a three years' course for the diploma of Licentiate in Law, which may be taken after the intermediate examination and may be pursued concurrently with the arts course. At the end of each year of the course the student must pass an examination, and he may not present himself for the final examination until he has graduated in arts. The course may be studied either in English or Urdu. Any person who has passed the Licentiate in Law examination, and has graduated in arts, may present himself for the examination for the degree of Bachelor of Laws. Candidates for the degree of Bachelor of Laws who have graduated in arts at the time of their admission to the Law college must attend the first and second year's Licentiate in Law courses and pass the first and second Licentiate in Law examinations. They are then admitted to the LL. B. class and after a year in that class may present themselves for the Bachelor of Laws examination. Candidates who are graduates at the time of passing the second Licentiate in Law examination may also be admitted to the LL. B. class.

Punjab system.



Higher  
courses  
degrees,  
and

692. The Universities of Calcutta, Bombay, and Allahabad have a special course, and an examination, for honours in law. Candidates for this examination must have previously graduated in law. At Calcutta and Allahabad the degree of Doctor of Laws may be given to graduates who have passed the honours examination and fulfil certain other conditions. At Madras there is an examination for the degree of Master of Laws, at which the candidate may appear two years after taking the degree of Bachelor of Laws. The Punjab University also offers the degree of Doctor of Laws. Very few students have presented themselves for these higher examinations, which are difficult and which do not lead directly to any special professional advantage. In the five years under review only three students took the Master's degree at Madras. No candidate has taken honours in Law at Bombay for many years past. At Calcutta there was only one successful candidate for the Doctor's degree during the five years; and only three students, none of whom were successful, competed for honours in Law. At Allahabad only three students in all have passed the examination for honours, and only one has qualified for the Doctor's degree. No one has taken the degree of Doctor of Laws at the Punjab University.

#### University Curricula.

693. The following is an outline of the curricula prescribed by the several Universities for the degree of Bachelor of Laws :—

##### MADRAS.

##### *Preliminary or First B.L. Examination.*

- (1) Jurisprudence.
- (2) Roman Law.
- (3) The Law of Contracts including Negotiable Instruments.
- (4) The Law of Torts.

##### *Final Examination.*

- (1) The Theory and Law of Property, including—
  - (a) The Law of Trusts and Trustees.
  - (b) Transfer of Property.
- (2) Hindu and Muhammadan Law.
- (3) Indian Constitutional Law.
- (4) The Law of Evidence.
- (5) Criminal Law.

The principles of Equity are studied in so far as they relate the above subjects.

##### BOMBAY.

##### *Preliminary or First LL. B. Examination.*

- (1) General Jurisprudence.
- (2) Roman Law.

##### *Final Examination.*

- (1) Succession and Family Rights, with special reference to Hindu and Muhammadan Law.
- (2) The Law of Contracts, and of the Transfer and Lease of Immoveable Property.
- (3) Equity with special reference to the Law of Trusts, Mortgages, and other securities for money, and Specific Relief.
- (4) The Law of Torts and Crimes.
- (5) The Law of Evidence, Civil Procedure (including Limitation), and Criminal Procedure.

##### CALCUTTA.

- (1) The principles of Jurisprudence; the history and constitution of the Courts of Law and legislative authorities in India.
- (2) The Law relating to persons in their public and private capacities, including the Law of Testamentary Succession.
- (3) The Law of Property, including the Law relating to Land Tenures and the Revenue Laws.
- (4) The Law of Property, including the Laws of Transfer, Prescription, and Pre-emption.
- (5) The Law of Contracts and Torts.
- (6) The Law of Crime and Criminal Procedure.
- (7) The Law of Civil Procedure, including the Law of Evidence and the Law of Limitation.
- (8) Hindu Law and Muhammadan Law (with the exception of parts already included), and the Law of Intestate Succession.

##### ALLAHABAD.

- (1) (a) The principles of Jurisprudence.  
(b) The history and constitution of the legislative authorities and Courts of Law in British India.

- (2) The Law of Evidence and Pleading (Civil and Criminal).
- (3) Hindu and Muhammadan Law with the statutory modifications made in them.
- (4) The Law relating to Contracts ; to the Transfer and Lease of Immoveable Property ; to Registration ; to Succession ; and to Torts.
- (5) Equity with special reference to the Law of Trusts, Mortgages, and Specific Relief.
- (6) The Civil Procedure and the Law of Limitation.
- (7) The Penal Code and the Criminal Procedure Code.
- (8) The Law relating to Land Tenure, Revenue and Rent, in the United Provinces, the Central Provinces, and British Rajputana.

## PUNJAB.

*Preliminary Examination.*

- (1) Outlines of Jurisprudence and Constitutional Law.
- (2) Elements of Contract Law and of the Law relating to Torts
- (3) Principles of Criminal Liability.
- (4) The Law of Evidence.

*Intermediate Examination.*

- (1) Civil Law—
  - (a) The Law of Property, the Creation and Extinction of Easements, and the several modes of acquiring and transferring rights in property.
  - (b) The Law relating to Minors.
- (2) Civil Law—
  - (a) The Law of Contracts (including Specific Relief).
  - (b) The Law of Torts.
  - (c) The Law relating to Carriers.
  - (d) The Law relating to Negotiable Instruments.
  - (e) The Law relating to Trusts.
- (3) Civil Law—
  - (a) The Law relating to Intestate and Testamentary Succession, and Probate and Administration.
  - (b) Hindu Law.
  - (c) Muhammadan Law.
  - (d) Customary Law.
  - (e) The Law of Evidence.
- (4) Criminal Law.
- (5) Constitutional Law and General Jurisprudence
- (6) The Law of Limitation.

*Final Examination.*

- (1) Jurisprudence—
  - (a) General Jurisprudence.
  - (b) Principles and Theory of Legislation.
- (2) International Law (Public and Private).
- (3) Constitutional History—
  - (a) of England ;
  - (b) of the Courts of Law and legislative authorities in India.
- (4) Roman Law.

## Students.

694. At the end of 1901-02 there were 2,767 students on the rolls of the law colleges which come within the scope of this Review, and 41 students in the law schools of Burma and Assam. The total was 212 less than in 1896-97. As many as 1,510 of the students were in the Bengal colleges; Madras had 387 students, Bombay 348, the United Provinces 326, and the Punjab 159. Bengal shows a large increase of 399 students, and the popularity of the legal profession in this province shows, therefore, no sign of diminishing. The Central Provinces return a small increase, and all other provinces a decrease which amounted to 274 (63 per cent.) in the Punjab, 233 (38 per cent.) in Madras, 58 in Bombay, and 40 in the United Provinces. The causes of the decrease in the number of students in the law colleges at Madras, Bombay, and Lahore have already been noticed. In the United Provinces the decrease is partly due to the closing of the classes attached to the Queen's College at Benares. Although special causes have contributed to the decline in several provinces it would seem probable that underlying these is a general perception that the legal profession no longer offers such superior advantages to other careers as was formerly the case.

## Examinations.

695. Notwithstanding the decrease in the number of legal students, the number of candidates in the examinations for the degree of Bachelor of Laws (including the final examination only, in those provinces in which there is more than one examination) increased from 1,026 in 1896-97 to 1,328 in 1901-02. The percentage of successful candidates also increased from 40 to 44. In so far, therefore, as the examination statistics may be regarded as a test of efficiency there has been some improvement. There were 570 candidates in Bengal, 382 in Madras, 216 in Bombay, 66 in the United Provinces, 65 in the Punjab, and 29 in the Central Provinces. The number of candidates increased in every province except in the United Provinces in which there was a large fall, and in the Central Provinces where the number remained almost stationary. The examination results were much better in Madras (46.9 per cent. of passes) and Bombay (65.7 per cent. of passes) than in Bengal (37.4 per cent. of passes) and in the United Provinces (9 passes only out of 66 candidates). It is remarkable that in Bengal, with its very large number of students, the number of successful candidates was only 34 greater than in Madras. Again in so far as examination statistics are a test, the centralized system gives better results than the system of local law classes. Madras shows a steady improvement year by year. In the Punjab 50 candidates presented themselves at the examination for the Licentiate diploma, and 38 succeeded in passing.

696. Passed candidates are arranged in classes according to the percentage of marks which they obtain. In Madras there are three classes and in each of the other Universities there are two classes. Comparatively few pupils succeed in passing above the lowest class. In Madras, in 1902, there were 16 candidates in the second class, and there has been no first class candidate since 1895. In the other Universities the number of first class candidates in 1902 were as follows: Bombay 2, Calcutta 25, and the United Provinces none. In the Punjab the latest figures available are for 1901, in that year one candidate passed in the first class.

## Financial.

General statistics.

697. The total expenditure on law colleges and schools was returned at ₹1,25,786 in 1901-02 against ₹1,35,504 in 1896-97. The net decrease is due mainly to a fall of nearly 19,000 in Bengal, which is apparent rather than real: three of the large Calcutta classes and one of the mofassal colleges furnished no returns of expenditure. There was also a considerable fall in Madras, Burma, and Assam. The expenditure per student is greatest in the Madras College. The cost of legal education is defrayed almost entirely from fees, and as already stated, in some colleges the law department yields a substantial profit. In consequence of the fall in the number of its students the Madras college worked at a heavy loss in 1899-1900; the fees were therefore raised and in 1901-02 the receipts were ₹7,470 in excess of the expenditure. The Bombay college yielded a profit of nearly ₹10,000 in 1896-97, but in consequence of the increased expenditure due to the reorganization and to the decline in the number of pupils, it cost the Government ₹2,272 in 1901-02 notwithstanding that the rate of fees has been enhanced. In Bengal, where the professors in the Government law colleges are paid from fees, no charge falls on Provincial Revenues; but in the United Provinces the law classes cost the Government ₹2,547 in 1901-02. The Burma class also cost ₹1,980.

Fees.

698. The fee rates vary considerably in the different provinces. In the law college at MADRAS the fees for the B. L. classes are: first year ₹75 a term, and second year ₹100 a term. For the pleadership classes the fees are ₹50 a term, and for the special classes they are ₹12 for each subject with a minimum of ₹20 a term. There are two terms in the year. Muhammadans and Uriyas pay only half rates. In the law college at BOMBAY, where there are also two terms in the year, the fee for the preliminary or first LL. B. course is ₹25 a term, and for the final course ₹35 a term. In the private law classes in CALCUTTA the fee varies from ₹2 a month in the pleadership class to ₹5 a month in the B.L. class; in the Government mofassal colleges the rate is higher and goes up to ₹7 a month.

## Medicine.

### Introductory.

699. The natives of India show considerable aptitude in the study and practice of medicine; many of them have attained a creditable degree of proficiency, and some have gained distinction in their profession. Students are trained in the medical colleges and schools chiefly for service in the hospitals and dispensaries of the Government and of the Local and Municipal Boards, and, in the case of female students, in the institutions of the Countess of Dufferin Fund. Some practise privately, and others find work under the large employers of labour, such as steamer companies, tea planters, and the like.

The members of the Subordinate Civil Medical Service are divided into two main classes, a higher grade of Assistant Surgeons and a lower grade of Hospital Assistants. These terms are so widely recognized that they are often used to denote the grade of practitioners in private employ or practice, as well as those who are actually in the public service. Speaking generally, the Civil Assistant Surgeons are trained in the medical colleges, and the Civil Hospital Assistants in the medical schools. Another function of the colleges and schools is to train subordinate medical officers, also styled Assistant Surgeons and Hospital Assistants, for the military service. The medical education of women is a subject of special importance in India, and is dealt with in detail in the Chapter on Female Education.

### Medical Colleges.

700. The higher teaching of medicine is concentrated in the four Government Colleges at Calcutta, Madras, Bombay, and Lahore. Students of the United Provinces and the Central Provinces study at Calcutta or Lahore, and Burmese students, as a rule, at Calcutta. The Calcutta and Madras Colleges were founded in the year 1835 for the training of subordinate medical officers, who were urgently needed as soon as the Government turned its attention to supplying medical relief to the population of the interior. The Bombay and Lahore Colleges were established in 1845 and 1860, respectively. The Grant Medical College at Bombay was founded, partly by private subscription, as a tribute to the memory of the late Sir Robert Grant, Governor of Bombay. The object of the institution was declared to be to "impart, through a scientific system, the benefit of medical instruction to the natives of Western India." The Lahore College was similarly founded "with the object of providing education in Western medicine for the people of the Punjab."

The four  
Government  
colleges.

701. Each of the colleges is connected with a large native hospital in which clinical instruction is given to the students. The Calcutta College is attached to the Medical College Hospital, and the two institutions are located in the same compound. Clinical instruction is also given in the Eden Hospital for women, in the Ophthalmic Hospital, and to some extent in the Ezra Hospital—a general hospital for the Jewish community. The Madras Hospital is attached to the General Hospital of the city, and clinical instruction is also given in the Government Maternity Hospital, the Ophthalmic Hospital, and the Lunatic Asylum. Clinical instruction is given to the students of the Grant Medical College, Bombay, in the Jamsetji Jijibhai Hospital, the Cowesji Jehanghier Ophthalmic Hospital, the Bai Mothibai Obstetric Hospital, and the Dinshaw Manekji Petit Hospital for women and children. Attached to the college is a laboratory for medical research. The Lahore College consists of a main building containing a library, lecture rooms and museums, and a separate pathological laboratory. It is attached to the Mayo Hospital.

Buildings and  
hospitals.

702. Each of the colleges is managed by a principal, who is always a member of the Indian Medical Service, assisted by a staff of professors. The Madras and Bombay colleges are under the general control of the provincial Director of Public Instruction, whilst the Calcutta and Lahore colleges are under the general control of the provincial Inspector General of Civil Hospitals. The professorships are divided into major and minor. The former include all the professorships which deal with medicine and surgery in their different branches and the professorship of chemistry. These appointments are reserved for officers of the Indian Medical Service. The duties of professor of chemistry are

Control and  
staff.

combined with those of Chemical Examiner to Government. In the Calcutta Medical College, which is the largest of the four institutions, there are professorships of medicine, materia medica, surgery, anatomy, midwifery, ophthalmic surgery, chemistry, pathology, physiology, medical jurisprudence, botany, and comparative anatomy and zoology. There are also lecturers on dentistry and hygiene. All the professors are members of the Indian Medical Service.

College  
classes.

703. The principal classes in each college are for instruction in the course of studies prescribed by the corresponding University for its degree or diploma, but there are also other classes both for civil and military pupils. In Madras and Lahore there is a school department attached to the college which is treated in the provincial returns as a separate school and which contains some or all of the non-University classes. In Bombay and Calcutta, on the other hand, all the classes are regarded as belonging to the college itself and are included in the collegiate statistics. The following is a list of the departments in the different colleges :—

**MADRAS—**

College Department (121 pupils).  
School Department (368 pupils).

**BOMBAY—**

College Department (523 pupils).  
Military Assistant Surgeons' Department (46 pupils).

**CALCUTTA—**

College Department for regular students (505 pupils).  
Casual students attending lectures on one or more subjects.  
Female Certificate class (12 pupils).  
Military Pupils' class (78 pupils).

**LAHORE—**

College Department (173 pupils).  
Female Certificate class (8 pupils).  
School Department (291 pupils).

Students.

704. The educational qualifications required from students entering the college departments are governed by the University regulations, and will be considered in discussing those regulations. Some of the students reside while at college in hostels, but many make their own lodging arrangements. No hostels have been provided for medical college students at Madras or Lahore, but at the former place students may reside in the Victoria Hostel attached to the Presidency college. At the end of the quinquennium the Government of the Punjab allotted a lakh of rupees for the erection of a boarding house for the Lahore College. At the Grant Medical College at Bombay, the only boarding accommodation (apart from that provided for military pupils) is a small hostel for the 15 students engaged on night duty. At Calcutta a certain number of Hindu students are accommodated at the Eden Hostel, while the female students reside at the Surnomoyee Hostel, and the military class is housed in a hostel near the college, but the great bulk of the students are not provided for.

705. The medical profession is growing in popularity, and the number of college students has increased largely during the quinquennium; the figures compare as follows :—

	1896-97.	1901-02.
Madras . . . . .	82	121
Bombay . . . . .	279	569
Calcutta . . . . .	468	595
Lahore . . . . .	238	181
	<hr/>	<hr/>
	1,067	1,466

The decrease in the Punjab was caused by the substitution of the intermediate for the entrance examination in arts as the standard of preliminary education qualifying for admission. This change was made in 1897, and the Director states that its effect in diminishing the number of admissions is rapidly disappearing. All the students shown above under the head "College Department" were following the University course.

The students of the four colleges were distributed by race or creed as follows:—

Europeans and Eurasians	190
Native Christians	120
Brahmins	255
Non-Brahmin Hindus	649
Muhammadans	65
Parsis	182
Others	5

706. As there is no medical college in the United Provinces, the Allahabad University gives no medical degree, and students from those provinces take their degree at Calcutta or Lahore. All of the remaining Universities grant a Medical Licentiate, and all but Bombay also grant a degree of Medical Bachelor. The nomenclature of the Licentiate and of the Bachelor's degree differs in the various Universities and is as follows:—

	Licentiate.	Bachelors' Degree.
Madras	Degree of Licentiate in Medicine and Surgery.	Bachelor of Medicine and Master of Surgery.
Bombay	Degree of Licentiate in Medicine and Surgery.	.....
Calcutta	License in Medicine and Surgery.	Bachelor in Medicine.*
Lahore	Diploma of Licentiate in Medicine and Surgery.	Bachelor in Medicine.

707. The course of study and the standards of examinations are different for the Licentiate and for the Bachelor's degree, and the two courses are taught simultaneously in the colleges. The regulations are complicated, and their main features are shown in the following tabular form:—

University.	General educational qualifications for entering on the course.	Length of the course.	Number of examinations and their position in the course.	Minimum age limit for beginning and completing the course.
<i>Licentiate.</i>				
Madras	(a) F. A.	Four years	3.—After the 2nd, 3rd, and 4th years.	17—21
Bombay	Matriculation, and a special test in English and the mechanics of solids and fluids.	Five "	3.—After the 1st, 2nd, and 5th years.	16—21
Calcutta	F. A.	Five "	3.—After the 2nd, 3rd, and 5th years. (b)	Nil.
Lahore	F. A.	Five "	Ditto.	Nil.
<i>Degree of Bachelor.</i>				
Madras	F. A.	Five years	4.—After the 1st, 2nd, 4th, and 5th years.	17—22
Calcutta	F. A.	Five "	3.—After the 2nd, 3rd, and 5th years. (b) (c)	Nil.
Lahore	B. A. of B. Sc.	Five "	Ditto.	Nil.

(a) F. A.—The First Arts or intermediate examination of the University or an examination accepted as equivalent to it.

(b) The first and second examinations may be taken together.

(c) The Calcutta University has a supplementary examination for Honours in Medicine for those who are placed in the first division of the second examination.

The most striking differences in the Licentiate course are that the general educational qualifications are lower at Bombay than elsewhere, and that the course is shorter at Madras than in the other Universities. At Calcutta the preliminary qualifications and the length of the course are the same for the Licentiate and for the Bachelor's degree; at Madras the preliminary qualifications are the same in each case, but the course for the Bachelor's degree is longer; and at Lahore the length of the course is the same in each case, but the preliminary qualifications for the Bachelor's degree are higher.

\* The Calcutta University also gives a Degree of Honours in Medicine.

Subjects of examination.

708. The character of the courses is illustrated by the following table, showing the subjects prescribed for the various professional examinations:—

University.	LICENTIATE COURSE.		BACHELOR'S DEGREE COURSE.	
	Name of examination.	Subjects of examination.	Name of examination.	Subjects of examination.
Madras	First L. M. and S. Second L. M. and S.	Anatomy, physiology, histology, and chemistry. Pathology, hygiene, medical jurisprudence, materia-medica and therapeutics, and practical pharmacy.	First M. B. and C. M. Second M. B. and C. M.	Chemistry, physics, and general biology. Anatomy, physiology, and organic chemistry.
	Final L. M. and S.	Medicine and medical anatomy, surgery and surgical anatomy, operative surgery, midwifery and diseases of women and new-born children, and ophthalmology.	Third M. B. and C. M. Final M. B. and C. M.	General pathology, practical pathology, bacteriology, materia-medica and therapeutics, hygiene, medical jurisprudence, and practical pharmacy. Medicine and medical anatomy, surgery and surgical anatomy, midwifery and diseases of women and children, and ophthalmology.
Bombay	First Examination in Medicine.	Chemistry, botany, materia-medica, and practical pharmacy.	...	.....
	Second Examination in Medicine.	Anatomy (descriptive and practical), physiology, and histology.	...	.....
	Examination for the degree of L. M. and S.	Medicine, surgery (including ophthalmics), midwifery and diseases of women and children, medical jurisprudence, and hygiene.	...	.....
Calcutta	Preliminary Scientific L. M. and S.	Chemistry and botany	Preliminary Scientific M. B.	Physics, chemistry, botany, comparative anatomy, comparative physiology, and zoology.
	First L. M. and S.	Descriptive and surgical anatomy, materia-medica and pharmacy, and general anatomy and physiology.	First M. B.	Descriptive and surgical anatomy, materia-medica and pharmacy, general anatomy and physiology.
	Second L. M. and S.	Medicine, surgery, ophthalmic medicine and surgery, midwifery, medical jurisprudence, and hygiene and general pathology.	Second M. B.	Medicine, surgery, midwifery, medical jurisprudence, hygiene and pathology, ophthalmic medicine and surgery.
Punjab	As at Calcutta.		As at Calcutta.	

The examinations are written, oral, and practical, and a certain percentage of marks must be obtained for a pass. Except in the Calcutta L. M. S. course, the successful candidates are arranged in two divisions according to the aggregate number of marks which they obtain.

Qualifications of a Licentiate.

709. In so far as the regulations for the courses are concerned the Licentiates of the Calcutta and Punjab Universities are equivalent. In these Universities a Licentiate is a man who, after passing the F. A. examination, has had a five years' course of medical training beginning with two years devoted to preliminary scientific studies and ending with three years of medical study. In Madras a Licentiate means a man who, after passing the F. A. examination, has had four years of study, of which the two first are given to anatomy, physiology, histology, and chemistry, and the last two to the other subjects of the medical curriculum, and who is not less than twenty-one years of age. In Bombay a Licentiate means a man who, after passing the matriculation examination and a special test in English and in the mechanics of solids and fluids, receives a five years' course, of which the first two are devoted to the combined study of scientific and medical subjects, and the last three to professional subjects, and who is not less than twenty-one years of age.

710. The qualifications denoted by the Bachelor's degree are much the same at Madras and Calcutta. In each of these Universities a Bachelor of Medicine means a man who, after passing the F. A. examination, undergoes a five years' course, of which the first two years are devoted to scientific, and the last three years to professional, subjects. The details of the course differ, however, in the two Universities, and in Madras the Bachelor must be at least twenty-two years of age. In the Punjab, a Bachelor of Medicine means a man who, after graduating in arts or science, has had a five years' course similar to the Calcutta course. The obligation to graduate in arts or science before beginning the course for the degree of Bachelor in Medicine, signifies that a student must go through nine years of general and special University training before he can take the degree. It is not surprising to find that since 1891, when the degree was first given, only twenty-one students have succeeded in obtaining it.

Qualifications of a Bachelor.

711. Table 137 illustrates the results of the University examinations in medicine. It will be noticed in the first place that only two candidates qualified for the Bachelor's degree, against one hundred candidates for the Licentiate. In MADRAS the results are unsatisfactory: no candidates went up for the final M. B. examination; and all the six candidates for the third M. B. examination, as well as all the nine candidates for the final L. M. and S. examination, failed. The numbers of candidates and passes in the first examination for the M. B. were greater than the corresponding numbers for the first examination for the L. M. and S. The Director thinks that this is probably due to the raising of the preliminary qualifications for the L. M. and S. course to the F. A. examination in 1893, the preliminary qualifications being the same in each case "students naturally prefer the higher course to the lower." They also have the option of changing their course after the third M. B. examination. The BOMBAY results, 157 candidates at the first examination and 28 passes in the final examination, are much better. In CALCUTTA there were only 7 candidates and 2 passes for the final M. B., against 151 candidates and 64 passes for the final L. M. and S. In spite of this, the number of passes in the first examination for the M. B. was 99, against 42 only in the first examination for the L. M. and S. It would seem as though students availed themselves freely of the option which is given to them of passing from the higher to the lower course at any stage of their studies. In the PUNJAB there were 29 candidates and eight passes for the final L. M. and S.; for the final M. B. there was only one candidate who failed. This gives a total of eight passes in the final examination, compared with 47 candidates for the first examination. In 1896-97 the results in the final M. B. examination were everywhere better than in 1901-02, and in all there were 15 candidates and 8 passes. On the other hand the number of passes in the final L. M. and S. examination rose from 68 to 100, a fall of 19 in Madras and of 1 in the Punjab being more than counterbalanced by a rise of 15 in Bombay and of 37 in Calcutta.

Statistics of the examinations for the Bachelor and Licentiate courses.

712. The curricula of the colleges are based on the courses prescribed by the Universities. The course of practical work in the Madras, Calcutta, and Lahore colleges is as follows:—

Colleges curricula and practical training in professional subjects.

MADRAS.

M. B. and C. M. Section.

Third year.	Fourth year.	Final year.
Medical and Surgical wards, four months each; two months in the out-patients' department.	Government Maternity Hospital, two months; Government Ophthalmic Hospital, three months; Lunatic Asylum, one month; General Hospital—surgical and medical wards, one month in each, and two months in the out-patients' department.	Medical ward, four and a half months; Surgical wards, four and a half months; Maternity Hospital and Vaccine Dept., two months.



*L. M. and S. Section.*

Second year.	Third year.	Final year.
Surgical practice, including out-patients' department, ten months.	Medical and surgical wards, four months in each; out-patients' department, two months.	Government Maternity and Ophthalmic Hospitals, three months in each; General Hospital, medical wards, four months; Lunatic Asylum, one month; Vaccine Depôt.

## CALCUTTA.

*College Department.*

Third year.	Fourth year.	Final year.
Hospital practice, twelve months.	Hospital practice, twelve months.	Hospital practice, six months; out-patients' practice, three months; Ophthalmic Hospital three months; practical midwifery, six labours.

## LAHORE.

*College Department.*

Third year.	Fourth year.	Final year.
Out-patient practice.	Attendance as ward-clerks and dressers on in-patients and out-patients, practice of minor surgery, and practical pathology; operations on the dead body.	Charge of in-patients of the hospital as clinical clerks.

College  
examina-  
tions.

713. Some of the colleges hold tests and other examinations in addition to the University examinations. The following are the college and University examinations at Calcutta, the latter being shown in brackets:—

*First year.*—Test examinations of the subjects studied during the year.

*Second year.*—Test examinations in anatomy, physiology, and materia medica; and honours examinations in anatomy, chemistry, botany, and zoology. (Preliminary Scientific M. B. and L. M. S.)

*Third year.*—Honours examinations in physiology and materia medica. (First M. B. and L. M. S.)

*Fourth year.*—Test examinations of the subjects studied during the year.

*Fifth year.*—Honours examinations in the subjects studied during the year. (Final M. B. and L. M. S.)

At Lahore each professor holds an oral class examination after every five lectures, and sessional examinations are held at the end of the winter and summer sessions, each professor examining in his own subject.

714. The school department courses of the Madras and Lahore colleges are noticed under the head of Medical Schools. The military pupil class of the Calcutta college has a four years' course; at the end of the first year there is an examination in anatomy, physiology, materia medica, and chemistry; and at the end of the fourth year an examination in medicine, surgery, midwifery, medical jurisprudence, ophthalmic medicine and surgery, and dental surgery. The special female classes are described in the Chapter on Female Education.

Non-University classes.

715. The Doctorate is granted by all four Universities, and the conditions for obtaining it are not equivalent in any two of them. In Bombay it comes after the Licentiate, in Madras and the Punjab after the Bachelor's degree, and in Calcutta after either the Licentiate or the Bachelor's degree. The only University at which the Doctor's degree necessarily implies any prolongation of the period of medical study is Bombay. There it is confined to graduates in arts or science who have taken the L. M. S. course, who have attended at a recognized hospital for a further two years and who have attended a further course of lectures in comparative anatomy. It appears that during the last ten years there has only been one candidate for the Doctorate at Bombay and that he was not successful. In Madras all that is necessary in order to become an M. D. is first of all to become an M. B. and then, after three years' practice, to submit a thesis and pay a fee of R100. Madras has produced four M. D's. in the last ten years. In Calcutta in order to become a Doctor a man must either be an M. B. and have practised five years (or less subject to certain conditions) or else an L. M. S. who has not only practised for five years but is also a B. A. and 35 years of age. In either case the candidate for the Doctorate must undergo a further professional examination besides submitting a thesis. Calcutta in the last ten years has produced two M. D's. In the Punjab a Doctor of Medicine means a man who, after the nine years' general and professional training for the M. B. degree, practises "with great repute" for five years, or if he is a first class man, practises for two years only. He then undergoes an examination similar to that in Calcutta but is not required to submit a thesis. The Punjab is not recorded to have produced any Doctors of Medicine in the last ten years.

The degree of Doctor of Medicine.

716. The total recorded expenditure on the four Medical Colleges was R4,24,000 in 1901-02 against R3,80,000 in 1896-97. It was made up as follows: Provincial Revenues, R2,79,000; fees, R1,35,000; Municipal funds, R6,000; and endowment and other private sources, R3,000. The increased expenditure was derived from fees, the total of which rose by R54,000; the expenditure from Provincial Revenues diminishing by R10,000. The Madras College cost R68,213 in 1901-02, of which R53,317 was paid by Government. The charges of the Grant Medical College at Bombay are paid by the Medical Department and do not appear in the Report of the Director of Public Instruction; the sums shown against the college consist, therefore, only of fees (R74,231), and sums derived from the endowments and other private sources of the college (R2,732). The Calcutta college cost a little over 2 lakhs, of which over R1,63,000 was defrayed from Provincial Revenues. The Lahore college cost R78,331, and of this amount R68,990 was contributed by public funds.

Expenditure.

717. In 1901-02 the average rate of fees per pupil in the four colleges stood as follows:—

	R
Madras . . . . .	118
Bombay . . . . .	130
Calcutta . . . . .	62
Lahore . . . . .	52

The rate of fees actually charged per annum is R144 at Bombay, R96 at Calcutta (raised from R70 in 1900-01), and R50 at Lahore. Calcutta has an entrance fee and various miscellaneous fees. Lahore has a fee for the dissecting

Fees.

courses. Bombay has an entrance fee of R25. At Calcutta, Muhammadan students pay annual fees at half rate, the other half being paid from the Mohsin Fund.

Scholarships  
of the  
medical  
colleges.

718. A number of scholarships derived both from public and private funds are held by students in the medical colleges. Complete statistics regarding the annual aggregate value of these scholarships are not available but the expenditure from Provincial Revenues under this head stood as follows in 1901-02 :— Madras, *nil* ; Bombay R400 ; Bengal (for colleges and schools combined), R4,991 ; and the Punjab, R5,386.

In MADRAS there are no Government scholarships but five scholars are admitted each year to the college who are exempted from paying the ordinary fees. There are several private scholarships, such for instance as the Lane scholarships (one for men and one for women) of the value of R35 a month each, and tenable for five years. There were 84 scholarship-holders in the college in 1901-02. Information regarding the BOMBAY Government scholarships is not available ; there are nine private scholarship funds attached to the college. In 1901-02 there were 37 male and 16 female scholarship-holders. At CALCUTTA there are 10 Bengal Government scholarships tenable in each class above the lowest and granted on the college examination results of each year. In the second and third years the value of each scholarship is R8 a month, and in the fourth and fifth years, R12 a month. The scholarships carry free tuition. There are also several private scholarships. At LAHORE the Punjab Government scholarships are as follows :—

	R
6 Entrance scholarships, tenable for the first year . . . . .	12 a month.
18 Junior scholarships, tenable from the second to the fourth year . . . . .	14 „
6 Senior scholarships, tenable for the fifth year . . . . .	18 „

The above rates are for students who passed the F. A. Examination in the 1st division ; for students who passed that examination in the 2nd division the rates are lower, and for graduates they are higher. There are also private scholarships derived from a fund of R10,000 presented by His Highness the Nawab of Bahawalpur. In 1901-02 there were 44 scholarship-holders in the Lahore College.

Scholarships  
belonging to  
provinces in  
which there  
are no  
medical  
colleges.

719. The United Provinces, Burma, the Central Provinces, and Assam grant scholarships to students from their provinces to assist them in their studies at one or other of the medical colleges. The UNITED PROVINCES have 6 entrance scholarships, 18 junior scholarships, and 6 senior scholarships tenable at the Lahore College. The rates and the regulations applicable to them are similar to those for the Punjab Government scholarships. It is stated in the Bengal Report that scholarships of the following aggregate amounts were held by other provinces in the Calcutta College during 1901-02 ; Burma, R3,452 ; Assam, R420 ; and the Central Provinces, R610. The Government of BURMA grants two scholarships of the value of R60 a month to candidates of Burmese and Indo-Burmese origin, and one open to European and Eurasian candidates whose parents are domiciled in Burma. Special arrangements are made, as far as possible, for the board and lodging of students in or near the college premises. The parents or guardians of the scholars are required to enter into a bond guaranteeing that the students will complete the college course, and will then, if required, enter Government service as Assistant Surgeons. The CENTRAL PROVINCES award two scholarships on the result of the F. A., and one on the result of the B. A., examination tenable in any college of medicine. All these scholarships have been taken up annually during the course of the quinquennium. In 1901-02, 12 Central Provinces students of the B. A. or F. A. standard were studying medicine, 6 in the Lahore College, 4 in the Calcutta College, and 2 in the Bombay College ; with one exception they were all in receipt of scholarships.

Female  
scholarships.

720. There are a number of special scholarships for women, all of which are not included in the above analysis ; a further account is given of these in the Chapter on Female Education.

Medical Schools.

721. A list of the medical schools is given in Table 138. They comprise <sup>List of</sup> 11 Government schools, one Municipal school, 4 aided schools, and 6 unaided <sup>/schools.</sup> schools.

722. The Government schools are by far the most important. They are <sup>Government</sup> situated as follows :— <sup>schools.</sup>

MADRAS	.	.	Madras City.
BOMBAY	.	.	Poona (Deccan), Ahmedabad (Gujarat), Hyderabad (Sind).
BENGAL	.	.	Calcutta, Patna (Behar), Dacca (Eastern Bengal), Cuttack (Orissa).
UNITED PROVINCES			Agra.
PUNJAB	.	.	Lahore.
ASSAM	.	.	Dibrugarh.

Burma and the Central Provinces have no medical schools, but they award scholarships tenable in the schools of other provinces. The majority of the students in the Government schools read in the Hospital Assistants' classes, and many of them are in receipt of stipends, in consideration of which they undertake to enter the service of the Government if required to do so.

723. The non-Government schools may be classified as follows :—

<sup>Non-Govern-</sup>  
<sup>ment schools.</sup>

- (1) A small Board school at Tanjore in Madras.
- (2) Two private-managed female schools—a small school at Hyderabad in Sind, and a larger school at Ludhiana in the Punjab. These institutions are noticed in the Chapter on Female Education.
- (3) Five private schools in Bengal.
- (4) Two schools of Muhammadan, and one of Hindu medicine; all situated in the Punjab.

724. The only changes that have taken place during the quinquennium are the closing of one Board school at Nellore in Madras, the closing of a private school in Bengal, and the establishment of a school at Dibrugarh in Assam. <sup>Changes</sup> <sup>during the</sup> <sup>quinquen-</sup> <sup>ni-um.</sup> The Punjab statistics show an increase of three schools, namely, the Ludhiana school for women, and two classes of Hindu and Muhammadan medicine. But the Ludhiana school came into existence in 1894, and the classes of native medicine have been held for some time past, but were formerly a portion of the Oriental College from which they have now been transferred. It has been decided to entirely separate the Madras school from the Medical College, and to open another Government medical school at Vizagapatam.

725. The school department of the Medical College is divided into the <sup>School</sup> following sections :— <sup>department,</sup>

- (1) Apothecary department, for military pupils, colonial apprentices, and female students. <sup>Madras</sup> <sup>Medical</sup> <sup>College.</sup>
- (2) Hospital Assistants' Department.
- (3) Sanitary Inspectors' Department.
- (4) Chemists and Druggists' Department.

In the first two departments students are trained for school certificates of qualification, and in the last two departments for Government technical examinations.

On the 31st March 1902 the school had a total of 368 pupils, against 383 in 1895-97. They were divided among the above sections as follows :—

Apothecaries	.	.	.	.	.	100
Hospital Assistants	.	.	.	.	.	196
Sanitary Inspectors	.	.	.	.	.	71
Chemists and Druggists	.	.	.	.	.	1

In the Apothecary Department the course of studies is the same as in the L. M. and S. Section of the College with some small additions. In the Hospital Assistant Department the course is arranged as follows :—

Pre-collegiate year.	First year.		Second year.		Third year.	
The subjects taught during this year are :— Reading of prescriptions : uses, doses, and nature of more common medicines : dispensing medicines : application of minor surgical appliances.	<i>Autumn.</i>	Anatomy, materia medica, dissections, physiology.  General, Rayapetta, Egmore, and Women and Children's Hospitals, and the Eye Infirmary.	<i>Autumn.</i>	Anatomy, dissections, materia medica, medicine, clinical medicine, surgery, clinical surgery.	<i>Autumn.</i>	Medicine, clinical medicine, surgery, clinical surgery, hygiene, midwifery and clinical midwifery.
	<i>Spring.</i>		<i>Spring.</i>		<i>Spring.</i>	
Previously to being drafted into college pre-collegiate students are examined in elementary materia medica and preparation of hospital returns.	Practical pharmacy.		Medicine and clinical medicine, surgery and clinical surgery, practical pharmacy, minor surgery.		Medical jurisprudence. Examinations in— medicine, surgery, midwifery, materia medica, minor and operative surgery, clinical medicine, surgery and midwifery.	
				Native infirmary.		Native Infirmary and Raja Ramasamy's Lying-in Hospital.

Note—The pupils in their second year are required to attend the Vaccine Depot and the Government Ophthalmic Hospital for one month during the recess.

Board school,  
Tanjore.

726. The Tanjore Board School, in which there is only a Hospital Assistants' class, had 19 pupils in 1901-02 against 35 in 1896-97.

Government schools,  
Bombay.

727. The three Bombay Government schools have both civil medical and native military pupils, and their course extends over three years. The schools had 230 pupils in 1901-02, against 200 in 1896-97. The Poona school is the largest of the three.

Government schools,  
Bengal.  
Campbell Medical School.

728. The four Government schools of Bengal train students to be hospital assistants, and give instruction mainly in the vernacular. They have also a lower course for compounders. The Campbell Medical school, Calcutta, is the largest and most important of these institutions and a description of it will afford sufficient illustration of the Bengal medical school system. The school is attached to a large native hospital and dispensary, bearing the same name, which affords full opportunity for clinical practice. The Superintendent of the school and hospital is an officer of the Indian Medical Service, and the tutorial staff comprises teachers of medicine, materia medica, midwifery, surgery and medical jurisprudence. The teachers are all natives of India. Candidates for admission must be between the ages of 16 and 23, and the University entrance examination is practically the minimum general educational qualification. In the three mofassal schools the minimum qualifications are lower, and they vary in the different institutions. The course of study extends over four years and is arranged as follows :—

First year.	Second year.	Third year.	Fourth year.
Anatomy . . . . .	Anatomy . . . . .	Medicine . . . . .	Medicine.
Physiology . . . . .	Physiology . . . . .	Surgery . . . . .	Surgery.
Chemistry . . . . .	Chemistry . . . . .	Medical jurisprudence . . . . .	Medical jurisprudence.
Materia medica . . . . .	Materia medica . . . . .	Midwifery and diseases of women and children.	Midwifery and diseases of women and children.
Compounding . . . . .	Compounding . . . . .	Pathology . . . . .	Pathology.
		Therapeutics . . . . .	Hygiene.

First year	Second year.	Third year.	Fourth year.
Demonstrations .	Demonstrations .	Hospital duty and clinical lectures.	Surgical anatomy and operative surgery.
Dissections .	Dissections .	Attendance— <i>Post-mortem</i> examinations (ordinary and medico-legal).	Insanity. Vaccination. Hospital duty and clinical lectures.
		Dissections . . .	Attendance— <i>Post-mortem</i> examinations (ordinary and medico-legal). Dissections.

*N B.*—Besides the above, the students attend the tutorial classes held by the Resident Medical Officers every afternoon. Senior students also attend, once a week during the session, the practical surgery class held by the teacher of surgery.

First year students attend the dispensary, and students of higher classes the hospital. Professional examinations, styled the first and second diploma examinations, are held at the end of the second and fourth years, and students who are successful in the final examination are granted the diploma of the school. Students of the first and third year classes are not promoted, and students of the second and fourth year classes are not allowed to present themselves at the professional examinations, unless they have put in the prescribed attendance, completed the prescribed course of practical work, and obtained a certain minimum number of marks in the monthly class examinations. The school fee is R3 a month for Hindus and R1-8 a month for Muhammadans (the other moiety of their fees is paid from the Mohsin Endowment Fund). A certain number of first year students are awarded scholarships or free studentships on admission, and scholarships and free studentships for second and third year students are distributed on the result of the examinations. At the end of the third year the Superintendent selects a limited number of students, each of whom receives a stipend of R20 a month during the fourth year, provided he executes a bond to enter Government service.

729. The Agra Medical School is a large and important institution ; on the 31st March 1902 there were 190 male pupils and 52 female pupils on the rolls, against a total of 253 in 1896-97. The number of admission is limited to 50 a year. The school is attached to the male and female hospitals of the station and is under the superintendence of the Civil Surgeon, who is an officer of the Indian Medical Service. Students are divided into four classes: (1) Civil class, (2) Military class, (3) Compounder class, and (4) Female class. The curriculum extends over four years for the civil and female classes, over three years for the military class, and over two years for the compounders' class. The female class is described in the Chapter on Female Education. The civil class is designed for the training of Civil Hospital Assistants for Government service. Pupils elect either for Government service or to study as private pupils; those who elect for Government service are bound to serve for five years as Hospital Assistants on leaving the school if they are required to do so, and they receive their tuition free. Other students pay fees. There were 37 private pupils on the 31st March 1902. The entrance qualification is the University entrance or the school final examination, and candidates must be between the ages of 16 and 21. Fifteen scholarships, ranging from R5 to R8 a month, are given on the result of a "preliminary professional examination" held one month after admission; they are in the first instance tenable for three months and are afterwards re-allotted according to the results of the half-yearly and annual examinations. Military pupils are selected from those who pass the "preliminary professional examination", and must be between the ages of 16 and 20. While at school they receive pay at the rate of R8 a month during the first year, R9 during the second year, and R10 during the third year. The school grants a diploma to civil and military pupils who pass successfully through the course. There are two examinations for the diploma styled the "first-half" and the "last-half" (or final) "professional examinations." During the first-half of the course the subjects of study are mainly of a general scientific character, namely, chemistry,

Agra Medical School.

elementary physics, materia medica, anatomy, and physiology. The school year is divided into two sessions, the summer session extends from the 1st July to the 30th September, and the winter session from the 1st November to the 30th April. The following table shows the arrangement of the course and the position of the examinations in it:—

CIVIL CLASS.

*First-half Examination.*

In October during the second year . . .	Chemistry.
At the end of the second year . . .	Materia medica, anatomy, practical anatomy, practical pharmacy, and physiology.

*Last-half (or Final) Examination.*

In October during the fourth year . . .	Morbid anatomy.
At the end of the fourth year . . .	Practice of medicine, surgery, practical surgery, clinical medicine, clinical surgery, and medical jurisprudence.

-MILITARY CLASS.

*First-half Examination.*

In October of the first year . . .	Chemistry.
At the end of the first year . . .	Materia medica, practical pharmacy, and physiology.
At the end of the second year . . .	Anatomy and practical anatomy.

*Last-half (or Final) Examination.*

At the end of the third year . . .	Practice of medicine, surgery, practical surgery, clinical medicine, and clinical surgery.
------------------------------------	--

Simple English and arithmetic form part of every examination. A certain number of civil appointments are given on the results of the final examination to students of the civil class who pass an English test and are otherwise qualified for Government service. Military pupils who qualify in the final examination are admitted to Government service as third class Military Hospital Assistants. Compounders and dressers in Government service may be admitted, under certain conditions, to the Compounder class. While at school they receive an allowance of Rs 5 a month, and on passing a special professional examination at the end of the two years' course, they are gazetted as fourth class Civil Hospital Assistants.

School department,  
Lahore  
Medical College.

730. The school department of the Lahore Medical College has a civil and a military division. In the former students are trained for the certificate of Civil Hospital Assistant, and in the latter for the certificate of Military Hospital Assistant. A certain number of Compounders are admitted annually to the civil class, and some ward orderlies are admitted to the military class. In 1901-02 the school had 291 pupils against 207 in 1896-97. The Director comments on this increase in the numbers and remarks that it has occurred in spite of the fact that for the last two years of the quinquennium students have been required to pay an annual tuition fee of Rs 25. In April 1902 the applications for admission were more than double the number it was possible to accommodate. One hundred and thirty of the students were attending the school at their own expense and paying a tuition fee.

Berry-White  
School,  
Assam.

731. The Berry-White Medical School, which is managed by Government, was opened in June 1900, with the aid of a bequest of Rs 45,000, the greater portion of which was spent on buildings and equipment. The school had 70 students at the end of the year 1901-02. There were also five Assam medical scholars reading in the Dacca Medical School, and one Khasi girl (with a scholarship) in the Campbell Medical School, Calcutta.

Medical instruction  
in Burma.

732. There is no medical school in Burma, but candidates selected for the Hospital Assistants' class undergo a year's preliminary course in the district hospitals before being sent over to the Madras Medical School. Training is also given to nurses and midwives in the Dufferin Hospital at Rangoon. The Director considers that the arrangement under which Burma medical students receive their training in India is not satisfactory.

733. The Bengal returns show 5 unaided medical schools with 611 pupils. These institutions are situated in Calcutta, and one of them is a homœopathic school. The "Calcutta Medical School" is the oldest of the allopathic institutions; the authorities of the school have recently attached to it a hospital, named the Albert Victor Hospital. Private schools of Bengal.

734. There are two schools of Muhammadan and one school of Hindu medicine in the Punjab which are aided from public funds. These institutions give a combined course of European and oriental medicine. Schools of Indian medicine.

The Madrassah Tibbiya or Yunani (Muhammadan) school of medicine at Delhi was founded by Hakim 'Abdul Mejid Khan some years ago. At the end of 1901-02 it had 100 scholars on the rolls, against 126 in 1896-97. All but two were Muhammadans. The expenditure for the year was R4,022, of which R1,200 was contributed from municipal funds to enable the managers to secure the services of a competent English doctor to lecture on anatomy and surgery. The school has a boarding house, and the number of boarders on the 31st March 1902 was 35.

The Yunani and Aiyurvedic (Hindu) medical classes at Lahore were founded by the Punjab University in connection with the Oriental College, and the students used to attend the Lahore medical school for instruction in the European portion of the curricula. This arrangement did not work well, and the classes were transferred to the school department of the Medical College. Again, in 1898-99, the Aiyurvedic class was transferred to the Dayanand Anglo-Vedic College, and the Yunani class to the Islamia College. The Yunani class had 30 scholars on the rolls on the 31st March 1902. Lectures are given on the principles of the Yunani system of medicine, anatomy, circulation of the blood, digestion, brain disease, and the use and properties of simple and compound Yunani medicine. There were 21 candidates for the examination held in June 1901, and 15 gained more than half the total number of marks. The Aiyurvedic class had 12 scholars at the end of 1901-02. The course extends over three years. In the year ending the 30th September 1901 lectures were delivered to the first year students on materia medica, pharmacy, and botany; to the second year students on therapeutics, description of diseases, and Vedic anatomy; and to the third year students chiefly on "the use of medicines in different seasons and places, with respect to climate". The Punjab University has a series of examinations for the award of titles in both systems. Certain general educational qualifications are laid down, and the syllabus includes European as well as oriental medicine. It does not appear from the Calendar that anyone enters for these examinations.

The Educational Rules of the Government of Madras recommend curricula for adoption in Sanskrit schools, and these include, as an optional subject, a three years' course in certain well-known books on Hindu medicine. There is no information available as to how far these courses are followed.

There is a certain amount of private teaching of Hindu and Muhammadan medicine apart from that given in the recognized schools. Some Indians prefer still to be treated by native methods, and a native *hakim* or *baid* may be found both in towns and in many villages of the interior. But, on the whole, the systems of oriental medicine have fallen into decay.

735. The total number of pupils in medical schools increased during the quinquennium from 2,694 to 2,727; the increase was in the Government schools, the number of pupils in which rose from 1,685 to 1,906. The total expenditure on the other hand fell from R3,05,000 to R2,98,000. In the Government schools the total diminished by over R21,000, and the average annual cost of educating a pupil fell from R166 to R135. The expenditure from fees in Government schools rose from R23,722 to R26,495. General statistics.

#### Sanitary Science.

736. Hygiene and allied subjects are taught in the general medical courses; Madras special courses of Madras require notice apart. They include a higher and a lower course. Madras special courses.

The University of Madras grants the degree of Licentiate in Sanitary Science to medical graduates who have attended prescribed courses in general pathology, hygiene, analytical chemistry, and sanitary engineering, and who pass a special Course for the degree of Licentiate in Sanitary Science.



examination. The subjects of the special examination are chemistry, experimental physics, sanitary law, vital statistics, hygiene, sanitation and sanitary engineering, and drawing and mensuration. Only one person has taken the degree : he qualified in 1895, and holds the appointment of Sanitary Officer, Trivandrum.

Sanitary Inspector's course.

737. The school department of the Madras Medical College has a special Sanitary Inspector's Department for training sanitary officers for employment under Government, Municipal Boards, etc. On the 31st March 1902 there were 71 pupils on the roll of this class. The curriculum is determined by the Madras Government technical examination scheme, and students are granted a group certificate in sanitary science for passing in the following subjects :—

Hygiene . . . . .	Intermediate standard.
Animal Physiology . . . . .	" "
General Biology (special) . . . . .	" "
Physiography . . . . .	" "
Inorganic Chemistry . . . . .	Elementary "

### Engineering and Surveying.

#### Introductory.

Employment of engineers in India.

738. There are wide openings for employment for engineers trained in India. The most important demand is for the Public Works Department and for the railways (in some cases worked by the State, but more commonly by private companies) ; many other engineers find work under Local Boards and some of the larger municipalities ; and an increasing number are employed in private industrial and commercial concerns such as cotton and jute mills, steamer companies, etc., etc.

Organization and recruitment of the Public Works Department.

739. The engineering colleges and schools are conducted with a general view to the recruitment of the several branches of the Public Works Department, and their arrangements cannot, therefore, be rightly understood without a general knowledge of the manner in which that department is organized and recruited. The Public Works Department is divided broadly into the Engineer Establishment, the Upper Subordinate Establishment, and the Lower Subordinate Establishment. The Engineer Establishment is divided into two services, Imperial and Provincial, the former recruited from the college at Cooper's Hill and from the corps of Royal Engineers, and the latter recruited in India. The Provincial service draws its recruits from students of the Indian colleges who are statutory natives of India (whether of European or Indian descent), and from the Upper Subordinate Establishment. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions. The Upper Subordinate Establishment is recruited in India, and consists mainly of natives. Its members hold the chief posts on the engineering works and railways below the officers of the Superior or Engineering Service. They are divided into Overseers (3 grades), Supervisors (2 grades), and Sub-Engineers (3 grades). An Overseer of the third grade draws R60 a month and a Sub-Engineer of the first grade may rise to R500 a month. The Upper Subordinate Establishment draws its recruits (a) from the engineering colleges,\* (b) from the Lower Subordinate Establishment, and (c) from the temporary establishment and from among other qualified persons. The Lower Subordinate establishment is composed almost entirely of natives, its members hold minor posts on the works and railways, and they are, in general, styled Sub-Overseers. The pay varies from R30 to R70, and occasionally rises to R90, a month. Any qualified person may be appointed a Sub-overseer, but recruits are mostly drawn from the engineering colleges and schools. Many employes on the Government railways, such as the Permanent Way Inspectors and Sub-Inspectors and the Locomotive Staff, do not belong to the regular graded establishment, and these posts are also in many cases filled by passed students of the engineering colleges and schools.

#### Engineering Colleges.

Engineering colleges.

740. The principal establishments for the training of engineers are the four Government colleges : the Thomason Civil Engineering College at Rurki in

\* And the Behar Engineering School.

the United Provinces; the Civil Engineering College at Sibpur, near Calcutta; the College of Engineering at Madras; and the College of Science at Poona. The Madras and Poona Colleges are managed by the Principal under the general control of the Director of Public Instruction; the Rurki and Sibpur Colleges have a committee of management over the Principal, and the general control lies with the Education Department.

741. The Thomason Civil Engineering College at Rurki was founded in the year 1847, and the immediate cause which led to its establishment was the pressing need for trained engineers for the construction of the Ganges Canal. The College possesses fine and well equipped buildings, laboratories, workshops, electric plant, etc. It has a library; a model room; a mineralogical museum; a meteorological office; a printing press; a book depôt, in which are sold the publications of the College press; and a photographic and process work department. The press workshops, photographic and process work department, and the book depôt are worked on commercial principles. The College undertakes the care of the buildings, roads, water-supply, and sanitary arrangements, which are all kept in a high degree of efficiency. All students live in the residential buildings of the College, except a few who have parents or guardians at Rurki. The European and Eurasian engineer students reside in bungalows, each situated in its own compound; the students of the other classes reside in barracks close to the College. Messes are maintained for European, Eurasian, and military students of the Engineer, Upper Subordinate, and British Military Survey Classes; the Engineer class mess is situated in a large compound, and has well furnished rooms, including reading rooms, dining room, and billiard room. The educational staff consists of a Principal, an Assistant Principal, 2 professors, and 21 masters, instructors, demonstrators, foremen, etc. Rurki College.

742. The Civil Engineering College at Sibpur was founded in the year 1880. It is located in spacious buildings situated on the banks of the Hughli near Calcutta. It has well equipped laboratories and workshops, and a large staff of European professors. The steam, oil, and gas engines and electric plant are worked by the students and form an important part of the teaching apparatus. Students of the engineer and apprentice departments are required, unless specially exempted, to reside on the college premises. Messes are provided for European and native students. Sibpur College.

743. The College of Science at Poona developed gradually out of the Poona Engineering Class and Mechanical School, which was opened in the year 1854 for the training of subordinate officers (civil and military) for the Public Works Department. In 1866 the college was affiliated to the University of Bombay, the degree of Licentiate of Civil Engineering was instituted for matriculation students, "and the college entered on a new and extended course of usefulness." The college, which has science, agriculture, and forestry classes, in addition to its engineering department, has a wider scope than the other similar institutions. It is not so large or well equipped as the Rurki and Sibpur colleges, and it is not a residential college. Poona College.

744. The College of Engineering, Madras, arose out of a survey school which was established as far back as the year 1793 and was for a long time under the control of the Board of Revenue. In the years 1858 to 1862 the scope of the institution was greatly enlarged, and it became a college for training students for the upper and lower grades of the Public Works Department, as well as a survey school. The staff consists of a Principal, a professor of civil engineering, a professor of mechanical engineering, a professor of mathematics, an instructor in surveying and drawing, an instructor in civil engineering, an instructor in mechanical engineering, eight assistant instructors, a workshop instructor with foremen assistants, and an instructor in gymnastics. The College is not residential, but barracks and married quarters are provided for military students. Madras College.

745. Each of the four engineering colleges has a number of classes for the training of students for different objects and of different grades. The following Department of the Engineering Colleges.

statement exhibits in tabular form the classes of each college, their strength, and their general character :—

College.	Name of the Department.	Number of pupils.	Character of the Department.
College of Engineering, Madras.	Engineer Class . . . .	41	For the training of civil and mechanical engineers for the Public Works Department and for the profession generally. For the training of upper subordinates for the Public Works Department, Local Boards, and Municipalities. For the training of lower subordinates and surveyors for the Public Works Department, Local Boards, and Municipalities. For the training of mechanical draftsmen and estimators.
	Engineer Subordinate Class.	67	
	Sub-Overseer and Surveyor Class.	82	
	Draftsman Class . . . .	78	
		268	
College of Science, Poona.	Civil Engineering Branch .	126	For the training of Provincial Service and upper subordinate engineers.
	Science Branch . . . .	1	
	Agricultural Branch . . . .	20	For the training of lower subordinates for the Public Works Department, and of mechanics for railway and other workshops.
	Forest Branch . . . .	16	
	Sub-Overseer's Class . . . .	155	
	Mechanical Engineer's Class. Electrical Engineer's Class		
	318		
Civil Engineering College, Sibpur.	Engineer Department . . . .	90	For the training of civil and mechanical engineers for the Public Works Department and for the profession.
	Agricultural Department .	12	
	Apprentice Department . . .	169	For the training of upper and lower subordinates. For the training of carpenters, blacksmiths, turners and fitters, and brass and iron workers.
	Artisan Class . . . .	35	
	306		
Thomason Civil Engineering College, Burki.	Civil Engineer Class . . . .	47	Prepares for the Provincial Service of the Public Works Department and the civil engineering profession. Prepares for the Provincial Service of the Public Works Department, the superior establishment of the Indian Telegraph Department, and the electrical engineering profession. Prepares for the upper subordinate service of the Public Works Department, the Military Works Service, and the engineering profession generally. Prepares for the Sub-Overseer grade of the Public Works Department, Military Works Service, and engineering generally.
	Electrical Engineer Class . .	4	
	Upper Subordinate Class . . .	76	
	Lower Subordinate Class . . .	118	

College.	Name of the Department.	Number of pupils.	Character of the Department.
Thomason Civil Engineering College, Rurki —contd.	Draftsman and Computer Class.	...	The class is now in abeyance.
	Mechanical Apprentice Class.	19	Prepares candidates, after a certain amount of further training in commercial undertakings, for positions in workshops, or for the charge of oil and steam-engine plant, water-works, electric light and power construction, and maintenance jobs, etc.
	Industrial Classes .	42	Three classes : (1) printing trade ; (2) photography and photo-mechanical work ; (3) art handiwork.
	British Military Survey Class.	30	Trains British non-commissioned officers in surveying and road-reconnaissance. A similar course for native non-commissioned officers and men.
	Native Military Survey Classes.		
Junior Civilian Survey Class.	...	For training Assistant -Collectors, now in abeyance.	
		336	

Among the above classes the following do not come within the scope of the present section of this chapter, and are dealt with in the appropriate places : the Science Department, Poona ; the Agricultural Departments, Poona and Sibpur ; the Forest Department, Poona ; and the artisan and industrial classes at Sibpur and Rurki.

746. Fourteen appointments are made annually throughout India to the Provincial Public Works Service ; 10 and 9 of these appointments are guaranteed in alternate years to the engineering colleges, and 4 and 5 are filled in alternate years by promotion from the Upper Subordinate Establishment. The guaranteed appointments are distributed among the colleges as follows :—

- Rurki : 6 and 7 in alternate years.
- Sibpur : 1 each year.
- Madras : 1 each year.
- Poona : 1 each year.

For the Upper Subordinate Establishment the arrangements are as follows :—

- Rurki—16 annually, of which 7 are reserved for competition among 12 military pupils.
- Sibpur—About 6 a year, including one guaranteed to the Behar School of Engineering.
- Madras and Bombay have each about 12 vacancies to fill each year, the greater number of which are given to students of the Madras and Poona Colleges.

There are no guaranteed appointments for the Lower Subordinate Establishment, but the greater number of the appointments are filled from the engineering colleges and schools.

747. In the principal departments of the colleges the students consist primarily of pupils competing for guaranteed appointments in the Public Works Department, and, secondly, of other students being educated for the engineering

profession. Certain restrictions are imposed in the case of candidates of pure Asiatic descent desiring to compete for guaranteed appointments, with a view to regulating the recruitment of the Department. At Rurki such candidates must be domiciled elsewhere than in the provinces of Bengal, Madras, and Bombay; at Sibpur they must be domiciled in Bengal, Assam, or the Native States of those provinces; and at Madras they must be domiciled in the Madras Presidency or in the Native States of Southern India. At Poona there is no restriction.

#### Engineering and Surveying Schools.

General character of the engineering and surveying schools.

748. A list of engineering and surveying schools is given in Table 145. Among the more important are the Behar School of Engineering at Patna, the Insein School of Engineering in Burma, and the Engineering School at Jubbulpore. These are all Government institutions; the two first give instruction up to the Upper Subordinate, and the last up to the Lower Subordinate, grade. The aided Jubilee Technical Institute at Bombay is an establishment for the training of mechanical engineers of growing popularity and importance. The remaining schools teach up to the Lower Subordinate grade, or give elementary instruction in surveying, mechanical engineering, telegraphy, etc.

#### Arrangement of Subjects.

749. Having given a general account of the character and scope of the engineering institutions, we may now examine in greater detail the facilities offered to the various classes of students. The subject will fall under the following heads: Civil Engineer classes, Upper and Lower Subordinate classes, mechanical engineering, electrical engineering, sanitary engineering, surveying, and drawing.

#### Civil Engineering Classes.

Main objects of the classes.

750. The principal class in each of the four colleges is named as follows; Madras—the Engineer Class; Poona—the Civil Engineering Branch; Sibpur—the Engineering Department; Rurki—the Civil Engineer Class. Everywhere the principal object of the class is to train Civil Engineers for the Public Works Department and the railways. Mechanical Engineering forms a portion of the course, and at Madras and Sibpur pupils may receive practical training after completing the college course either as civil or as mechanical engineers. The Rurki class trains for the Provincial service of the Public Works Department, and the Madras, Poona, and Sibpur classes both for the Provincial service and for the Upper Subordinate service.

Main features of the classes.

751. The following table shows the main features of the various classes:

College.	Entrance qualifications.	Length of course.	Examinations.	College Certificates and Diplomas.	Employment of passed students.
Madras.	(1) F. A. Examination of the Madras University. (2) Competitive Examinations in English, Mathematics, and Drawing. (3) Between the ages of 17 and 22.	3 years in college, followed by a year of practical training.	1st year.—Term Examination. 2nd year.—Term Examination. University First Engineering Examination. 3rd year.—College Final Examination University B. E. Degree Examination.	(1) After completing the college course, a preliminary certificate of having passed the Final Examination. (2) After satisfactorily completing the practical course, the diploma of the college setting forth the qualifications of the ex-student.	(1) Assistant Engineer Provincial Public Works. One appointment as apprentice; after one year's apprenticeship if the candidate is a B. E. and fulfils certain departmental conditions, he is appointed an Assistant Engineer. (2) Upper Subordinates, Public Works Department. Students who have successfully completed the course are eligible for appointment as temporary Upper Subordinates, and may be drafted into the permanent service on the occurrence of vacancies. (3) Local Board service. Fully qualified engineer students may be appointed Assistant Engineers under Local Boards.

College.	Entrance qualifications.	Length of course.	Examinations.	College Certificates and Diplomas.	Employment of passed students.
Poona.	Previous Examination of the Bombay University, or equivalent.	3 years.	Three University Examinations:— 1st year.—First Examination in Civil Engineering. 2nd year.—Second Examination in Civil Engineering. 3rd year.—Examination for the Degree of Licentiate in Civil Engineering.	Nil.	One appointment as Assistant Engineer, and several appointments as Overseer.
Sibpur.	B. A. examination in the B course in physics and chemistry of the Calcutta University. Age under 23. or F. A. or intermediate examination of an Indian University. Age under 21. Only 40 candidates admitted, and age and position on the list are taken into account in selecting them.	4 years in college, followed by one year of practical training.	1st year.—College Examination. 2nd year.—College Examination. 3rd year.—University First Examination in Engineering. 4th year.—University Examination for the Degree of Licentiate in Engineering.	College certificate after passing the University Examination and completing satisfactorily the year's practical training.	There will in future be an examination at the end of the year's practical training. On the result of this one student will be appointed probationary Assistant Engineer, and about half the other competitors will be appointed Overseers. Others will be trained for employment as mechanical engineers, mining engineers, sanitary engineers, electrical engineers, etc.
Rurki.	(1) Preliminary qualifications:— (i) F. A. Examination. (ii) High school examination of the Bengal Code for European Schools. (iii) Certain certificates of the United Kingdom.  (2) Entrance examination in— English, Hindustani, History, Mathematics, Physical science, Drawing, and either (1) a classical language, or (2) a further course in physics and chemistry.	3 years.	College Examination at the end of each year.	At the end of the college course Higher Certificates and Ordinary Certificates are granted to the successful students. To obtain a Higher Certificate the candidate must obtain 33 per cent. of the marks in each group of subjects, and 66 per cent. on the total. To obtain an Ordinary Certificate the candidate must obtain the same percentage in each group and 50 per cent. on the total.	Five and six appointments in alternate years in the Public Works Department, and corresponding to them ten or twelve apprenticeships, i.e., two to each appointment. The apprenticeship lasts one year, after which selected men obtain appointments as Assistant Engineers in Government service.

752. The Rurki College has its own examinations and grants its own certificates—it has no connection with any of the Universities, although nominally it is affiliated to Calcutta and Allahabad. The Madras College also has its own examinations and grants its own diploma, but concurrently it prepares candidates for the engineering degree of the Madras University; students are expected to go up for that degree, and only Bachelors of Engineering can enter the Provincial Public Works Department from the college. The Sibpur College has its own examination at the end of the first and second years of the course, but for the third and fourth years it relies on the examinations of the Calcutta University, and it gives its diplomas to engineering graduates of that University who have passed a year's practical training to the satisfaction of the college authorities. The Poona College prepares exclusively for the Bombay University Licentiate, and appears to have no annual examinations or certificates of its own.

753. The general subjects of instruction in the engineering classes are mathematics, science, engineering, drawing, and surveying. In the Madras College the study of Tamil or Telugu is compulsory. The final Bombay University examination includes a number of special elective subjects. The instruction and the tests in all subjects are both theoretical and practical. The following is an outline of the course in each of the colleges.

Relationship between the college classes and Universities.

Subjects of the courses.

## MADRAS.

Subject.	College course.	Course for the University First Examination in Engineering.	COURSE FOR THE B. E. DEGREE EXAMINATION	
			Civil Branch.	Mechanical Branch.
Mathematics	Algebra, geometry mensuration, plane trigonometry, differential and integral calculus.	Algebra, geometry, mensuration, plane trigonometry.	Geometry, differential and integral calculus.	As for the Civil Branch.
Science	Physics and Chemistry.	Dynamics, hydrodynamics, heat.	<i>Nil</i>	<i>Nil</i>
Engineering	Building materials, building construction, hydraulic engineering, applied mechanics, mechanism and the steam-engine.	<i>Nil</i>	Design and construction, hydraulic engineering, applied mechanics and design.	Principles of mechanism, steam and the steam-engines, applied mechanics, machine construction and design.
Drawing	Geometrical and perspective drawing, free-hand and model drawing, building and machine drawing, estimating.	Geometrical drawing, building drawing, machine drawing.	Building, estimating, and topographical drawing.	Machine drawing and estimating.
Surveying	Surveying, levelling, theodolite, topographical drawing.	<i>Nil</i>	Chain and compass and plane table surveying, levelling and contouring, triangulation and traversing with the theodolite, laying out curves, special surveys connected with engineering design.	<i>Nil</i>
Workshop	Workshop course			
Vernacular language.	Tamil or Telugu	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>

## POONA.

Subject.	First year.	Second year.	Third year.
Mathematics	Trigonometry and mensuration, Euclid Book XI, and geometrical conic sections.	Statics, dynamics, and hydrostatics.	.....
Science	General physics, acoustics, and heat.	Inorganic chemistry	Light, electricity and magnetism, geology.
Engineering	Materials of construction	Foundation and masonry, water-supply, irrigation, harbours, earthwork and roads.	Bridges, carpentry and strength of materials, railways, specification, and estimating.
Surveying	Surveying and levelling, use of instruments.	Chain-and-compass survey, levelling.	Theodolite, vernier, trigonometrical surveying, railway curves.
Drawing	Course of drawing	Course of drawing, engineering drawing.	Course of drawing, engineering drawing, and project.
Elective subjects	In addition to the compulsory subjects, a candidate at the final Licentiate Examination must take up one of the following subjects:—		
	1. Conic sections and differential and integral calculus.	2. Optics and astronomy.	3. Mining and metallurgy.
		4. Architecture.	5. Mechanical engineering.
		6. Botany and forestry.	7. Sanitary engineering.

SIBPUR.

Subjects.	First year.	Second year.	Third year.	Fourth year.
Mathematics	Algebra, Euclid, trigonometry, mensuration.	Statics, dynamics, geometrical conic sections.	Analytical geometry, differential calculus, elements of integral calculus.	Integral calculus, hydrostatics.
Natural Science.	Chemistry . . .	Physics and chemistry.	Physics and chemistry.	Geology and mineralogy, metallurgy.
Engineering		Building materials, brick and stone masonry, earthwork, carpentry, foundations, roads, estimating, masonry structures, direct stresses in building materials.	Construction of walls, floors, and roofs, railroads, irrigation works, arching, retaining walls, stresses in roof trusses, estimating iron structures, mechanism.	Iron bridge construction, transverse stress, deflection stresses in girder bridges and suspension bridges, torsion, hydraulics, steam-engine, architecture, preparation of civil engineering project.
Surveying	Prismatic compass and chain surveying and levelling.	Trigonometrical, Gale's traverse, plane-tableing, levelling, contouring, curves and problems.	Railway or canal project problems. Astronomy.	...
Drawing	Printing. Geometrical and orthographical projections. Scales, isometric and topographical.	Isometrical, topographical, drawing. Descriptive geometry. Perspective. Engineering drawing.	Perspective, topographical drawing. Cast shadows. Penetration of solids. Tangent planes. Dimension sketching.	Project drawings.

RURKI.

Subjects.	First year.	Second year.	Third year.
Mathematics	Arithmetic, algebra, trigonometry, geometry, mensuration, co-ordinate geometry and conic sections. Mechanics, strength of materials, and hydro-mechanics.	Differential and integral calculus, mechanics, strength of materials.	Elementary mathematics, higher mathematics, mechanics, applied mechanics.
Science	Physics . . . . .	Chemistry, electricity, and magnetism.	Physics and chemistry, electricity and magnetism, geology and mineralogy.
Engineering	Materials and earthwork, carpentry, masonry, iron-work	Materials and earthwork, carpentry, masonry and iron work, buildings and bridges, roads and railways, estimating.	Project. Hydraulics. Railways, tunnels, and mining and hydraulic works. Buildings, bridges, and roads. Water supply and sanitary engineering. Electrical engineering. Accounts.
Survey	Adjustment and use of instruments, levels.	Practical course . . .	Theoretical and practical course.
Drawing	Drawing course . . .	Drawing course . . .	Drawing course.
Workshop	Workshop course . . .	Workshop course . . .	Workshop course, process work course.

754. The Madras and Sibpur Colleges require their students to undergo a Practical year's practical training after completing the college course, before they receive the full diploma or certificate of the college. At Madras successful students in course in Madras and Bengal.



the final examination who elect to become civil engineers are posted to a division where large public works are in progress, and are regularly instructed in the preparation of materials, the practical details of construction, the management of labour, and accounts. Others are trained as mechanical engineers.

The conditions regarding the practical training of, and the award of appointments to, the passed students of the Sibpur College were changed in 1901-02. A limited number of students from those heading the list at the L. E. and B. E. examinations will be taken yearly by the Public Works Department for a year's practical training, after which they will have to undergo, on equal terms with passed students of the Apprentice department, a practical examination, conducted by a Superintending Engineer and two Executive Engineers. The first University graduate in order of merit at this examination will be offered the appointment of probationary Assistant Engineer. This appointment will be made permanent after a year's approved service. The remainder, according to their positions, will usually be appointed as probationary second-grade overseers or, if of exceptional merit, may be placed in the first grade. The number of appointments will be about half that of competitors. Other passed students will receive training as mechanical engineers, as sanitary engineers, as electrical engineers, in mines or collieries, etc. A wider field for practical training has thus been provided and, probably, additional avenues of employment.

University  
courses for  
Bachelors and  
Licentiates.

755. Having considered the course from the point of view of the colleges, we may now regard it from the point of view of the Universities. The Madras University grants the degree of Bachelor of Engineering; the Bombay University the degree of Licentiate of Civil Engineering; and the Calcutta University the degree of Bachelor of Engineering, and a License in Engineering. The Allahabad University has a Faculty of Engineering but holds no examinations in that subject. The Punjab University has an Engineering Faculty; it does not grant a degree, but it holds two examinations, styled respectively the first examination in Civil Engineering and the second examination in Civil Engineering, after each of which it grants a certificate. These examinations will be noticed in dealing with the Punjab engineering classes, which are of much less importance than the engineering colleges already described.

The following are the main features of the course in the three Universities which grant engineering degrees:—

University.	General educational qualifications for entry in the course.	Length of the course.	Number of examinations and their position in the course.
Madras . . .	F. A. . . . .	2½ years, followed by one year's practical work.	2; after 1½ and 2½ years.
Bombay . . .	Previous Examination . . .	3 years . . . .	3; one after each year.
Calcutta— License . . .	Entrance Examination . . .	4 years, or 3 years for students who qualified for the B. A. degree in the B course before beginning the course.	2; one after the 3rd year (or after the 2nd year in the case of students with the general qualifications stated in the previous column), the other at the end of the course.
Degree . . .	Entrance examination; but the candidate must have passed the F. A. examination before presenting himself for the B. E. Degree examination (an under-graduate who has passed the F. E. examination may proceed to the F. A. and B. A. examinations without the preliminary course of study prescribed in other cases).	Ditto . . . .	Ditto.

Although the Madras University requires only a 2½ years' course for the B. E. Examination, yet in practice, the course is fixed at three years by the

college. Similarly, the Sibpur College fixes the length of the Bengal course at 4 years, and it requires the F. A. preliminary qualification where the University is content with the entrance examination. The professional course for Licentiates and Bachelors at Calcutta is the same, the sole difference lying in the general educational qualifications, and a Licentiate who has passed the F. A. examination may be admitted to the Bachelor's degree without further examination. Almost every one takes the Bachelor's degree, and there have been only two Licentiates from 1897 onwards.

The subjects of the University courses have been indicated in the description of the college curricula.

756. A candidate for the First Examination in Engineering at the Punjab University must have passed the entrance examination of the University a year before he presents himself, and a candidate for the Second Examination in Engineering must have passed the first examination a year before he presents himself and must have also passed the intermediate examination of the University. In each examination the successful candidates are graded in two divisions, and certificates, which profess to be based on the Rurki College standards, are given as follows :—

(1) First Examination—

(a) Lower Division—Equivalent to the Rurki College certificate for Lower Subordinates.

(b) Upper Division—Equivalent to the Rurki College certificate for Upper Subordinates.

(2) Second Examination —

(a) Lower Division—Equivalent to the Rurki College certificate for Sub-Engineers.

(b) Upper Division (diploma)—Equivalent to the Rurki College certificate for Assistant Engineers.

The second examination which alone corresponds to the College or Civil Engineering section of Rurki, only exists in the regulations; it does not appear to be ever held in practice. Instruction for the first examination is given in the engineering classes of the Government Mayo School of Art and of the unaided Dayanand Anglo-Vedic College, both at Lahore. A few private pupils also present themselves for the examination. It has gained in popularity; in 1896-97 there were only 15 candidates, of whom 14 were successful, whilst in 1901-02 there were 42 candidates, of whom 21 passed in the second and 6 in the first division.

757. Bombay and Calcutta grant the Master's degree in Engineering. In Bombay the qualifications are: (1) the candidate must be a B. A. or B. Sc.; (2) he must have practised his profession for three years after receiving the L. C. E. degree; and (3) he must pass a special examination. Only one candidate has taken the degree; he gained it in 1890. The Calcutta University holds an examination for Honours in Engineering, to which any B. E. or L. C. E. may be admitted. The award of the Master's degree is subject to the following conditions: (1) the candidate must be a B. E.; (2) he must have passed the Honours examination; (3) he must have practised his profession with repute for 4 years; and (4) he must submit a thesis. The University Calendar does not show that any candidate has passed the honours examination or taken the Master's degree.

758. Table 143 compares the number of students in the Engineer class of each of the Colleges, and the examination results for the years 1896-97 and 1901-02. Madras, Bombay, and Rurki show a considerable increase in the number of students, and Sibpur a slight decline. In the case of Rurki the increase is due mainly to the prolongation of the course from two to three years. The examination results vary greatly from place to place and from period to period. Whilst the Bombay L. C. E. examination shows 35 candidates, all of whom passed, the Madras B. E. examination shows only 13 candidates and 3 passes. The result of the Madras final college examination (12

candidates and 9 passes) was better than the result of the University examination. Sibpur shows 32 candidates and 9 passes for the B. E. examination of 1901-02, against 20 candidates and 11 passes in the B. E. and L. E. examinations of 1896-97. Rurki shows 7 candidates at the final examination of the college in 1901-02, all of whom passed, against 15 candidates (all of whom passed) in 1896-97.

**Classes of the Upper and Lower Subordinate Grade.**

Classes of the engineering colleges.

759. The Madras and Rurki Colleges have separate sections for students of the Overseer and Sub-Overseer grades. Sibpur has only one department for these grades (apart from the upper subordinate training given in the highest or Civil Engineer class), and Poona has only a Sub-Overseer's class below the Civil Engineer class. The following are the names of the various subordinate Engineer sections of the college :—

*Madras.*—Engineer Subordinate classes.  
Sub-Overseer and Surveyor classes.

*Poona.*—Sub-Overseer class.

*Sibpur.*—Apprentice department.

*Rurki.*—Upper Subordinate class.  
Lower Subordinate class.

Main features of the classes.

760. The following statement exhibits in tabular form the main features of these classes :—

College and Section.	Entrance qualifications.	Length of the course.	Examinations.	College Certificates and Diplomas.	Employment of passed students.
Madras, Engineer Subordinate class.	(1) Upper secondary or matriculation examination. (2) Competitive examination.	2½ in the college, and one on works or in the workshops.	Two examinations, after 1st and 3rd half years. Final examination at end of course.	Provisional Certificate on completion of the college course, and diploma at the end of the practical course.	One appointment annually as Overseer in the permanent Upper Subordinate establishment of the Public Works Department.  Other fully qualified passed students are eligible for appointment to the temporary Upper Subordinate and Lower Subordinate establishment, whence transfers may be made to the permanent establishment.  Appointments as delta superintendent, minor irrigation overseer, and as overseers to Municipal and District Boards are open to fully qualified passed students.
Madras, Sub-Overseer and Surveyor class.	(1) Lower secondary examination. (2) Competitive examination.	2 years at the college.	At the end of each year.	Certificate that the student is qualified for employment as a sub-overseer and surveyor or as a draftsman.	Qualified students are eligible for appointment to the Public Works Department as Sub-Overseers as vacancies occur. They are also eligible for employment as channel superintendents in the Public Works Department, and as Deputy Surveyors in the Survey Department.
Poona, Sub-Overseer class.	(1) Above 15 years of age. (2) Anglo-vernacular Standard VI. (3) College entrance examination.	3 years; 2 years of general course and one year of special course.	At the end of each year.	Certificate granted to those who pass the final examination held by the college staff.	Certificated students are eligible for appointments in the Lower Subordinate Establishment, and three appointments as guaranteed to the most successful candidates (2 additional appointments have been promised for 3 years.)

College and Section.	Examination Qualifications.	Length of Course.	Examinations.	College Certificates and Diplomas.	Employment of passed students.
Sibpur, Apprentice Department.	(a) Middle school examination of European Schools Code. (b) Entrance examination of Calcutta University. (c) Final examination of B course for high schools (admitted into 2nd year class). (d) Candidates from affiliated schools who have passed the Sub-Overseer's examination (admitted to 3rd year class).	3½ years theoretical and practical, followed by 1½ years practical.	Two; one at the end of the 2nd year, and the other at the end of 3½ years.	(1) On passing the first examination and leaving the college, a certificate that the holder possesses the theoretical qualifications required of a Sub-Overseer in the Public Works Department. (2) On passing the final examination, a 3rd grade Overseer's certificate. (3) On completion of the practical course a certificate, according to proficiency, as 1st or 2nd grade Overseer.	The certificate granted at the end of the full course qualifies for employment in the Public Works Department as Upper Subordinate or Foreman Mechanic. Lower certificates qualify for lower grade appointments.
Rurki, Upper Subordinate Class.	(1) Entrance or school final examination or European high school examination. (2) Competitive examination.	2 years in the college and a further year's training on works for those who receive appointments.	One at the end of each year.	College certificate at the end of the college course. Those who pass by the higher standard receive special certificates exempting them from all further theoretical examination for promotion to Sub-Engineer.	There are 16 guaranteed appointments as Overseers in the Public Works Department.
Rurki, Lower Subordinate Class.	(1) No specified preliminary educational qualifications, but candidates must have a fair knowledge of Urdu and an elementary knowledge of English. (2) Entrance examination. (3) Between the ages of 17 and 21.	2 years	At the end of each year.	At the end of the course certificates as 3rd grade sub-overseers are granted to passed candidates.	Forty students are admitted annually for the recruitment of the Lower Subordinate staff in the United Provinces and the Punjab.

761. In the following table an outline is given of the course of studies in each of the above classes :—

Subject.	MADRAS.		POONA.		SIBPUR.	RURKI.	
	Engineer Subordinate Class.	Sub-Overseer and Surveyor Class.	Sub-Overseer Class.			Upper Subordinate Class.	Lower Subordinate Class.
			General course of the first two years.	Special course of the third year.			
Mathematics.	Arithmetic, algebra, mensuration, plane trigonometry.	...	Arithmetic, algebra, Euclid, mensuration.	Trigonometry, curves, areas, and tables, hydraulics, graphic methods.	Arithmetic, Euclid, algebra, mensuration, trigonometry, mechanics.	Elementary mathematics, mechanics, applied mechanics.	Same subjects as in upper class.
Science	...	...	Physics and chemistry.	...	Chemistry, heat, electricity and magnetism.	Physiography	Physiography.
Engineering	Building materials, building construction, hydraulic engineering, applied mechanics, mechanism and the steam-engine.	Building materials, building construction.	Steam and oil-engines.	Carpentry, materials used in construction, building construction, road construction, and earthwork.	Building construction, building materials, masonry, estimating, applied mechanics, mechanism and steam-engine, roads, buildings, bridges.	Materials, iron-work, earth-work, masonry, carpentry, buildings, roads, bridges, railways, irrigation works, project.	Same subjects as in upper class down to bridges; hydraulics in place of last three subjects of upper class.

Subject.	MADRAS.		POONA.		SIBPUR.	RURKI.	
	Engineer Subordinate Class.	Sub-Overseer and Surveyor Class.	Sub-Overseer Class.		Apprentice Department.	Upper Subordinate Class.	Lower Subordinate Class.
			General course of the first two years.	Special course of the third year.			
Surveying.	Surveying, levelling, theodolite, topographical drawing.	Same as in upper class.	..	Chain and theodolite surveying, levelling, lining out and plotting field work.	Compass, theodolite, traverse, plane table, etc.	Instruments, levels, ground tracing, curves and alignments, demarcation, station surveys, station levels, station traverse, project survey.	Same as in upper class without the project.
Drawing and Estimating.	Geometrical and perspective, free-hand and model, building drawing, machine drawing, estimating.	Geometrical drawing, building drawing, estimating.	Subjects of first grade art examination, building and machine drawing.	Building drawing and estimating.	Course of engineering drawing.	Drawing course, project drawing, estimating.	Drawing course, estimating.
Workshops	Workshop course	Workshop course.	Carpentry and metal work.	..	Carpenter's shop, blacksmiths' and boiler-makers' shops, and vice-men and fitters' shop.	Carpentry, forge, foundry, fitting, turning, process work.	Workshop course, process work.
Accounts.	..	..	..	Book-keeping and accounts.	..	Public Works accounts.	Accounts.
Languages.	Tamil or Telugu	..	..	..	..	English	English and vernacular.

Students.

762. In Table 144 statistics are given comparing (in so far as the information is available) the pupils in the various classes described in this section and the results of the final college examinations in the years 1896-97 and 1901-02. The Engineer Subordinate class in Madras shows a fair increase. During the quinquennium the old survey class developed into a class for Sub-Overseers and Surveyors, which, with its extended curriculum, has become very popular. The combined figures for the Sub-Overseer, Mechanical Engineer, and Electrical classes in the Poona College also show a fair increase, but the number of students passing the Sub-Overseer's examination was less than in 1896-97. The Apprentice Department of the Sibpur College shows a considerable fall in the number of its students. On the other hand, both the Upper and Lower Subordinate classes at Rurki have gained very much in strength and the number of students passing the final examination has also increased considerably. The Director says: "The Upper Subordinate classes are, as usual, doing well, and excellent reports are received of the men who have passed out. The Lower Subordinate classes are also well attended, and competition is very keen among the students; but the medical test is reported to be too lenient, and obviously unfit men are passed in."

Classes of the engineering schools.

763. In addition to the classes of the four engineering colleges, a number of engineering schools give instruction of the Sub-Overseer, and more rarely of the Overseer, grade. The following is a brief account of the school classes.

BOMBAY.—There is a small aided engineering school at Karachi (14 pupils), which trains students for the Lower Subordinate branch of the Public Works Department. The length of the course is three years.

764. BENGAL. — The *Behar School of Engineering* at Patna is a more important institution and had 110 pupils\* on the rolls on the 31st March 1902. It teaches up to the Overseer standard and is under the Principal of the Patna College. The Overseer course is distributed over four years, and is of the same standard of difficulty as that of the Apprentice Department of the Sibpur College. The examination is also held with the same question papers. Government

\* 27 in the Overseer Department, 40 in the Sub-Overseer Department, and 43 in the Amin (surveyor) class.

has guaranteed a Sub-Overseership in the Public Works Department for the most successful Behari at the Overseer examination. At the last Overseer examination before the end of the quinquennium 5 passed out of 10 presented. At the Sub-Overseer examination 26 passed out of 39 who appeared. The *Board technical schools* at Burdwan, Pabna, Rangpur, and Comilla, and the Midnapur technical school which is aided by the District Board, have engineering classes which are affiliated to the Sibpur College and give instruction up to the Sub-Overseer standard. The Principal of the Sibpur College inspects these schools.

765. PUNJAB.—The *Government Mayo School of Art* and the unaided *Dayanand Anglo-Vedic College*, both at Lahore, train pupils for the first examination in engineering of the Punjab University; they give a two years' course. In the Mayo class there were 54 pupils on the rolls at the end of 1901-02, against 17 five years ago. Twenty-nine candidates from the school appeared at the University examination in 1901-02, of whom 17 passed—6 in the upper division and 11 in the lower division—against 14 out of 15 in 1896-97. The Dayanand Anglo-Vedic class had 32 pupils at the end of 1901-02—12 in the junior and 9 in the senior civil engineering classes, 9 in the drawing class, and 2 in the preparatory Rurki class. Six candidates appeared for the University examination and 5 passed. The course for the first examination in engineering of the University is as follows:—

Mathematics—Arithmetic; Euclid; mensuration.

Estimating—a simple building or bridge.

Construction—Building materials and general construction; tracing on the ground.

Surveying—Compass surveying; levelling.

Drawing—Scale and figures; architectural drawing.

Hindustani—Written and colloquial.

English—Reading and writing from dictation. Urdu may be substituted for candidates unacquainted with English.

The course would appear to be much more elementary than that given in the Upper Subordinate class at Rurki.

766 BURMA.—The *Government School of Engineering at Insein* has an Upper Subordinate and a Lower Subordinate class, and the course in each class extends over two years. In 1896-97 the average attendance was 7 in the upper and 9 in the lower class; in 1901-02 there were 11 students in the upper and 14 in the lower class; in 1901-02 one appointment was given in the Upper Subordinate and 8 in the Lower Subordinate grade of the Public Works Department. The Director says: "The training given in this school is practical and good, and the boys, who pass out each year, both those who get guaranteed appointments and those who merely look for certificates, have done well. The school is becoming more popular each year, and Karens have joined."

767. CENTRAL PROVINCES.—The *Government Engineering School at Jubbulpore* trains candidates for Lower Subordinate appointments in the Public Works Department, and for employment under local bodies, wards' estates, and the like. It gives a two years' course and the standard of admission has been raised from the middle school examination to the matriculation or school final examination. The strength was 33 in 1901-02 against 30 in 1896-97. Thirteen candidates passed the final examination for certificates in 1901-02, as compared with 9 in the year 1896-97.

768. ASSAM.—The *Williamson Artisan School at Dibrugarh* is a small engineering school (7 pupils in 1901-02) which gives a three years' course. Pupils who pass the third year's examination obtain employment as Sub-Overseers in the Public Works Department. Ten students passed this examination in the period 1897-1902 (both years inclusive).

769. The Madras returns show 691 pupils studying some branch or branches of civil engineering in 22 of the technical and industrial schools and classes of the Presidency. The pupils are mostly under training for the civil engineering branch of the technical examination scheme of the Madras Government, and the instruction is, in general, more elementary than that given in the more important institutions described in this section. The 22 schools include the art class of the Government Rajamundry College, the Government reformatory school, three Board schools and a number of aided schools mostly maintained by mission societies. The course of study includes mensuration, applied mechanics, practical

Civil Engineering in the Madras scheme of technical studies.

plane and solid geometry, carpentry, building materials and construction, building-drawing and estimating, hydraulics and irrigation, earthwork and road-making, bridge work, and surveying and levelling. The result of the technical examination held in 1901-02 was as follows :—

	Candidates.	Passed.
Advanced Examination (surveying and levelling)	3	2
Intermediate Examination . . . . .	229	38
Elementary Examination . . . . .	798	184

#### Mechanical Engineering.

770. The general engineering classes and courses already described give training in mechanical engineering ; special instruction is also provided for students who mean to devote themselves more particularly to the mechanical branch of the profession.

Madras.

771. In Madras passed students of the engineer class who elect to become mechanical engineers are sent for practical training at the end of the college course to the Public Works Department workshops, but they may, if they please, spend at least six months of their practical course at the workshops of the college. One mechanical engineer student is permitted each year to join the Madras Railway locomotive shops at Perambur, on favourable conditions with regard to premium. Much lower down in the scale comes the instruction in mechanical engineering given under the Madras technical examination scheme to 12 pupils in various industrial and technical schools. In 1900-01 6 out of 11 candidates passed the intermediate, and 5 out of 21 the elementary examination in this subject.

Bombay.

772. The College of Science at Poona has a mechanical engineers' class of the same grade as the Sub-Overseer's class. The course extends over three years and during the first two years it is common with that for the Sub-Overseers. The following is the special course for the third year's class :—

#### Lecture Courses in—

1. Steam Engine and other prime-movers.
2. Workshop appliances.
3. Applied mechanics.
4. Mathematics.
5. Graphic methods.
6. Materials used in construction

#### Workshop Practice in—

1. Metal turning, fitting, and drilling.
2. Smithery.
3. Carpentry, pattern-making, and wood carving.
4. Machine drawing and sketching.
5. Indicator diagrams and machine testing.

Another important institution in the Bombay Presidency for the training of mechanical engineers is the aided Victoria Jubilee Technical Institute at Bombay. It had 263 pupils on the rolls on the 31st March 1902. The school, which is said to be very popular, has two departments. "In the first men are prepared for employment in the cotton mills, in the second they are taught every branch of mechanical engineering. The instruction is thoroughly practical. The whole machinery of a mill is set up in the school, and the pupils are taught the use of every part of it, and how to handle it for themselves. In addition they receive the necessary scientific instruction in the laws of steam, heat, light, etc. In the engineering department they are put through a most varied course of manual labour, so that they may be turned out good all-round workmen."\* On the 31st March 1902 there were 191 pupils in the mechanical engineering class, and 72 pupils in the cotton-spinning and weaving class ; the course in each class extends over 3 years.

Bengal.

773. Candidates may take the B. E. degree of the Calcutta University in either civil engineering or in mechanical engineering. Up to the F. E. examination the two courses are the same. For the final year the

mechanical engineering course comprises mathematics, engineering construction, machinery and drawing. The mathematical course is the same as for the civil engineering degree. The course in engineering construction includes practice of building, applied mechanics, steam-engine, and hydraulic engineering. The course in machinery includes mechanism and machine design, workshop appliances and design. Provision is made at Sibpur for giving practical instruction in the workshops to students who have completed the general college course.

774. There is a mechanical apprentice class at the Rurki College. Candidates for entry into this class must be natives of India between 15 and 18 years of age; they must have passed at least the upper primary standard for anglo-vernacular schools, and they must have an elementary knowledge of English. The course of instruction includes elementary mathematics, simple and applied mechanics, electricity and magnetism, heat and steam, drawing, materials and construction, workshop, and process work. The class passes a large part of its time in the workshops under the technical instructor. Towards the end of the course arrangements are made to apprentice the best boys out for a further term of practical instruction. The number on the rolls at the end of 1901-02 was 19, against 9 in 1896-97; seven boys passed the final examination in 1901-02. The Director says :—"The boys of the mechanical apprentice class on passing out receive certificates as Foremen Mechanics; but the big railway workshops scout the idea of employing them as foremen, and offer them wages varying between R4 and R18 a month, as apprentices. The Principal is of opinion that certificates as Foremen Mechanics should not immediately be granted to them on passing out of Rurki, but that they should be sent as apprentices to Government workshops for two years on fixed salaries of R15 a month."

775. In Burma a number of boys are admitted each year to the Burma Railway workshops at Insein as indentured apprentices. Fifty-seven boys were under training in 1901-02, against 60 in 1896-97. Under the Burma apprentice stipend scheme for European children, 10 stipends each of the value of R15 a month are awarded to European boys to enable them to undergo a course of training in a recognized workshop. They attend various workshops in Rangoon, Moulmein, Insein, Akyab, Mandalay, etc. Both in 1901-02 and in 1896-97 the number of boys under training was 27.

776. In Assam one boy was being trained in the railway workshops of the Tezpur-Balipara Tramway.

#### Electrical Engineering.

777. In addition to the instruction in electricity and electrical engineering given in the general courses of the colleges, there are some special classes and other means of training for electrical engineers.

778. The Rurki College has a class for electrical engineers of the same status as the civil engineering class. The course extends over three years, the first year's course being in common with that for the civil engineer class. It prepares for the Provincial service of the Public Works Department, the superior establishment of the Indian Telegraph Department, and the electrical engineering profession. There are guaranteed annually one appointment in the Public Works Department and two apprenticeships corresponding to it, and also one or two appointments in the Telegraph Department. The course during the second and third years includes pure and applied mathematics, science, engineering, engineering practice, and surveying and drawing. The electrical engineering portion of the course includes the principles and practice of the various measurements used in electrical engineering; the principles on which are founded the action of electrical machinery, such as dynamos, motors, alternators, transformers, etc., with a description of their construction, testing and management; followed by a description of the different methods of distributing electrical power, and the various types of mains, switches, lamps, and accessories. The above are practically illustrated by experiments in the electrical test room. The



design of electrical plant is also described, and the general scope of electricity in relation to the methods of distributing energy. The college is in possession of a fairly extensive electrical distribution, which is constantly being enlarged, and is of great educational value. The curriculum includes a course in telegraph engineering.

Sibpur.

779. Students of the Sibpur College who have spent  $3\frac{1}{2}$  years in the classes and workshops may be taken for training in the special course of electrical engineering, which lasts for a further period of  $1\frac{1}{2}$  years. Eleven were under training, and four completed the course, in 1901-02. A student who passed the M. A. examination in 1901, and stood first in the B. E. examination in 1902, was awarded the Research Scholarship for studies and investigations in electricity and magnetism with special reference to electrical engineering, in the laboratories of the college.

Poona.

780. There is an electrical engineering class in the Poona College of the same grade as the Sub-Overseer's class. The course extends over three years, and during the first two years it is in common with that for Sub-Overseers and mechanical engineers. The special course for the third year includes (1) electricity, (2) applied mechanics, (3) mathematics, (4) materials and construction, (5) steam engine, and (6) workshop practice with special reference to electrical engineering. In subjects 2 to 4 the course is the same as that in the mechanical engineers' class.

Madras  
Pre-idency.

781. The calendar of the Madras College gives no information on the subject of the special training of electrical engineers. Several industrial schools and classes in the Madras Presidency give instruction in practical telegraphy under the Madras technical examinations scheme. One hundred and nineteen students were returned as under instruction in six aided and unaided institutions at the end of 1901-02. The largest class is that of the aided Madras Telegraph School which had 48 pupils on its rolls. The instruction given in these schools is mainly of an elementary character and is designed to train pupils as telegraph operators, etc. In 1901-02 only one student (who failed) presented himself for the advanced examination in practical telegraphy; 6, of whom 2 passed, went up for the intermediate examination; and 89, of whom 41 passed, for the elementary examination.

#### Sanitary Engineering.

782. Little special instruction is given in this subject. In MADRAS, the general principles of sanitary engineering form a portion of the course for the degree of Licentiate of Sanitary Science. In BOMBAY, sanitary engineering is one of the elective subjects for the examination for the degree of L. C. E. The course is divided into two main parts, hygiene and sanitary engineering and appliances. In BENGAL three passed B. E. students of the Sibpur College may be attached each year to the Sanitary Engineer under the Local Government for one year's practical training. At RURKI sanitary engineering forms a portion of the course of study for the Civil Engineering class.

#### Surveying.

Special  
survey classes  
and schools.

783. Surveying forms an important portion of the course in the various engineering colleges and schools; the only special institutions requiring notice in this place are the military survey classes of the Rurki College, and the survey schools of Bengal.

Burki.

784. The Rurki College has classes for training British non-commissioned officers and native non-commissioned officers and men in surveying and road reconnaissance. The course lasts for nine months and includes elementary mathematics, drawing, surveying, and field sketching and reconnaissance. There were 30 pupils in the two classes on the 31st March 1902. Complaint is made that men are sent to the native class who are entirely ignorant of arithmetic. In 1901-02, 6 candidates went up for the British, and 20 for the native, class examinations; they were all successful. There was formerly a class at Rurki for training junior civilians in surveying, but it is in abeyance.

785. Two survey schools are maintained by the Government of Bengal, one <sup>Bengal.</sup> at Dacca and the other at Cuttack. They are engineering as well as survey schools and give instruction up to the standard of the Sub-Overseer's Examination. They had between them 197 pupils in 1901-02 against 397 in 1896-97. In both the course of study extends over two years, at the end of which students compete at the Sub-Overseer's examination. At the end of the first year's course an examination is held and *amins*\* certificates are issued to successful students. They then either join the second year's class or leave to seek employment as *amins*. At Dacca there is, besides, an arrangement for a two year's course in surveying. At the 1901-02 examination, 25 passed the final examination of the second year class, 38 passed the survey examination, and 89 passed the first year's or *amin's* examination.

The Behar School of Engineering has an *amin's* class, and there are also *amin's* classes attached to several of the Board technical schools. At the Behar School 36 pupils went up for the survey examination in 1901-02 and 22 were successful.

#### Draftsman Classes.

786. The Madras and Rurki Colleges make special provision for draftsman classes.

At Madras the qualifications for admission to the draftsman class (which has <sup>Madras.</sup> been in existence since before the year 1860) are the same as for the Sub-Overseer class. The course of instruction extends over two years, and the subjects are geometrical and perspective drawing, free-hand and model drawing, building construction and drawing, machine drawing, and estimating. First and second class certificates are given on the result of the final examinations. At the end of the year 1901-02 there were 78 students in the class; and in the final examination held during that year 24 candidates presented themselves and 20 passed. At the same examination there were 6 private candidates of whom 2 passed.

787. At Rurki, candidates for the draftsman and computer class are selected <sup>Rurki.</sup> from among the most promising draftsmen of the Lower Subordinate class, and prepared for employment as draftsmen. The class is now in abeyance, as no students have volunteered for it. A scheme of re-organization is under consideration.

#### General Statistics.

788. The total number of pupils in the engineering colleges is shown in <sup>Students.</sup> Table 142. The number at Madras has increased considerably, and at Poona and Rurki largely. In the latter case part of the increase is due to the lengthening of the course in the civil and electrical engineering classes. Sibpur alone shows a loss of pupils. The net gain amounts to 194 pupils of all classes. The pupils in the engineering and surveying schools are shown in Table 145. Here also Bengal shows a very large falling-off. The Victoria Jubilee Institute at Bombay shows a large increase, but the attendance in 1896-97 was diminished by the plague. None of the other figures require special comment.

789. The expenditure in the engineering colleges increased by nearly <sup>Expenditure.</sup> 2 lakhs on 3½ lakhs. Each college shows a considerable rise, and in the case of Rurki it amounts to more than 1 lakh. The expenditure from Provincial Revenues increased from ₹3,16,000 to ₹4,61,000, and amounts to 87 per cent. of the total. The expenditure from fees increased from ₹34,000 to ₹58,000.† The expenditure from fees does not include boarding charges. The expenditure on four of the principal schools is given in Table 147.

790. The rates of fees levied, and the principal stipends and scholarships <sup>Fees and scholarships.</sup> awarded, in the chief classes of the engineering colleges and in some of the engineering schools are shown in Tables 148 and 149.

#### Mining.

791. The mining industry is becoming of such great importance in India <sup>Mining industry.</sup> that it is necessary to give it a section in this chapter, although, from the

\* Surveyor.

† ₹58,000 is an understatement. The Rurki figures show only ₹2,274 under the head fees, whereas, according to the Civil Estimates, the amount should be ₹21,114,—the expenditure from Provincial Revenues should be reduced by a corresponding amount.

educational point of view, there is very little to be said. Coal mining is the principal industry, and it gives employment to some 98,000 persons. The total output amounted to  $7\frac{1}{2}$  million tons in 1901-02, and had increased by 5 million tons in ten years. More than four-fifths of the total amount produced comes from the mines of Bengal. The salt mines of the Punjab, the gold mines of Mysore, the manganese ore of the Central Provinces, and the mica of Bengal and Madras, are all important.

Lack of educational facilities.

792. These industries offer a fairly wide, and a growing, field for the employment of mining engineers and experts, but the more important posts are, in general, filled by persons engaged out of India. There is no school of mines in this country, and the facilities for special instruction in mining afforded in connection with the engineering colleges or otherwise are still inconsiderable. Geology and mineralogy form a portion of various scientific courses; the Bombay University recognizes mining and metallurgy as an elective subject for the final L. C. E. examination, but it is not shown whether any students take up the course; and two passed B. E. students of Sibpur may be sent annually, with scholarships, to undergo a course of two years' practical training in a mine or colliery approved by Government. Nothing more seems to be done at present, but the question of making some provision for training in mining is under the consideration of the Government.

## Agriculture.

### Introductory.

793. The question of agricultural education has been the subject of much anxious consideration on the part of the Government, but the results hitherto attained are inconsiderable when measured by the vast field of possible achievement. The agricultural schools have been for the most part frequented by students who regard the course as an avenue to employment in the Land Revenue, Agricultural, Court of Wards, and other similar departments of the Government; and the number of students who have sought the schools with a view to improving the methods used on their own property, or in the expectation of finding employment among native landholders, has been very small. It will be seen, however, in the account shortly to be given of the agricultural college and schools of Bengal, the United Provinces, and the Central Provinces, that signs are not wanting to indicate that this condition of affairs is undergoing modification, and there is hope that the landholding and agricultural classes will take advantage of the facilities offered by the Government to a greater extent than has hitherto been the case.

### History of the Subject.

Famine Commissioner's Report of 1880 to Agricultural Conference of 1888.

794. The discussion on agricultural education in India has been so protracted, voluminous, and intricate, that it is not possible in the present Review to give more than a broad outline of its contents. The Famine Commissioners, in their report of 1880, advised that attention should be directed to the subject of agricultural education in country schools. In the following year the opening Resolution of the new Revenue and Agricultural Department of the Government of India pointed out that the co-operation of the people must be secured in working out any programme of agricultural improvement, and in correspondence which ensued with the Secretary of State the Government of India represented that no general advance in the agricultural system could be expected until the rural population had been so educated as to enable them to take a practical interest in agricultural progress and reform. These views were confirmed by the agricultural conference of 1888, which urged that the measure most immediately demanded was that of educating teachers competent to give instruction of the required kind. The Resolution issued in the same year by the Home Department of the Government of India, reviewing the progress of education, placed a direct obligation on the Agricultural and Educational Departments in every province to work out a practical scheme of agricultural education.

Dr. Voelcker and the Agricultural Conferences of 1890 and 1893.

795. In 1889 Dr. Voelcker, Agricultural Chemist to the Royal Society of England, was deputed to India to advise the Government on questions connected

with agriculture, and the subject of agricultural education formed an important portion of his enquiry. A conference, at which all provinces were represented, met in October 1890 to discuss Dr. Voelcker's preliminary report, and they passed a series of eight resolutions on the educational aspect of the question. They were to the following general effect: (1) it is most desirable to extend primary education among the agricultural classes; (2) as a general rule, instruction in agriculture should be combined with the existing course of education, and should not depend *exclusively* on separate special institutions; (3) the science of agriculture should be recognized by the Universities; (4) the elementary principles of agriculture should form a prominent subject in the curriculum of village schools; (5) steps should be taken to provide suitable teaching and "readers" for such schools; (6) the claims of men with a scientific agricultural training should be freely recognized in the revenue and cognate departments of the public service; (7) scientific agriculture should be included among the subject for the examination for entry into such departments; (8) no arrangements for higher agricultural training can be regarded as satisfactory which do not provide for a thoroughly practical training of the students in the field and laboratory, and for examination tests of a special and searching character on the course of practical training. Dr. Voelcker's final proposals were considered by a second conference in October 1893, which adopted the previous resolutions and added four to the following effect: (9) education in the lower schools should be of such a practical character as to fit the pupils for technical pursuits, including agriculture, as well as for literary and commercial pursuits; (10) text-books should deal with familiar subjects in simple language, and object lessons should be freely used; (11) the system of training in normal schools should be adapted to qualify school teachers to give instruction of the character indicated in the eighth resolution; (12) a committee should be convened in each province to consider the questions raised in the resolutions.

796. In 1894 the Government of India, in reviewing Mr. Nash's report on education during the years 1887-88 to 1891-92, recorded their opinion that the question of agricultural education "is one which cannot be forced, but should be dealt with gradually," and that "greater success is to be expected from making instruction in the rudiments of agriculture part and parcel of the primary system of instruction in the country, than teaching it as a subject apart from the general educational programme." In the following year the Government of India reviewed the position in another Resolution in which they restated the view that primary education should be given a practical bent, and should be specially designed to train the eye, hand, and intelligence of the pupils. They agreed with the conference of 1893 that "any system of practical education in rural schools must, for whatever class intended, acquire an agricultural colouring, because the surrounding objects are themselves agricultural;" and they directed that the educational resolutions of that conference should be examined by provincial conferences at which the Education and Agricultural Departments should be represented.

797. The work of the provincial conferences convened both for the general and educational sides of the agricultural question was reviewed by the Government of India in six Resolutions, dated the 20th March 1897, the last of which discussed the subject of agricultural education. The points for consideration were grouped under four main heads: primary education, readers and text-books, training schools, and higher education in agriculture. The Government of India reviewed the position and the observations of the provincial conferences under each of these heads, and stated their conclusions with regard to them. In discussing the last head they observed that the Local Governments and Administrations had generally agreed in the policy put forward by the conferences for extending the facilities for higher agricultural training, and that they themselves were prepared to give it every encouragement. But they looked upon this, as on all other approved recommendations of the conferences, as only a part of a general working plan which must be developed as circumstances admit. "For the present," the Resolution said, "they are content to place upon

record the conclusions which they consider to be justified by the discussions which have been held :—

- (1) that agricultural degrees, diplomas, or certificates should be placed upon the same footing as corresponding literary or science degrees, etc., in qualifying for admission to Government appointments, and more particularly those connected with land-revenue administration ;
- (2) that there should be not more than four institutions giving a high class diploma, *viz.*, at Madras, Calcutta, Bombay, and some place in the North-Western Provinces, and that these should be utilized by other provinces ;
- (3) that the diploma should eventually be compulsory in the case of certain appointments, *e.g.*, agricultural teachers in training schools, assistants to the Director of Agriculture, etc. ;
- (4) that the practical instruction of candidates for certain subordinate appointments at a school, class, or an experimental farm should be further considered ;
- (5) that a special school course leading up to the agricultural diploma, degree, or certificate is required ;
- (6) that the practice of allowing school masters, either before or after appointment, to pass through a course for a few months on a Government farm is one which deserves consideration."

#### Branches of the Subject.

798. It will be observed that, throughout the discussion summarized in the above paragraphs, three subjects were dealt with at one and the same time : firstly, primary education in rural schools ; secondly, instruction in agriculture as a part of the general school course ; and thirdly, special or technical agricultural training. All three subjects are intimately connected with the improvement of agricultural methods and with the well-being of the agricultural population, but from the educational point of view they are separate and distinct. The primary education of the peasant children and agricultural teaching in primary and secondary schools are dealt with in the chapters on general education to which they rightly belong ; in the present chapter we are concerned with agriculture as a subject of technical training, and we may now examine what progress has been made in carrying out the policy of the Imperial Government in this respect.

#### Agricultural Colleges and Schools.

General  
remarks.

799. At the close of the period under review there were five institutions in British India for the technical teaching of agriculture ; and, leaving aside teachers undergoing a short course of instruction, they had an aggregate of about 140 pupils on their rolls. The five institutions were : the College of Agriculture at Saidapet near Madras, the Agricultural Branch of the College of Science at Poona, the Agricultural Department of the Civil Engineering College at Sibpur, the Cawnpore Agricultural School, and the Nagpur Agricultural School. All of these institutions, except the Sibpur class, were in existence in 1896-97, and they had an aggregate number of about 90 pupils as compared with the 140 in 1901-02. The three colleges and college classes require a more advanced general education from their pupils than do the two schools, and they follow a more advanced scientific course. They cannot, however, claim any superiority in the practical facilities which they offer, or in the practical utility of their training. There are a few other institutions in the Bombay Presidency and elsewhere in which agriculture forms the main, or a considerable, portion of the course, but they are of much less importance than the agricultural colleges and schools proper.

Degree of  
Licentiate in  
Agriculture  
of the  
Bombay  
University.

800. Bombay is the only University which recognizes the subject of agriculture. From 1892 to 1897 it granted diplomas in agriculture, and in 1899 it instituted the degree of Licentiate in Agriculture. As in the case of other professional degrees of the Bombay University, the course extends over three years, the preliminary qualification is the previous examination, and an examination is held by the University at the end of each year of the course.

801. The agricultural farm at Saidapet, a suburb of Madras, was established in the year 1864 for purely experimental purposes. In 1876 a school of agriculture was founded in connection with the farm, and about the year 1880 it was receiving 9 or 10 students annually. In 1885 the farm was abandoned as an experimental institution, and a portion only was retained as an annex to the college of agriculture. The college, as now constituted, gives a three years' course. The instruction is theoretical and practical, and attached to the college are crop lands, grazing land, a farm, a dairy, a veterinary hospital, a botanical garden, and laboratories, etc. There are some 80 animals in the farm stock; the veterinary hospital is gaining in popularity and treated 867 animals in 1901-02 against 447 in 1896-97; the dairy is equipped with modern appliances. The daily routine of instruction is as follows:— 6-30 A.M. to 8 or 9 A.M.—practical work; 10 A.M. to 1 P.M.—lectures; afternoon—surveying, dissections, laboratory work, and “field cultivation.” The practical work in agriculture includes field and museum classes; and in 1901-02 Class I were trained in ploughing and other field operations, Class II were mainly occupied with field cultivation and cultivated two acres of ground; and Class III made two agricultural excursions. The Agricultural Chemist to the Government of India delivers annually a short course of lectures. The course of study is defined by the Government technical examinations. At the end of the three years' course an examination is held by the Commissioner for Government Examinations, and those who pass in all subjects receive a diploma in agriculture. The examination includes the following subjects of the Madras technical examination series:—

- Botany (special intermediate standard).
- Physiography (intermediate standard).
- Inorganic chemistry (intermediate standard).
- Organic chemistry (special intermediate standard).
- Veterinary science (intermediate standard).
- Surveying and levelling (special standard).
- Agricultural engineering (intermediate standard).
- Agriculture (advanced standard).

In the examination of 1901-02 only two students succeeded in passing in all subjects and gained the diploma. On the 31st March 1902 there were 38 students on the rolls, against 47 in 1896-97, and 42 in 1900-01. The progress of the college has not therefore been satisfactory. Twenty-seven of these students were in receipt of stipends. One of the students was a B. A., 11 were F. A.'s; 19 were matriculates, and 7 were non-matriculates. Twenty-one of the students were Brahmans, 13 were non-Brahman Hindus, 2 were Muhammadans, 1 was a Native Christian, and 1 was a Panchama. Seven scholarships are awarded to pupils of the institution. The results of the college not having been considered satisfactory, a committee was appointed in 1900 to consider the course of training. A revised course was introduced shortly after the end of the quinquennium which makes provision for more practical out-door work. The college cost R41,178 in 1901-02 and R35,524 in 1896-97.

802. An agricultural branch was added to the College of Science at Poona in the year 1879. It has a farm attached to it on which quarters are provided for a certain number of students. The college trains students in the three years' course for the degree of Licentiate in Agriculture of the Bombay University. The following are the subjects of each year's course:—

First year:—

- Trigonometry and physics.
- Inorganic chemistry and botany.
- Agriculture.

Second year:—

- Organic chemistry.
- Mensuration.
- Botany.
- Veterinary science.
- Agriculture.

Third year:—

- Geology and botany.
- Chemistry of agriculture.
- Surveying and levelling.
- Veterinary science.
- Agriculture.

The examinations are both theoretical and practical. There were 20 pupils on the rolls on the 31st March 1902; on the corresponding date of the plague

year 1893-97 the class was empty, but in 1895-96 there were 5 pupils. Five students obtained the degree of Licentiate in Agriculture in the three years 1900 to 1902. The annual fee is Rs50, and several scholarships are granted on the result of a competitive examination before the beginning of the course. The agricultural branch of the Poona College cost Rs9,515 in 1901-02.

Agricultural  
classes,  
Bombay  
Presidency.

803. Agricultural classes are also attached to the following institutions in the Bombay Presidency: the Government Training College, Ahmedabad; the male training college at Rajkot in Kathiawar; the Kolhapur High School; and the Education Society's High School, Ahmednagar. On the 31st March 1902 there were 117 pupils in these classes distributed as follows: 44 Rajkot, 35 Ahmedabad, 27 Kolhapur, and 11 Ahmednagar. The classes are examined annually on papers sent from the Poona college, and the school farms are annually inspected by the agricultural instructor of the college. The school course extends over two years, and the students are examined at the end of each year. The following are the subjects of the course:—

<p>First year:— Chemistry. Huxley's Introductory Science Primer. Elementary physics. Agriculture. Surveying.</p>	<p>Second year:— Chemistry. Physics. Agriculture. Botany. Physical geography. Surveying. Levelling and surveying. Physiology. Botany.</p>	}	Optional subjects.
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Students who pass the examination obtain certificates, and additional certificates are given for the voluntary subjects. The instruction is of an elementary character. Formerly agricultural classes were attached to a larger number of high schools, but the system is gradually disappearing. The Director says (Report for 1899-1900) that they have not been a success, "and at present serve a useful purpose only in the preparation of a few students for the University school final examination."

Agricultural  
department  
of the Civil  
Engineering  
College,  
Sibpur.

804. The agricultural department of the Civil Engineering College at Sibpur was opened in the year 1899. As first constituted it comprised a higher class and a lower class; this arrangement was modified in November 1901, and now there is only one class the course for which extends over two years. Plots for cultivation have been set aside in the college grounds, but the arrangements for practical training are inadequate. Students reside on the college premises under conditions similar to students of other departments. Three classes of students are admitted to the course; and the conditions for their admission are as follows:—

- (1) F. E. examination; under 23 years of age.
- (2) B. A. examination, B course; under 23 years of age; nominated by the Government.
- (3) Persons of the landholding class; sufficient education to follow the course; nominated by the Government.

An examination is held at the end of each year of the course, and a diploma is granted on the results of the final examination, which must be countersigned by the Director of Land Records and Agriculture. The course for the higher class in 1901-02 was as follows:—

<p>First year:— Science and practice of agriculture. Farm class and farm work. Book-keeping and zamindari accounts. Chemistry. Botany. Veterinary science. Surveying. Drawing.</p>	<p>Second year:— Science and practice of agriculture. Agricultural chemistry. Farm class and farm work. Law of landlord and tenant, survey and settlement regulations. Chemistry. Botany. Geology and meteorology. Irrigation and drainage.</p>
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805. There were 20 students on the rolls on the 31st March 1901, but shortly afterwards the number fell to 6, owing mainly to the abolition of the lower class. Twelve students of the higher class, and 6 students of the now defunct lower class, appeared in the final examination during the year 1901-02. Ten out of 12 of the higher class, and all of the lower class, passed. Two of the 17 passed students of the higher class have been appointed Deputy Collectors, and 6 Sub-Deputy Collectors. Two lower class students have been appointed overseers of the Sibpur and Chittagong farms; two higher class students are employed as teachers of agriculture and science at the Dacca and Hooghly normal schools; and 5 passed students have been employed by private landholders. Only one higher class and 3 lower class students have failed to obtain employment. No tuition fees are charged except to special students, and a scholarship of R30 a month is awarded on the results of the first year's examination. The agricultural department cost R11,664 in 1901-02.

806. The Cawnpore school gives a two years' course of theoretical and practical training, and has a farm, laboratories, etc. The buildings and laboratories are said to be unsuitable, but their improvement has been left in abeyance pending the consideration of the question whether the school shall be raised to the status of a college. The apparatus has recently been increased, and a small scientific library has been purchased. There are two boarding houses attached to the school, but the accommodation is said to be insufficient. The school has three sections: a *Kanungo* section for training revenue subordinates, etc., a teacher's section, and a landholder's section. The first section is much the largest. At the end of the course an examination is held by the officers of the Revenue Department. There were 55 students on the rolls in November 1901, against 41 in 1900 and 30 in March 1897. Forty-eight of the students were in the *Kanungo* section, 5 in the teacher's section, and 2 in the zamindari section. Both the students in the last named section were landholders, one was a B. A. and the other had passed the intermediate examination. The Director says that "it is a hopeful sign that men with such good educational qualifications, who are genuine agricultural students and not studying merely with the intention of ultimately taking service, should be taking advantage of the school." In the examination held in April 1902 no student failed to pass "and a large proportion passed in the first division which represents a high standard of efficiency."\* "Many former students are now employed as *Kanungos*, and a great majority of them are well spoken of. There is some demand for passed students for employment in other provinces, and applications have been received from large landholders for their services. In fact, though the number turned out by the school annually increases, the demand for them continues to be greater than the supply, so that there is room for further development."† The expenditure on the school decreased during the five years from R4,820 to R4,240.

Agricultural school, Cawnpore.

807. An agricultural class was opened in 1901 in connection with the Moradabad Normal School and has progressed, on the whole, satisfactorily. There is a farm attached to the school which is said to be well managed.

Agricultural class, Moradabad Normal School.

808. The Nagpur agricultural school consists of three sections:—

*Section I.*—The English classes in which students pass through a two years' course of training in agriculture, preparatory to receiving appointments in the Subordinate Revenue Department.

*Section II.*—The normal classes, in which village school masters undergo a course of training for six months in order to qualify them to teach in village schools the agricultural lessons embodied in the reading books.

*Section III.*—The *malguzari* class, in which the sons of landowners and others who intend to make farming their profession, undergo a course of one year's training in the vernacular in practical farming.

The main object of the *English classes* is to give a sound elementary education in agriculture to persons desiring Government employment in the Land Records, Settlement, Agricultural, Court of Wards, and other departments. The

Agricultural school, Nagpur.

\* Report of the Director of Land Records and Agriculture for the year ending the 30th September 1902.

† Report of the Director of Public Instruction for 1901-02.



Director of Agriculture states that it has been an excellent recruiting ground, and that it has greatly raised the standard of work in the departments with which it is connected. Candidates for admission must, except they be specially exempted sons of landholders or agriculturalists, have passed the matriculation or school final examination. The instruction is given in English. The course of studies, which extends over two years, includes the elements of botany, chemistry, geology, veterinary science, land surveying, drawing, and agriculture. Practical instruction is given in the experimental farm which adjoins the school, whilst the students are allotted plots of ground on which they sow their own crops, all the cultivation being done by their own hands. There is a veterinary dispensary close to the school, where the students are taught the treatment of simple cattle diseases. It is proposed to increase the time devoted to field work and to reduce the amount of theoretical instruction. There were 11 students in the English class on the 31st March 1902 against 17 in 1896-97. The Director of Land Records considers that the small number of students is largely due to the raising of the entrance standard. There is also considerable ignorance as to the future of passed students, a feeling is said to exist that the promotion of passed students is not adequate, and complaints have been made that the theoretical part of the course is too burdensome. Steps are being taken to remove the avoidable obstacles to the prosperity of the school. The Director of Public Instruction considers, also, that the location of the school at Nagpur militates against its popularity, students from the northern part of the province being deterred by the long journey. The final examination at the end of the course is held by outside examiners: all the students were successful in the examination of 1901-02. Four scholarships varying from R7 to R10 a month are given each year, and a scholarship tenable in the agricultural branch of the Poona College is given annually to a promising F. A. student of the school. The cost of the English class increased during the quinquennium from R2,408 to R2,689.

809. The *normal course* for the training of village school masters extends over six months; there are two sessions during the year, and an examination for certificates is held by outside examiners at the end of each session. Instruction is now limited to the clear explanation of those subjects which are taught in the village schools. The course is both theoretical and practical. The students constantly visit the farm; cultivate small garden plots, and are made to practise simple experiments with apparatus in order that they may be able to illustrate in their own schools the lessons which they have learned in the class. The sessions which opened in November 1901 was attended by 31 school masters and 38 ex-students of normal schools; 63 out of the total 69 passed the examination and were awarded certificates. The class cost R2,555 in 1901-02.

810. The *malguzari class* was opened during the year 1901-02. "The course lasts for ten months from the 15th May to the 15th March, thus covering two complete agricultural seasons, one *khariif* and one *rabi*. The object of the class is to give a sound training in practical farming rather than instruction in elementary agricultural science. The instruction given in the class-room is reduced to a minimum, the main education being given in the fields of the experimental farm, where the students take an active part in the actual operations of cultivation. The training thus corresponds more to the English system of farm pupils than to that of an agricultural school, the instruction being confined to subjects which can afterwards be put to use by any ordinary cultivator in his own field."\* The class has made a fairly successful start, and some District Councils and Feudatory States have evinced their interest in it by granting scholarships to students from their districts and territories. The Director of Agriculture says:—

There is much evidence to show that there is a distinct movement among the more enlightened native gentlemen towards agricultural improvement. The old attitude of distrust and doubt towards any suggestions for improvement of local systems of cultivation has very largely disappeared, new proposals being now welcomed and given a trial—a result which I believe to be partly due to the chastening influence of the past famines and failures.

811. The Director of Agriculture makes the following remarks on the equipment of the institution:—

The greatest improvement made during the year was the opening of a hostel adjoining the experimental farm. This hostel is, however, not large enough to house all the students, and its extension has been sanctioned. Instead of being scattered in boarding houses in different

\* Report of the Director of Agriculture, Central Provinces, 1901-02.

parts, the students will then all be housed in one building, close to the class-rooms and farm: and this should lead to a marked improvement in discipline. The present class-rooms are quite inadequate, but provision for class-rooms and laboratories for the whole school has been made in the Victoria Memorial Technical Institute, which is now being built on a site adjoining the farm. The school buildings will then be complete and excellent, all being concentrated close to the farm.

### Training of Village Officers, etc.

812. Under this head we have to notice only the *tapedars'* school in Sind, the *patwari* schools of the United Provinces and the Punjab, and the survey schools of Burma.

In the *tapedars'* school at Hyderabad, Sind, pupils are trained, mainly in agriculture and surveying, to perform the duties of village officers. The course extends over two years, and there is an examination at the end of each year. The pupils are all boarders, and they numbered 80 on the 31st March 1902. The institution is said to be very efficiently managed. Writing about it in the Report for 1900-01, the Director said:—

An institution which annually sends out about 50 village officials with a fair knowledge of agriculture and surveying is one of very great importance, and it appears very desirable that similar institutions should by degrees be established elsewhere in the Presidency for the instruction of village officials, and also of masters of rural schools who might be passed through a short course of agricultural training.

813. The United Provinces and the Punjab have a number of local schools for training *patwaris* or village land revenue officials. These schools are under the control of the revenue officials, and the Education Department has no direct concern with them. The United Provinces education statistics include 42 of these schools with 1,859 pupils under the head "other schools"; the Punjab schools are not included in the returns of the Director of Public Instruction.

814. In the Burma returns are included 21 "survey schools" with 552 pupils. These schools train pupils, mainly in arithmetic, revenue law, and surveying, for employment in subordinate posts in the Department of Land Records. They are granted certificates on the result of an examination held by the Educational Syndicate. It is said that a large proportion of those who pass the examination do not join the Land Records Department; some become clerks, and others migrate from their districts in search of work and disappear. Some of the pupils are the sons of village headmen, who, on leaving school, return to their villages and eventually themselves become headmen.

### Veterinary Science.

815. The veterinary colleges and schools of India train students for the subordinate ranks of the Government Civil Veterinary Department; for employment by Local Boards, Municipalities, and Native States; and for other employment and private practice. The great majority of the qualified students enter the service of the Government or of Native States and local bodies. The colleges and schools have veterinary hospitals attached to them, and give a sound theoretical and practical training. The passed students as a rule turn out satisfactorily, and natives of India trained in the colleges and schools have been employed on active services in South Africa and China, and have been engaged elsewhere out of India. Training is also given to some military pupils.

816. The following is a list of the institutions:—

- the Bombay Veterinary College, Parel, Bombay;
- the Bengal Veterinary College, Belgatchia, near Calcutta;
- the Lahore Veterinary College;
- the Rajputana Veterinary School, Ajmere;
- the Burma Veterinary School, Rangoon.

List of  
institutions.

In Madras veterinary science forms (as stated above) part of the agricultural course.

The Bombay veterinary college was founded in the year 1886; it is located on its own estate at Parel, and is worked in conjunction with the Bai Sakarbai

Bombay  
veterinary  
college.

Dinshaw Petit hospital of the Bombay Society for the Prevention of Cruelty to Animals; the veterinary officers of the college are *ex-officio* in charge of the hospital. The college and hospital are well equipped, and the whole includes a patho-bacteriological laboratory, a chemical laboratory, a pharmacy, two horse wards, five cattle wards, one dog ward, one isolation ward, one tetanus ward, *post-mortem* and dissection rooms, a forge and shoeing shed, etc. On the staff are a principal, one assistant principal, two assistant professors, two instructors for the vernacular class, one instructor in shoeing, and three assistant veterinary officers. The institution is managed by the principal under the control of the Director of Public Instruction.

Bengal  
veterinary  
college.

817. The Bengal veterinary institution, consisting of a veterinary school and hospital, was founded in 1893 and was raised in 1899 to the status of a college. The college is a large building in which there are three lecture rooms, a museum, a library, a pharmacy, a lecturer's room, and a photographic room. The veterinary hospital consists of four horse wards, a *post-mortem* and dissecting room, a shoeing forge, an operating shed, and store rooms; special isolation wards are provided outside the college compound. A hostel with accommodation for 50 boarders is attached to the college. The staff consists of a principal, an assistant principal, three lecturers, a hospital surgeon, and a subordinate staff. The whole is controlled by a committee of officers and native gentlemen appointed by the Government.

Lahore  
veterinary  
college, and  
Rajputana  
and Burma  
veterinary  
schools.

818. The Lahore veterinary college has a public hospital for animals attached to it with a large in-patient and out-patient practice; there is a well appointed operating theatre and a large shoeing forge. The staff consists of a principal, a professor, three lecturers and a clinical clerk, and the institution is under the general control of the Director of Land Records and Agriculture. The practice of the hospital attached to the Ajmere school is smaller than that of any of the three colleges. The Burma school has a small number of students, and they receive their training partly in the school and partly by working under veterinary assistants of the Provincial department.

Principal  
features of  
the system of  
instruction.

819. The following table exhibits the principal features of the systems in force in the several institutions :—

Institution.	Entrance qualifications	Length of course and language of instruction.	Examinations.	Diplomas and certificates.
Bombay veterinary college.	Matriculation or school final, or sixth English standard, and a special entrance examination.	Three years, English.	One at the end of each year, held by a Board of Examiners appointed by the Government.	(1) Diploma as graduate of the college on passing the final examination. (2) Special certificate of proficiency to students who attend supplementary courses and pass examinations in them.
Bengal veterinary college.	Matriculation, or promoted to first class of a high school, or passed the middle English scholarship examination.	Three years, English.	One at the end of each year, held by a Board of Examiners appointed by the Government.	(1) As at Bombay. (2) Special certificates of proficiency to students who have performed satisfactorily the duties of clinical clerks, prosecutors, and monitors.
Lahore veterinary college.	Middle school examination and an examination in the handling of animals.	Three years, vernacular.	One at the end of each year, the first by the college staff and the second and third by a Board of Examiners.	Certificate as veterinary assistant on passing the final examination.

Institution.	Entrance qualifications.	Length of course and language of instruction.	Examinations.	Diplomas and certificates.
Bombay veterinary college, <i>salutris</i> (farrier) class.	Fifth vernacular standard (or equivalent) and an examination in the handling of animals.	Two years, vernacular.	One at the end of each year, the first by the college staff, and the second by the Board of Examiners.	<i>Salutris</i> ' certificate on passing the final examination.
Rajputana veterinary school.	Information not available.	Two years, vernacular.	One at the end of each year, held by a Board of Examiners.	Certificate on passing the final examination.
Burma veterinary school.	Ditto	Two years, vernacular. (May extend to three years in the case of backward pupils).	A qualifying examination at the end of the course; further particulars not available.	Certificate on passing the final examination.

The three colleges give a three years' course and the two schools a two years' course. The length of the Punjab course has been raised from two to three years in the case of students entering the college in or after the year 1900-01. In the Bombay and Bengal colleges instruction is given in English, and the general system is much the same in these two institutions. In the other institutions instruction is given in the vernacular. The Bombay college has a lower or *salutris* class, in which a two years' course is given in the vernacular.

820. The following table compares the subjects of instruction in the various institutions:—

Institution.	First year.	Second year.	Third year.
Bombay veterinary college.	Anatomy; elementary physiology; elementary chemistry; elementary botany; materia medica and pharmacy; handling of animals.	Anatomy; comparative anatomy; dissections; theoretical equine medicine and surgery; theoretical bovine medicine and surgery; therapeutics; theoretical principles of horse-shoeing.	Practical equine medicine and surgery; practical bovine medicine and surgery; operative surgery; hygiene; obstetrics, rearing and breeding; soundness, ageing and detection of lameness; veterinary law; meat and milk inspection.
Bengal veterinary college.	The same subjects as in the Bombay college. (The physiology course is different).	Anatomy; equine medicine and surgery; bovine medicine and surgery; hygiene; obstetrics, breeding and rearing; therapeutics; practical microscopy; horse-shoeing.	Surgery; veterinary law; ageing horse and cattle; fitting saddles and harness, and the treatment of saddle galls; shoeing; practical hygiene; soundness.
Punjab veterinary college.	Chemistry; anatomy and physiology; medicine and surgery; materia medica; pharmacy; obstetrics; bovine medicine, pathology and obstetrics.	Chemistry; anatomy and physiology; bovine medicine and surgery; equine medicine and surgery; materia medica; obstetrics; operative surgery; hospital practice; dressing.	[The course here described is as it stood before division into three yearly parts.]
Bombay veterinary college, <i>salutris</i> class.	Anatomy and physiology; materia medica and pharmacy; handling of animals.	Medicine and surgery; shoeing; obstetrics and breeding; hygiene, stable management, and dietetics.	
Ajmere veterinary school.	Anatomy of the horse; anatomy of the ox; physiology,—digestion, nutrition, circulation, and respiration; nervous and other systems.	Manipulation of domesticated animals; hospital practice; equine medicine and surgery; stable management and dietetics; bovine medicine and surgery, including obstetrics.	
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.		

Practical  
training.

821. Everywhere the course of training is largely practical; the character of the practical training in the three colleges is shown in the following table:—

Institution.	First year.	Second year.	Third year.
Bombay veterinary college.	Students receive instruction at the pharmacy, hospital, and forge.	Students attend hospital practice, receive clinical instruction, and dissect every part of the animal frame. They also attend the forge and pharmacy.	Students perform the duties of clinical clerks and dressers; perform operations on the living and dead subject; conduct <i>post-mortem</i> examinations; make themselves familiar with the use of the microscope and the appliances used in the pathological laboratory; are instructed in the manipulation of the various instruments used in preventive inoculation against rinderpest, and in the diagnosis and treatment of glanders.
Bengal veterinary college.	As at Bombay.	Students perform the duties of clinical clerks and dressers and attend at operations; they are instructed in operations on dead subjects, and attend on living animals.	
Punjab veterinary college.	The course includes dissections, <i>post-mortem</i> examination, operations and clinical work. Students of the final class act in monthly rotation as hospital dressers; two of the senior students are also selected as assistant curators in the museum, and two as prosectors for the anatomy class.		

System of  
the Burma  
school.

822. In the Burma school the system is somewhat different. The men selected are usually the sons of headmen of villages, with a fair education, accustomed to cattle, and, in the majority of cases, capable of diagnosing the most important contagious and infectious diseases before entering the school. The first part of the training is devoted to a certain amount of book work and theory; the student is then sent to a reliable veterinary assistant, with whom he travels and from whom he learns district work.— He then returns to the school for a further period, and accompanies the superintendent on all occasions when inoculations, etc., are being carried out in the field. Owing to the small number of the students it is possible to carry out this system thoroughly, and to devote a considerable amount of individual attention to each pupil. The pupil is taught throughout the course that his chief work consists in suppressing outbreaks of contagious disease, in advising villagers as to methods of segregation, in furthering the storage of water and fodder, and generally in looking after the welfare of the agricultural stock.

Statistics of  
students.

823. Statistics relating to the veterinary colleges and schools are given in Table 151. There were an aggregate of 322 pupils in these institutions, of whom 81 were in the English and 241 in the vernacular classes. Many of the students hold stipends or scholarships, and they may be divided into classes according to the conditions under which they are sent to the schools. Of the 46 students in the Bombay college, 26 were paying students, 12 were holders of Government scholarships, 1 was a Government free student, and 7 were deputed by Native States or Local and Municipal Boards. In the Bombay *salutri* class, 70 were Government free students, and 6 were deputed by Native States, etc. In the Bengal college, 15 of the students were Government stipend holders, and 20 were holders of stipends or scholarships from District Boards, Municipalities, or Native States. The 64 students who entered the Lahore college in 1901 were classified as follows: military students, 24; stipend holders from the districts, 16; free students, 15; and paying students, 9. In the Rajputana school there were 8 students deputed from Native States and 53 paying pupils. All the Burma students were stipend holders under training for Government service. Fifty-six students passed out of the colleges and schools in 1901-02. Six of them gained the diploma of the Bombay college, and 9 of the Bengal college; 16 gained the Bombay *salutri* certificate, 18 the Rajputana certificate, and 7 the Burma certificate. No final examination was held at Lahore as the first batch of students under the new regulations had only completed their second year of study; 24 of them passed the second annual examination,

824. BOMBAY.—Of the 6 students who graduated in 1901-02, one was already <sup>Employment of passed students.</sup> in the service of the Cochin State, 2 were working as assistant veterinary officers at the college, and one was employed in the Glanders and Farcy Department, Bombay. Out of the graduates of previous batches, one obtained a permanent appointment as veterinary assistant in Assam for rinderpest inoculation duty; another a temporary appointment in the Civil Veterinary Department of the Bombay Presidency, and a third a post under the Bombay Tramway Company. Out of the 16 candidates who obtained the *salutris*'s certificate in 1901-02, two were sent by the Remount Department and were employed by that Department, 1 was sent by the Akalkot State and obtained employment in the State, 6 were employed in the Berar Veterinary Department, and 3 were selected as *salutris* for service in South Africa. The question of establishing Local Board veterinary dispensaries, in which *ex-students* of the college will be employed, has been under consideration.

BENGAL.—Twenty-eight candidates graduated in the three years ending 1900-01; 22 of them were employed by Government or District Boards, 4 by other local bodies, and 2 were in private practice.

LAHORE.—In the same three years 135 students obtained the Lahore certificate as veterinary assistants, and the great majority were in the service of the Government or of Local Boards. The Principal of the Lahore Veterinary College makes the following remarks on the employment of his students:—

The demand for veterinary assistants still remains very great, applications from all sources being numerous. The men sent to Africa have generally been well reported on. I am sorry to record that two of them are reported to have been killed in the action at Klipdrift. One veterinary assistant also died in Uganda. Volunteers for service in foreign countries are plentiful always when the services of men are available. Men in private practice are doing well, and I think that more of them will start soon, as they are encouraged by the success of those who have already done so. I am sorry to find that the terms offered in the Punjab Provincial Service are so bad, worse even than those in the Transport and in the United Provinces of Agra and Oudh Subordinate Veterinary Department, and I am afraid the Government cannot expect to secure the services of the best men, which seems a pity considering that they spend money on training them.

RAJPUTANA.—Since the school was founded in 1894, 110 students (including those of 1901-02) have qualified. Of these only 21, many of whom were taking a holiday after leaving the school, were unemployed.

BURMA.—In the three years ending 1900-01, 7 students passed out of the college, and all of them are in Government service.

825. Statistics of expenditure in 1901-02 (which cannot be shown on a uniform <sup>Expenditure.</sup> basis) are given in Table 151. The receipts from tuition fees are small and amounted to R1,785 in the Bombay college, to R1,119 in the Lahore college, to R1,890 in the Ajmere school, and to *nil* in the Bengal college and Burma school.

## Forestry.

### Introductory.

826. The good conservancy of the Indian forests is a matter of the first <sup>The forests of India.</sup> importance, not only because of the great commercial value of the timber they produce, but also, and more especially, because of the part they play in the general agriculture of the country. The Famine Commission urged the importance of forest conservancy as a safeguard for agriculture, pointing out that a supply of wood for fuel is necessary if cattle manure is to be used to any extent for the fields, and also that forest growth serves to retain the moisture in the sub-soil. The principal forests of British India are maintained and worked by the State in the general public benefit. The State forests which are under the control of the Forest Department extended in the year 1901-02 over about 217,500 square miles; out of this total over 89,000 square miles were "reserved" and open to systematic conservancy. The reserved area was greatest in the Central Provinces, Burma, Madras, and Bombay in the order named.

827. The forest schools have been established and are maintained mainly for <sup>The Forest Department.</sup> the training of officers and subordinates of the Forest Department of the State. The Forest Department is divided into a superior and a subordinate service. The

superior staff consists of officers in charge of "circles", known as conservators, with their deputies and assistants; the subordinate staff comprises rangers, deputy-rangers, foresters, and guards. The superior service is again divided into an Imperial and a Provincial service; officers of the Imperial service are recruited in England, and officers of the Provincial service are appointed in India. Appointments are made to the Provincial service by the promotion of rangers, and appointments to the upper classes of the subordinate services are given, in general, to qualified students of the forest schools. The arrangements in Madras and Bombay are to some extent different from those prevailing in other provinces.

#### Schools of Forestry.

828. The principal school of forestry in India is the Imperial Forest School at Dehra Dun, which trains subordinates for the forest departments of all provinces except Bombay and Burma. Instruction is given at the College of Science, Poona, to candidates for the subordinate forest service in the Bombay Presidency; and a school was opened in Burma in 1899 for training forest subordinates belonging to that province.\*

#### Dehra Dun Forest School.

General.

829. The Imperial Forest School at Dehra Dun was founded in the year 1878. The school has six lecture rooms, a library, a museum, a herbarium, a laboratory, a resin distillery, an apparatus for the extraction of tannin, a carpenter's workshop, quarters for 80 students, a hospital, a fruit garden, a tree park, and a nursery and plantation. The school is under the administrative control of the Inspector General of Forests, who is assisted by a Board of Control of forest and educational officers. The superior staff of the school consists of a Director, a Deputy Director, two instructors, a vernacular instructor, and an assistant instructor. They are all members of the Forest Department, and they are assisted by forest officers of the local circle and others. The conservator of the circle is ordinarily the Director of the school.

Classes and entrance qualifications.

830. The school is divided into two classes. The upper class reads in English for the higher standard or ranger's certificate, and the lower class reads in Hindustani for the lower standard or forester's certificate. The maximum annual number of admissions is usually 40 in the upper and 10 in the lower class. There are three categories of students in each class:—

- (a) private students,
- (b) students in Government service, and
- (c) students deputed by Native States.

Private students must be between the ages of 18 and 25 at the time of admission, those for the upper class must pass an entrance examination in English and elementary mathematics, and those for the lower class must have passed the middle school examination, and must also possess a competent knowledge of Hindustani. Of the 35 candidates who passed the school entrance examination in 1901-02, all but 4 had already passed an examination of standard not lower than the matriculation examination. The students admitted in 1901-02 were classified as follows:—

<i>Upper class.</i>	
Government students	7
Private students holding Government stipends	6
Private students without Government stipends	18
Stipendiary students deputed by Native States	4
<b>TOTAL</b>	<b>35</b>
<i>Lower class.</i>	
Government students	7
Private students	1
Stipendiary students deputed by Native States	2
<b>TOTAL</b>	<b>10</b>

Out of these students three were Europeans.

\* Since the close of the quinquennium the Bombay Government have begun to send students to Dehra Dun, and Burma is not precluded from doing so.

831. The course of instruction in each class extends over two years and the subjects are as follows :—

1. Forestry—including silviculture, utilization, and forest working-plans, both theoretical and practical.
2. Mathematics—elementary arithmetic, algebra, trigonometry, and mechanics ; in their application to forest questions.
3. Physical science—including chemistry, physics, physiology, 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, specially 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.

Practical training is given both at the college and in the forest, and a considerable part of each year is spent in camp. The following are the terms of study included in the course :—

First year.	{	Preliminary term—April 15th to June 30th, in camp or at Dehra Dun.
		Rains terms—July 1st to October 31st, in Dehra Dun.
		Winter term—November 1st to December 22nd, in camp.
		Vacation—December 23rd to January 5th.
Second year.	{	Spring term—January 6th to March 31st, in camp.
		Hill tour term—April 1st to May 31st, in camp.
		Vacation—June 1st to 30th.
		Rains term—July 1st to October 31st, in Dehra Dun.
		Winter term—November 1st to December 22nd, in camp.
		Vacation—December 23rd to January 5th.
	{	Spring term—January 6th to February 15th in camp.
		Examinations, including survey test—February 16th to March 31st.

832. Examinations are held once a month and a final examination at the end of the course. The students of each class may obtain either a "pass" certificate or an "honours" certificate according to the percentage of marks which they gain, marks given in the monthly examinations count towards the final result. Students who obtain the higher standard certificate are qualified for appointment as rangers (on Rs. 50), and if they hold an honours certificate they are eligible for appointments in the fourth grade of rangers on Rs. 80. Students who obtain the lower standard certificate are eligible for appointment as deputy rangers or foresters, and after five years' satisfactory service (or two in the case of students who obtain an honours certificate) they may be promoted to the post of ranger.

833, On the 31st March 1902 there were 93 students in the college, 79 in the upper and 14 in the lower class. The following table shows the result of the examinations held in 1897 and 1902 :—

Year.	UPPER CLASS.				LOWER CLASS.			
	Candidates.	Honours.	Ordinary pass.	Failed.	Candidates.	Honours.	Ordinary pass.	Failed.
1897 . . .	24	1	23	...	9	...	8	1
1902 . . .	43	2	38	3	7	1	6	...

Since the school was founded, 464 higher standard and 133 lower standard certificates have been granted to passed students. Of the total 597 certificate holders, 371 are at present employed in the Government Forest Department, and 96 in the Forest Department of Native States, 7 are in other Government employment, 2 are employed in Ceylon, 20 have left the service, 45 have died, and there is no information available about the remaining 56.



**Financial.** 834. In 1901-02 the expenditure of the school was ₹73,607 and the receipts ₹2,935. As the school is maintained for the training of candidates for employment by the Government or by Native States, tuition fees are not charged, the various Local Governments and States which benefit by the school contribute towards its support. The cost to the student or his guardian for board, uniform, books and other equipment, and for travelling is estimated to average ₹45 for Europeans and ₹35 for natives in the upper class. Stipends not exceeding ₹50 in amount may be granted to selected students.

**Forestry Branch of the College of Science, Poona.**

835. Botany and Forestry form one of the elective subjects for the final examination for the Degree of Licentiate of Civil Engineering of the Bombay University. There is also a separate forest branch with a two years' course. The matriculation or school final examination is the preliminary qualification for entering on this course. There was an annual average number of 27 pupils in the forest ranger and forester classes during the five years ending 1902, and 43 students passed the final examination of the forest ranger class in the five years 1897—1901. The instruction and examination in forestry for the Licentiate in Civil Engineering examination is largely theoretical, and no course of training in the forests is provided. It has been the practice to reserve one-third of the appointments both to the extra assistant conservator and ranger grades for Licentiates of Civil Engineering who have passed in forestry, or for Licentiates of Agriculture, and other posts in the ranger and lower grades are filled by passed students of the forest class. Owing to the direct appointment of Licentiates to higher posts there has been a serious block of promotion, and students of the forest class can for some years after appointment expect no higher pay than ₹20 a month. The class therefore no longer attracts candidates suitable for the responsible post of ranger. The arrangements being proved generally unsatisfactory, it has been decided that the Dehra Dun Forest School shall in future be utilized for the training of candidates for the upper subordinate service of the Bombay Forest Department.

**Tharawaddy Forest School.**

836. Subordinates of the Burma Forest Department were formerly trained at Dehra Dun, but the plan of sending Burmans to India for instruction worked badly, and in 1899 a provincial school of forestry was opened at Tharawaddy in the Pegu Division. The annual number of admissions was at first fixed at 8, but was afterwards raised to 12 and again to 20. The school is primarily intended for the training of those already in the subordinate service, namely, rangers, deputy rangers, foresters, and forest guards; but if all the vacancies in the school are not filled by Government students, private candidates are admitted, and two stipends of the value of ₹14 a month may be awarded to private students. The school is under the administrative control of the Conservator of Forests, Pegu Circle, assisted by a Board of Control, and is supervised by the Divisional Forest Officer, Tharawaddy. The staff consists of an instructor and an assistant instructor who are officers of the Forest Department. The course of instruction extends over two years and is given in the vernacular. The subjects taught are: silviculture, utilization, working-plans, forest law and departmental organization, elementary surveying and engineering, and forest accounts and returns. The theoretical instruction is of an elementary and simple character, and the practical work (much of which is given in the forest) is made as thorough as possible. The theoretical course is completed during the first year of study. The instructor holds monthly examinations, an oral examination is held by a Committee at the end of the theoretical course, and certificates are granted by the Board of Control to those students of the 2nd year who are found to be proficient at the end of the course. The certificates are of two kinds:—

(1) The higher certificate which qualifies for a deputy ranger's appointment.

(2) The lower certificate which qualifies for a forester's appointment.

The grade of certificate depends upon the marks gained by the student in the theoretical examination and on the character of the report on his practical work. Twelve students presented themselves for examination in November

1901, of these 9 were to receive the higher and 3 the lower standard certificates at the conclusion of the 2nd year's training should their work continue satisfactory. Quarters are provided for students; but rangers may make their own arrangement, and other forest students who bring their wives and families are not required to reside on the college premises.

**Commerce.**

837. There is very little commercial teaching in India of an advanced <sup>Introductory.</sup> character and the subject is not recognized by any of the Universities except for a school examination held by the University of the Punjab. Bombay has advanced somewhat beyond the other provinces. The teaching of short-hand and typewriting is becoming common, in consequence of the growing demand for short-hand typists.

838. MADRAS.—The Madras returns show 697 pupils studying commercial <sup>Instruction under the Government scheme of technical examinations.</sup> subjects in 17 different institutions. Six of these are classed as commercial schools, and the others are industrial and technical schools in which commercial subjects are included in the curriculum. The instruction is for the most part of a very elementary character, suitable for junior clerks, and many of the pupils are merely taught typewriting and short-hand. The pupils are trained for the commercial examinations of the Madras technical examination scheme. Candidates may obtain a diploma in commerce, or group certificates in short-hand, in correspondence, and in book-keeping. The following subjects are included in the tests :—

Diploma or Certificate.	Subjects.	Standards.
(1) Diploma in commerce	Commercial correspondence	Advanced.
	Book-keeping	"
	Commercial geography	"
	Banking	Intermediate.
(2) Group certificate in short-hand.	Short-hand	Intermediate.
	Typewriting	"
(3) Group certificate in correspondence.	Commercial correspondence	Intermediate.
	Short-hand	"
	Commercial geography	"
	Banking	Elementary.
(4) Group certificate in book-keeping.	Book-keeping	Intermediate.
	Commercial correspondence	"
	Commercial geography	"
	Banking	Elementary.

The report of the Commission for Government Examinations does not show the number of candidates who obtain diplomas or group certificates, but the following information is given in the calendar for 1902-03 regarding candidates and passes in individual subjects in 1901-02 :—

Subject.	ELEMENTARY EXAMINATION.		INTERMEDIATE EXAMINATION.		ADVANCED EXAMINATION.	
	Candidates.	Passes.	Candidates.	Passes.	Candidates.	Passes.
Book-keeping	232	109	95	69	8	1
Commercial correspondence	208	66	53	21	6	3
Banking	58	13	22	11	...	...
Commercial geography	12	5	12	3	2	...
Short-hand	123	30	48	8	5	2
Typewriting	455	64	43	6	...	...
<b>TOTAL</b>	<b>1,088</b>	<b>287</b>	<b>276</b>	<b>118</b>	<b>21</b>	<b>6</b>

Government school at Calicut, and Chengalvaraya Nayakar school, Madras.

839. Of the schools which teach these courses the most important are the Government school at Calicut and the Chengalvaraya Nayakar aided school at Madras. The Calicut school had 129 pupils on the rolls on the 31st March 1902, 15 in the advanced class, 92 in the intermediate class, and 22 in the elementary class. It consists of an English and a vernacular section. The English section prepares students for the diploma and group certificates in commerce; in addition to the technical subjects special classes are held for English composition and handwriting. The length of the course is one year in each class. In 1901-02, 65 students appeared for examination in various subjects and 40 passed; 2 students qualified for group certificate, 1 in book-keeping and the other in short-hand. The vernacular section is not subjected to any public examination. It is examined half-yearly by the headmaster, who grants certificates to the successful pupils on the combined results of the two examinations held during the year. In 1901-02, 13 students became eligible for first class certificates. The Madras school gives a course (one year in each class) in book-keeping, commercial correspondence, banking, short-hand, typewriting, and commercial geography; engineering and surveying are taught in the same institution.

Byramji Jijibhai Institution.

840. BOMBAY.—The Byramji Jijibhai unaided Parsi Charitable Institution has a college department for commercial instruction added to a high school in which commercial arithmetic and geography are included in the curriculum. The college gives a two years' course and charges a fee of Rs 3 a month. It is a whole-time institution and none of the pupils earn their living while under instruction. The course of studies includes the following subjects:—

English.	Banking and currency.
Commercial mathematics.	Economics.
Accountancy and auditing.	Commercial history and geography.
Shipping and insurance.	Trade statistics.
Commercial law.	Commercial morality.

Short-hand and typewriting are taught in special classes: there is a great demand in Bombay for short-hand typists. The students are trained for the London Chamber of Commerce senior certificate; the examinations for this certificate are held in distinct subjects, not on a general course, and the college chooses the subjects for its curriculum. It presents students for examination in book-keeping, machinery of business, commercial and industrial law, banking and currency, political economy, commercial geography, and commercial history. The London examination is in several respects unsuitable for Bombay pupils: the mercantile law is the law of England and not of India; the commercial geography centres round London and not Bombay; arithmetical problems are expressed in sterling and not in rupees; and there is no examination in drafting letters from instructions. On the 31st March 1902 the college had 58 pupils on the rolls. Some of the students intend to become merchants on their own account, but most of them are being trained for clerks and begin on about Rs 5 to Rs 40 a month; all obtain employment on leaving the school.

Other schools and classes.

841. The Bombay returns include three other commercial schools: the Aiyar's night school of commerce, Girgaum, unaided, 28 pupils; the Municipal commercial school, Sholapur, 42 pupils; the commercial school, Ahmedabad, unaided, 23 pupils. There are some other private classes in Bombay. All of these institutions are much less important than the college department of the Byramji Jijibhai Institution.

842. BENGAL.—The Bengal returns show 4 unaided commercial schools with 285 pupils. These are merely Calcutta schools for teaching short-hand and typewriting.

843. UNITED PROVINCES.—The Reid Christian College at Lucknow has a "business department", in which instruction is given in short-hand and typewriting.

Municipal Board Clerical and Commercial School, Amritsar.

844. PUNJAB.—The Municipal Board of Amritsar maintains a clerical and commercial school. Boys are admitted after passing the middle English examination, or by special leave of the Inspector. The staff consists of three masters and a teacher of native commercial arithmetic. A hostel is attached to the

school. Fees are charged at the rate of Rs 3 a month in the senior, and Rs 2-8 a month in the junior class. For a time these classes were amalgamated with the high school, to the detriment of both; since June 1902 they have been separated. The course extends over two years, after which the students are presented for the clerical and commercial examination of the Punjab University. The subjects of instruction comprise typewriting, short-hand, general and commercial geography, book-keeping, précis writing, arithmetic, native system of accounts, and English. After the University examination many boys return to be coached for the examination held at Rurki for admission to the Public Works Accounts Department. They learn short-hand (reporting style) and higher book-keeping. On the 31st March 1902 there were 28 pupils present in the senior class and 8 in the junior class; of these 18 were learning short-hand. Seventeen candidates were sent up for the University examination in 1901-02, and only 5 of them passed.

845. In May 1900 classes similar to those at Amritsar were started in connection with the Municipal Board school at Hoshiarpur; on the 31st March 1902 there were 8 boys in the senior and 4 in the junior class; and in the University examination of 1901-02, 7 out of 16 candidates were successful. There is a small class of the same character in the Rewari Board school. Commercial classes have recently been opened in the Board school at Gujranwalla, and in the aided mission school at Rawalpindi. One branch of the Victoria Diamond Jubilee Hindu Technical Institute at Lahore is devoted to clerical and commercial work; the pupils study chiefly short-hand and accounts. The Director says that no pupils went up for the Punjab University examination or for the Rurki Accounts examination, as, owing to certain untoward circumstances, the proper standard of instruction for the examinations could not be maintained. Seven pupils obtained certificates of the Phonetic Society. The Board schools at Hoshiarpur and Ludhiana have short-hand classes; the two classes had an aggregate of 46 pupils on the 31st March 1902.

Other clerical and commercial schools.

846. BURMA.—The Burma Code provides for instruction, examination, and grants, in commercial arithmetic and correspondence, book-keeping, short-hand, and typewriting; and the Director considers that a good school teaching these subjects would pay. Hitherto, however, little advantage has been taken of the facilities afforded, and the returns show only two unimportant aided schools.

### Art.

847. There are four schools of art in India, all managed by the Government. They are called the School of Art and Industry, Madras; the Sir Jamsetji Jijibhai School of Art, Bombay; the School of Art, Calcutta; and the Mayo School of Art, Lahore. On the 31st March 1902 they had 1,220 pupils on the rolls.

List of schools of art.

848. The artistic genius of India has found expression chiefly in architecture and the production of articles of beauty for domestic use, and the special function of the Indian school of art is to maintain, restore, and improve this application of oriental art to industry and manufacture. It is unfortunately the case that in later times the inherited taste and skill of the Indian workmen have, owing to a variety of causes, suffered some deterioration. The Government looks to the schools of art to check this deterioration and to restore and improve the beautiful models and methods of the past. But the operations of the schools of art are not confined to this branch of work; on the one hand, they give a considerable amount of instruction in the fine arts as such, and they train draftsmen and teachers of drawing; and on the other hand, part of their work has been of an industrial character without special reference to decorative treatment. Fine art teaching is specially prominent in the Calcutta school, and industrial teaching in the Madras school.

Functions of Indian art schools.

849. The schools of art are all institutions of many years' standing. In 1893 the Secretary of State suggested that they should be absorbed in, or converted into, technical schools; on the ground that they served no very useful purpose, and that the considerable State expenditure on their maintenance could not be justified. Lord Elgin's Government, after taking the advice of a conference of

Discussion of 1893-96.

experts, advised against the abolition of the schools of art, and pointed out the various manners in which they had been of service to the country. The Secretary of State accepted the opinion of the Government of India, but he considered that in the past the schools had not always moved on the right lines, and he expressed the opinion that they should devote themselves especially, "after the elementary teaching of drawing, to practical instruction, illustrated by choice examples in the art of the wood-carver, the enameller, the embroiderer, and the artist in metals, applied to the native industries which are susceptible of decorative treatment." The scope and character of the instruction given in some of the schools underwent modification after this correspondence. We may now take a brief survey of each of the institutions.

School of Art  
and Industries,  
Madras.

850. The Government School of Art at Madras, or as it is now called the School of Art and Industries, was founded in the year 1850 as a private concern by Dr. Alexander-Hunter, "with the object of improving the taste of the native public as regards beauty of form and finish in the articles in daily use among them." In the following year an industrial department was added to the school. In 1853 the Court of Directors sanctioned a grant-in-aid of the school, and in 1855 it was taken under Government management. In the artistic department instruction was given in various branches of drawing, and a few students were instructed in engraving; most of the pupils in this department were qualifying for employment as draftsmen in the Public Works and other branches of the public service. The industrial department dealt with the manufacture of bricks, fire bricks, paving and roofing tiles, pottery, water-pipes, etc., and blacksmith's work was also taught; the industrial department had, therefore, little special connection with decorative art.

851. The character and scope of the course have varied from time to time, and the school has suffered in the past from a want of definiteness of aim. The students are trained for the Madras Government technical course and certificates are granted on the results of the examinations. The great majority of the pupils belong to the drawing classes, the term "drawing" including various branches of the fine arts. The school gives instruction in drawing and painting from standard C of the pre-elementary classes up to the advanced standard of the Madras technical examinations. The subjects of the technical examinations include free-hand drawing, design, geometrical drawing, painting, modelling, wood-engraving, and copper plate engraving. Students receive instruction in drawing both as part of the general course of technical training, and as a subject in itself. As the main functions of the industrial department are unconnected with decorative treatment, the description of that department will be given in the section dealing with industrial schools.

852. The strength of the school has, as the following figures will show, diminished greatly during the past five years :—

Year.	Number of pupils on the 31st March.
1897 . . . . .	633
1898 . . . . .	546
1899 . . . . .	525
1900 . . . . .	568
1901 . . . . .	491
1902 . . . . .	321

The distribution between the drawing and industrial departments in the same years was as follows :—

Year.	Drawing department.	Industrial department.
1896-97 . . . . .	674	167
1897-98 . . . . .	625	159
1898-99 . . . . .	606	173
1899-00 . . . . .	598	199
1900-01 . . . . .	519	165
1901-02 . . . . .	347	69

The same pupil studying more than one subject, or different branches of the same subject, appears more than once in these figures. There has been a continued fall in the number of pupils attending the drawing classes, but in the industrial

class the decline has been only during the last two years. The Director attributes the large fall in 1901-02 partly to the introduction of a higher rate of fees, and partly to a rule requiring unpaid apprentices to pay fees for attending drawing classes. The Director says, further, that the results of the Government technical examination held in November and December 1901 were, on the whole, not very favourable to the school.

853. The Bombay School of Art began with a drawing class in the year 1857, and other classes were from time to time added to it. At present the institution comprises a drawing school, a drawing teacher's class, an architecture and draftsman's class, a painting class, and a modelling class. There were 237 pupils on the roll of the school at the end of 1901-02.

Sir Jamsotji Jijibhai School of Art Bombay.

The following table shows the number of pupils in each class and the duration of the course :—

Name of the class.	Number of pupils in the class.	Duration of the course (in years).
Drawing school . . . . .	219.	3
Painting class . . . . .	31	2
Modelling and casting class . . . . .	12	3
Architecture and draftsman's class . . . . .	18	2
Drawing-teacher's course . . . . .	7	1

Some of the students attend more than one class and hence the figures in the second column of the statement total up to more than 237.

The institution provides the schools of the Presidency with drawing masters, it controls the public examinations in drawing, its trained pupils find ready employment, and its students have executed much of the decorative work which adorns the city of Bombay. The school museum has a collection of good examples of decorative art.

854. Attached to the school are the Reay art workshops which were opened in 1891. The subjects taught are house-painting and decoration, enamelling, gold and silver work, carpet-weaving, wood-carving, copper and brass work, iron work, stone-carving, and pottery. The pupils attend the elementary drawing class in the school of art for an hour and a half daily. They are received as apprentices, and about one-third of them are granted stipends. The stipends are graduated from Rs 3 to Rs 15 a month, so as to enable the workshops to retain competent lads who would otherwise have to leave before they became really skilled artificers. The course has recently been extended, and certificates are now given after two years' systematic study in the workshops followed by a third year of practical work in the craft which the pupil prefers to follow. The workshops execute orders and prepare articles for the public. On the 31st March 1902 the number of apprentices stood at 186. The number of pupils in the combined school and workshops has increased greatly during the quinquennium, the figures being as follows :—

	Number of pupils on the rolls on the 31st March.
1896 . . . . .	298
1897 . . . . .	228
1898 . . . . .	182
1899 . . . . .	207
1900 . . . . .	335
1901 . . . . .	381
1902 . . . . .	423

} Fall due to plague.

Altogether the institution is flourishing and improving.

855. There is little indigenous art in Bengal like that of the craftsmen of Southern and Western India, and the School of Art at Calcutta has therefore no manufacturing industrial side; it answers more nearly than do the other schools

School of Art Calcutta.

to the acceptance of the name "school of art" that is usual in England. The school is located in good buildings adjoining the Government art gallery. The course of instruction was reorganized in 1896. The system in force before that date was in many respects defective; the study of design was ignored, the teaching in drawing and painting followed a bad school, little notice was taken of oriental art, and there were no general classes for practical geometry, mechanical drawing, or perspective. The school has now two divisions. The first affords 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; it includes special classes for engineering and architectural drawing, wood engraving, lithography and modelling. The second division is intended for pupils who wish to study drawing, painting, and modelling, with a view to becoming painters or sculptors.

The following are the subjects of study in the first division:—

- |                                  |   |                         |
|----------------------------------|---|-------------------------|
| 1. Elementary free-hand drawing. | } | 6. Modelling.           |
| 2. Advanced free-hand drawing.   |   | 7. Elementary design.   |
| 3. Studies in light and shade.   |   | 8. Elementary painting. |
| 4. Geometrical drawing.          |   | 9. Advanced design.     |
| 5. Perspective drawing.          |   | 10. Lithography.        |
11. Wood engraving.

The particular group of subjects, or divisions of subjects, taken up by a student is determined by the nature of the occupation for which he wishes to qualify. Special instruction in practical geometry and mechanical drawing is given to artisans and sons of artisans at greatly reduced fees. The length of the course for general draftsmen, elementary drawing teachers, industrial art workmen, designers, and advanced drawing and technical art teachers, is from two to three years; for mechanical and engineering draftsmen it is from two to four years; and for architectural draftsmen, modellers, lithographers, and wood engravers it is from three to four years. In the second division the course for painters comprises drawing and painting from the cast, from still-life, from flowers and foliage, and from the human figure, and the study of anatomy; the course for sculptors includes modelling from the cast, from flowers and foliage, from the human figure, and the study of anatomy. Except in special cases students of the second division must go through a preliminary course in the first division.

856. Students are not ordinarily admitted under the age of 15 years, and they are charged a monthly fee of ₹3 in the first and ₹5 in the second division. Free admission is given to a limited number of students, and the Government awards scholarships up to the total value of ₹75 a month. Examinations are held annually, and passed students are granted certificates as such, which are signed by the principal and countersigned by the Director of Public Instruction. At the final examination of 1901-02, 143 pupils were successful out of 153 candidates. Passed students of the school quickly find employment in various capacities, such as drawing masters of high schools, in lithographic work, and as draftsmen. There were 228 pupils on the rolls on the 31st March 1902, against 261 on the 31st March 1897.

Mayo School  
of Art,  
Lahore.

857. The Mayo School of Art, Lahore, was established in 1875 from funds derived from a public subscription raised to perpetuate the memory of the late Lord Mayo. The object of the school is to give instruction in the arts of design with special reference to the artistic industries indigenous to the Punjab, and to the architectural and decorative styles peculiar to the province. The school also includes an elementary engineering class which has already been noticed under the appropriate head. The staff of the school consists of a principal, a vice-principal, and five assistants. The principal of the school is also Curator of the Lahore Museum. Apart from the engineering class, there were 248 pupils in the school on the 31st March 1902 against 179 in 1896-97. The pupils are grouped in four divisions as follows:—

*Division I.*—

- Section A.*—98 boys: all learn elementary free-hand drawing, definitions of geometry, modelling in clay; 30 carpentry; 8 blacksmith's work; 52 modelling from foliage.
- Section B.*—53 boys: all learn advanced free-hand drawing, modelling in clay, plan and elevation, practical plane geometry; 16 carving and joinery; 10 repoussé work; 1 blacksmith; 26 elementary painting.

*Division II.*—27 boys: all learn building drawing, model drawing, solid geometry, and modelling in clay; 15 learn painting; 10 carving and joinery; 1 repoussé work; 1 blacksmith's work.

*Division III.*—33 boys; all learn architectural drawing, building construction, modelling in clay and casting in plaster, light and shade, perspective; 16 ornamental drawing and design; 13 carving and joinery; 3 blacksmith's work; 1 repoussé work.

*Division IV.*—37 boys: all learn architectural design, building construction, and modelling in clay and terra-cotta; 13 practise applied designs for building decoration; 12 joinery and carving; 5 blacksmith's work; 3 pottery; 4 repoussé work.

The subjects of instruction thus include various branches of construction, decoration, and modelling, besides drawing and wood and metal work. The course extends over five years. Hitherto boys have been passed through all the divisions of the course, but it is intended that in future they shall choose their subjects. The majority of the pupils belong to the artisan and trading classes, and they are expected to show some artistic aptitude during a short period of probation. No tuition fees are charged, and there is no boarding accommodation. Certificates are granted by the principal to passed students at the end of the course. For drawing masters there is a departmental examination, and certificates are granted by the Director of Public Instruction. Of the 28 students who left during 1901-02 (including students of the engineering class) all but two have obtained suitable employment on salaries ranging from R15 to R60; 7 are drawing and carpentry masters, 7 are draftsmen, 2 are lithographers, 1 is a litho-draftsman, 7 are sub-overseers, 1 is a surveyor, 1 is a label-writer in the Lahore Museum, and 1 is an apprentice in the North-Western Railway. It is noticeable that none appear to be following the indigenous handicrafts which it is the special object of the school to encourage and foster. Some passed pupils have been employed as designers in the Punjab carpet factory. The orders for work which have been from time to time given to the school are now handed over to passed students to carry out, and have so far been executed with satisfaction; part of the work has been done in the school, and the whole of it has been supervised by the staff.

858. The Mayo school has evening classes, of which the following account is given in the Director's Report for 1901-02:—

The attendance at the evening classes has not been large, but the small number of very earnest young men, who have been coming regularly and punctually, have made satisfactory progress. These are principally teachers and teachers in training. The evening class has failed in attracting any of the artizans, one or two working men only have attended, and in a very desultory way, the reason being the distance of the school from the city. The evening class for ladies, held once a week, has been very regularly attended, and three young ladies have succeeded in passing all but one of the examinations for the junior drawing teachers' certificate. These students have already commenced teaching a little elementary drawing, and on the completion of their certificate will be fully qualified to introduce and carry out a regular course of drawing in zanana schools.

859. General statistics of the four schools of art are given in Table 153.

General statistics.

860. The Bengal returns include two unaided "schools of art" with 76 pupils. These are Calcutta workshops for the production of lithographs which take in pupils. The Central Provinces have for a number of years past returned one "school of art" which in 1901-02 had 49 pupils on the rolls. No details are given, but the institution is apparently a drawing class.

Other institutions returned as schools of art.

## Industry.

### Introductory.

861. Table 154 shows the manufacturing industries (other than those connected with the supply of food) which occupy and support the largest proportion of the industrial population. The table includes every detailed sub-head of the Census Table XV (1901) for which the total number of workers and dependents in any province exceeds 40,000. The industries may be divided into two main categories: the large concerns of the modern industrial centres, and the local handicrafts which occupy a much larger portion of the population and are carried on in a vast number of small establishments all over the country. In the first class the lead is taken by the cotton industry of which the

Indian industries.



principal centre is the city of Bombay. The table shows that 164,000 persons in the Bombay Presidency are workers in cotton mills and their dependents. Next comes the jute industry centred in the neighbourhood of Calcutta: 129,000 persons are supported by work in the jute mills of Bengal. There are a number of other industries of the first class of considerable and growing importance, although they give support to a smaller number of persons. Cases in point are the iron and brass foundries, the tile factories, the lac factories, the paper mills, the woollen mills, etc., etc. Among industries of the second class the cotton-weaving hand industry employs the largest number of persons, and it easily heads the list in every province. Numerically the most important industries next to weaving are those of the carpenters, shoe-makers, potters, masons and builders, workers in metal, gold and silversmiths, and makers of baskets, nets, etc. The list corresponds to the common needs of a simple population. The actual list of industries in each province is a long and varied one, and, of course, it is not necessarily those industries which employ the largest number of persons which are the most susceptible of improvement and development through the agency of well-directed industrial education. A considerable amount of work has been done with a view to ascertain the conditions and needs of this multitude of industries, and valuable monographs have been written on a number of individual crafts. Much further effort will, however, be needed before anything like a complete industrial survey is available to serve as a guide to those who have the control of industrial education.

Indigenous  
apprentice  
system.

862. Indian artisans are usually trained under a loose apprentice system, the character of which varies in different localities and in different occupations. In many cases the child is taught his hereditary craft from his father or is apprenticed to a *mistrî* or master-craftsman, who is often a relative of the pupil. There is no regular fee, but a small present is often paid to the owner or foreman of the shop. The child begins to work at a very early age; at first he is expected to perform the menial duties of the shop, and is put to cleaning the tools; later he begins to perform the simplest operations of the trade. There is little definite instruction, but the boy gradually acquires knowledge and skill by handling the tools and watching the workmen at their task. As soon as he has made a little progress, the apprentice is granted a small wage which is gradually increased as he becomes more useful, and when he is capable of earning his livelihood, he either goes out into the world or secures a place on the permanent roll of his master's shop. The system is on the whole well adapted to the circumstances of Indian industry, but its tendency is not progressive, and it often yields only a low standard of execution. To the poor artisan the arrangement has this great advantage, that at a very early age the child earns his own livelihood and ceases to be a burden on his parents; but, on the other hand, this early wage-earning itself tends to lessen unduly the period of preliminary instruction. The quality of the work of native artisans shows little tendency to improve, and in some cases it has actually deteriorated; and again the native workman has not been able to take due advantage of the wide openings afforded to him by advancing civilization and Western trade.

Factory  
apprentices.

863. Another important system of training, analogous to the native method, has grown up with the rise of the large manufacturing industries, such as the cotton and jute industries. It is said that in Bengal the sons of artisan employés are allowed to enter the mills and factories and to work with and receive instruction from their relatives, and that in this way large numbers of boys gain a valuable training. It is interesting to note that employers find that the boys leave to seek employment before they have acquired the requisite degree of skill.

Difficulties  
encountered  
by industrial  
schools.

864. It may be admitted at the outset that the endeavours made up to the end of the quinquennium under review to provide through State agency, or under State control, a system of technical education better than the routine training of the bazar have met with little success. The subject, which has taxed the ingenuity of the educationalists of all countries, presents a specially difficult problem in India. For the large organized industries the conditions are not dissimilar to those which prevail in Europe; but for the industries which are prosecuted on a small scale by the majority of the industrial population they are much more complex and difficult.

In the first place employers no less than employes require to be convinced of the value of systematic training on the basis of manual skill. The trades are ordinarily in the hands of guilds constituted on a caste basis; and, in order to succeed, the system of instruction must secure their co-operation. Again, children begin to earn wages in India while still very young, and parents of the artisan class are unwilling, and indeed often cannot afford, to allow their children to be occupied unremuneratively while they secure a good grounding in general education and then pass through a course of special instruction.

With these preliminary remarks we may pass to the consideration of the systems of industrial training which have been developed in the various provinces of India, dealing first with the schools themselves and then with their subjects and methods of instruction.

**Industrial Schools.**

865. There are two classes of industrial schools in India which have been established with very different objects and results. The first class is the technical school proper, the object of which is, or should be, to raise the level of work in a trade by producing artisans of a higher standard both of general intelligence and of manual skill than can be obtained by the ordinary traditional routine, and with a knowledge of the best processes and designs applicable to their craft. The second class comprises the industrial orphanages and mission schools, the object of which is to train children to earn a livelihood. Some of the mission schools were founded at an early date, and they owed their origin to the need which the missionaries experienced for finding employment for the children brought up in the mission schools. As Christians the boys were outside the general system of apprentice instruction, and, again, the missionaries doubtless felt it desirable that their pupils should remain as long as possible under their immediate influence. The orphanages are also, for the most part, mission institutions, but some belong to native societies; a number of new orphanages have been established within the last few years for children left destitute by famine. The methods of the early mission institutions appear in some provinces to have given colour to the methods of the technical schools, and thus to have occasioned some confusion of thought as to the proper aim and scope of the latter. All the large provinces have industrial schools of both the technical and the mission class.

866. There is only one Government industrial school in the MADRAS Presidency, the industrial department of the School of Art; three Local Boards maintain industrial institutes; and there are a considerable number of industrial schools and classes under private management, the great majority of which are small mission schools. The following is a list of the Government, Board, and more important private institutions:—

Name of Institution.	Number of pupils on the 31st Mar. 1902.	Class of Institution.	Date on which founded.	Industries taught.
Industrial Department of the Madras School of Art.	69	Government . . . .	1850	Jeweller's work, wood and metal work, textile fabrics.
Board Technical Institute, Madura.	166	Local Board . . . .	1890	Cabinet making, metal work, blacksmith's work, rattan work.
Board Technical Institute, Tinnevely.	68	Ditto . . . .	1895	Carpentry, blacksmith's work, rattan work, metal work.
Board Technical Institute, Bezwada.	33	Ditto . . . .	1890	Carpentry and blacksmith's work.
Anjuman-i-Muflid-i-Allah-i-Islam, Madras.	100	Aided Muhammadan . .	1884	Carpentry and embroidery.
Wesleyan Mission Industrial School, Karur.	79	Aided Mission . . . .	1884	Carpentry, blacksmith's work, weaving, rattan work, band.
Art Industrial School Nazareth, Tinnevely.	149	Ditto . . . .	1878	Carpentry, cabinet making, fitter's work, weaving, tailoring, lace making, embroidery.
American Mission Industrial School, Manamadurai.	63	Ditto . . . .	1897	Carpentry and fitter's work.
American Arcot Mission Industrial School, Arni.	64	Ditto . . . .	1887	Carpentry, tailoring, printing, blacksmith's work, masonry, cotton weaving.

Technical schools and mission schools.

Enumeration of schools.

867. The BOMBAY returns show a total number of 33 industrial schools and classes.\* Two of these are classes attached to Government training colleges; 5 are Local Board schools (1 at Ratnagiri and 4 in Sind); 7 are Municipal schools (4 in the Presidency and 3 in Sind); 4 are maintained by Native States; 10 are aided schools, of which 4 belong to missionary societies; 4 are unaided mission schools or classes; and one is a Parsi orphanage. For several years past efforts have been made to develop industrial education of various kinds in the Bombay Presidency, but these efforts have been neither systematic nor methodical. It has been the aim of the Government to encourage, as far as funds would permit, local endeavour, and to promote the establishment of schools, not only by grants-in-aid, but also by special supervision. The schools vary greatly in merit and usefulness. The following statement gives particulars for three of the more important :—

Name of Institution.	Number of pupils on the 31st March 1902.	Expenditure in 1901-02.	Class of Institution.	Date on which founded.	Industries taught.
School of Industry, Ratnagiri.	260	14,590	Local Board . . .	1879	Drawing, carpentry, cabinet-making, inlaying and carving in wood, wood turning, polishing.
Sir Dinshaw Maneekji's Industrial School, Ahmednagar.	328	7,597	Aided . . . .	1892	Drawing, carpentry, metal work, weaving, carpet-making.
Victoria Jubilee Technical School, Sukkur.	52	5,791	Aided . . . .	1894	Carpentry, turnery, smith's work, lacquer work.

868. The only institutions maintained by Government in BENGAL are the artisan classes of the Sibpur Engineering College and the industrial school at Ranchi; the District Board technical schools at Burdwan, Rangpur, Pabna, and Comilla, and the aided technical school at Midnapur (already noticed under the head Engineering), have artisan classes (also the District Board technical school at Barisal); the returns also show 16 aided and 3 unaided industrial schools. Some of the private managed schools and classes are connected with the East Indian Railway, others belong to missionary and native societies or to private proprietors. They are mostly small and unimportant. Among the aided institutions may be mentioned the Giridih technical school which teaches fitter's work, tracing work, and surveying, and which had 30 pupils on the 31st March 1902.

869. The Government maintains two industrial institutions in the UNITED PROVINCES: the industrial classes of the Civil Engineering College, Rurki, and the Lucknow Industrial School. The remainder comprise six aided and two unaided schools and orphanages, mostly under mission management.

870. Besides the Mayo School of Art (which has already been described), the PUNJAB Government maintains a railway technical school in connection with the workshops of the North-Western Railway at Lahore. There are three other industrial schools under public management: the Municipal Board industrial school at Amritsar, and the District Board industrial schools at Ludhiana and Delhi. There is also a private industrial school at Lahore, managed by a local committee; it is called the Victoria Diamond Jubilee Hindu Technical Institute and was established in 1897. Industrial classes are attached to a number of orphanages and other schools (mostly schools for the poor); some are mission institutions and others are managed by Hindu or Muhammadan committees; several were opened during the recent famine. The Punjab has several industrial schools and classes for girls, a further account of which is given in the Chapter on Female Education.

871. There is only one industrial school in BURMA; an aided school attached to the Bghai Karen Mission, Toungoo. The Roman Catholic Mission at Mandalay teaches printing in its schools.

With the exception of classes belonging to two mission schools for Europeans, all the industrial schools in the CENTRAL PROVINCES are mission orphan-

\* Excluding the workshops of the College of Science, the Reay art-workshops, the Victoria Technical Institute, and the David Sassoon Industrial Reformatory, which are dealt with in other places.

ages. Most of them were opened during the recent famine years. In 1901-02, they numbered no less than 40, and in 24 of them industries of various kinds are taught.

There is no industrial school in ASSAM except the railway workshops of the Tezpur-Balipara tramway noticed under the head "Mechanical Engineering."

There are 4 industrial schools in BERAR: a Government school at Amraoti, two unaided mission schools, and another unaided school under private management. An attempt is being made in the primary schools at Basim, Wakad and Medsi to impart industrial training in common occupations out of school hours.

#### Controlling Agencies.

872. In most provinces industrial schools are inspected by an officer of one of the principal Government technical institutions. Since April 1900 the work of the industrial schools and classes of the MADRAS Presidency has been under the general supervision of an Inspector of Technical Schools. At present the office is combined with that of Superintendent of the Government School of Art. Industrial schools in the BOMBAY Presidency are inspected, and their general policy has been guided, by the Professor of Engineering in the College of Science, Poona. In BENGAL District Board schools are managed by committees and are supervised by the Inspector of Schools of the circle in which they are situated; aided schools are also inspected by that officer. During the past few years the Principal of the Sibpur Engineering College has inspected a number of the schools. In the UNITED PROVINCES the Principal of the Rurki College visits the Government school at Lucknow. The Government Railway school in the PUNJAB is managed by a committee of railway and educational officers under the control of the Director of Public Instruction. The Principal of the Mayo School of Art is a member of this committee, and he inspects industrial schools generally.

#### Subjects and Methods of Instruction.

873. Instruction in industrial schools is given on one of two systems, or by a combination of both. They may be called the class system and the apprentice system. Under the class system the teacher puts a number of pupils through a graduated course of exercises under his instruction and supervision. After finishing the exercises the pupil may be set to make complete articles, but the production of such articles is entirely subordinate to the educational aspect of the work. The apprentice system of teaching is that which obtains in every trade workshop. The skilled worker, or craftsman, executes various pieces of work, he is assisted by learners or apprentices possessed of different grades of skill, who do easy portions of the work and at the same time learn the craft. The main object of the craftsman is to produce articles for sale, and the instruction of the apprentices is an incidental portion of the operation. In Madras instruction is given mainly on the apprentice system, and in other provinces mainly on the class system. In Bengal and in the private schools of Bombay the apprentice system is partially adopted, inasmuch as work is executed for the market by the teacher and his pupils. In the mission schools of the United Provinces the system is chiefly of the apprentice type.

874. We may now examine the subjects and methods of instruction in different provinces and institutions:—

875. The Industrial Department of the School of Art at Madras has for the last few years been run on somewhat different lines from any other similar institution in India. It is both a commercial and an educational undertaking, and has about 70 apprentices and several hundred workmen. On the commercial side its most important work has been to create a trade in aluminium ware by training a large number of metal-workers in the art of preparing aluminium goods and by selling the product of their work in the open market. The enterprise appears to have been successful and there are now about twelve firms in the business. The school also claims to have established a pottery industry in the Presidency, and the pottery class has recently been closed as no longer necessary. At present attention is being directed to the weaving trade, and an officer who has gone through a course of technical study in England has been appointed to the school for this purpose.

The training of the apprentices is illustrated by the following table which gives the numbers in each branch of the industrial department :—

Year.	Jeweller's work.	Wood and metal work.	Weaving.	Pottery.	TOTAL.
1896-97	73	55	18	21	167
1897-98	66	57	15	21	159
1898-99	67	61	11	34	173
1899-1900	87	88	13	16	199
1900-01	53	72	20	20	165
1901-02	34	30	5	...	69

Attention has been concentrated during the past few years on pushing the aluminium industry rather than on the training of apprentices. There has also been an improvement in the apprentice system; formerly some of the students learnt a trade in order that they might get free instruction in drawing; the regulations now in force prevent this practice.

The following is an outline of the system on which the apprentices are now trained :—They must be over the age of 14 and must have undergone preliminary training in drawing. They are admitted as probationary apprentices for one year, during which time they receive instruction in drawing and attend the workshops, they are then, if satisfactory, enrolled as apprentices for five years. During the first year they receive ₹3 a month, during the second year ₹4, during the third year ₹5, during the fourth year ₹7, and during the fifth year ₹10; the Superintendent may grant additional stipends to specially deserving apprentices in the fourth and fifth years. By this graduated system it is hoped that promising pupils may be kept in the school until they become really skilled artificers. At the end of each year the apprentices are examined to ascertain their fitness for promotion. Every boy is provided with a service book in which is entered a complete record of his work and progress, and, at the end of the period, the Superintendent's certificate.

Mission and Board schools, Madras.

876. Carpentry, blacksmith's work, rattan work and weaving, are the trades which are commonly taught in the mission schools of Madras. These trades were not chosen with any special reference to the industries of the province. "The first two were trades about which the missionaries generally knew something themselves; and for the outturn from their workshops they were certain of a limited demand from the Europeans and officials in the district. Rattan work was started, partly from reminiscences of the industrial schools in England, and partly because it was convenient to keep a rattan *mistri* in the school to cane chairs and make baskets. The weaving was undoubtedly started through seeing the great commercial success which has been achieved by the Basel Mission on the West Coast."\* Carpentry, blacksmith's work, and rattan work are also the ordinary subjects of training in the Board schools. The Madura school is now following a system similar to that of the School of Art, and the Inspector of Technical Schools states that its wood-carving and metal work are excellent.

General statistics, Madras.

877. The following table shows, for schools and classes of all descriptions,† the total number of pupils returned as under training in industrial subjects in 1896-97 and 1901-02 :—

Subject.	PUPILS.	
	1896-97.	1901-02.
Jeweller's work	73	34
Printing, book-binding, etc.	204	124
Wood work and metal work	324	353
Textile fabrics	355	477
Pottery	21	...
Boot and shoe making	31	...
Tailoring and dress-making	222	230

\* Letter from the Inspector of Technical Schools, Madras, dated the 15th January 1902.

Drawing is taught to the apprentices in the School of Art, to the pupils of the two more important Board schools, and in some of the private schools. Most of the industrial schools prepare pupils for the Madras Government technical examinations, and a smaller number give only more elementary instruction according to the curriculum for industrial schools contained in the general Madras education rules. There are four lower school standards classed as pre-elementary and styled A to D. The course for each of these standards, and also for the elementary class, lasts for one year, and the course in each of the intermediate and advanced classes lasts, as a rule, for two years; the full course, from the beginning of class A up to the advanced examination, thus extends over nine years. The following table shows the results of the technical examinations in industrial subjects in the year 1901-02 :—

Subject.	ADVANCED.		INTERMEDIATE.		ELEMENTARY.	
	Candidates.	Passed.	Candidates.	Passed.	Candidates.	Passed.
<i>Printing, book-binding and type-founding.</i>	...	...	20	6	78	24
<i>Wood work and metal work—</i>						
Cabinet making . . . . .	5	5	12	9	50	42
Blacksmith's work . . . . .	...	...	4	2	16	13
Metal work . . . . .	4	2	6	4	9	5
<i>Textile fabrics—</i>						
Cotton-spinning . . . . .	...	..	1	1	...	...
Cotton-weaving . . . . .	...	...	3	...	14	11
Carpet-weaving . . . . .	...	...	..	...	3	2
Lace-making . . . . .	...	..	4	4	12	8
<i>Pottery and porcelain</i>	...	...	1	1	1	1
<i>Tailoring</i>	..	...	2	...	5	1
<i>Needlework and dress-making</i>	5	4	26	16	21	11

878. The Bombay industrial schools were mostly developed in the first instance by persons interested in local education, but possessing no expert knowledge or definite ideas as to the methods to be followed or the ends to be achieved. The schools founded in this manner "were workshops in which any order for new work or repairs to old work that happened to be sent in were undertaken by the authorities of the school. The work was, for the most part, done by the masters, or by workmen specially employed; and, as a rule, the pupils were allowed to look on and only permitted to do the rough processes necessary for turning out the work. The result was disastrous; a few of the smart boys learned to work, but most of them were little better than coolies."\* In 1893 the whole scheme was changed and systematic class instruction was substituted for the apprentice method. Each pupil is now put through a definite three years' course of drawing and manual training by class instructors, and the production of saleable articles has become a minor consideration or, in some schools, is no longer practised. In about half the schools of the province there is only one course; it consists of Standards III to V of the vernacular course of general education, of drawing, and of carpentry taught by means of a series of exercises. The training is thus rather general school training than specialized industrial training. Extra subjects, such as wood carving, wood turning, inlaying, smith's work, turning and fitting in brass and iron, brass cutting, sign painting, weaving, and embroidery are taught in some of the schools; a pupil in his third year chooses one of these subjects, and besides doing the work of his other classes, spends about two hours a day on his optional subject. The number of these extra subjects taught in any one school varies from one to about four. At the end of each year of the course an examination is held, the results of which determine whether the pupil gets a scholarship for the next year of the course, or the school certificate at the end of the course.

Industrial schools, Bombay.

879. The artisan class at Sibpur is chiefly for the benefit of the sons of *mistris*, and no educational qualifications are required for admission to it. The boys enter at any time of the year, and when they have finished their complete

Artisan class, Sibpur.

\*Note dated 18th January 1902 by Dr. W. Thomson, Professor of Engineering, College of Science.

course to the satisfaction of the principal, they leave the college with a certificate or may go through another course of work. A stipend of R1 to R3 a month is given to those who do good work, and a portion of the value of the work they turn out is placed to their credit in the college books and given to them when they leave.

Industrial  
schools,  
Bengal.

880. In the other industrial schools of Bengal, whether under public or private management, instruction is confined almost entirely to carpentry and blacksmith's work—some schools teach one, some the other, and some both. Pupils are put through a regulated course under a class teacher, but the teaching is often little better than that given in the bazar. Orders for work are generally accepted, and are executed by the teacher with the assistance of the pupils. It is a poor testimony to the efficiency of the schools that, although carpentry is the principal subject of instruction, the native carpenter of Calcutta cannot hold his own against his Chinese rival.

Industrial  
classes,  
Burki  
College.

881. There are three industrial classes at the Burki College, divided into 15 sections, and the course extends in each class over three years. The classes comprise:—(1) printing trade, (2) photography and photo-mechanical work, and (3) art handiwork. The first two classes are held in connection with the college printing press, and photo. and process work department, both of which also engage in commercial work. In the third class, wood carvers, metal workers, painters, and stone carvers are trained in the workshops under special instructors.

Government  
Industrial  
School,  
Lucknow.

882. The history of the efforts made to train craftsmen in the Government school at Lucknow affords a striking example of the difficulties which stand in the way of an industrial school system in India. The Lucknow school was founded in 1892 to train boys for railway-workshops, and afterwards classes were added for wood-work, iron-work, dyeing, glass blowing, *tarkashi*,\* and clay modelling. It was hoped that the institution would prove a useful experiment in the method of conducting industrial schools, and that it would gradually become a model on which new schools of a similar character might be established in other centres of industry. When first started the school gave general as well as technical instruction, and the curriculum included English, a vernacular language, drawing, arithmetic, mensuration, and a certain amount of mechanical instruction. Under this system the institution differed little from an ordinary school, except that the pupils spent half their time daily on some trade work. The industrial teaching was not efficient, and boys remained for several years in the school without gaining a sufficient knowledge of any trade to earn their living by it. In fact parents sent their children to the school not for the sake of the mechanical but of the literary education that it afforded, or in order that they might become drawing masters. Even the artisans who made use of the school for their sons did not mean them to follow the trades which it taught, had they done so they would have preferred to apprentice them in the bazar. Out of 41 ex-students of the school whose future has been traced, 24 are either drawing masters, draftsmen, clerks, or printers, and the bulk of the remainder are in railway service. In March 1901 the whole system was altered. Literary instruction was abolished in the general school and a curriculum of purely technical instruction was drawn up; a night school was started for those who wished to improve their general education; and a separate class was opened as a preparatory class for the Mechanical Apprentice Department at Burki, this having hitherto been one of the general functions of the school. The result of these reforms was to empty the school; on the 31st March 1901 there were 155 pupils on the rolls, in February 1903 there was an average attendance of only 10 boys in the industrial school and 7 boys in the Burki class, whilst the night class was practically unattended. Of the pupils remaining only 4 were the sons of craftsmen, and the object with which they stayed was apparently to qualify as drawing masters, since out of 3 boys who passed out in 1902-03, 2 were appointed to posts of this description.

The result of the abolition of the literary instruction indicates how far the school had failed to achieve the object with which it was maintained. It has now been reconstituted on a fresh basis, but the further history does not belong to the period covered by this Review.

883. Another experiment made in connection with the Lucknow school was the establishment of training workshops in the Lucknow city, somewhat on the model of the Casanova Boy-Artisan School at Naples. It was intended that a number of craftsmen should carry on their ordinary vocations in the school workshops, and should train apprentices under the supervision of the superintendent of the school. The scheme was a failure. Three craftsmen were induced to come only by the grant of a fixed salary, and being in receipt of a salary they did not care to produce work for the market. They thus became mere masters of the school. The craftsmen of Lucknow gave no support to the institution and the workshops remained almost empty of pupils. The scheme has been abandoned.

884. In the mission orphanages a considerable variety of subjects are taught, the selection being made with a view to the pupils securing ready employment. To take one instance, the subjects of instruction in the Methodist Episcopal orphanage and industrial school for boys at Shahjahanpur include carpentry, blacksmith's work, weaving, rope and ban making, shoe-making, gardening and field cultivation, tailoring of native clothes, dairying with modern appliances, bearer's work, and to a limited extent bread-making. Instruction in the mission and other private schools is given to a large extent on the apprentice system. Boys are trained until they are able to support themselves and in most of the institutions no period is fixed; in the Methodist Mission orphanage at Cawnpore the period of training is five years, and in the school at Saharanpur two to four years.

885. The Punjab Educational Code prescribes a regular course of general and technical education for industrial schools under public management; the schools are divided into infant, lower primary, upper primary and middle departments. The infant department has one class, the two primary departments two classes each, and the middle department three classes; the whole course, therefore, occupies eight years. The subjects of instruction are vernacular, English, geography, arithmetic, drawing and practical geometry, elementary physical science, and wood-work or other handicraft. All pupils are taught wood-work in the lower primary stage. The course is to a very large extent of a literary character. Examinations are held at the end of each stage above the infant stage by the Principal of the School of Art. In 1901-02, 265 pupils from the 4 public schools went up for the various standard examinations, and 167 of them passed. The subjects of technical training are chiefly carpentry and metal work; photography is taught in the Amritsar school. The boys are put through a regular course of instruction on the class system. There are evening classes attached to the railway technical school, but the average attendance is small and they are not appreciated by the class of persons for whom they are intended.

886. In the Victoria Jubilee Institute the majority of the pupils study either drawing, carpentry, and mechanics, or type-writing and short-hand. One or two pupils learn engraving, rubber-stamp making, and photography. The Dyanand Anglo-Vedic class is for tailors. The subjects taught in the orphanages and other poor schools are of a miscellaneous character.

887. Carpentry, blacksmith's work, tailoring, weaving, and printing are the principal subjects taught in the mission orphanages of the Central Provinces. The industries are taught on no definite system, and the missions concerned aim simply at training their own converts in such trades as are likely to provide them with occupation in after-life. Instruction is given on the class system, but in the best school, that of the American Episcopal Mission at Narsinghpur, work is turned out for the market.



Industrial  
schools, Berar.

883. The Government school at Amraoti teaches carpentry, smith's work, and tailoring. In the mission school at Elichpur half the day is devoted to study in Hindi up to Standard IV, and half to the workshop, where the pupils are taught masonry, painting, carpentry, and smith's work.

Co-ordination  
of industrial  
school  
teaching and  
local  
industries.

889. The account given above shows how little co-ordination there has hitherto been between the course of instruction in the industrial schools and the local industries of the provinces. In the case of the mission schools such co-ordination is not essential to enable the institution to fulfil its object of training children to earn a livelihood, but even in the non-mission schools little attention has hitherto been paid to the training of workmen with a knowledge of the principles of the local crafts, and capable of improving on the ordinary methods of the local craftsmen. In MADRAS practically nothing has been done in this direction outside the School of Art. In BOMBAY industrial schools have been established and conducted with little reference to local industries. In some cases schools have been located where no special industry exists; in other cases where the industry of the locality is taught (*e.g.*, the lacquer industry of Khairpur in Sind) no attempt has been made to improve it. The Bombay system aims at a general hand and eye training rather than a training in any particular craft. The mission school at Ahmednagar has succeeded in introducing European improvements into the local weaving industry. The ordinary BENGAL industrial schools and classes endeavour to train carpenters and blacksmiths, and they have no special connection with local industries. A small school of sericulture was established at Rampur-Boalia in Murshidabad (an old centre of the silk industry) in 1897; it has about 10 pupils and has been moderately successful. An endeavour is now being made to spread a knowledge of the use of the fly-shuttle applied to the common hand-loom of Serampore. Three weavers who have been specially trained are retained on a fixed salary and other weavers are sent to them for instruction. In the UNITED PROVINCES the Rurki classes give instruction in subjects, such as printing and photographic processes, which cannot be learnt in the bazar; the Lucknow school has given instruction in local trades, but not in such a manner as to tend to their improvement. Apart from the Mayo School of Art, the industrial schools of the PUNJAB have not been established in co-ordination with particular industries; they aim rather at a general literary and hand and eye training. It is said that they have by this means succeeded in improving the quality of the work in wood-carving and some other trades. In the CENTRAL PROVINCES the schools are all mission orphanages, and the only matter to record is the establishment by missionaries of the Weaver's Home at Itarsi. This is an attempt to revive a decaying industry. The mission provides a home for about 180 weavers who live in a small village under the supervision of the local missionaries. At first the mission managed the business, but now they leave the weavers to conduct their own affairs, but they still advise and assist them, and help them to secure orders. Experiments have been made in improving the methods in use, but so far without much success.

General  
education  
in industrial  
schools.

890. In most provinces general as well as technical education is given in the industrial schools, and the system has sometimes suffered from the failure to differentiate clearly between the general and technical studies. In MADRAS some general education, including English, is given to the apprentices of the School of Art; most of the other industrial schools of the province devote a certain amount of time to general education, and the boys are sometimes prepared for such recognized tests as the primary and secondary examinations. In BOMBAY general education forms a recognized and important part of the course. As a rule pupils must have passed vernacular Standard II before entering an industrial school, and while at school they are taught vernacular Standards III, IV, and V. The arithmetic is more advanced than in the corresponding standards of the ordinary day schools, and history and geography are left out of the course. In BENGAL, on the other hand, no general education is given in the institutions of the technical school type. With regard to the UNITED PROVINCES, an account has already been given of the events connected with literary instruction in the Lucknow school. In the PUNJAB general education forms an important part of the prescribed curriculum for industrial schools. In the mission

orphanages of the CENTRAL PROVINCES general and industrial education are combined; the literary course follows the Local Government Code, and is aided on the fixed grant system.

#### Teachers.

891. The lack of trained teachers, with a knowledge both of their craft and of the manner in which it should be imparted, is recognized in most provinces to be a serious defect of the industrial school system, and there are practically no institutions from which instructors possessing the necessary qualifications can be procured. The best instruction is available in the industrial classes which are attached to the large Government technical institutions such as the Madras School of Art, and the Rurki and Sibpur Engineering Colleges; from these the scale descends until in some of the small up-country schools the instruction is little, if at all, better than that which is given in an ordinary bazar workshop. The mission schools usually have the advantage of the superintendence of one or more European missionaries, among whom there is usually one with some practical knowledge of mechanics.

892. In MADRAS the superintendents of the Board schools at Madura, Tinnevely and Bezwada were originally the superintendents of the normal training schools, and had therefore no special qualifications for the work. In the first two institutions the superintendent has been relieved of his normal duties. The mission schools were started at the mission head-quarters, and they are usually managed by the senior missionary of the circle in which they are situated. He is invariably a European, and generally a man with some mechanical knowledge. Under him there is usually a superintendent who is sometimes a European and sometimes a Native Christian. The instructors are, in almost all schools, workmen drawn from the bazar or from engineering establishments managed by Europeans. Latterly a certain number have been trained in the industrial schools; but, owing to the unsatisfactory instruction given in those schools, they have not proved to be much better than the untrained men. The need for training schools is much felt.

893. In BOMBAY the Victoria Jubilee Technical Institute and the College of Science furnish some of the superintendents of the schools, but there are no classes in these institutions in which instruction is given in the art of teaching. In small schools there is sometimes no superintendent, or the local schoolmaster is responsible for the management of the school; in some aided and unaided schools the superintendent is a missionary. For instructors practical artisans with a knowledge of drawing are usually selected. In BENGAL the instructors are usually local men whose qualifications are tested at Sibpur before they are appointed. The headmaster of the Lucknow school in the UNITED PROVINCES is a mechanical engineer who was engaged in England, and he has under him a staff of 15 masters and foreman masters. Some of the superintendents of public managed schools in the PUNJAB have received their training at the Central Training College, Lahore, or hold School of Art certificates; some of the instructors are untrained artisans of the locality, others have been trained in the Mayo School of Art.

#### Pupils.

894. The following figures give an indication of the number of boys receiving industrial instruction in various classes of institutions on the 31st March, 1902:—

##### MADRAS—

Industrial Department of the School of Art	69
Board schools	262
Muhammadan private schools	100
The four principal mission schools	385

##### BOMBAY—

Government school	155
Board schools	441
Native State schools	206
Private schools	1,027

##### BENGAL—

Sibpur artisan class	35
Government school, Ranchi	50
Board artisan classes	74
Aided and unaided schools	421

## UNITED PROVINCES—

Rurki industrial classes . . . . .	19
Government school, Lucknow . . . . .	59
Private schools . . . . .	677

## PUNJAB—

Government Railway school, Lahore . . . . .	447
Board schools . . . . .	328
Victoria Institute . . . . .	67

These figures do not in many cases agree with those given in Table 157, which are derived from the provincial statistics on which the General Tables are based. Table 157 shows the number of pupils in the schools entered in Table 155, and this latter does not tally with the schools dealt with in this section. The classification in the provincial statistics is not uniform and is somewhat confused.

Class of pupils found in industrial schools and their careers.

895. From what has already been said regarding the difficulties which stand in the way of any industrial school system in India, and regarding the character of the instruction given in such industrial schools as have already been established, the reader will be prepared to learn that these schools have, in general, failed to attract boys of the artisan class, and that the ex-pupils of the schools rarely follow the trades which they were taught. A careful distinction must be made in this connection between the mission schools and the technical schools proper. The former succeed fairly well in their object of providing children connected with the mission with the means of livelihood, and a considerable proportion of their pupils subsist by the trades they learn. With the technical schools it is otherwise. The condition of affairs which prevailed in the Lucknow school prior to 1901 is not dissimilar to that which has commonly existed in Board and other similar schools elsewhere. A large proportion of the pupils do not belong to the artisan class, and have been induced to attend the schools merely for the sake of the stipends and free literary tuition. It is to the literary instruction which they look for securing employment, and where the school hoped to train a carpenter it finds that it has produced a clerk. When the sons of workmen are induced by stipends to attend the schools they will not, as a rule, stay long enough to derive such benefit as the school is capable of affording. These remarks apply with full force to Madras, Bombay and Bengal. The Punjab has been more successful, owing perhaps to the natural bent of the Punjabi towards an industrial life. The Punjab schools are attended by boys both of the artisan and non-artisan classes, and it is said that a considerable number of the ex-pupils, to whatever class they belong, follow an industrial occupation after leaving school. In the railway technical school at Lahore all but 38 of the pupils on the rolls on the 31st March 1902, were sons of artisans, mostly of artisans employed in the railway workshops. The railway authorities find the boys trained in the school more useful than outsiders, they have a better chance of employment, and they secure higher wages.

## Financial.

Expenditure. 896. The expenditure on the schools included in Table 155 is shown in Table 158. The total for 1901-02 (R3,16,422) gives an increase of R37,978 on the total for 1896-97. Table 160 shows the expenditure of some of the more important of the industrial schools.

Fees and stipends.

897. In most schools, whether of the technical or mission class, no fees are charged, and in technical, but not in mission, schools stipends and scholarships are usually given to attract pupils. Some of these stipends and scholarships are given by the Government, others by Municipal and Local Boards, others are derived from private sources. In Bombay the stipends range from a few annas to R6 or R8 a month. The Lucknow school has 36 scholarships of an aggregate value of R88 a month. In the Punjab sons of artisans are admitted to the public schools free, but other pupils are required to pay a fee. At the close of 1901-02 there were 38 scholarships in the railway school, and a number of scholarships in the Board schools.

**Conclusion.**

898. The review we have now made of the existing industrial schools shows that the system has been wanting in definiteness both of methods and objects, and that its effect upon technical training and industrial development has been small. The more patent defects may be classed as follows:—

- (1) The schools have not been established in accordance with any sustained policy.
- (2) A large proportion of the pupils have no intention of pursuing an industrial career.
- (3) No clear differentiation has been made between general and technical studies.
- (4) The instruction has not been co-ordinated with local industries.
- (5) The quality of the instruction is in many cases poor.

The Government of India and the Local Governments have, for some time past, devoted much attention to the measures which may be adopted to remove these defects, and generally to increase the usefulness of the industrial schools. A committee was appointed in 1901-1902 to consider the subject in consultation with local educational and other authorities. The measures subsequently adopted lie beyond the scope of the present review. It is not to be expected that any wide scheme of successful industrial schools can be at once introduced, but it may be hoped that, with the adoption of better methods directed by a definite policy, it will be possible to give substantial aid to the improvement and development of local industry.

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## CHAPTER IX.

## FEMALE EDUCATION.

**Introductory Remarks.**

899. It is well known that the diffusion of female education in India is attended by peculiar difficulties. The strict seclusion of girls from an early age which is practised by both Hindus and Muhammadans, forms an obstacle to the instruction of girls in public schools beyond a very elementary stage which it has not yet been possible to overcome. The strong incentive of material gain which has done so much to further the education of the boys of India does not operate in the case of girls, and Indian parents display in general an apathy with regard to the education of their daughters which not infrequently rises to a positive prejudice against it. The Government did not take up the subject until 1849, when Lord Dalhousie informed the Bengal Council of Education that henceforth its functions were to embrace female education, and the first girls' school recognized by the Government was founded shortly afterwards by a committee of native gentlemen. A beginning was made by the missionary societies at an earlier date, and they have throughout played a leading part in the diffusion of female education in India. The Despatch of 1854 directed that female education should receive the frank and cordial support of Government, as by "this means a far greater proportional impulse is imparted to the educational and moral tone of the people than by the education of men." The Education Commission gave the subject a very prominent place in their Report, they advised that it should receive special encouragement and be treated with special liberality, and they made a series of suggestions for its extension and improvement. These suggestions covered matters such as the grants-in-aid of private managed institutions, fees, scholarships, boarding houses, curriculum, management, teachers, home instruction, and inspecting agency. The Government has endeavoured to follow the principles thus laid down, and it will be seen in the course of this chapter that special facilities are offered in many directions for the diffusion of female education. It cannot, however, be said that this special treatment has succeeded in overcoming the difficulties which beset the subject. The number of girl pupils has risen greatly since the Despatch of 1854, but still only seven females in one thousand can, on an average, read and write, and of late years the rate of progress has diminished.

**Scope of the Chapter.**

900. In the present chapter an endeavour has been made to pass in review female education in all its branches, and it therefore deals with the instruction given in colleges and schools for general education, whether public or private, and also with professional and technical training. Special attention has been devoted to the important subject of medical instruction. A large proportion of the girls are taught in schools for boys, and the scope of the chapter includes the girl pupils of mixed schools as well as the pupils of those institutions which are specially designed for female instruction.

**Collegiate Education.**

Universities  
and female  
education.

901. The Indian Universities offer their degrees to women equally with men. A certain number of Europeans, Eurasians and Native Christians avail themselves of the advantages thus offered, but among the bulk of the population the number of female graduates has hitherto been very small.

Colleges.

902. Women receive their University education, both in men's colleges and in special female colleges. The returns for 1901-02 show 12 female colleges, three in Madras, three in Bengal, and six in the United Provinces. This is an

increase of two Madras and five United Provinces \* colleges over the figures for 1896-97. The three Madras colleges are all of the 2nd grade. The Sarah Tucker College, Palamcottah, was founded as a school in 1864 in memory of Miss Sarah Tucker, and was raised to the status of a college in 1896. The two new colleges are in the city of Madras; they are both Catholic Convent schools which have opened college classes. Their names are the Presentation Convent College, Vepery, and the St. Mary's Presentation Convent College, Black Town. The college classes of the three institutions had only an aggregate of ten pupils at the end of 1901-02. The Bengal colleges are the same as those which were in existence in 1896-97. They are all situated in Calcutta. The largest is the Bethune College, a Government institution. It was founded as a school in 1849, and was affiliated to the Calcutta University in 1888. The college department is open to girls of all nationalities; the pupils are mainly Native Christians, Brahmans, and Hindus. The Martinière College for girls is a branch of the Calcutta Martinière Institution. The Loreto House is a Catholic girls' school with a small college department. Both these institutions are mainly for Europeans and Eurasians. The United Provinces list includes the Isabella Thoburn College at Lucknow and five European and Eurasian girls' schools with college departments. Of the girls' schools one is at Allahabad, and the rest are in the hills.

903. At the end of 1901-02 there were 177 female college students, as compared with 87 in 1896-97 and 45 in 1891-92. They were distributed by provinces as follows:—

	1901-02.	1896-97.
Madras	85	16
Bombay	30	18
Bengal	55	23
United Provinces	49	15
Burma	8	5

All the Bengal and United Provinces students were studying in ladies' colleges, and all the Bombay and Burma students in men's colleges. Of the 35 Madras students 10 were in female and 25 in male colleges. The 177 students were distributed by race or creed as follows: Europeans and Eurasians 102, Native Christians 32, Brahmans 3, Non-Brahman Hindus 23, Parsis 16, and unclassified 1. None of the students were Muhammadans. The Brahman and Non-Brahman Hindus were distributed as follows: Bengal 21, Bombay 4, and Madras 1. All the United Provinces pupils were Europeans or Eurasians. Many of the female students are aided by scholarships, details of which are given in a later section of the chapter.

904. The female students follow the general University courses, which are sufficiently varied to afford them suitable subjects. In some instances they are allowed a wider option than the male students. Thus at Calcutta women may substitute botany for physics in the first arts examination, and in the corresponding examination at Allahabad they may take up a modern in place of a classical language.

905. Few female students succeed in obtaining degrees. During the quinquennium under review, three women took the M.A. degree at Madras. This was a somewhat noteworthy achievement, as no woman had previously passed the necessary examination. In 1901-02 one Madras student qualified for the B.A. degree. Seven women passed the B.A. Examination of the Bombay University in 1901. In Bengal, 37 female students, all from the Bethune College, qualified for the degree of B.A. during the quinquennium. In the United Provinces one student from the Isabella Thoburn College passed the B.A. Examination, in 1901-02.

### Secondary Education.

#### Schools.

906. At the end of 1901-02 there were 461 secondary schools for girls, against 440 in 1896-97, and 434 in 1891-92. Twenty-one schools were added in the quinquennium under review against 6 during the previous quinquennium.

\* Some of the United Provinces collegiate classes were in existence in 1896-97 but did not submit returns.

All the Provinces gained slightly except Madras which lost 8 schools.\* The 461 schools were divided by grades as follows: high schools 100, middle English schools 158, and middle vernacular schools 203. The number of high schools increased during the quinquennium by 10, and the number of middle English schools by 11, whilst the number of middle vernacular schools remained unchanged. The improvement in English as compared with vernacular schools is thus common to institutions for boys and girls.

**Management.** 907. Of the 461 schools, 66 were under public and 395 under private management. The corresponding figures for 1896-97 were 63 and 377. Of the schools under public management 55 were maintained directly by Government, 10 were Board schools, and one was a Native State school. During the quinquennium the number of Government schools rose by 5, whilst the number of Board schools fell by 2. Of the private schools all but 23 were aided by the State. The most noteworthy feature of the statistics is the large proportion of public managed schools which are maintained directly by the Government. This is in striking contrast to boys' schools, but conforms with the general views expressed by the Education Commission, and is necessary in the present state of female education in India. Of the Board schools 5 are in the Punjab, 2 in the United Provinces, and one each in Madras, Bombay, and the Central Provinces; 8 are Municipal institutions and 2 are maintained by Local Boards (one in the United Provinces and one in the Punjab).

**Private managed schools.**

908. The private managed institutions were distributed as follow: Madras 148, Bombay 63, Bengal 56, Burma 39, United Provinces 38, Punjab 27, Central Provinces 19, and Assam 5. A large number of the private managed schools belong to missionary societies. In Madras 135 out of the total of 148 are mission institutions. In Bombay the majority of the schools are for Europeans and Eurasians. The Director of the United Provinces says that: "Aided schools are chiefly managed by missionary societies. Among non-missionary schools, the City School, Allahabad, is the only one that can properly be said to thrive. The girls are drawn from respectable classes, and in the Bengali section of the school the tuitional results are very creditable, and in the other fair." In Burma all the secondary schools are private managed aided institutions and are in general maintained by missionary societies.

#### Pupils.

**General statistics.**

909. At the end of 1901-02 there were 41,616 pupils in secondary schools for girls; deducting boys in girls' schools and adding girls in boys' schools the total number of girls in secondary schools is found to be 44,695. The great majority are in the primary stage, and the total number in the secondary stage amounted only to 9,810. This figure increased by 1,442 during the quinquennium under review, and at about the same rate (1,337) during the previous quinquennium. The total was divided by stages as follow: high stage 1,677; middle English stage, 5,779; and middle vernacular stage, 2,354. Both periods show an increase in each stage, but in the earlier quinquennium progress was about equally divided between the English and vernacular schools whilst in the later quinquennium the greater part of the increase was in the English schools.

**Distribution by race or creed.**

910. The total figure 9,810 gives one girl pupil in every 1,810 girls of school-going age. Small though this proportion is, it affords much too favourable an impression of the state of secondary education among Indian girls of the general population, since the greater number of girls in the secondary stage are Europeans, Eurasians, Native Christians, Parsis, and Buddhists. Of the total number of pupils in secondary schools for girls only 34 per cent. were Hindus and only 2 per cent. Muhammadans. If we apply these percentages to the number of girls in the secondary stage the result gives only 3,335 Hindu and 196 Muhammadan pupils, or 27 among 100,000 Hindu girls of school-going age and 5 among 100,000 Muhammadans. At the Census of 1901, 10 Hindu females and 4 Muhammadan females out of 100,000 of each religion were returned as literate in English. It would therefore seem as though there were more private educa-

\* The Madras loss of 8 is a net decrease in the number of secondary departments, not of actual schools.

tion among Muhammadan than among Hindu women. Making the calculation in the same manner as before the Native Christians show 18 girls in the secondary stage among each 1,000 girls of school-going age.

911. The only figures available for judging the progress made are those for pupils in secondary schools for girls. They give the following result :—

Religion.	1886-87.	1891-92.	1896-97.	1901-1902.
Hindus . . . . .	7,780	11,939	11,864	12,907
Muhammadans . . . . .	171	982	723	796
Native Christians . . . . .	6,526	8,919	10,385	10,232

Hindus and Muhammadans show some progress during the quinquennium, but it is insignificant when compared with the wide field for improvement.

912. In MADRAS there were at the end of 1901-02 only five Hindus and no Muhammadans reading in the high stage of secondary girls' schools. In the middle stage of these schools there were 660 Hindus and 29 Muhammadans. Information is not available regarding the number of native girls in the secondary stage of BOMBAY schools, but there were only 255 Hindus and 46 Muhammadan girls in all departments of public secondary schools in that province. The number of Parsi girls was 958. BENGAL shows an apparently better result as regards Hindus. There were 495 Brahman and 1,245 non-Brahman girls in secondary schools. These figures include, however, the girls of the Bramho Samaj sect in which female education is far more popular than among the conservative Hindus. The number of Muhammadans was only 36. In the UNITED PROVINCES there were only 4 Hindu girls and 28 Muhammadan girls in the middle stage, and none in the high stage, of instruction. In the PUNJAB there were 10 Brahman girls, 81 non-Brahman Hindu girls, and 53 Muhammadan girls in high schools. The corresponding numbers for middle vernacular schools were 68, 532 and 242. The Punjab has several vernacular middle schools for Indian girls; 3 are municipal institutions, one is managed by the Ludhiana District Board, 2 belong to mission societies, and the last is the Arjya Samaj institution at Jullundur. There are also three mission schools for Native Christians. In the CENTRAL PROVINCES there were 32 Hindu girls and one Muhammadan girl in the middle stage of instruction. In ASSAM 21 Hindu girls and 1 Muhammadan girl were studying in boys' secondary schools. The circumstances which render it so difficult for Hindu girls to pursue their education beyond the elementary stage do not hold among the Buddhists, and BURMA therefore shows a better result than the Indian provinces. At the end of 1901-02, there were 264 Buddhist girls in high schools, 428 in middle English schools, and 3,126 in middle vernacular schools. The majority of these girls were reading in boys' schools.

913. The above figures have been given in detail in order to make it clear that the general diffusion of secondary education among the female population of India is much less than the total figures would suggest. One may repeat what was said at the outset, that up to the present time only the slightest impression has been made.

Course of Studies.

914. The courses of studies in girls' schools are modelled on those in schools for boys, with some variation in the middle school courses, and to a lesser extent in the matriculation courses of the Universities. As regards the matriculation courses, there is no difference in the subjects for boys and girls at Calcutta, Madras and Bombay. In these Universities any student may take up an Indian or European Continental language in place of a classical language. At Allahabad and Lahore a classical language is compulsory for boys, but girls are given the option of a modern Indian or European language. In the MADRAS upper secondary course girls are given the option of a variety of subjects in place of algebra and geometry, but hardly any girls follow this course. In the



Madras lower secondary (middle) course, the compulsory subjects for boys and girls are the same, but the optional subjects include needle-work and domestic economy for girls. In the BOMBAY middle English stage, girls may substitute for Euclid and algebra any portion of science or domestic economy treated in a popular way, equal in extent and difficulty to one of MacMillan's "Science Primers". In the new BENGAL Regulations for vernacular schools, needle-work for girls takes the place of agriculture or science and geometry for boys. Manual training may be substituted for needle-work in mixed schools which have no facilities for teaching needle-work. In the reading books for girls, lessons on domestic economy are substituted for the lessons on hygiene contained in the boys' books. In the UNITED PROVINCES lower middle English stage, girls may take up Indian history in place of drawing in Class V, and in place of drawing or other voluntary subject in Class VI. A separate course is laid down for vernacular middle schools for girls in the PUNJAB; it is based on the course for boys but it contains less arithmetic, and subjects specially suitable for girls are added to it. The compulsory subjects are: reading, writing, grammar, arithmetic, geography, history, domestic economy, and needle-work. Any two of the following subjects are optional: a second vernacular language, Persian, Arabic, Euclid and algebra, and elementary science. The Director makes the following remarks regarding the teaching of special girls' subjects in the Report for 1901-02:—

The Inspectress reports: "Needle-work is improving wherever there is European supervision. It remains poor in almost all isolated schools. The Christians everywhere show good work. Hindus care nothing for plain needle-work which is indeed of little use for their simple costume. Muhammadans excel in net work and other kinds of white embroidery." As regards Domestic Economy, she says: "It is impossible to teach Domestic Economy to any effect in a day school which has none of the appliances or conditions of a home. The best that can be done is to develop general intelligence, which may be employed later in the economy of the home, and to teach a few general principles and facts by means of books. This is generally done, and I find *Sughar Bibi* a popular subject in all Middle Schools." In the Delhi Circle Domestic Economy is taught in the two Aided Middle Schools for Christian girls at Delhi, where very good needle-work is also said to be done. Elsewhere needle-work is not satisfactory, and is not taught according to the prescribed scheme. In the Jullundur Circle Domestic Economy is taught only in the Kanya Mahavidyala at Jullundur City, where instruction is also imparted in clay modelling and household occupations, as well as in Elementary Drawing in so far as it is required in needle-work. Increased attention is paid to needle-work, and fairly satisfactory progress is reported to have been made almost everywhere in this branch of instruction. In the Lahore Circle Domestic Economy is taught as a book subject in all the Secondary Schools, but practical household occupations have not yet been given the place they deserve in a girl's education. On this the Inspectress, while reporting on the Lahore District, says: "The only school in the Lahore District that gives this subject any attention is the Clarkabad Orphanage and Industrial School. There practical Domestic Economy is taught, and the girls do all the work of the institution. This is one of the best managed and most useful institutions in the Province." It is much to be regretted that no attention is paid to Domestic Economy in the Lady Dufferin School. Needle-work of various descriptions has been receiving steady and full attention during the quinquennium, with the result that it is now considered to have remarkably improved in quality: The Inspectress from her reports on individual schools seems to have been pleased with all except the M. B. Branch Schools, Amritsar, where the teachers are said to be decrepit and incompetent. In the Rawalpindi Circle, Domestic Economy, properly so called, is still the one thing most needful in Girls' Schools. The only schools that have made a good beginning in this direction are the two Mission Schools at Sialkot. About them the Inspectress remarks: "The girls in these schools are taught and made to do all the domestic work of the institutions—cooking, washing, mending, and making their own clothes, etc. The dormitories, cook-rooms, etc., are kept beautifully clean and neat."

In BURMA girls who do not intend to go up for the University entrance examination may, in lieu of a second language which is compulsory for boys, take needle-work and hygiene with domestic economy, etc. In the CENTRAL PROVINCES girls in the middle course may take up needle-work instead of Euclid and algebra, but those who wish to join a high school must pass in the latter subjects.

#### Examinations.

915. The provincial statistics for 1901-02 return 391 girl candidates for the matriculation examinations of the Universities of whom 193 passed. In 1896-97 there were 319 candidates and 170 passes. The large majority of the candidates belong to special classes, and among the 148 successful candidates in 1901-02 who are classified in the returns there were only 11 Hindus and 1:

Muhammadan. Europeans accounted for 92, Native Christians for 20, and Parsis for 23. Girls hardly ever follow the high school courses which alternate with the matriculation course. In 1901-02 there were no female candidates for the school final examination in Bombay, and apparently none also in the United Provinces. One female candidate appeared for, and failed in, the Madras upper secondary examination. The Director says: "the examination has not been popular notwithstanding the special facilities \* afforded to female candidates, for since 1896-97 there have been only 14 entrants for the compulsory portion of this examination, of whom two have been successful."

916. In 1901-02, 1,084 female candidates appeared for the middle school examination (English and vernacular) against 856 in 1896-97, and 780 passed against 574. In this examination, also, most of the candidates belong to special classes and there were only 28 Hindus and 17 Muhammadans among the successful candidates. Among the other successful candidates there were 402 Europeans, 268 Native Christians, 49 Buddhists, and 10 Parsis. The number of Buddhists is exaggerated by the inclusion in the Burma returns of all three examinations of the middle school course.

## Primary Education.

### Schools.

917. The number of primary schools for girls at the end of 1901-02 was 5,628; at the end of 1896-97 the total was 6,039, and at the end of 1891-92, 5,228. While there was a gain of 811 schools in the earlier period, the later period shows a loss of 411 schools. Nearly half the total number of schools (2,664) belonged to Bengal, Madras came next with 782, Bombay with 768, the United Provinces with 347, the Punjab with 326, and Burma with 323. Bengal lost 540 schools, Assam 58 and Madras 18. On the other hand the United Provinces gained 80, Burma 79, Bombay 24 and the Central Provinces 4. In the period 1891-92 to 1896-97 the number of primary schools for girls in BENGAL rose by 522, the fall of 540 left the total 18 less than in 1891-92. The small private village schools of Bengal are often of an ephemeral character, but the net decline of the last five years is very unsatisfactory. The loss in the number of Bengal schools was accompanied by some loss in the number of pupils, but the average strength of the schools was greater at the end of the period than at the beginning. The course of events in ASSAM has been somewhat similar to that in Bengal. Going back ten years the total number of primary schools for girls has risen by 53, an increase of 75 per cent. in the first five years being practically counterbalanced by a falling off of 22 per cent. in the latter. In MADRAS the number of unaided schools diminished by 36 in 1901-02, owing mainly to the amalgamation of weak girls' schools with boys' schools. In the UNITED PROVINCES girls' schools have shared in the general improvement; in BURMA progress is less difficult than in India; in BOMBAY the most noteworthy feature is a rise of unaided schools from 2 to 17.

918. The average strength of primary schools for girls shows a satisfactory increase during the quinquennium. The average number of pupils per school was 29 in 1886-87, 30 in 1891-92 and 1896-97, and 35 in 1901-02. This greater concentration of educational effort is, without doubt, a considerable aid to efficiency. Leaving aside the smaller provinces the schools are largest in Bombay (65) and Madras (50), and are smallest in Bengal (22) and Assam (17). All provinces except Assam, Berar and Coorg show an increase. It was greatest in Madras (8) and in Bombay (7), and least in Bengal (2).

919. Schools for girls are more expensive than boys' schools. In 1901-02 the average monthly cost of a primary girls' school was R20; against R10 for a primary school for boys. The average cost remained almost unchanged during the period under review, but increased by R4 a month during the previous quinquennium. As in the case of boys' schools the cost varies greatly from province to province. It averaged R49 a month in Bombay, and a little over R8 a month in Bengal.

\* In the choice of subjects.

**Management.** 920. At the end of 1901-02, 1,323 of the primary schools for girls were under public, and 4,305 under private, management. Schools of the former class increased by 35, and schools of the latter class diminished by 446. The territorial distribution of the systems of public and private management follows in general that which obtains in the case of boys' schools, with the modifying circumstance that the many mission schools add to the proportion of private managed institutions. Out of the total 4,305 private managed institutions, 3,626 belong to Bengal, Madras and Burma. The first of these Provinces accounts for 2,651 or considerably more than half the total. Burma has no primary girls' schools under public management, Bengal has only 13, and Madras only 130. At the other end of the scale comes Bombay with 539 schools under public, and 229 under private, management. The public managed schools were divided as follows: Government schools 111 (diminished by 9), Board schools 967 (increased by 19), and Native State schools 245 (increased by 25). Among the private schools 3,652 (diminished by 366) were aided, and 653 (diminished by 80) unaided. In view of the circumstance that female education had not yet gained the sympathy of a large part of the Native community the Education Commission recommended "that female schools be not placed under the management of Local Boards or of Municipalities unless they express a wish to take charge of them."\* Notwithstanding this recommendation and the views underlying it, Madras is the only Province in which the Government has, to any considerable extent, retained the direct management of primary schools for girls. Out of the total of 111 girls' schools as many as 104 belonged to Madras; of the remainder 3 were in Bombay, 3 in the Central Provinces and one in Assam. The provincialization of the remaining 26 Madras Board schools has been under the consideration of the Local Government.

**Grant-in-aid rules.**

921. The grant-in-aid rules for girls' schools are based on those for boys' schools, but in order to assist private managed primary schools for girls to overcome the many difficulties which they have to encounter they are admitted to the aided list on easier terms than those required in the case of boys' schools, and they are also granted aid at higher rates. In some Provinces the Local Government retains the distribution of aid to girls' schools in its own hands instead of delegating it to local bodies. The condition that fees must be levied from the pupils is in many cases relaxed. When a minimum attendance is required as a condition for the grant of aid, the figure is usually fixed lower in the case of girls' than in the case of boys' schools. In Madras the maximum age restriction imposed in the case of boys' schools is not extended to girls' schools. In the Punjab the number of days on which the school must meet is less for boys' than for girls' schools. Where the system of results grants is in force, special girls' subjects, such as needle-work and domestic economy, are included in the standards on which the rewards are based.

922. In MADRAS grants to girls' schools are paid from Provincial Revenues. The salary grants, which are fixed in accordance with the nature of the school and the qualifications of the teacher, are in general paid at higher rates for mistresses than for masters. Of the 696 primary schools for girls recognized in 1901-02, 240 were on the permanent and the rest on the temporary section of the general school list. In BOMBAY results grants for girls' schools are paid at double the rate in force for boys' schools, and additional grants are given for good needle-work. In BENGAL many of the small girls' schools could earn little in the way of results grants, and the stipend system is frequently substituted for the results grant system in such schools. Under the stipend rules teachers who instruct 20 girls' or more are granted a monthly stipend of not less than R2-8. Teachers having less than 20 girls in their schools are paid monthly rewards at the rate of R1 for every eight girls who attend regularly and make satisfactory progress. If a *guru* teaches boys and girls together, he receives rewards for teaching the girls at the above rates. "Girls' schools at Calcutta and its neighbourhood are aided on a different system from that which prevails in the rest of the Province, and is known as the Calcutta system. It is a payment-by-result system modified by the attendance of pupils. There are eight standards of examination, the first three of which are for examination of corresponding

\* Paragraph 644 of the Report of the Commission.

classes by the Inspectress. The fourth corresponds with the lower primary standard, the fifth and sixth with the upper primary classes, and the seventh and eighth with the middle school classes. A common examination is held in these standards by means of written papers at different centres, and certificates and money rewards are granted to pupils on the results. The grants to schools depend greatly on the results of these examinations. Those students that pass the seventh and the eighth standards are, if they can pass an examination in actual class teaching, given the junior and senior teachership certificates, respectively. Besides these girls' schools which are aided on the Calcutta system some others have adopted the Calcutta standards, and send up pupils for examination in them.\* A sum of R40,000 is allotted annually for the aid of girls' schools in and about Calcutta. In the PUNJAB instruction grants are given at double rates for girls' schools, special grants are given for needle-work, and certificated teachers are eligible for staff grants at the rate of one-fifth or one-third of their annual salary. In BURMA special enhanced rates are given for girls passing the obligatory standard examinations. Thus in a school conducted by a certificated manager, the reward for each pass by a boy in the upper primary examination is R10, and for each pass by a girl, R11. In optional subjects the rewards paid for girls are 50 per cent. higher than those paid for boys. In the CENTRAL PROVINCES grants-in-aid of girls' schools are paid from Provincial Revenues, under conditions less stringent than those enforced in the case of boys' schools. In ASSAM girls' schools may be supported by fixed monthly salary grants, in lieu of the ordinary system. The maximum rate of pay is R6 for one and R10 for two teachers; for municipal schools and schools in hill districts the maximum pay for a teacher may be fixed at R10; special rates may be allowed for schools at district or sub-divisional head-quarters. Rewards are also granted at double rates for girls passing the lower primary examination. Special capitation grants are paid to *gurus* for girls attending boys' schools. In BERAR grants for girls' schools are given at double rates, and there are also special grants for needle-work.

#### School Life.

923. There is little special to remark about the school life of Indian girls. Most of the pupils are small children. Every day they go to school and return, visiting either the same school as their brothers or a separate school conducted on very similar lines. Although the number of pupils in primary schools for boys is more than sixteen times the number in primary schools for girls, yet 6,083 primary school girls were living in school boarding houses as against 10,311 boys. Many of these girls belong to orphanages and other mission schools. Although the proportion of boarders is greater in the case of girls than in the case of boys, yet even among girls only one pupil in 32 was living at school; thus for girls as well as for boys the ordinary school is a day school. The hours of instruction for girls are arranged in a similar manner to those for boys, but sometimes they are shorter. In some provinces and in some schools attention is paid to the physical training as well as to the instruction of the girls, and special courses of calisthenics, etc., are prescribed in place of drill and gymnastics. This aspect of school life is, however, as yet but little developed; thus in the Punjab, where the physical training of boys has made good progress, the Director reports that the only institution where the physical training of girls has received careful attention is the Kanya Mahavidyala at Jullundur. The managers of this school have devised a special set of exercises for girls.

#### Course of Studies.

924. In speaking of the curriculum for girls the Education Commission said that: "It ought not to be taken for granted that the instruction which is suitable for a boy must necessarily be good for an Indian girl. In purely literary subjects, girls need not go so far as boys, and there are subjects of a practical kind to which girls might at least be introduced during their school course." Progress appears to have followed these lines. The course is based on that followed in boys' schools, but the literary portion is sometimes curtailed and special girls' subjects are introduced.

925. In MADRAS the compulsory subjects for girls as well as for boys are the "3 Rs." The optional subjects include kindergarten occupations, drawing, needle-work, and singing.

926. In BOMBAY, separate standards are prescribed for girls in primary schools. There are six classes, comprising an infant class and five standards. To take the case of the Marathi schools, the course followed in the infant classes is as follows :--

- (a) Numbers up to 100 to be learnt from concrete examples and counting within this limit. Multiplication table up to  $10 \times 10$ .
- (b) Reading and building small familiar words with card-board letters.
- (c) Instruction on simple forms, colours, and the most familiar objects.
- (d) Narration by the head teacher or a trained assistant of simple stories.
- (e) Recitation and singing in unison of simple songs.
- (f) Infant drill and exercises, and games.
- (g) Some kindergarten occupations.

The sixth standard is divided into six heads: reading and language, writing and composition, arithmetic, history and geography, domestic economy, and needle work. The first head comprises 200 pages of prose and 200 lines of poetry from the departmental reader, and simple grammar and parsing. The poetry is learnt by heart. The girls are also required to read ordinary manuscript with fluency. In the second head are included dictation and composition on a simple subject. The forms of private correspondence must be known. Arithmetic goes up to decimals and discount and includes household book-keeping. History includes the elementary history of India (with special reference to the British period) and some information on the system of government. The geography includes the general geography of the world, and in particular the geography of India. Needle-work is compulsory at the second standard, but managers have the option of beginning it earlier. The graduated course of standards in this subject is as follows :—

*2nd standard.*—Running and hemming, needle drill.

*3rd standard.*—Seaming and stitching. A *choli* to be shown.

*4th standard.*—Neat patch-work consisting of hemming, back stitching, and over casting. A *parkar* to be shown. Cutting out in paper a child's simple garment.

*5th standard.*—In addition to previous standards, a simple article of native dress, such as *sadras*, etc., knitting, button-holes, cutting out of the garments made.

*6th standard.*—Proficiency in the work mentioned in the previous standards with neatly worked button-holes. Darning, Gujarathi embroidery applied to native garments, and fancy work. Cutting out of any garments of previous standards.

It will be remembered that the primary schools of Bombay teach the full vernacular course, and the highest standard therefore carries the instruction somewhat beyond the level of other Provinces.

927. The schools for girls in BENGAL teach the books and subjects of the boys' schools. Girls may, however, take up needle-work instead of Euclid, mensuration, and science, and they are required to have a knowledge of the geography of India and to read a little poetry at the lower primary examination instead of passing in native accounts. In the PUNJAB the course in reading and writing is the same for boys and girls, but the course in geography and arithmetic is cut down. Needle-work is taught in all schools in which provision can be made for it. Object lessons are also given where the facilities exist; at present there is no separate syllabus of lessons for girls. Persian is commonly taught in Muhammadan schools. In BURMA domestic economy and needle-work are optional subjects. In the CENTRAL PROVINCES where boys study agriculture or history, girls take up history or needle-work.

#### Examinations.

928. Six thousand eight hundred and fifty-one girl candidates presented themselves at the upper primary examination in 1901-02, giving an average of one in every four girls in the upper primary stage; 68 per cent. were successful. The figures do not show any important variation from those of 1896-97. In the Madras Presidency 763 out of 1,392 candidates were private, in the rest of

the provinces there were only 8 private candidates. The successful candidates were distributed by race or creed as follows :—

Hindus . . . . .	1,823
Muhammadans . . . . .	210
Native Christians . . . . .	1,128
Europeans and Eurasians . . . . .	851
Buddhists . . . . .	406
Parsis . . . . .	121
Others . . . . .	110

The number of Buddhists is exaggerated because the figures include both the standard examinations of the upper primary stage.

For the lower primary examination there were 16,477 candidates against 10,986 in 1896-97; 72 per cent. of the candidates were successful. The successful candidates were distributed by race or creed as follows :—

Hindus . . . . .	4,782
Muhammadans . . . . .	658
Native Christians . . . . .	1,313
Europeans and Eurasians . . . . .	851
Buddhists . . . . .	3,413
Parsis . . . . .	252
Others . . . . .	565

Again the number of Buddhists is exaggerated in comparison with the number belonging to other religions.

**Pupils.**

929. At the end of 1901-02 there were 390,000 girls in primary and secondary schools and of these all but 9,800 were in the primary stage of instruction. The proportion in the secondary stage is so small that the statistics for general education and for primary education offer practically the same results. The most convenient way to treat the subject will therefore be to examine the total figures for girls in primary and secondary schools and to consider with them the remarks made by the Directors regarding the general progress (or in most cases the want of progress) of female education. General statistics.

The number of girls in schools for general education increased by 51,388 during the period 1892-93 to 1896-97, and by only 32,508 during the period under review. In spite of advancing civilization and the special endeavours made to foster female education, progress is proceeding at a diminishing pace and the day seems to be still far distant when a reasonable proportion of the women of India will possess even a small modicum of education. We have seen that the period 1896-97 to 1901-02 has been in general unfavourable to the extension of primary education, but although progress may have been hindered by abnormal causes, (famine and plague) it is still, making all allowances, altogether incommensurate with the extent of the field for improvement. The following table shows the percentage of increase in the several provinces during the quinquennium :—

United Provinces . . . . .	42.3
Burma . . . . .	38.8
Punjab . . . . .	18.1
Bombay . . . . .	14.4
Madras . . . . .	9.8
Central Provinces . . . . .	4.8
Assam . . . . .	1.7

In the United Provinces the increase is on a small initial figure; in Burma conditions are entirely different from those which prevail in India, and that province naturally stands to the fore. Bengal lost 5,741 pupils or 5.4 per cent. on the total of 1896-97, and Berar lost 824 pupils.

930. In 1891-92 one girl in 56 of school-going age was in a primary or secondary school; in 1901-02 the proportion was one in 46. The proportion varies greatly from one part of India to another and the provinces stand in the following order :—

Burma . . . . .	19
Bombay . . . . .	23
Madras . . . . .	25
Assam . . . . .	51
Bengal . . . . .	58
Central Provinces . . . . .	80
Punjab . . . . .	93
United Provinces . . . . .	203

Burma is well in front, Bombay and Madras are much in advance of the other provinces, and the United Provinces are much behind them. The following table shows the number of females per 1,000 of the female population of the various provinces who can read and write :—

Burma	45
Madras	9
Bombay	9
Bengal	5
Assam	4
Punjab	3
United Provinces	2
Central Provinces	2

The most remarkable feature of this table is that the province of Burma has a proportion of female literacy five times as great as in any other province. Otherwise the results are much the same as in the previous table; the United Provinces, however, stand, relatively to other provinces, better by the test of literacy than by the test of public instruction.

Classification  
by race or  
creed.

931. Among Hindus on an average 1 girl in 51 was a pupil in a primary or secondary school, among Muhammadans 1 in 81, and among Buddhists 1 in 21. Christians show an average of 1 in 2. The Christian pupils belong to widely different classes of the community extending from the Anglo-Indian population to the cultivators of the convert villages. Among the Parsis the number of girls in public primary and secondary schools exceeds the 15 per cent. of the female population which is taken to represent the number of girls of school-going age; education may be regarded as practically universal among the women of this class of the population. Both among Hindus and Muhammadans the proportion of girls under instruction varies greatly from province to province. Taking the number of girls of school-going age of whom one was a pupil in a public school, the figures for Hindus compare as follows :—

Bombay	27
Madras	32
Bengal	49
Assam	50
Punjab	62
Central Provinces	99
United Provinces	328

For Muhammadans the order is somewhat different :—

Madras	17
Bombay	25
Central Provinces	44
Bengal	132
Assam	139
United Provinces	152
Punjab	185

Muhammadans are in advance of Hindus in Madras, Bombay, the United Provinces, and the Central Provinces, and greatly behind them in Bengal, the Punjab, and Assam.

The following table shows the number of literates per 1,000 of the female population of different races and religions throughout India :—

Hindu	5
Muhammadan	3
Buddhist	42
Christian	125
Sikh	7
Jain	18
Zoroastrian	538

The following table shows the progress of the number of pupils of different races and religions in public schools for girls (*i.e.*, including boys in girls' schools and excluding girls in boys' schools) :—

Race or Religion.	1892-93 to 1896-97.	1897-98 to 1901-02.
Hindus	+ 18,148	+ 7,854
Muhammadans	+ 1,245	— 1,796
Europeans and Eurasians	+ 1,699	+ 952
Native Christians	+ 2,805	+ 5,183

Hindus show a retarded progress and Muhammadans an actual decline. Muhammadan pupils decreased in Bengal, Bombay, Madras, and Assam, and increased in the United Provinces, the Punjab and Berar. There was a large decrease of Hindu pupils in Bengal, but an increase in Madras, Bombay, the United Provinces and the Punjab.

932. Of the 380,000 pupils who were in the primary stage of instruction at the end of 1901-02, 353,000 were in the lower and 27,000 in the upper division. Of those in the lower division 101,000 were not yet reading printed books. A comparison with the corresponding figures for 1896-97 shows that on an average girls carry their schooling rather further than was formerly the case. In 1901-02 the percentage in the upper primary stage was 7.1, and in 1896-97 6.5. Again in 1901-02, 28.7 per cent. of the girls in the lower primary stage were not reading printed books; in 1896-97, the percentage was 32.2.

933. We may now review the position province by province.

MADRAS, where missionary effort has perhaps done more for female education than in any other Province, stands next in order below Burma and Bombay, and shows an increase of 10½ thousand girl pupils on 107½ thousand. In the Report for 1901-02 the Director remarks :—

The number of public institutions for girls during the year under report was the lowest and the attendance therein the highest in the decennial period, the fall in the former case being confined to primary schools. This increase in strength despite the decrease in the number of institutions is indicative of greater consolidation, the closing of weak and ephemeral schools tending to increase the strength of schools established on a firmer footing. A further increase in strength is expected in future years as all the existing board schools for girls are being brought under departmental management and as steps are being taken to convert some of the girls' schools under private management into Government institutions and to introduce suitable scales of salaries in all Government girls' schools in view to their increased efficiency and popularity.

934. BOMBAY, which stands second on the list, shows an increase during the quinquennium of over 10,000 girl pupils on 71,000. The Director makes the following remarks on the general conditions of female education in the province :—

With the exception of Parsis, Native Christians, and a very few advanced Hindus and Muhammadans, girls in this country almost always leave school when they are married. They have rarely gone beyond the third or fourth standards and soon forget what they have learnt. There are some educated men who do not take female education seriously at all. On the other hand, I have heard of a gentleman who stated that he found the letters of his daughters, who had been well educated and married gentlemen living in distant towns a source of the greatest comfort to him. If there is no great enthusiasm for female education, at least there is now no active opposition to it. Ladies attached to Missions and benevolent societies of different kinds can do, and do, much to promote it: and with the growth of a more enlightened opinion among men it may be hoped that, in large towns at least, some active efforts may be made to advance it. The last five years have been bad years, unfavourable to progress in all directions. Bearing this in mind there is no cause for despondency. Even in the most prosperous times circumstances well known to all make it foolish to expect any great or startling development.

935. BENGAL.—The five years' record for this Province is unsatisfactory. It comes on the list below Burma, Bombay, Madras, and Assam, and during the quinquennium it lost 5,600 pupils out of 106,000. The figures for the total number of girls in public institutions stood year by year as follows :—

1891-92	•	•	•	•	•	•	•	89,000
1896-97	•	•	•	•	•	•	•	106,000
1897-98	•	•	•	•	•	•	•	98,000
1898-99	•	•	•	•	•	•	•	98,000
1899-00	•	•	•	•	•	•	•	100,000
1900-01	•	•	•	•	•	•	•	97,000
1901-02	•	•	•	•	•	•	•	100,000

The years 1899-00 and 1901-02 are the only ones in which any progress was made. In the following passage the Director notices that there has been a fall both in the number of pupils and in the number of schools, but that the schools remaining have on the average gained in strength :—

Comparing the figures with those of ten years ago, it is found the average strength of all the different classes of schools has increased. The increase, however, was confined to English



secondary schools in the earlier period, the vernacular secondary schools showing an actual decrease of 8 and the primary schools being of the same strength. In the latter period English secondary schools diminished in size, while the other two classes increased. As has been said above, it is with reference to primary schools that the extent of female education can be measured, and the fact of a rise in the average number of pupils in a primary school in the last quinquennium shows that, although there was a loss in the number and attendance in primary schools for girls, there was greater vitality in the schools that remained.

The Director also discusses the want of progress of female education in Bengal in the following paragraphs:—

The chief causes for the slow progress of female education in this country are, (1) conservatism of a great portion of the people; (2) the fact that the education of their female children is a matter of great indifference to a large proportion of parents and guardians, as they usually do not take the same amount of care and interest in the education of their female wards as they do in that of boys; (3) the system of early marriage, which presents an almost insurmountable barrier to education beyond the primary stages; (4) the want of educated female teachers; (5) the want of a system for educating zenana ladies; and (6) the want of adequate State aid and aid from the other public funds.

Government has, however, lately sanctioned a very considerable increase in the expenditure on female education and more energetic steps are being taken to foster the spread of education among Indian females, specially in reference to the 4th, 5th and 6th points alluded to above.

The explanation of the decline in the number of girls under education which took place from about 1896 to 1900 and the increase in 1901-02 are much more difficult to explain. The causes certainly do not lie on the surface. Owing to financial pressure and to distress there is no doubt, in some of these years, a good many primary schools for boys ceased to exist and *gurus* migrated from villages. This would act in two ways. In many cases the same *guru* who has a boys' school also has a small girls' school, which he teaches in his spare time, and in such cases, with the departure of the *guru* of the boys' school, the girls' school would cease to exist. In other cases the boys' schools having ceased to exist, the girls, who were formerly attending such schools, would also cease to receive education. In both directions, therefore, there would be a decline in the amount of female education.

Other and deeper causes, it is also believed, are at work, and it has been suggested that it is possible the revival of strict Hindū religious feelings in many parts of the country, may have caused some feeling as to the undesirability of allowing any, except extremely young, girls to come to schools for education.

936. UNITED PROVINCES.—Except for the Frontier Province the United Provinces stand at the bottom of the list, with only one girl out of every 203 attending a primary or secondary school. Matters improved somewhat during the quinquennium, and the five years show a gain of 5,000 on 12,000. Progress, however, was not steady and the year 1900-01 gave a better result than the last year of the quinquennium. The Director remarks as follows:—

It cannot be said that female education is anywhere progressing satisfactorily. In the Kumaun Division, where prejudice is not so strong, it is making some headway, and in the Allahabad, Benares, and Meerut Divisions, particularly the last, the efforts made have met with some success. The American Methodist Episcopal Mission deserves special mention for the work it is doing in spreading female education; but it must be admitted that a demand for primary education for girls is well-nigh altogether wanting, and that the difficulties to be contended with are almost insurmountable. Though the numbers reading in primary classes are half as much again as at the beginning of the quinquennial period, there are even now only 16,147 girls receiving primary instruction. The number of girls in boys' schools, District Board and aided, has increased from 7 to 2,015.

Five years ago I discussed the reasons for the backwardness of female education in these Provinces in paragraph 100 of my Report. The excessive indifference or opposition of the people—the growth of ages—has not, of course, been affected in the course of five years. But it may now be remarked that it is part and parcel of a conviction that a woman's place is in her home, and that home duties are enough fully to occupy her time from morning to night, if they are properly performed; while education would bring her into touch with the outside world and give her interests beyond the home, which would only distract her attention from her heaven-appointed task. I do not wish to say that this attitude towards the question is more rigidly observed in the United Provinces than elsewhere, but that it exists here there is no manner of doubt. In a few large towns and in one or two other exceptional centres, it appears to be yielding to that modern spirit which would emancipate woman from a position of household slavery, and give her a share in the intellectual privileges of the race of which she, no less than man, is a part. In considering the education of girls, the people of this country rightly attach great importance to their moral welfare, and believe that in their own homes they are safer from evil influences than they would be in a school where the prime object is mental development rather than direct formation of character. It is obvious that other hindrances to progress are found in the social customs of the people such as the observance of *parda* in varying degrees of strictness, and early marriage. Facilities for female education have been extended by the opening of girls' schools by the District Boards, by giving aid to those who were willing to carry on

such schools, and by encouraging the attendance of girls at the ordinary elementary schools in villages. But in comparison with other provinces, if we judge by last year's reports, the United Provinces fall short in liberality towards this branch of education. The expenditure on secondary and primary schools for girls, per mille of the population, in the larger provinces was as follows:—Bombay, rupees 30, annas 2; Bengal, rupees 8, annas 12; Madras, rupees 18, anna 1; Punjab, rupees 10, annas 9; and United Provinces, rupees 7, annas 9. The corresponding figure for these Provinces five years ago was R6-11.

The Local Government recorded the following comments on the Director's observations:—

There is little progress to record under this head during the past five years, as no means exist of overcoming the inveterate prejudices of the people. There was a certain increase, from 15,461 to 20,821, in female students, but the whole number is inconsiderable. In the Kumaun Division prejudice is not so strong, and there is more prospect of improvement there than elsewhere. The Director argues that there is less expenditure on female education in this than other provinces, but money cannot be spent if there is no manner of spending it that will produce the desired result. Under Missionary enterprise something is accomplished, at any rate in the case of Native Christians, and a small number of girls appear for the higher examinations with fair success. In the current year, besides the ordinary provision for female education, a sum of R25,000 has been allotted for the improvement of Government girls' schools out of the special grant made by the Government of India; and funds have also been provided for establishing immediately a Government Female Normal School at Lucknow, the lack of trained non-Christian female teachers being one of the greatest impediments to progress.

937. THE PUNJAB.—Although this Province is low down on the list, female education is much more widely diffused than in the United Provinces, there being one general school pupil in 93 girls in the former against one in 203 in the latter province. The quinquennium shows a rise of 1,784 girl pupils on 13½ thousand. The following extracts are from the Director's Report for 1901-02:—

In the Delhi Circle the Inspector reports:—“A rise in the number of students, a rise in the expenditure and better results of examinations all go to indicate that progress is being made. But the fact that no new schools have been added to the list of girls' schools in the circle testifies to the want of interest on the part of the people,” and he suggests, “that if a series of Elementary Readers specially compiled for Board girls' schools were to be introduced, and the study of the religious books, dear to the people, allowed, there is every chance of the girls' schools meeting with a much larger share of success.” In the Jullundur Circle the Inspector remarks: “The increase of 9 in the number of primary schools, the rise of 321 in the number of scholars attending them and the better results of the upper primary examination, together with a decided improvement in needle-work, indicate fair progress notwithstanding the unfavourable times of plague and scarcity.” In the Lahore Circle the Inspector observes:—“The year under review shows very fair progress on the whole. The number of scholars has satisfactorily risen both in secondary and primary schools, the fee receipts have increased, and there is also an advance in the expenditure from each source of Public Funds, the results of almost all the examinations are favourable, the number of non-stipendiary scholars is an increase, needle-work has improved, and in many schools there has been some advance in standard.” The Hindu Girls' School, Lahore, is doing good and useful work. In order to place it on a permanent footing the Managers have raised a fund which now exceeds R4,000. The school also possesses R2,300 as a building fund, and is in receipt of a monthly grant from the Punjab Association. The Rawalpindi Inspector writes:—“The increase of 12 schools and more than 700 scholars backed by a rise of about 20 per cent. in expenditure clearly proves that the quinquennium has been a period of progress. It is satisfactory to note that a normal class has been recently added to the aided school, Gujranwala.” The Multan Inspector reports that, except that the result of examinations are not so good as five years ago, and that the number of girls in the upper primary stage is somewhat less, satisfactory progress is perceptible all round; but want of mistresses competent to teach arithmetic and more specially grammar and geography, and on the side of Muhammadans the existence of *parda* system, and in the Dera-Ghazi Khan and Mianwali Districts an alleged want of funds retard the progress of female education.

The Inspectress remarks: “That progress may appear slow, but there is real advance. The Christian community have largely increased their schools, though they are apart from the people generally, their aims and their difficulties resembling those of the European Schools. But the vernacular middle schools are improving their position. In Lahore, Amritsar, Sialkot, and Gujranwala, they form centres of intelligence and knowledge, each with groups of educated women whose influence is very perceptible. Isolated schools and branch schools are less satisfactory. The teachers miss the companionship and supervision they need and become discouraged. The staff, moreover, of smaller schools is nearly always insufficient. One of the most important reasons for the lack of interest taken in girls' education is that pointed out by the Delhi Inspector, that the reading books in use, which are almost confined to natural history and science, do not seem to the people to have any bearing on religion and morals. It is, therefore, necessary that a series of readers for girls' schools should be provided.”

The following remarks were made in the Resolution of the Local Government on the Director's Report :—

Female education is still in its infancy, but, considering the great obstacles that have to be contended with, considerable progress has been made in the past five years. The number of students has considerably increased, and the examination results have been distinctly satisfactory. The want of suitable text-books is alluded to by the Inspectress of Schools, and Miss Francis' suggestion that a series of readers for girls' schools should be provided will no doubt receive the early consideration of the Director.

938. BURMA stands at the top of the list with one pupil in a general school out of every 19 girls of school-going age. Female education in this province has not to contend with the obstacles of the *parda* system and early marriage, and the instruction of girls in lay schools forms an important part of the indigenous system. During the quinquennium there was an increase of 10,000 girl pupils over 26,000. The Director remarks that there has been a good increase both in primary and secondary education, and says: "I am glad to be able to draw attention to this because in some unaccountable way the idea has been abroad lately that female education had not done and was not doing well; and enquiries were set on foot on the subject. The only decrease that has ever appeared was in 1898-99, when, owing to the removal of the unaided class, the returns showed 25,866 girls whereas the year previous there had been 26,848. The very next year the number rose to 29,650: in 1900-01 there were 34,781. The increase is shared by every division, Minbu, however, the least of all."

939. THE CENTRAL PROVINCES stand between Bengal and the Punjab with one pupil in 80 girls of school-going age. The quinquennium shows a small increase of 553 pupils on 10,797. The Director remarks that: "It is noticeable that whilst the strength of primary boys' schools has fallen by 7 per cent. owing to the famines, the attendance of girls shows an increase. The reason is partly that girls' schools are, as a rule, situated in large centres which were less affected by the unfavourable seasons, and partly that the famines have given an impetus to missionary enterprise and tended to fill the mission orphanages." The total number of girls in public institutions of all kinds was 7,833 in 1891-92 and 11,350 in 1901-02. The Director says that, considering the attitude of the people towards female education and taking the famines and unfavourable seasons of the last decade into consideration, the result may be regarded as not unsatisfactory. The Chief Commissioner agrees with this view and remarks as follows :—

Although the total number of girls under instruction is small, it is satisfactory to note that there has been an increase both in the number of schools and in pupils since 1896-97. Part of the increase is due to the opening of mission orphanages, but the increase in fee receipts from ₹11,517 to ₹17,599 shows that the increase is by no means confined to pauper children. The Chief Commissioner regards this rise in fee receipts as a hopeful sign. One main difficulty in the way of female education has been the want of suitable teachers and it is in order to meet this want in the Marathi-speaking districts that it has been decided to open a female normal school at Nagpur on the lines of that for Hindi teachers already in existence at Jubbulpore.

940. ASSAM stands in much the same position as Bengal with one pupil in 51 girls of school-going age. The number of girl pupils remained almost stationary during the period under review, the slight gain amounting only to 137 on 8,276. The increase has not been enough to keep pace with the rise in population and the number of girls of school-going age, one of whom was in a primary or secondary school, has changed from 50 to 51. During the period 1891-92 to 1896-97 the total number of girls in institutions of all kinds increased by 3,140; during the period 1896-97 to 1901-02 the total increase was only 137. Taking the pupils in primary schools for girls, the earlier period gave an increase of 79 per cent., and the later suffered a decrease of 19 per cent. The Director says that "the record for the ten years is one of unexampled progress in the first five years, and of almost equally unexampled decline in the second five years." He does not discuss the causes which have brought about this unsatisfactory condition of affairs. He notices that out of the 3,000 girls in lower primary schools in Assam as many as 2,000 are in Sylhet and in the Khasi and Jaintia Hills. This is because of the special efforts of the Sylhet Union, an association formed for the promotion of female education, and of the Welsh Calvinistic Mission,

941. **BERAR.**—Education in Berar has suffered severely from the effects of famine, and the female population fell by 46,000 between the Census of 1891 and the Census of 1901. Berar stands on the list next above the Central Provinces with one pupil in 71 girls of school-going age. During the quinquennium it lost 826 girl pupils out of a total of 3,709 in 1896-97. The Director remarks as follows:—

A comparison of the figures of the last five years reveals the fact that there is a slight variation in the total number of girls' schools, but the number of girls attending them which had gone down on account of the famine of 1896, shows a continuous rise since 1899. It is, however, to be noted that since 1896 the number of girls attending boys' schools has been steadily going down, the difference between 1896-97 and 1901-02 being 939 or 55 per cent.

942. The small Province of **COORG** had 905 girl pupils in Primary and Secondary schools at the end of 1901-02, of whom 840 were Hindus. The total gives one pupil to every 13 girls of school-going age, a better result than is shown by any of the larger provinces. During the quinquennium the number of girl pupils rose by 130 on 775. In the General Administration Report for 1901-02 it is said that: "female education is specially encouraged in Coorg by the exemption of girls from payment of school-fees except for the study of English, and as both sexes resort freely to the same schools, the number of girls under instruction is unusually large as compared with other parts of India."

### Professional and Technical Education.

#### Medicine.

943. In describing the professional and industrial training of women the first place must be given to medical instruction. The social customs of the country render the supply of female medical practitioners a matter of the first importance for the well-being of the people, and the subject has therefore received great attention. Importance of the subject.

944. There are no special medical colleges for women in India, but special arrangements are made for female students in the colleges for men. The degrees and diplomas of the Universities are open to women, and a number of women have taken the Licentiate's Diploma and a few the Bachelor's Degree. The Calcutta University Calendar shows three lady Bachelors of Medicine. The list of 75 lady doctors of the second grade of the Countess of Dufferin Fund for the year 1902, includes 18 Licentiates in Medicine and Surgery of the Indian Universities. Colleges.

945. The **MADRAS** Medical College consists of five departments, *viz.*, the College Department, educating for University degrees; the Apothecary Department and the Hospital Assistant Department, educating for college certificates of education; and the Sanitary Inspectors' Department and the Chemists and Druggists Department, educating for Government technical examinations. All five departments are open to women, and in general female students follow the same courses and are subjected to the same tests as male students. The Dufferin Fund Report for 1902 shows 33 female pupils attending the college and school, 6 in the M.B. and C.M. class, 3 in the L. M. & S. class, 4 in the Hospital Assistant class, and 20 in the Apothecary class.

946. **BOMBAY.**—Female students are admitted to the Grant Medical College, Bombay, on the same terms as male students, and they follow the same course. The Dufferin Fund Report for 1902 shows 42 female students belonging to this college, all studying for the Diploma of Licentiate in Medicine and Surgery. There are no licensed lodging houses for girls attached to the college, nor does the college take cognizance of the students outside its premises.

947. **BENGAL.**—Female students of the Calcutta Medical College may enter—(a) as regular students for the University course, (b) as female certificate students, and (c) as casual students, *i.e.*, for selected courses in one or several subjects. Students of the first class go through the general college course. Students of the certificate class must be over 17 years of age and must have passed the entrance examination of the Calcutta University or a recognized

equivalent. The course lasts for four years, and the nature of the curriculum is shown by the following tabular statement:—

First year.	Second year.	Third year.	Fourth year.
Descriptive and Surgical Anatomy. General Anatomy and Physiology. Materia Medica. Chemistry. Dissections. Practical Pharmacy.	Test Examination in Anatomy. Physiology. Materia Medica and Chemistry. Dissections. Post-mortem. Hospital practice. Out-patient practice.	Medicine and Clinical Medicine. Surgery and Clinical Surgery. Midwifery. Medical Jurisprudence. Pathology. Practical Midwifery. Post-mortem. Hospital practice. Ophthalmic hospital practice.	Medicine and Clinical Medicine. Surgery and Clinical Surgery. Midwifery. Practical Midwifery. Hospital practice. Midwifery Wards. Dental out-patient practice. Dental Surgery (optional).

Examinations are held at the end of each year.

All female students are expected to reside in the Surnomoyee Hostel attached to the college, and only under exceptional circumstances are they allowed to live with friends or guardians outside. They are granted free quarters in the hostel, and are placed under the supervision of the Lady Superintendent. The Dufferin Fund Report for 1902 gives a list of 18 pupils, of whom 4 were in the L.M.S. and M.B. classes, and 14 in the certificate class.

948. THE PUNJAB.—Three departments of the Lahore Medical College are open to female students, *viz.*:—(a) the College Department, educating for University degrees, and (b) the Certificate Class, and (c) the Hospital Assistant Class, educating for a college certificate of qualification. Pupils of the first and third classes go through the same course as the corresponding male students. In the Certificate Class women follow a course of higher grade than that for the Hospital Assistant diploma. Candidates for admission to the class must be over 17 years of age, and must have passed the entrance examination of an Indian University or a recognized equivalent. The curriculum is as follows:—

<i>First year.</i>	
Anatomy. Physiology. Materia Medica.	Chemistry. Practical Pharmacy. Dissections.
<i>Second year.</i>	
Anatomy. Physiology. Materia Medica.	Chemistry. Dissections. Hospital out-patient practice.
<i>Third year.</i>	
Medicine. Diseases of women and children. Surgery.	Medical Jurisprudence. Pathology (with post-mortem examinations).
Hospital practice (in-door).	
<i>Fourth year.</i>	
Medicine. Diseases of women and children. Surgery. Midwifery (with practical work).	Medical Jurisprudence. Pathology. Surgical operations. Hospital practice (in-door).
Examinations are held at the end of each year.	

The Dufferin Fund Report for 1902 shows 14 pupils, of whom 5 were in the University Class, 8 in the Certificate Class, and 1 in the Hospital Assistant class.

Schools.

949. The 20 MADRAS medical school pupils included in the statistics were studying in the school department of the Madras Medical College.

950. The 5 BOMBAY pupils were studying in a small school of midwifery at Karachi.

951. BENGAL.—Special facilities for female students are afforded in the Government medical schools of Bengal, *viz.*, the Campbell School at Calcutta, the Cuttack School, the Dacca School, and the Temple School at Patna. They have their own boarding arrangements and separate tuition is provided for them where necessary. The Dufferin Fund Report for 1902 gives a list of 24 students in the Campbell school, 11 in the Cuttack school, 5 in the Dacca school, and 3 in the Patna school; all but one (under training for a Compounder in the Campbell school) were in the Hospital Assistants' class. It is stated in the Education Report for 1901-02 that one female pupil was successful at the final examination at each of the Dacca and Orissa schools, and that 50 per cent. of the female candidates passed from the Calcutta School. One female passed the examination for Compounders.

952. UNITED PROVINCES.—All the pupils included in the United Provinces statistics were studying in the female branch of the Agra Medical School. This is a very important institution which gives training up to the Hospital Assistant standard and supplies a number of lady doctors for employment under the Dufferin Fund. Candidates for admission must be between the ages of 16 and 30, and must pass an entrance examination in Urdu or Hindi and arithmetic. Some knowledge of English is also desirable. Instruction is given free of charge in professional subjects, *viz.*, anatomy, physiology, chemistry, pharmacy, practice of medicine, materia medica, surgery and midwifery; and pupils are required to attend the separate female hospital and dispensary which have recently been erected by the Dufferin Fund and placed in charge of lady doctors. After a four years' course, a diploma is granted to all who pass the final examination. The Dufferin Fund Report for 1902 gives a list of 56 students all in the female Hospital Assistant Class. In the Education Report for 1901-02 the Director says that the results of the examination of the female students were throughout satisfactory; there were few failures and some of the students obtained very high marks.

953. PUNJAB.—Out of the 46 female students shown in the statistics, 44 were in the North India Medical School for Christian Women at Ludhiana, a mission institution maintained from endowments, etc. Fourteen belonged to the Medical Class, 3 to the Compounders' Class, 11 to the Midwifery Class, and 16 to the Nurses' Class. The school has a large staff of European ladies, and clinical instruction is given in the Mission Charitable Hospital, in the Civil Hospital, and in the hospital wing of the school. Candidates for admission must be at least 17 years of age; those who wish to enter the medical students' class must have passed the University entrance examination (unless specially exempted), and those who wish to join the Compounders' class the middle school examination. The course for medical students is in English and extends over four years; the other courses are in the vernacular and extend over two years. Full fees are ₹20 a month, or with English extras ₹30.

954. The total number of female medical students included in the statistics Students, was 242 in 1901-02, 117 in 1896-97, and 116 in 1891-92; although the total number is small there has been a satisfactory increase during the period under review. Of the total number of pupils, 76 were attending colleges and 166 schools. The students were divided by race and caste as follows:—

	College students.	School students.
Europeans and Eurasians . . . . .	35	27
Native Christians . . . . .	17	103
Brahmans . . . . .	...	8
Non-Brahman Hindus . . . . .	2	13
Muhammadans . . . . .	...	15
Parsis . . . . .	22	...

It is still a very rare occurrence for a Hindu or Muhammadan woman to study or practice medicine. The race or creed of the students in some of the principal medical institutions will be found in Table 184. The passed students find employment in the hospitals of the State, of the Countess of Dufferin's Fund, and of the mission societies.

## Scholarships.

955. The great majority of the female medical students are assisted in their education by scholarships derived from Provincial Revenues, from the Countess of Dufferin Fund, from Municipal and Local Board funds, from endowments, and from other sources. Some receive their instruction free or pay fees at lower rates than male pupils. The enjoyment of a scholarship entails, in many cases, the obligation to serve in a medical institution for a given period. A statement of the number and aggregate value of the female scholarships held in some of the principal institutions (derived mainly from the Dufferin Fund Report for 1902) is given in Table 185.

## Training of midwives, nurses, and compounders

956. Only a portion of the women under training as midwives and nurses appear in the educational statistics. The Dufferin Fund Report shows a total of 102 students in midwifery, nursing, and compounding classes, or attending lectures in these subjects, in the various hospitals and medical schools of British India. A sum of nearly 7 lakhs of rupees was collected by Her Excellency Lady Curzon in 1901-03 for the training of *dais* or native midwives. The income from this fund is kept separate from the Dufferin Fund, and it is known as the Victoria Memorial Scholarship Fund. Its operations will, when complete, extend throughout India and Burma. It is controlled by an Executive Committee, composed of a Lady President (Her Excellency Lady Curzon), with the Director-General, Indian Medical Service, the Honorary Secretary of the Central Committee of the Dufferin Fund, and one other, as members. For the local administration of the Fund there is a committee at each centre of operations, consisting of the Civil Surgeon of the district, the wife of the senior Civilian, and an honorary secretary selected by the other two members. Up to the end of 1902, classes with a total number of over 100 pupils had already been, or were about to be, started.

957. Some particulars regarding the training of nurses, midwives and compounders in Bombay, Bengal, the United Provinces, and Burma are given in the Dufferin Fund Report for 1902:—

**BOMBAY.**—There is a training school for nursing and midwifery attached to the Cama Female Hospital at Bombay. Candidates for admission must be between the ages of 20 and 35. A knowledge of English is not insisted upon as a condition for entrance, but native students are taught English at the hospital. The lectures on midwifery, etc., are given in English, but interpreters are provided. The course of instruction occupies one year and-a-half, the last three months of which are devoted to midwifery. Special arrangements have been made to enable pupil nurses to be trained in the dispensing of drugs. At the end of the course examinations are held in general nursing, monthly nursing, and midwifery, and certificates are awarded on the results of the examination. There were 19 students on the rolls in 1902.

**BENGAL.**—Women are admitted to the Eden Female Hospital at Calcutta as pupil midwives if they have a fair knowledge of English, and as pupil *dais* if they can read and write Bengali. The course in each case comprises twelve months' tuition and bedside practice. After this training a certificate qualifying for midwifery practice is given to those pupils who are found to be proficient. There were 31 pupils in 1902.

**UNITED PROVINCES.**—Probationers are admitted to the institutions of the Dufferin Fund for the purpose of qualifying themselves as compounders. The probationer must serve for three years, or for two years only in the case of unusual merit, and must then pass a qualifying examination.

**BURMA.**—The Committee of the Burma branch of the Dufferin Fund has established a training home for nurses and midwives in connection with the Dufferin Maternity Hospital, Rangoon. Candidates must ordinarily be between the ages of 18 and 30 years, and must possess the degree of general education represented by the fourth standard. The course of instruction extends over two years, and follows the standard laid down by the Educational Syndicate.

## Normal Institutions.

958. The subject of the training of teachers is dealt with in Chapter VII. To complete the general review of female education the general statistics may be repeated in this place. At the end of 1901-02, two Europeans or Eurasians were under instruction in the Madras Training College, and 9 in the Bengal



Training College at Kurseong. The number of normal schools for female teachers was 51 (28 of which were in Madras and Bombay), and the number of female pupils 1,383. The corresponding figures for 1896-97 were 45 and 1,093;\* and for 1891-92, 37 and 819. Progress during the quinquennium has been slow and the results are altogether incommensurate with the great need which exists for trained teachers for girls' schools. The pupils† were divided by race or creed as follows: 119 Europeans and Eurasians, 896 Native Christians, 109 Brahmans, 88 Non-Brahman Hindus, 20 Muhammadans, 108 Buddhists, 3 Parsis, and 5 others.

Schools of Art.

959. At the end of 1901-02, 20 female pupils were receiving instruction in each of the Schools of Art at Madras and Bombay: 24 were Europeans and Eurasians, 2 were Native Christians, and 14 were Parsis. The number has diminished; in 1891-92 it was 51, and in 1896-97 it was 49.

Technical and Industrial Training.

960. The technical and industrial education of Indian girls has made very little progress, and the figures included in statistical returns represent in general orphanages and mission institutions in which girls are taught needle-work and household work in addition to general elementary instruction, or classes for lace-making, embroidery, dress-making, etc. The statistics are not of great value. In the first place there appears to be no defined principle on which schools are separated into the classes of "technical or industrial" and "others." In the second place the distinction between general education including some practical instruction, and technical and industrial education proper, has not been drawn in a uniform manner. General remarks.

961. Taking the figures as they stand, 494 girls were returned as receiving instruction in technical and industrial schools at the end of 1901-02. The total is divided between the several provinces as follows:— General statistics.

Madras . . . . .	129
Bombay . . . . .	76
Bengal . . . . .	26
United Provinces . . . . .	105
Punjab . . . . .	86
Burma . . . . .	37
Central Provinces . . . . .	35

The division by race or creed is as follows:—

Europeans and Eurasians . . . . .	71
Native Christians . . . . .	269
Hindus . . . . .	134
Parsis . . . . .	4
Buddhists . . . . .	16

The preponderance of Native Christians shows to what a great extent the industrial education of girls means education in mission schools.

962. The MADRAS volume of detailed statistics shows 8 industrial schools for girls in the Presidency. In the Nazareth Art Industrial school for girls, 38 pupils were taught drawing, embroidery and lace-making. In the Guntur Industrial school for Muhammadan women, 31 pupils were taught embroidery. The remaining six institutions are all mission or benevolent schools for the teaching of lace-making, and the aggregate number of pupils in them was 216. The BOMBAY total represents 29 Native Christian and 47 Hindu girls attending the Industrial School at Nagar. In BENGAL 26 girls are returned as attending "commercial" schools in Calcutta where they learn typewriting and short-hand. In the UNITED PROVINCES the 105 Native Christian girls registered as pupils of mixed industrial schools, were being trained in needle-work and in the different branches of domestic economy in mission institutions. Provincial statistics.

963. The PUNJAB has two aided industrial indigenous schools for girls at Isakhel and Mankera in the Multan Circle. At the end of 1901-02 the two schools registered 86 Hindu girls and 34 boys. Needle work is taught in both schools, and in 1901-02, 24 girls passed in needle-work by the departmental standards.

\* Excluding the United Provinces.  
 † Excluding 35 in the Punjab, not classified.



The Punjab has some other schools of a somewhat similar character which are treated in the returns as schools for general education. The following quotations regarding these schools are taken from the Report for 1901-02:—

In 1896-97 one Industrial School in Rawalpindi City, maintained by Sir Khem Singh Bedi, and 2 Sozankari Schools in the Gujrat District, were reported. The former has ceased to exist. As regards the other two, it may be remarked that while they still retain their technical character, and sewing and embroidery, etc., are taught in them, the teaching of the "three Rs." has been introduced into both of them. Thus these schools are now classed as primary schools.

The aided Industrial Girls' School at Delhi for low-caste girls had 33 pupils on the register at the close of the past year. Besides the "three Rs.," taught through the medium of Roman Urdu, lessons are given in cotton spinning, needle-work of various kinds, and also embroidery.

The Industrial Settlement at Palwal (Gurgaon District) which contains 64 girls, has been recently brought on the aided list. It is as yet in its infancy, and instruction is given in tailoring, needle-work, and embroidery, and the "three Rs."

On the whole the Punjab would seem to do more for the industrial teaching of Indian girls than most other Provinces.

964. The BURMA pupils comprise 15 Europeans and Eurasians, 6 Native Christians, and 16 Burmese. All but 6 were in girls' schools, which are presumably mission institutions; the Report does not say where and what they are taught. Industrial subjects are included in the course of some general schools, and the following remarks occur in the Director's Report: "In 1901-02 we had 463 passes in weaving and lace-making, 14 in cutting out, and 14 in cooking. These passes are from Anglo-vernacular and vernacular schools, 19 of the last having taken up the work since 1896-97, all but 3 being indigenous schools, and all found in Mandalay town and Mandalay District."

The 35 CENTRAL PROVINCES pupils belong to a European school.

### Private Institutions.

General remarks.

965. In reviewing briefly the statistics for "private" institutions in relation to female education the warning given in Chapter XV must be repeated—the statistics are often unreliable and caution must be exercised in drawing conclusions from them. At the end of 1901-02 over 51,000 girls were returned as under instruction in private schools, this figure amounts to rather more than one-eighth of the number of girls in public schools. The total number increased by 9,150 during the period under review as against 10,509 during the previous quinquennium.

Advanced schools.

966. Six hundred and seventy-six girls were returned as receiving instruction in Arabic and Persian, mostly in Madras, Bombay, and Bengal. The United Provinces had only 38 pupils and the Punjab only 39. All the girls were reading in boys' schools except a few who studied in two small girls' schools in Berar in which Arabic or Persian is taught in addition to the Koran. Only one girl was returned as studying Sanskrit. A number of girls in Kathiawar read Magadhi with their brothers; the rest of the entry under "other Oriental classics" relates to schools in Bombay City in which a little Persian is taught in addition to vernacular Hindustani.

Koran schools.

967. Nearly 34,000 girls were entered in the returns as pupils of Koran schools, and they form the bulk of the total number of pupils in private institutions. According to the returns the number increased by 4,296 during the period under review, and by 10,000 during the previous quinquennium; but the figures are not reliable. Many of the girls read in household and mosque schools with their brothers, but about 1,000 girls' schools are included in the returns of which 460 belong to the Punjab.

Elementary vernacular schools.

968. The number of girls reading in elementary vernacular schools which do not conform to departmental standards was returned at 13,691 in 1901-02, against 9,454 in 1896-97, and 9,254 in 1891-92. The number is greatest in Madras, the United Provinces, the Punjab, and Burma. It will be seen from the follow-

ing table that in each of these provinces the total for 1901-02 is much greater than that for 1896-97 :—

Province.	1896-97.	1901-02.
Madras . . . . .	2,642	4,421
United Provinces . . . . .	1,660	2,267
Punjab and North-West Frontier Province . . . . .	1,044	2,364
Burma . . . . .	2,102	2,552

It is difficult to say how far the change in the figures is due to recording and how far to an actual increase in the number of girls under instruction. The United Provinces Director warns the reader against forming any conclusion from the fluctuating and unreliable returns. On the other hand the Punjab Director says that there has been a real increase, and that “with a general appreciation of female education and a revived religious enthusiasm a number of schools have been started by benevolent societies and private individuals for the benefit of girls, and as the number of public schools for girls is still small, these private institutions prosper.”

**Co-Education.**

969. It has been noticed incidentally at various points in this chapter that the system of co-education of boys and girls obtains to a considerable extent in Indian schools. It exists in both public and private schools and in all grades of institutions. The practice of teaching boys and girls in common schools is facilitated by the circumstances that the pupils are rarely boarders, and that the large majority of the girl pupils are young children. Very little is said about the system in the reports of the Directors. Before the days of British rule, little girls occasionally attended the indigenous village schools, and learned the same lessons as their brothers. From this beginning the system has extended in British India without, apparently, arousing much comment. The Education Commission remarked in paragraph 612 of their report that : “There seems to be a general consensus of opinion among the witnesses examined by the Commission, that mixed schools are not suitable for this country. Yet in some Provinces, the girls found in boys’ schools amount to many thousands. Most of these are undoubtedly mere infants. As, moreover, it is impossible to establish a girls’ school in every village; attendance at a boys’ school will often be a girl’s only chance of learning anything, and in that case it should not be discouraged.” The system is no doubt attended by some disadvantages, amongst which it may be mentioned that it relegates the education of a large proportion of the girl pupils entirely to male teachers, and that facilities do not as a rule exist in boys’ schools for giving girls instruction of the kind most suitable for them. But the supply of girls’ schools and of female teachers is at present wholly inadequate, and it can only be increased gradually and at considerable expense. Were it not for the common practice of sending girls to boys’ schools the position of female education at the present time would be worse than is actually the case, and the prospects of its improvement would be diminished. There are also well recognized advantages in the system of co-education which are not without their application to India.

970. In 1901-02 there were 198,000 girls under instruction in boys’ schools; in public schools they formed rather less, and in private schools rather more, than half the total number of girls under instruction. The proportion increased slightly during each of the last two quinquennial periods. The percentage according to grade of institution was as follows :—

Colleges . . . . .	57
Secondary schools . . . . .	17
Primary schools . . . . .	46

It is natural that the percentage should be smaller in the case of secondary schools, than in the case of primary schools or colleges. Little children of both sexes are frequently sent to school together; for the comparatively small

number of girls who attend secondary schools special institutions are commonly provided; there are very few large colleges for girls and many of the female students, of whom only a small proportion are Hindus and a very small proportion Muhammadans, read in the men's colleges.

In 1901-02 over 17,000 boys were reading in schools classed as girls' schools.

Provincial  
statistics.

971. Taking the figures for public institutions only, it appears that the practice of sending girls to boys' schools is most common in the small province of COORG where almost four-fifths of the girl pupils are taught in mixed schools. Next comes BURMA where three quarters of the girls under public instruction read in lay schools which are attended by boys and girls indifferently. These lay schools are not scattered like the monasteries throughout the rural villages; but no town of considerable size is without several, and it is to them, mainly, that the women of Burma owe their education. MADRAS has actually the largest number of girls studying in boys' public schools (over 61,000), and in order it stands next to Burma with one-half of the girls under public instruction reading in boys' schools. At the other end of the scale come the UNITED PROVINCES with only 14 per cent., and the PUNJAB with only 1.2 per cent. In the last named province a few little girls read in Koran and Gurmukhi schools with boys, but co-education had not been attempted in public schools for Indian children by the end of the period under review.

Introduction  
of the  
system into  
the United  
Provinces.

972. In the United Provinces the number of girls under instruction in boys' public schools has risen during the quinquennium from 267 to 2,484. This increase accounts for more than 41 per cent. of the total increase of girls under public instruction in the province. It is due to orders passed by the Local Government in 1896 permitting District Boards to throw open primary village schools to girls as well as boys, in places where separate girls' schools could not be provided. The Director described the introduction of the new system in the following extract from the Report for 1896-97:—

In consideration of the hopelessness of getting more money from District Boards for girls' schools, when they were not able to find nearly as much as is wanted for boys, I submitted a proposal in August 1895; that primary village schools should be thrown open to girls as well as boys, in places where separate girls' schools could not be provided. I pointed out that in the provinces where female education has made the greatest advance, it is the custom for a large proportion of the girls in primary schools, sometimes more than half of them, to receive their instruction, not in separate schools for girls, but in boys' schools; and I inferred that there was nothing radically repugnant to native feeling in the proposed measure, which appeared to present the only means of extending the provision for the education of girls for many years to come. The District Boards were consulted, but generally professed themselves terribly shocked at the grave impropriety of allowing girls, even between the ages of six and eight, to go to the same schools as their brothers. It was also pronounced to be subversive of morality, notwithstanding the practice in other parts of India. The members of the Boards no doubt expressed their own opposition to such a plan for the education of their own daughters; but the proposal was not made on behalf of those who are unwilling to avail themselves of it; and there seemed to be no valid objection to allowing others, who did not feel the same objection, to send their girls to the ordinary village schools. And accordingly Government orders were passed in August 1896, authorising District Boards to open all or any of their primary vernacular schools to girls up to the age of eight, and to exempt girls from tuition fees. But before the question was raised in this way, the custom was not wholly unknown in these provinces. In Shahjahanpur girls were already allowed to read in primary schools with boys. There were three schools in the Bijnor district where the same practice prevailed, the villages being small and the people connected with each other. Instances are in fact occasionally met with all over the provinces without any harm resulting.

Wherever District Boards have admitted girls to the primary village schools the experiment has realized the expectations formed by the Director.

### Home Classes.

General  
principles

973. For many years past endeavour has been made to meet the obstacles to the education of Indian women which result from early marriage and strict seclusion by a system of home classes, in which girls and young women may be taught without the breach of privacy involved in attendance at school. Much useful work has been done in this manner by various zanana missions, and also

in a lesser degree by Native associations. The Education Commission made the following comments on this subject:—

But in the existing circumstances of the women of India, the mere establishment of schools will be by no means sufficient to bring about the spread of education among them. Public sentiment keeps them secluded in zenanas, many from their infancy, and many more from the age of eleven or twelve. From this it follows that the education of girls of the better classes cannot be carried on in schools to anything like completion, and that in the case of many it cannot even be begun. Some plan is needed for conveying instruction to those who cannot leave their homes to seek for it, and for promoting further the teaching which may have been begun in schools. Agencies for zenana teaching are conducting this work with considerable success. Actuated in many cases by religious motives, zenana teachers have brought some measure of secular instruction into the homes of those who would otherwise have been totally debarred from it. We see no reason why this secular instruction, imparted under the supervision of ladies worthy of confidence, should not be recognized and assisted, so far as it can be tested by a proper inspecting agency. Rules for aid to zanana teaching should be drawn up in consultation with those who conduct the work, and should be such as to assist them substantially in extending their operations, so far as concerns secular teaching. Associations have arisen in some places, aiming at the extension and improvement of female education. These also might be encouraged so far as they produce secular results. In order that these results may be fairly estimated, it seems necessary that the services of sympathetic and well-qualified inspectresses should be more largely made use of.

Holding these views the Education Commission recommended: "that grants for zanana teaching be recognized as a proper charge on public funds, and be given under rules which will enable the agencies engaged in that work to obtain substantial aid for such secular teaching as may be tested by an inspectress, or other female agency." In some provinces grants are given in aid of home teaching in accordance with this recommendation, but such teaching is to a considerable extent unaided and uninspected, and it is not therefore possible to form an estimate of the extent to which it prevails at the present time nor of the progress it has made during the quinquennium under review. There is also a certain amount of private instruction in the homes of the upper classes, which also finds no place in the educational statistics.

974. In the MADRAS Report for 1901-02 it is stated that "four groups of home education classes of the secondary grade conducted by zanana agencies returned 98 pupils during the year, of whom one was in the upper secondary, 21 were in the lower secondary, and 76 were in the primary department, against five groups of classes with 2, 30, and 78 pupils in the respective departments in the previous year. The Church of England Lutheran Mission home education classes, Ootacamund, ceased to work, while the National Indian Association classes at Madras, Cuddalore and Coimbatore, and the Free Church Mission home education classes, Madras, continued to work during the year, instruction being given in the last named up to the upper secondary grade." Similar agencies exist in BOMBAY, and notably at Karachi, but the results have not been tabulated. There is a certain amount of zanana teaching in BENGAL, but it is difficult to make any estimate of what has been done in this respect. Recently arrangements have been made in Bengal for home education by orthodox Hindu and Muhammadan female teachers. In the UNITED PROVINCES a great deal of zanana work is done in the homes of the people, but the teaching is neither aided nor inspected, and it is not possible to say how widely it extends. In the PUNJAB Report for 1901-02 it is stated that "the number in attendance on the zanana classes of missionaries in this year was returned as 699, against 945 last year, compared with 575 in 1896-97. The home classes maintained by the Punjab Association, which did not exist in 1896-97, were attended by 42 scholars at the close of the last year." In the CENTRAL PROVINCES the zanana mission at Jubbulpore imparted instruction to 400 women in their homes against 300 in 1896-97.

975. In MADRAS a salary for a qualified mistress teaching Hindu or Muhammadan girls in their homes may be sanctioned by the Director; provided (1) that the total number of pupils in standards above the first is not less than ten, (2) that the pupils are not under ten years of age, and (3) that the teacher devotes to the classes at least twenty hours a week. In CALCUTTA, zanana missions receive grants for girls passing by the recognized standards varying in amount from R10 to R50. A grant of R5 may be made for each girl among

those who do not present themselves for examination provided that the Inspectress certifies that a standard higher than the fourth has been reached. In the CENTRAL PROVINCES, grants-in-aid of societies or associations engaged in the instruction of girls in private houses are sanctioned by the Local Government, provided:—

- (1) that current accounts, together with the time table, the scheme of studies so far as secular instruction is concerned, and the register of attendance, are subject to Government inspection;
- (2) that each pupil receives instruction in one or more languages, in arithmetic and geography, in needlework, and in object lessons;
- (3) that, ordinarily, fees are levied;
- (4) that the total number of pupils under instructions is not less than ten.

### Teachers.

Want of suitable teachers.

976. The want of trained female teachers is one of the great obstacles in the way of the progress of female education. Since few Indian girls carry their education beyond an elementary stage the class whence female teachers can be drawn is a very limited one, whilst the time has not yet come when the profession of a teacher can be looked upon as an ordinary career for a Hindu or Muhammadan lady. The pupils in the female normal schools are for the greater part Europeans and Eurasians and Native Christians; the total number of Hindu and Muhammadan pupils amounted only to 217 at the end of 1901-02.

Statistics of teachers.

977. Omitting all schools in the North-West Frontier Province and Coorg, and certain classes of schools in Bombay, Burma, the Central Provinces, and Berar there were (Table 195) at the end of 1901-02 nearly 9,000 teachers in girls' schools. In Madras nearly one-half of the teachers were trained, in Bombay (where there are no normal colleges for secondary teachers of Indian schools) less than one-fifth, and in Bengal (where primary school teachers are in general untrained) only 92 out of a total of more than 2,000. The figures are not available for other major provinces. In Madras trained teachers increased in number by 460 during the quinquennium, whilst the increase in the total number of teachers of girls' schools was only 133.

Male and female teachers.

978. In some provinces a large proportion of the teachers in schools (other than mission schools) for girls are men; figures are not available to show the exact proportion. In BENGAL: "The number of female teachers continues very small. Of those that are teaching the greater number are Christians, some are Brahmans, and a very few are Hindus. As neither Christian nor Brahma female teachers will be tolerated in girls' schools under Hindu management, these are for the most part taught by male teachers. The managers, however, take care to select teachers of character, and the teachers are generally elderly persons."\* In the UNITED PROVINCES: "Female teachers, competent or otherwise, are very scarce. The same difficulties which hinder the spread of female education operate even more unfavourably on the supply of female teachers. There is a prejudice against women following this profession and by many it is regarded as hardly respectable. A normal school at Lucknow for female teachers has at last been established, and it is hoped that the arrangements made to meet the requirements of the *parda* system will commend themselves to the native public."† In BERAR: "It has already been noticed in previous reports that the want of female teachers was very keenly felt in Berar. It was therefore thought necessary to have a class of our own where mistresses could be trained. Accordingly a scheme was submitted for the sanction of the Local Government, which was received about the end of February. This class has been opened at Akola since the close of the year. It is hoped that this will supply us with an adequate number of competent female teachers. At present we have nine head mistresses, of whom three are trained, and four assistant mistresses, of whom one is trained."‡

\* Report for 1901-02, page 50.

† Report for 1901-02, page 28.

‡ Report for 1901-02, page 14.

979. Table 196 shows the range of pay for teachers of girls' primary and secondary schools in Bombay, the United Provinces, and the Punjab. The minimum rate of pay in a primary school in these provinces appears to be ordinarily about R3 a month, and the maximum varies ordinarily between R20 and R60. In secondary schools, which include institutions of many different characters, the range is very wide. Pay of teachers.

### Financial.

980. The total expenditure on colleges and schools for girls of all kinds in 1901-1902 amounted to R34,03,000; this sum represents only a portion of the expenditure on female education since nearly half the girl pupils study in mixed institutions. The slackening of the progress of female education has been accompanied by a diminution of the rate of increase of expenditure on institutions for girls: the total increased by 5½ lakhs during the five years 1892-1893 to 1896-1897, and by only 1½ lakhs during the period under review. Expenditure has increased at a slower rate than numbers, and the average cost of educating a girl was therefore less in 1901-1902 than in 1896-1897. The average cost per pupil in a girls' school for general education (including both primary and secondary schools) was R14.1 in 1891-1892, R14.2 in 1896-1897, and R13.5 in 1901-1902. The cost of educating a girl is still much greater than that of educating a boy, the average expenditure per pupil in a general school for boys being only about R6. Comparing the figures of expenditure and population it appears that in 1901-1902 the expenditure on institutions for girls amounted to R29 per mille of the female population; the corresponding figure for 1891-1892 was R24. General statistics.

981. The total expenditure was distributed among different classes of institutions as follows: colleges R52,000; primary and secondary schools R31,19,000; training schools for mistresses, R1,79,000; and other special schools, R53,000. The expenditure on colleges shows the large increase of R39,000, whilst expenditure on primary and secondary schools increased by only R88,000, against R4,94,000 during the previous quinquennium. Expenditure on training schools rose by R10,000 against R39,000 in the previous quinquennium; and expenditure on special schools by R22,000 against R14,000. Expenditure on different classes of institutions.

982. The following table shows the order of the major provinces according to the rate of expenditure on institutions for girls per mille of the female population:— Expenditure by provinces.

	R
Bombay . . . . .	67
Madras . . . . .	42
Burma . . . . .	41
Punjab . . . . .	27
Bengal . . . . .	21
Central Provinces . . . . .	18
United Provinces . . . . .	15

Bombay stands well in front of the other provinces. The remarks of the Director and of the Local Government regarding the comparatively small expenditure in the United Provinces have already been quoted.

The following major provinces show an increase during the quinquennium:—

	Increase. R
Bombay . . . . .	95,000
Burma . . . . .	46,000
Madras . . . . .	35,000
Punjab . . . . .	31,000
United Provinces . . . . .	28,000
Central Provinces . . . . .	24,000

Bengal on the other hand show a loss of one lakh. The Bombay Director attributes the increase to enhanced expenditure from public funds on improved buildings and apparatus and on the higher salaries of the trained teachers who are now generally employed; and to increased expenditure by the States in

Kathiawar and by mission societies. The number of pupils in Bombay primary and secondary schools for girls having increased by over 8,500, the average cost of educating a girl in these schools was, notwithstanding the increase of expenditure, only ₹14.1 in 1901-1902 against ₹14.7 in 1896-1897. In Bengal, notwithstanding a decrease of over 6,000 pupils in primary and secondary schools for girls the average cost of educating a pupil fell from ₹12.6 to ₹11.8. The Director remarks that the greater portion of the total expenditure was incurred on schools for European girls, the proportion which the expenditure on such schools bears to the total expenditure on girls' schools being 53 per cent., against 70 per cent., in 1896-1897. If we take primary schools alone, which are mainly for Indian girls, the average cost per pupil shows a slight increase.

Expenditure  
by sources.

983. The total expenditure on public schools in 1901-02 comprised 12½ lakhs derived from public, and 19 lakhs from private sources. Expenditure from public sources increased by ₹92,000, and from private sources diminished by ₹3,000. The expenditure from public sources was distributed as follows: Provincial Revenues 7½ lakhs, local funds 3½ lakhs, and Native State revenues one lakh. The expenditure from private sources included 5½ lakhs from fees and 13½ lakhs from endowments, subscriptions, and other private sources. The largest variations during the quinquennium were an increase of ₹47,000 from Provincial Revenues, an increase of ₹1,17,000 from miscellaneous private sources, and a decrease of ₹1,20,000 from fees.

The proportion of the total expenditure which is met from public and from private funds is much the same in schools for boys and girls; in 1901-1902, the percentage met from private funds was 60.7 in the case of girls' schools, and 57.5 in the case of boys' schools. But the private expenditure is differently composed in the two cases. In boys' schools fees comprise over 70 per cent. of the total private expenditure, in girls' schools they constitute less than 30 per cent. The education of girls is to a considerable extent free or bestowed for very small payment, whilst endowments, subscriptions, and mission expenditure are relatively high. In schools for girls the contribution from Government Revenues is more than double that from local funds, whilst in boys' schools it is not much more than one-half. It has already been explained that in Madras all girls' schools are under direct Government management, and that in other provinces a considerable proportion of the secondary schools for girls are managed by the Education Department. In some provinces the Government aids private managed girls' schools directly instead of partly through the agency of Municipal and Local Boards.

Fee statistics.

984. The comparatively low fee income and its decrease during the quinquennium are due partly to the want of popularity of female education, and partly to the policy of the Government. In 1901-02, the average annual fee rate in secondary schools was only ₹12.2, and in primary schools annas 6. These low averages would be still further reduced if European schools were omitted; in secondary institutions the European school fees aggregated 3½ lakhs and the Indian school fees only 1½ lakhs, and in primary institutions European schools (comparatively few in number) accounted for ₹16,000 out of the total ₹62,000. In the United Provinces the fees paid by over 15,000 native girls in primary and secondary schools amounted in the aggregate to only ₹3,248.

Fee regula-  
tions.

985. In MADRAS schools for native girls are exempted from the general fee regulations and the levy of fees is controlled by the Director or by special orders of the Government. In BOMBAY all girls are free in primary schools but they pay fees in secondary schools. In BENGAL there are practically no fees in schools for native girls, but fees are charged in mixed schools for boys and girls. In the UNITED PROVINCES girls are exempted from tuition fees in village primary schools. In the PUNJAB no fees are charged in Local Board schools for girls; fees are levied in the Bengali school at Simla, in the S. P. G. Mission Vernacular Middle school at Delhi, in the Lady Dufferin Christian girls' school, in the Alexandra girls' school, and in the Municipal and aided schools at Dera Ghazi Khan, and in some aided schools in the Gujranwala,



Sialkot, and Rawalpindi Districts. There appear to be no special rules regarding the payment of fees by girl pupils in BURMA. In the CENTRAL PROVINCES special rates of fees for girls' schools may be fixed by the Director.

986. In most provinces liberal provision is made for the grant of scholarships for girls. Since very few girls pursue their education beyond the primary stage, the demand for scholarships is not great, and in some cases those offered are not all taken. For this reason, encouragement is sometimes given to female education by the grant of prizes instead of scholarships. Thus in Assam, a girl who obtains a competitive middle scholarship may be granted a prize of R40 in lieu of a scholarship, if she is unable to continue her studies. Again in the schools in and round Calcutta, a sum of R780 formerly allotted for scholarships is now distributed in the form of prizes, 43 in number and varying in amount between R140 and R300. Scholarships.  
General  
remarks.

987. MADRAS.—Twenty-five scholarships are offered each year to girls on the result of the lower secondary examination, and 40 general scholarships, and 60 special scholarships for Hindus and Muhammadans, on the result of the primary examination. There are more scholarships than applicants. In 1901-02, 24 of the lower secondary and 35 of the primary scholarships were awarded, the majority of the recipients being Native Christians. All the 60 special scholarships granted on the results of the primary examination were awarded during the year, 11 to Brahman and the remainder to Non-Brahman caste Hindu girls; among Muhammadan girls there were no eligible candidates. Seven scholarships are given on the result of the matriculation examination, three to Europeans and four to Indians. Scholarship grants are given under the grant-in-aid rules, the grants for girls being, in all departments, at higher rates than those for boys. The expenditure on scholarships during 1901-02 amounted to R9,849 against R10,946 in 1896-1897. Provincial  
arrange-  
ments.

BOMBAY.—The number of scholarships held by girls in Bombay (from public and private sources) during 1901-02 were as follows:—

In Arts Colleges	.	.	.	.	.	.	10
„ High Schools	.	.	.	.	.	.	102
„ Middle Schools	.	.	.	.	.	.	14
„ Primary Schools	.	.	.	.	.	.	1,637

The scholarships provided are said to be sufficient.

BENGAL.—A certain number of scholarships in all stages are reserved for female pupils, and they are generally appropriated. In the collegiate stage there are two senior and three junior scholarships for female candidates. Girls may compete from girls' schools or mixed schools (middle and primary) for scholarships of any class (middle, upper primary and lower primary); but not more of one scholarship of each class may be awarded in any year to girls from the same school.

UNITED PROVINCES.—There is little information available. In higher education very few girls go beyond the entrance examination of the University; if a girl does go to college the value of the scholarships which she can get is twice as great as that of the scholarships open to boys.

PUNJAB.—Liberal provision is made in the Punjab, but the expenditure on scholarships and the number of recipients have diminished considerably during the quinquennium. Subject to certain conditions scholarships are granted to girls in vernacular schools or departments on the results of the lower primary and upper primary examinations, up to a limit of 20 per cent. of the number of girls in the department. The lower primary scholarships are at the rate of R1 a month for the first, and R1-8 a month for the second year; and the upper primary scholarships are at the rate of R2 a month for each of the two years for which they are tenable. The Director writes as follows in the Report for 1901-02:—

For the year under report the expenditure on scholarships amounted to R13,085 (including R3,575 on scholarships in secondary departments only), against R22,826 in 1896-97, or R11,979 last year, the whole, minus R1,098, being paid from Public Funds. In the middle department of native schools, there were 80 girls out of 237 in receipt of scholarships, compared with 92 out of 190 five years ago, and in the upper primary department with 1,087



pupils there were 601 scholarship-holders against 738 out of 1,068. The percentage of pupils in receipt of scholarships has fallen from 7·0 to 4·9, due to reduction in the number of scholarships and the proportion of girls eligible for them.

**BURMA.**—In 1901-02 girls held 2 senior and 2 junior scholarships in the Rangoon College, 3 middle English scholarships in high schools, and no primary scholarships.

**CENTRAL PROVINCES.**—There are special scholarships for girls awarded by selection.

**ASSAM.**—Girls may compete with boys for primary and middle scholarships, special scholarships are also awarded to girl pupils. The following special scholarships were offered to girls in 1901-02: lower primary scholarships, 7 of the annual value of ₹36, tenable for two years in upper primary or middle departments; upper primary scholarships, 4 of the same value, tenable for two years in middle departments. All the scholarships were not awarded in 1901-02.

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CHAPTER X.  
EDUCATION OF EUROPEANS.

Introductory.

988. This chapter deals with the education of the European and Eurasian community. The term is a very wide one, embracing all classes from the well-to-do Anglo-Indian officials and non-officials who usually send their children to Europe to be educated, to the indigent Eurasians of the large towns whose children are given elementary instruction in the free schools. Numerically the class which sends its children to England is very small, and India has therefore to provide for the education of nearly all the young Europeans and Eurasians in the country. The census of 1901 returned the European population of the area dealt with in this Review at 108,000 males and 42,000 females, and the Eurasian population at 38,000 males and 37,000 females. The disproportionate number of males among Europeans will be at once noticed. It is due to several causes, the most important among which is the presence of the British forces. The total European population of all India was returned at 123,000 males and 47,000 females, and the strength of the British troops in India in April 1901 was 63,000. The general European population is largest in the following provinces in the order in which they are named: Bengal, Bombay, United Provinces, Punjab, Madrás, and Burma. The Eurasian population is much the largest in Madras and Bengal; the two provinces account for 65 per cent. of the total number. Leaving the British forces out of account, the total European population in India increased during the decade 1881-1891 by about 17,000 and during the next decade by about 9,000. During the same two periods the Eurasian population increased by 18,000 and 11,000, respectively. In the census of 1901 the European and Eurasian population of less than 15 years of age in the area included in this review was returned as follows:—

European boys	.	.	.	.	12,909
„ girls	.	.	.	.	12,852
Eurasian boys	.	.	.	.	13,583
„ girls	.	.	.	.	13,415
TOTAL					52,759

989. In the Bengal Code for European schools the term “European” is used to signify any person of European descent, pure or mixed, who retains European habits and modes of life; and for the purpose of the grant-in-aid rules at least three quarters of the pupils in a “European school” must answer to the above definition. The Madras Code for schools in general gives the same definition, but does not lay down the proportion of European scholars which go to make a European school. In the Bombay Code a “European school” is one in which at least four-fifths of the pupils are of European or Indo-European descent. For the sake of convenience the term European will be used in this chapter in the general sense of the Codes. In some provinces schools in which Europeans and natives are taught side by side are by no means uncommon, and schools of this character may fall on one side or the other of the dividing line. These mixed schools are most often found in Madras, and the following notable examples may be given: St. Mary’s School, Madras, with 341 pupils and 187 Europeans; Santa Cruz School, Cochin, with 377 pupils and 136 Europeans; St. Thomé School, Mylapore, with 254 pupils and 71 Europeans; St. Aloysius’ School, Vizagapatam, with 160 pupils and 103 Europeans. In Bombay there are two allied classes of schools styled respectively “European Schools” and “English Teaching Schools.” They follow the same course of instruction but in the “English Teaching Schools” the number of Europeans, if any, is below the prescribed limit, and the grants are given at lower rates. In Bengal we may

The European and Eurasian Population.

Definition of “European” and “European school.”

give as an instance in point the Catholic Loreto House School for girls, Calcutta, with 165 pupils and 31 natives. The members of the Brahma Samaj sect frequently send their daughters to this high school. At the end of March 1903 the Calcutta High School for boys numbered 35 natives among its 144 pupils.

Europeans in native schools and natives in European schools.

990. The returns for the year 1901-02 show a total of 31,122 Europeans under instruction, of whom 16,584 were boys and 14,538 girls. The great majority of these pupils receive their instruction in European schools, but an important minority, amounting in 1901-02 to 3,138, are taught in schools not classed under this head. The practice of sending Europeans to native schools is most common in Burma, where 1,054 European pupils (amounting to 35 per cent. of the total number of European children under instruction in the province) were returned as studying in such schools. Madras had 798 European pupils in native schools, Bombay 752, and Bengal 370. In other provinces the number was small. There were in 1901-02, about 2,780 natives in schools classed as European. Nearly 1,400 of these, including 700 Christians, were in the Madras Presidency. There were also 633 in Bengal, 437 in Bombay, 217 in Burma, about 70 in the United Provinces, and a few in other provinces.

Scope of the chapter.

991. The present Chapter deals with the general state and progress of European education, and the statistics for pupils therefore include those Europeans who attend native schools. The conditions of their school life and instruction are similar to those of the native pupils, and therefore, in describing system and curricula, we shall confine ourselves to the institutions specially designed for Europeans.

### History.

General remarks.

992. Among the many hard problems of education in India that of the education of the domiciled Anglo-Indian community has proved one of the most difficult. Except a small minority, they are cut off from the educational facilities of the United Kingdom, and it has been no light task to provide them with anything approaching an adequate substitute in the foreign surroundings of an Eastern country. It was recognized from the outset that Europeans cannot ordinarily be educated in native schools, whilst in many cases neither their numbers nor their means were sufficient to enable them to establish schools for themselves. In spite of these difficulties a voluntary system has been developed which provides some form of instruction for practically all children who are not educated at home. This result has been achieved mainly through denominational agency with liberal State assistance.

From early times to the introduction of the Bengal Code.

993. The earliest schools for Europeans in India were day schools founded in connection with station churches in the plains. Gradually these schools grew into, or were followed by, boarding schools and orphanages, such as the Free School in Calcutta and the Educational Society's School in Bombay. The Civil Orphanage was founded at Madras in 1817 and the Bishop Corrie Grammar School in 1836. In 1836 the Martinière endowed school was founded in Calcutta, and in 1845 another Martinière school was opened at Lucknow. In 1823 the "Parental Academic Institution" was founded in Calcutta by voluntary contribution, and in 1853, on the receipt of a legacy of 2½ lakhs from Captain John Doveton, it developed into the Doveton College. Similar institutions were founded in other places, and Roman Catholic and other religious societies began to take part in the work. Six Roman Catholic schools were founded in the Madras Presidency between 1836 and 1845. In 1847 the system of hill schools was inaugurated by Sir Henry Lawrence, who established the Lawrence Military Asylum at Sanawar in order to remove children from "the debilitating influences of a tropical climate and the demoralizing effects of barrack life." Some of these schools received State aid, but no regular system prevailed and the institutions were altogether inadequate for the needs of the community. On July 28th, 1859, the day appointed for general thanksgiving on the suppression of the Mutiny, a collection was made in the churches of the Diocese of Calcutta for the establishment of a public school in the Himalayas. During the course of the next year the Bishop of Calcutta (Bishop Cotton) presented a memorial to the Viceroy pressing on him the need for a more complete system of education for European children.

Lord Canning dealt with the question in a celebrated minute in which he pointed out how the domiciled English and Eurasians would, if neglected, become profitless, unmanageable, and a glaring reproach to the Government, while if cared for betimes they might become a source of strength to British rule, and of usefulness to India. He considered that schools should be founded for the different denominations, both in the hills and in the plains, by the help of donations, aided by an equivalent contribution from the Government. The main result of this movement was the establishment of several hill schools. The foundation of Bishop Cotton School, Simla, was laid in September 1866. In 1865 St. Paul's School was removed from Calcutta to Darjeeling. On the 1st January 1867 the Diocesan Board took over the Mussoorie School which had been founded as a private institution in 1835. In 1865 the Caineville House School at Mussoorie was opened for girls, and in 1869 a Diocesan School for boys and girls was founded at Naini Tal. Other Church of England schools were established in the plains, the Roman Catholics extended their work, and schools were founded by the Church of Scotland. These additions to the existing schools were, however, incommensurate with the large and growing requirements, and they also failed in great measure to meet the needs of the poorer classes of Europeans and Eurasians. In 1871 a Commission was appointed to enquire into the condition of the European schools, and it reported that the system was inadequate and that the objects proposed in Lord Canning's Minute of 1861 had been to a considerable extent overlooked. While this report was under discussion, Archdeacon Baly made a tour through Bengal and the north and centre of India and represented to the Government that the existing arrangements were in many respects unsuitable, and that many poor European and Eurasian children were left altogether without education. There was little immediate result, but in 1879 Lord Lytton took up the whole question and wrote the second well-known minute on the subject. He referred to the earlier minute by Lord Canning, and stated that it was little creditable that, in spite of his warnings, so little should have been done in 20 years to remove the reproach. A committee was appointed of which Archdeacon Baly was a prominent member, and their labours ultimately resulted in the appointment of another Committee which drew up the Bengal Code for European schools.

994. Under this Code, which was published under the orders of the Government of India in February 1883, the whole subject of European education was taken under the control of the Government and institutions of all classes were made eligible for the receipt of liberal State aid on well-defined conditions and principles. From that time onwards the number of schools and scholars has steadily increased. The Code was not applied to Madras and Bombay, where more adequate arrangement had been made for encouraging the education of Europeans; but the Local Governments of those provinces made modifications in their grant-in-aid rules in the direction of the new Bengal system. In Burma, also, the general Code of the Local Government governs, with modifications, the grant of aid to European schools. The principal provinces of British India in which the Bengal Code is in force are therefore Bengal, the United Provinces, the Punjab, and the Central Provinces.

995. The Code was based on English and Scottish models, altered and extended to meet the special requirements of India. Its main object was the encouragement of all classes of private-managed European schools by means of grants-in-aid based on the attendance and proficiency of pupils, *i.e.*, on what is called elsewhere in this Review, the *results-grant* system. At the same time arrangements were made for special grants to schools established in localities containing a small or poor European population, to free schools and orphanages in aid of their boarding charges, and for the boarding of children residing in places where there were no schools. General courses of instruction were laid down, and primary, middle and high standards were fixed for the purpose of awarding the grants. A system of certificated and pupil teachers was also prescribed.

The Code has been revised in some particulars from time to time, and it underwent a thorough revision at the hands of a committee appointed in the year 1895. The most important change made by the committee was the abolition of the results-grant system, which gave an undue prominence to individual examination, in favour of an attendance-grant awarded to every school which is declared

efficient on the verdict of the Inspector. At the same time a change, which will be noticed hereafter, was made in the method of certificating teachers; transfer rules were introduced; more liberal provision was made for the industrial training of poor children; and various modifications were introduced into the curriculum.

**Collegiate Education.**

Arts colleges.

996. The general statistics show 20 arts colleges for Europeans, 11 for men and 9 for women. They are none of them separate institutions, but are all collegiate classes attached to existing high schools. Five are in Madras, 5 in Bengal and 10 in the United Provinces. During the quinquennium, the Madras colleges increased in number by two, and the United Provinces show an apparent increase of eight, due mainly to certain unaided institutions not having submitted returns in 1896-97. All the collegiate classes belong to private-managed institutions, 7 are aided and 13 are unaided.

The MADRAS collegiate schools are all situated in the Presidency town and comprise the following:—

- For men { St. Mary's College.
- { Doveton College.
- { St. Thomé College.
- For women { St. Mary's Presentation Convent, Black Town.
- { St. Mary's Presentation Convent, Vepery.

The BENGAL collegiate classes are attached to the following schools:—

- For men { St. Xavier's, Calcutta.
- { La Martinière, Calcutta.
- { Doveton, Calcutta.
- For women { La Martinière, Calcutta.
- { Loreto House, Calcutta.

There is a larger number of college classes in the UNITED PROVINCES, affiliated to the Allahabad University. Seven of the collegiate schools are in the hills, and one each at Agra, Lucknow, and Allahabad. The following is a list of the institutions:—

- For men { St. George's College, Mussorie.
- { Philander Smith Institute, Mussorie.
- { St. Joseph's Seminary, Naini Tal.
- { St. Peter's College, Agra.
- { La Martinière College, Lucknow.
- For women { Wellesley School, Naini Tal.
- { All Saints' School, Naini Tal.
- { Caineville House School, Mussorie.
- { Woodstock School, Landour.
- { Girls' High School, Allahabad.

Most of these schools were affiliated before the beginning of the quinquennium, but only two submitted returns in 1896-97.

Bishop Cotton School at Simla in the PUNJAB is not included in the college statistics. It is, however, affiliated to the Calcutta University, and in 1901-02 one boy from the school appeared for the F. A. examination.

Students in arts colleges.

997. Few Europeans carry their general education beyond the school stage. A large proportion of the parents cannot afford to give their children a collegiate education, and the boys find more ready employment on the railways and in mills, offices, shops, and other industrial concerns, than in the learned professions or in other careers to which a University course in arts gives access. The following table shows the number of European students in arts colleges in the different provinces on the 31st March 1902:—

	Boys.	Girls.	Total.
Madras	15	27	42
Bombay	11	6	17
Bengal	45	19	64
United Provinces	83	44	127
Punjab	2	2	4
Burma	1	1	2
Central Provinces	1	1	2
<b>Total</b>	<b>175</b>	<b>102</b>	<b>277</b>

In 1896-97, the total was 192; and in 1891-92, 159. The apparent increase during the quinquennium under review is due to unaided collegiate classes in the United Provinces having adopted the practice of "submitting returns"; the recorded total for these provinces rose from 26 to 127. In Bengal the number of students has fallen from 79 to 64. In Madras, Bengal and the United Provinces the great majority of the scholars read in special European collegiate schools, in Bombay and Burma they all study in general colleges. In either case they follow the ordinary University course, but the choice of subjects allows them to take up Latin or Greek in place of a classical language of the East.

998. It is somewhat remarkable to find that girls form so large a proportion of the total, and that in Madras their number exceeds the number of boys. The following comments which are made by the Director in Madras, apply in a greater or lesser degree to other provinces:—

"The gradual fall in the number of European male students in colleges and the equally steady rise in the case of female students are specially noteworthy. The tendency in European boys to discontinue their studies with the upper secondary stage appears to be getting more marked year by year. Whether on account of the generally indigent circumstances of the community or on account of failing prospects in the higher professions, a large proportion of boys seek employment in factories, shops, and railways as soon as they have passed through the secondary stage. The increasing number of female students in the higher stages is explained by the fact that women have fairly good prospects of employment in the teaching and medical professions.

It may be added that many more boys than girls go from school to the professional colleges.

999. The number of European graduates in arts is small even when compared with the small number of students. In 1901-02, one European passed the M.A. examination and 13 qualified for the B.A. degree; in 1896-97, 14 passed for the B.A. or B.Sc. degree. Many of the students cease their studies or branch off into professional lines after passing the intermediate examination. Fifty-two (including six candidates at the Bombay previous examination) passed the intermediate examination in 1901-02, and 46 in 1896-97.

### Schools for General Education.

1,000. The European schools are classed as high, middle, or primary, and both high and middle schools are styled secondary schools. The meaning of these terms in the Bengal Code is similar to that which they bear when applied to native schools. The full school course comprises the infant standards and the standards numbered I. to VIII. Standards I. to IV form the primary course, standards V. to VII the middle course, and standard VIII (or other recognized equivalent) the high course. Similarly the pupils in standards below the first form the infant section of the school, the pupils in standards I to IV form the primary section, the pupils in standards V. to VII. form the middle section, and the pupils in standard VIII, or following some other recognized course, form the high section. A school is classed as a primary, a middle, or a high school, according to the highest standard up to which it is authorized to teach, and schools are graded by the Department after enquiry by the Inspector and with reference to the competence and sufficiency of the staff. In general, schools of every grade contain classes from the lowest standard upwards.

In MADRAS and BURMA the grading and departments of European schools are the same as those of native schools. In BOMBAY the system under which native children study up to the fourth standard in a vernacular primary school and are then transferred to an English secondary school could not be applied to European schools, and such schools have nine standards of their own. Standards I to IV form the primary stage, standards V. and VI. the middle stage, and standards VII. to IX. the high stage. Schools are graded and divided into sections according to these standards.

1,001. In the statistics for 1901-02, 354 institutions are returned as European schools, against 330 in 1896-97, and 300 in 1891-92. Out of the total 354 institutions, all but 75 are secondary schools. During the quinquennium under review the number of primary schools increased by three only, whilst the number of secondary schools rose by 21. During the previous quinquennium the number

Degrees

Grades and sections of schools.

Secondary and primary schools.

of secondary schools increased by 16, and the number of primary schools by 14. The increase in the later quinquennium was shared by a number of provinces and was much the greatest in the United Provinces which gained 10 secondary schools on 31. The number of secondary schools is greatest in Madras (73); Bengal comes next (52); and then Bombay (46), and the United Provinces (41). Bengal has the largest number of primary schools (24), and then Madras (18), and the United Provinces (17). A considerable proportion of the secondary schools are boarding establishments, and many institutions which are mainly day schools have boarding houses or dormitories belonging to them. Most of the primary schools, on the other hand, are day schools. Whilst, therefore, the commonest form of native school is the primary day school, the typical European school is the secondary boarding school.

Schools for boys and girls.

1,002. Among the secondary institutions (excluding those in Burma) 123 are returned as schools for boys and 139 as schools for girls. The primary schools (excluding 4 in Burma) are divided into 33 for boys and 38 for girls. The excess of girls' schools is a noticeable feature, and it will be found that on the whole the facilities for the instruction of girls are greater than those afforded to boys. This is partly due to the large number of Roman Catholic convent schools which exist not only in the large cities, but also in a number of places in the interior. Although all schools are classified in the returns as either boys' or girls' schools, yet a considerable number are in reality mixed schools in which boys and girls are received indifferently, and often in almost equal proportions. The secondary boarding schools are in general specially designed for either boys or girls, although little boys are often taught, and are sometimes boarded, in girls' schools, but the various classes of day schools usually give instruction to both boys and girls. Thus in Bengal out of 31\* middle schools 9 are mixed, out of 27\* primary schools 23 are mixed—the other four are two orphanages for girls, a free school for girls, and a nursery for small boys.

Schools of the hills and plains.

1,003. Another important distinction is that between the schools of the hills and of the plains. Numerous boarding schools have been established at various places in the hills which not only serve the hill stations, but also receive numbers of boys and girls from the plains, in order that they may be brought up in a more healthy climate than that of the stations in which their parents live. The rise of the hill schools has been noticed in an earlier portion of this Chapter. They belong to two main types—the secondary schools for boys and girls to which children of comparatively well-to-do parents are sent, and orphanages and other charitable institutions for poor children. As schools of the former type may be instanced St. Paul's Boys' School at Darjeeling, Bishop Cotton Boys' School at Simla, and Caineville House Girls' School at Mussoorie. To the latter type belong institutions such as the Lawrence Asylums and the Mayo Industrial Orphanage for girls at Simla. Almost all the hill schools are situated in the Himalayas, but there are also a few boarding schools for boys and girls at Ootacamund and Coonoor in the Nilgiris. Out of the total number of 29,000 European pupils in primary and secondary schools over 5,000 are in the hill schools of Bengal, the United Provinces, the Punjab, and Madras. The total includes the pupils of local day schools, but these are much fewer in number than the pupils of the boarding schools.

Management of schools.

1,004. The European schools are, and always have been, almost entirely under private management. The only public managed institutions are a few Government schools of a special character. They include the Military Lawrence Asylums for boys and girls at Ootacamund in Madras, and Sanawar and Murree in the Punjab, the two schools for boys and girls at Kurseong near Darjeeling in Bengal, and a small primary school at Shillong in Assam. The private managed schools fall under the following main categories: Church of England schools under diocesan, parochial or committee management; Catholic schools and convents; schools managed by mission and other religious societies of different denominations; undenominational schools managed by local committees; and railway schools. Among the private managed institutions all but 16 of the secondary, and all but 8 of the primary, schools receive aid from the State.

\* These figures do not correspond with those in the statistical tables; they are based on a somewhat different classification, and include some private institutions.

1,005. An examination of the schools existing in the several Provinces will throw further light on the origin and character of the institutions for the instruction of European children. Examination  
by provinces.

1,006. MADRAS.—Madras has the largest European and Eurasian population and the largest number of European schools. The returns classify the institutions as follows:—

For boys—				
Upper secondary schools	.	.	.	10
Lower secondary schools	.	.	.	24
Primary schools	.	.	.	7
For girls—				
Upper secondary schools	.	.	.	13
Lower secondary schools	.	.	.	26
Primary schools	.	.	.	11

In each class the number of girls' schools exceeds the number of boys' schools.

The statistical returns give, however, an incomplete picture of the state of education of the European children of the province, inasmuch as a number of them are educated in the station of Bangalore in Mysore, where the climate is better than in the Madras Presidency. The principal secondary schools for boys at Bangalore are Bishop Cotton High School (Church of England), St. Andrew's High School (Church of Scotland), Baldwin's High School (Episcopal Methodist), and the Roman Catholic College. In the Presidency itself the most important schools for boys and girls are situated in the city of Madras, but, as already stated, there are a few schools in the hills, and others are scattered among the various stations which have a European population. There are also a number of railway schools along the different lines. With few exceptions the schools are denominational, some are Church of England schools under diocesan or parochial management, and others are managed by mission and other religious societies. A large proportion belong to the Roman Catholics. As a rule Protestant boys attend Protestant schools only, and Roman Catholics always attend schools of their own denomination. As regards Protestant denominational schools, the distinction between them is frequently nominal, that is to say, a boy is often sent to the most convenient school, to whatever denomination his parents may belong. The principal Roman Catholic schools have much larger classes than the Protestant schools, many of their pupils belong to the poorer Eurasian classes, and the schools have native as well as European sections. Among the most important boys' schools in Madras are the Doveton College (unsectarian), Bishop Corrie's Grammar School (Church of England), and St. Mary's Seminary (Roman Catholic). The Doveton School was founded in 1854, and, like the school bearing the same name in Calcutta, was endowed under the will of the late Captain Doveton. At the end of 1901-02 it had 145 pupils of whom only 4 were non-Europeans. It had a staff of 7 teachers and its expenditure was R13,000. Bishop Corrie's Grammar School was founded in 1836, largely through the instrumentality of the Bishop whose name it bears. It is in part an independent and in part a charitable institution. At the end of 1901-02, it had 142 pupils of whom 130 were Europeans. The St. Mary's Seminary is a Roman Catholic institution; in 1901-02 it had 341 pupils of whom 187 were Europeans. It has a staff of 13 teachers, and its expenditure in 1901-02 was R14,000. Outside Madras the two largest schools for boys are both of the Roman Catholic denomination: they are the Santa Cruz High School, Cochin (377 pupils and 136 Europeans), and the St. Joseph's Lower Secondary School, Calicut (222 pupils and 135 Europeans). Among the hill schools are the Brecks Memorial School and the St. Agnes' Parochial School at Ootacamund. They are both small institutions. There are 9 railway schools for boys, the largest of which is at Perambur. (107 pupils and 6 teachers). Most of the others are small schools with less than 50 pupils and 2 or 3 teachers. They are all of the lower secondary (middle) grade.

1,007. As regards the education of girls the most striking feature is the large number of Roman Catholic convent schools. Eight of the 13 high schools for girls are institutions of this class, and three of them are situated in Madras City. The largest are the Black Town and Vepery Presentation Convent schools,



each of which has over 150 pupils and 9 teachers. Apart from the convent schools the most important institutions are the female branch of the Doveton School (151 pupils), and the Vepery Collegiate School (242 pupils). Outside Madras most of the girls' schools are under Church of England management, or belong to convents or other Roman Catholic institutions. There is a railway school for girls at Madura.

1,008. There are several orphanages and boarding schools for poor children in the Madras Presidency. The Ootacamund Lawrence Asylum (287 boys and 58 girls) is the only Government school for Europeans in the Province. The Egmore Civil Male and Female Orphan Asylum was founded in 1807, and received its building as a gift from Lord Napier, the Governor, in 1870. There is a Protestant orphanage for boys at Bellary, and there are orphanages for girls at Black Town, Madras, and at Ootacamund.

1,009. BOMBAY.—Next to Bengal, Bombay has the largest European population, but its Eurasian population is comparatively small. All European schools in the Bombay Presidency are under private management, and all but two are aided. They are all classed as secondary schools. In 1901-02 there were 9 high schools for boys and 13 for girls; there were also 14 middle schools for boys and 10 for girls. Ten of the schools for boys are in the city of Bombay, 2 are at Poona, 3 are in Sind, and 5 are railway schools on the Great Indian Peninsula and Southern Marhatta lines. Most of the schools are Protestant and Roman Catholic denominational institutions. The largest schools for boys are the Cathedral High School (168 pupils), the Bombay Education Society's School (171 pupils), and St. Mary's Institution (287 pupils). They are all situated in Bombay city. The Cathedral or Diocesan School is a Church of England institution which was founded in 1866. The Educational Society's School is a Protestant institution. It was founded in 1815 for the education of natives as well as Europeans, and the society had at one time schools at Thana and Surat and day schools in Bombay itself. After 1839 its attention was confined to its male and female schools at Byculla, which were for many years the best, and almost the only schools for Europeans in Bombay. St. Mary's School, Mazagaon, is a Roman Catholic institution. The schools for girls are mostly situated in Bombay and Poona, and five of the high schools are attached to convents. The Cathedral School and the Bombay Educational Society's School have large female departments. There are four railway schools for girls. The principal orphanage included in the Bombay returns is the Lawrence Asylum at Mount Abu in Rajputana (78 pupils). There is also a Scottish Church orphanage at Mahim and a girls' home at Poona.

In the Report for 1901-02 the Director makes the following remarks on the condition and progress of the European schools:—

The Inspector (of the Central Division) calls special attention to the progress made during the last five years by the Bombay Education Society's School at Byculla, and by the Panchgani High School which is supported by the Church Missionary Society and is well managed by Miss Kimmins. He remarks that the Bombay schools have been very hard hit by plague, and that it is doubtful if the boarding institutions will ever thoroughly recover. In the Southern Division the schools of the Southern Mahratta Railway at Dharwar and Hubli and that maintained at Belgaum by a religious society are reported to be well accommodated, well equipped, and well conducted, and to supply the educational wants of the three towns in which alone there is a European community. It is noted that in Sind, European schools suffer from isolation and consequent absence of emulation.

1,010. BENGAL.—Next to Madras Bengal has the largest European and Eurasian population, and next to Madras it has also the largest number of European schools. In the returns the 76 European schools are classed as follows:—

For boys—	
High schools	10
Middle schools	18
Primary schools	12
For girls—	
High schools	7
Middle schools	22
Primary schools	12

1,011. The schools are designed to meet the needs of classes of the community which differ widely from one another, and they are of varied character. They may be roughly divided into the following main types:—

- (1) The secondary boarding schools based on the European model. Most of these are in the hills, but there are also two institutions for boys and two for girls of a similar character in the plains. The two boys' schools are: St. Michael's High School near Bankipore, and St. Patrick's High School, Asansol. The hill schools are mainly used by the classes of the community next below the class which sends its children to be educated in England.
- (2) The secondary schools of the plains, mostly situated in Calcutta. Many of these schools have boarding accommodation attached to them, but they are to a large extent day schools, and even where there are boarders the English boarding-school life does not form so characteristic a feature of the institution as it does in the hill schools. In general these schools are used by classes less favourably circumstanced than the classes which send their children to the hill schools.
- (3) The primary day schools, chiefly located in Calcutta. The children who attend these schools belong, as a rule, to the poorer, and sometimes even to the destitute, classes. Some of them go on to the secondary schools, but many do not carry their education beyond the primary stage. Most of these schools are mixed schools, accepting boys and girls indifferently; some are partly independent and others are free.
- (4) The free boarding schools, mostly situated in Calcutta. These are charitable institutions, and some or most of the inmates receive their board and teaching free. Some of these schools are attended by day pupils as well as boarders. They are used by the poorest classes.
- (5) The railway schools.

1,012. The following are among the principal schools of the first type:—

- For boys—
- (1) St. Paul's, Darjeeling (Church of England).
  - (2) St. Joseph's, Darjeeling (Roman Catholic).
  - (3) Victoria School, Kurseong (Government).
  - (4) St. Michael's High School, Bankipore (Roman Catholic).
- For girls—
- (1) Diocesan Girls' School, Darjeeling (Church of England).
  - (2) Loreto Convent, Darjeeling (Roman Catholic).
  - (3) Dew Hill Girls' School, Kurseong (Government).
  - (4) Queen's Hill School, Darjeeling (American Methodist).

The aim of St. Paul's School has been to provide, at as reasonable a charge as possible, education of a high standard on the lines of that given in an English public school, to the sons of members of the European community who cannot afford to send their children to England. The history of the school is a very interesting one, and affords a striking instance of the vicissitudes and difficulties which have befallen many of the European schools in India. In the year 1830 Archdeacon Corrie and his friends established a high school for Europeans in Calcutta. The institution failed and in 1846 it was broken up and replaced by the St. Paul's School, which was located in 1848 in a building in Chowringhee Road. For a time this school flourished, but it was unendowed, and in the end it failed to hold its own against its endowed rivals, the Doveton and La Martinière colleges. It fell into debt and in 1863 the school was closed, and the premises were sold for a sum of Rs. 1,30,000. It was decided by the trustees to use the sale-proceeds to establish a school at Darjeeling, which would, it was thought, be a great boon to many of the inhabitants of Calcutta and Bengal. This was the time when Bishop Cotton was advocating the establishment of hill schools for Europeans. He raised funds by private subscription and the Government made an equivalent contribution. By this means a sum of Rs. 1,12,300 was collected, and it was invested in 1868 in the form of an endowment. The school was opened at Darjeeling in 1864 with 30 pupils on the rolls, and from that date until about the

year 1895 the numbers gradually increased. Thence onwards the prosperity of the school declined; it suffered from a growing tendency on the part of Anglo-Indian parents to send their children home to be educated, and also from the competition of the Roman Catholic St. Joseph's College which was opened at Darjeeling in 1888 with 35 boys, a number that had increased to over 200 in the year 1895. In order to accommodate its growing numbers the St. Paul's School embarked on considerable expenditure on buildings, and when the number of pupils diminished it fell into financial embarrassment and had to seek the aid of a special Government grant. On the 31st March 1903, there were 81 pupils (nearly all boarders) on the rolls, and the staff consisted of six masters, of whom four were graduates of Oxford or Cambridge. The total expenditure during the year 1902-03 was R71,000, of which R26,000 was met by Government. At the end of the year the school was in debt to the extent of more than one lakh. The school is frequented by the sons of Government officers and clerks, planters, railway officials, and the like. The ages of the pupils vary from about 8 to 19 years; as a rule they complete the primary course by about 13, the middle course by about 15, and the Senior Cambridge Local course by about 18. About 40 per cent. of the boys go to England from the school; some when they reach the age of about 11 or 12, and others at or near the end of the course. The best pupils often enter Government service; in the past four years three entered the Police Department, one the Public Works Accounts Department, two the Survey Department, one the Khedda Department, and one the Opium Department.

The rise of St. Joseph's College has already been noticed. It is a large Jesuit institution and the teaching staff is composed mainly of members of the Order who are unsalaried. The Victoria School, Kurseong, is the only Government institution of its class in India. It was originally established in the year 1879 for railway employes and its scope was afterwards extended to Government servants of all classes. The children of non-officials are also admitted, but they pay a higher rate of fees. At the end of the year 1902-03 it had 193 pupils on the rolls of whom all but 2 were boarders. It had 9 teachers including a gymnastic instructor. Four of the teachers have English or Irish qualifications, and two are graduates of the Calcutta University. The school is a middle school, and does not aim at giving an education of so high a class as that offered by St. Paul's School. Its expenditure in 1902-03 was R24,527 of which R16,353 was borne by Government. St. Michael's School at Bankipore had 191 pupils and 9 masters on the 31st March 1903. All the pupils were boarders.

The Diocesan Girls' School at Darjeeling has about 80 pupils, nearly all of whom are boarders. It has a large staff of 23 mistresses and teachers, including teachers of music, singing, dancing, and sewing. The Loreto convent had 165 pupils in 1903, and all but 27 were boarders. The staff comprised eleven mistresses and teachers, most of whom were Sisters of the Convent. The Dow Hill School is the female department of the Government school at Kurseong. It has 80 pupils all of whom are boarders, and a staff of 10 mistresses and teachers.

1,013. There are about 10 boys' and 20 girls' schools of the second type. The boys' schools comprise 3 Church of England schools, 6 Roman Catholic schools, and one school of the American Methodist Mission. The girls' schools comprise 3 Church of England schools, 13 Roman Catholic schools, one school of the American Methodist Mission, one proprietary school, and an undenominational day school at Kidderpore managed by a local Committee.\* A number of the girls' schools admit young boys. The preponderance of girls' schools and of Catholic schools is noteworthy. Most of the Catholic girls' schools belong to the Loreto Order and to two branches of the Order of the Sisters of the Cross. Among the boys' schools the largest is the St. Joseph's High School, Calcutta, a Roman Catholic institution of the Order of the Christian Brothers. It has about 400 pupils and a staff of 12 masters most of whom are members of the Order. The largest and most important of the girls' schools is the Loreto House School at Calcutta. This is a popular institution with a large staff comprising 20 ladies of the Order, 2 professors of music, and a professor of painting and drawing. On the 31st March 1903, there were 188 pupils on the rolls, 26 of whom were boarders. The total included 23 boys and 31 natives; many of the latter were of the Brahma Samaj sect.

\* Since transferred to the Calcutta Christian Schools' Society (non-conformist).

The primary day schools include the following institutions in Calcutta :—

- Three Church of England parochial schools.
- The Gouldsmith Free Day School.
- Two Non-conformist schools.
- Five Roman Catholic free schools or free departments.

There is also a small undenominational primary day school at Dinapore. These schools give instruction to about 1,000 pupils of both sexes, many of whom belong to the poorest classes of the community. The largest institutions are the Free Department of the Loreto School, Bow Bazar (87 boys and 203 girls), and the St. Joseph's Free School, Calcutta (263 boys). The latter institution is a branch of the high school of the same name. It has a staff of 4 Brothers of the Order and 6 lay masters.

1,014. The following is a list of the principal free boarding schools and orphanages :—

For Boys.	For Girls.
Calcutta Free School (227 pupils).	Calcutta Free School (202 pupils).
Catholic Male Orphanage, Calcutta (271 pupils).	Loreto Orphanage, Entally (294 pupils).
St. Patrick's Free Department, Asansol.	St. Teresa's Orphanage, Kidderpore (54 pupils).
St. Michael's Free Department, Bankipore.	St. Joseph's Orphanage, Bankipore (56 pupils).

The Calcutta Male Orphanage has about 50 day pupils, in the other institutions practically all the pupils are boarders. The Calcutta Free Schools are Church of England institutions, the remaining schools are all Roman Catholic. The Calcutta Free School for boys and girls is an institution of very old standing. The original Calcutta Charity School was established about the year 1729. "It was under the care of the select vestry, and was supported by voluntary contributions. Part of the restitution money received for pulling down the English Church by the Moors at the capture of Calcutta in 1756" was given to the school. The present free schools are the direct descendants of this institution. Both the boys' and the girls' school teach up to the middle standard. A certain proportion of the children are admitted free and the remainder pay fees varying from R8 to R14 a month. The schools are managed by a committee of which the Bishop of Calcutta is the Chairman. The children vary in age from about 7 to about 15 years. The boys' school has a staff of 9 masters and 2 mistresses, of whom 3 are graduates of Indian Universities. There are 7 mistresses on the staff of the girls' school, several of whom were trained at the Training College at Kurseong.

1,015. The railway schools include 12 aided day schools, and 2 unaided day schools. Two are middle schools and the rest are primary schools. They are all mixed schools for boys and girls, and almost all the teachers are women. The majority have less than 50 pupils and two mistresses, and cost about R1,500 to R2,000 a year.

1,016. The UNITED PROVINCES have a large European, but a comparatively small Eurasian, population. The following schools are included in the returns for 1901-02 :—

For Boys	{	High schools . . . . .	19
		Middle schools . . . . .	2
		Primary schools . . . . .	3
For Girls	{	High schools . . . . .	13
		Middle schools . . . . .	7
		Primary schools . . . . .	9

All the schools are under private management, and all are aided with the exception of 8 secondary and 3 primary schools. The schools were distributed as follows :—

Church of England . . . . .	11
Roman Catholic . . . . .	17
American Methodist Mission . . . . .	4
American Presbyterian Mission . . . . .	1
Local Committee . . . . .	7
Proprietary . . . . .	8
Railway . . . . .	11
TOTAL	59*

\* These figures refer to a later date than the 31st March 1902.

1,017. There are schools for Europeans at the various large centres in the plains, but the distinctive feature of the United Provinces system is the large number of boarding schools in the hill stations of Mussoorie and Naini Tal. There are 8 schools at Naini Tal, 13 at Mussoorie, 9 at Allahabad, 5 at Lucknow, 4 at Agra, 3 at Cawnpore, 2 each at Meerut and Jhansi, and one each at 13 other places.\* In all there are about 1,300 pupils at Mussoorie and about 800 at Naini Tal, and most of these are boarders. Among the principal schools for boys at Mussoorie are the Philander Smith Institute (130 pupils and 12 teachers) and the St. George's College (115 pupils and 11 teachers). The Philander Smith Institute was established with the aid of an endowment in 1885, with the object of providing "an Evangelical school for the European and Eurasian children of India." It is controlled by the Methodist Episcopal Church of America. The St. George's College is a Roman Catholic institution maintained by the Irish Order of St. Patrick, and was founded in 1853. Among the girls' schools are the Caineville House Diocesan school (80 pupils and 9 teachers) founded in 1865; the Woodstock school (103 pupils and 16 teachers) founded in 1852 under the auspices of the London Society for promoting female education in the East; and the unaided Convent High School. At Mussoorie is also located the East Indian Railway Oakgrove school for boys and girls (369 pupils and 17 teachers); this secondary boarding school is the principal railway school in India. The boys' schools at Naini Tal include the Diocesan school (82 pupils and 8 teachers), founded in 1869 for the purpose of giving a good education to the children of comparatively poor parents at a moderate charge and in the hills; the Roman Catholic St. Joseph's College (200 pupils and 14 teachers); and the "Oak Openings" school (66 pupils and 8 teachers). Among the girls' schools are the All Saints' Diocesan School (105 pupils and 12 teachers), the Wellesley school (92 pupils and a large staff of 15 teachers), and the St. Mary's Convent School (112 pupils and 11 teachers). At Allahabad there are Protestant High Schools for boys and girls, founded in 1861 and managed by local committees; also a Roman Catholic school for boys, a convent school for girls, and primary schools. Lucknow has the Martinière Schools for boys and girls, a Roman Catholic school for boys, and a convent school. At Agra there are Roman Catholic and Protestant schools; at Cawnpore a Protestant high school for girls, a convent school, and a primary railway school; at Meerut a Church of England and a Roman Catholic school; and at Jhansi a convent school and a railway school. The 13 remaining schools scattered among different stations include a convent school, eight railway schools, two station schools, a Roman Catholic school, a Church of England school, and a Presbyterian school. Most of these institutions are primary schools, and in general they receive both boys and girls.

1,018. There are eight orphanages in the United Provinces (included in the general figures given above) with over 800 pupils on the rolls; three are at Mussoorie, two at Allahabad, two at Agra, and one at Lucknow. Three teach up to the high stage, three up to the middle stage, and two are primary schools. The largest of these institutions are the Roman Catholic St. Patrick's School at Agra, founded in 1846 (159 pupils); the Roman Catholic St. Fidelis' School at Mussoorie (146 pupils); and the Protestant Colvin Free School and Bishop Johnson Orphanage at Allahabad (144 pupils).

1,019. During the quinquennium the United Provinces lost what was formerly its principal hill school for boys, known as the Mussoorie School, in consequence of financial difficulties somewhat similar to those which have been encountered by the St. Paul's School at Darjeeling. This school originated in a private institution which was opened at Mussoorie in the year 1835. In 1867 it was purchased by the Diocesan Board of Calcutta for a sum of Rs. 1,20,000 derived from various sources. On the division of the Calcutta Diocese, in 1893, the executive management of the school passed into the hands of the Lucknow Diocesan Board. For many years it was the principal school for Europeans in Northern India, and about the year 1872 it had 80 boarders, mostly the children of parents belonging to the comparatively well-to-do classes of the Anglo-Indian community. Later the prosperity of the school declined, owing partly to the competition of other schools opened at Mussoorie. The institution fell into debt, and it was closed in the year 1900-01. In the Report for that year the Director of Public Instruction speaks in grave terms of the serious effect of the loss of this school. He says: "There is now no school in the hills for European boys in these

\* These figures refer to a later date than the 31st March 1902.

Provinces capable of taking the place which the last-named school used to fill some years ago when it annually provided the State with young men, some of whom were destined to rise to a high position in the Public Service."

1,020. PUNJAB.—The returns show a total number of 37 public European schools, of which four (the Lawrence asylums for girls and boys) are under Government, and the remainder under private management. All except two of the private institutions are aided. The schools may be classed as follows:—

Hill secondary boarding schools . . . . .	{	Boys . . . . .	2
		Girls . . . . .	7
Plains secondary boarding schools . . . . .	{	Boys . . . . .	2
		Girls . . . . .	5
Secondary day schools . . . . .	{	Boys . . . . .	7
		Girls . . . . .	1
Primary day schools . . . . .		Mixed . . . . .	3
Orphanages and asylums . . . . .	{	Boys . . . . .	3
		Girls . . . . .	4
Railway schools . . . . .			3

1,021. The hill boarding schools for boys are the Bishop Cotton School and the Park School, both located at Simla. The former was founded by Bishop Cotton and was opened at Jutogh in the year 1863. In 1868, it was transferred to its present site in Simla, which was given to it by the Government. Bishop Cotton intended that the school should be of a lower grade than the Mussoorie institution. The school is managed by four governors, *ex-officio* and selected. In 1872, it had 88 boys, about five years ago it had over 130, and in 1903 it had 91. The income of the school was R38,758 in 1871 and R36,974 in 1902. The latter sum was made up as follows:—

	R
Interest on endowments and subscriptions . . . . .	1,942
Government grant . . . . .	3,696
Fees and miscellaneous . . . . .	31,336
TOTAL . . . . .	36,974

The expenditure in 1902 (R41,409) exceeded the income, and the financial condition is not satisfactory. The decline in the number of pupils is partly due to the opening of the new Park School, a private proprietary establishment which has over 50 pupils. The staff of the Bishop Cotton School consists of the head-master, two other graduates of English and Scottish Universities, two primary school teachers educated in India, and one lady also educated in India. The pupils come from the United Provinces, the Punjab, and Bengal, and a few from more distant parts. Most of them enter the public service in the Accounts, Opium, Salt, and Subordinate Public Works Department, or the service of the railways. Some become doctors, and some enter the Rurki College.

1,022. The hill boarding schools for girls include the Auckland House School, the Ayrecliff (Protestant) School, the Convent Boarding School, and the St. Francis' Convent School, at Simla; the St. Denys' (Diocesan) School and the Convent School at Murree; and the Convent School at Dalhousie. The largest of these institutions is the Auckland House School which has about 120 pupils and a considerable staff of mistresses and teachers. It is a Protestant institution managed by governors, and it receives a monthly grant of R315 from the Government. The idea of establishing a public hill school for girls in the Punjab originated with the ladies of Dalhousie, and their efforts resulted in the opening of the Auckland School in about the year 1865. The Convent Boarding School is also an old established institution and the Government grant dates back from 1861.

1,023. The two plains boarding schools for boys are the High School (Church of England—65 pupils) and the St. Anthony's School (Roman Catholic—90 pupils) both located at Lahore. These institutions though primarily day schools have boarding accommodation for a few pupils. The plains boarding schools for girls are the high school at Lahore and the convent schools at Lahore, Multan, Sialkot, and Rawalpindi. Three of the secondary day schools for boys are at Simla, one is at Murree,\* and the remainder are the Church of England Station Schools at Multan, Rawalpindi, and Delhi. Some of these schools receive girls

\* Closed since the end of the quinquennium.

as well as boys. The secondary day school for girls is at Simla. The three mixed primary day schools are a Presbyterian school at Simla, and Church of England station schools at Dalhousie and Umballa.

1,024. The orphanages and asylums include the Lawrence Asylums for boys and girls at Sanawar near Simla and at Murree, the Cathedral Orphanages for boys and girls at Lahore, and the Mayo Orphanage and Industrial School for girls at Simla. The Lawrence Asylums give instruction up to the high stage, and the Lahore and Simla orphanages up to the middle stage. The Director gives the following report on the working of the Sanawar and Murree Asylums during 1901-02 :—

*Lawrence Asylum, Sanawar.*—The special report on the Lawrence Military Asylum, Sanawar, for the past year, is highly favourable. The number on the rolls is 489 against 505,—266 boys against 282 and 223 girls against the same number in 1896-97. The state of the premises, organization, and discipline are reported to be excellent, and the instructional state good, though the staff generally requires strengthening. On the boys' side there were four pupil teachers, two of whom have finished their time, and one of them has qualified for the Proficiency Certificate. On the girls' side there is no pupil teacher, and no other qualified girls are forthcoming. The expenditure on the institution has fallen from R24,373 to R22,101, or by R2,272, the decrease being mainly under Imperial Revenues.

*Lawrence Asylum, Murree.*—The number on the rolls is 181 against 162—98 boys against 85 and 83 girls against 77 five years ago. The results of the examinations were fair in the High, poor in the Middle, and good in the Primary. The staffs of both the departments have been strengthened, especially in the girls' school. The building, for which a liberal grant has been made by the Local Government, is being repaired by the Public Works Department. Better apparatus is still needed for object lessons in Physics and Physiology. The expenditure on the institution has risen from R13,091 to R14,319, or by R1,228, the increase being met mainly from Fee receipts and partly also from "Other sources."

The Mayo School was established about the year 1870 with the object of affording a cheap industrial home to female children of the poorer classes. Many of the 50 inmates of this school are orphans, but other poor girls are also admitted. The Cathedral Orphanage at Lahore had 43 boys and 47 girls on its rolls.

The three primary schools are: a mixed school with nearly 70 boys and girls at Lahore; a small primary mixed school at Sirsa; and a railway night school for boys, with 40 pupils, at Lahore.

1,025. BURMA.—The returns show 17 secondary and 4 primary European schools. All these institutions are under private management, and all are aided by the State. Some of the Europeans in Burma send their children to India to be educated, and the Director makes the following comments in this connection: "Every year Burma loses a certain number of European pupils, who are sent by their parents to schools in the hill stations of India, partly for the climate, and partly because these schools prepare pupils for the various competitive examinations for appointment under Government, such as admission to the Thomason College, Rurki, the Sibpur Engineering College, Calcutta, and the Opium, Salt, and other Departments. I have not been able to find out, that up to the present, the parents have had their hopes realized. As to the first reason, namely,—climate,—a Government school will be opened at Maymyo, and will, I trust, meet the wants of the European and Eurasian community. As to the second reason, I do not know why the European schools in this Province have not taken up the question of preparing pupils for Government service. We shall try and make the necessary arrangements in the Government school at Maymyo, and I trust that the introduction of the European Code will induce the European schools to take the matter up. It is quite time that something was done."

1,026. The latest available information regarding the location and classification of the Burma schools is contained in the Report for 1899-1900. In that year the total number of schools was 19, and the individual institutions cannot have since undergone much change. Of the 19 schools 7 were in Rangoon, 4 in Moulmein, 2 in Mandalay, and 1 each in Toungoo, Thandaung, Akyab, and Bassein. The remaining two were railway schools at Yamethin and Insein. Of the Rangoon schools only one, the Diocesan High School, was for boys; it had 179 pupils. The largest schools for girls were the Diocesan High School (121 pupils plus 57 in the Kindergarten Department), the St. John's Convent School (206 pupils plus 40 in the Kindergarten Department plus 15 in the Normal Depart-



ment), and the Methodist Girls' High School (165 pupils *plus* 45 in the Kindergarten Department). The Moulmein schools were the English Girls' High School (119 pupils), the St. Joseph's Convent School (152 pupils *plus* 17 in the Kindergarten Department), the St. Matthew's School (43 pupils), and the Cantonment School (53 pupils). At Mandalay there were two schools for girls—a convent school and a school of the American Baptist Mission. The schools at Akyab, Toungoo, and Bassein were convent schools, and the school at Thandaung was a Methodist institution. The most noteworthy feature of this list is the very large preponderance of schools for girls. This may be due, in part, to the practice of sending boys to school in India.

1,027. CENTRAL PROVINCES.—The statistical returns show a total of 17 secondary and 5 primary schools; all are under private management and all but one are aided. The Report gives a list of 16 institutions, of which 4 are schools for boys (including an industrial class), 5 are schools for girls, and 7 are mixed schools. The principal centres of European population in the Central Provinces are Nagpur and Jubbulpore, and the largest number of schools are at these places; there are also convent schools at Kamptee, Harda and Saugor, and railway schools at a few other places. The Nagpur schools comprise the Church of England Bishop's School (63 boys and 53 girls), the Roman Catholic St. Francis de Sales School for boys (229 pupils), and the St. Joseph's Convent School (146 girls and 27 boys). At Jubbulpore are the Church of England Christ Church School for boys (45 pupils), and for-girls (80 pupils); the Roman Catholic St. Aloysius' School for boys (115 pupils); and the St. Joseph's Convent School (130 girls). The convent schools at Harda and Saugor and the four railway schools are all mixed schools. The large share taken by Roman Catholic institutions is again a prominent feature. In the Report for 1901-02 the Director says: "The schools generally have maintained a high standard of proficiency. The accommodation and appliances are good and much attention is given to physical training and drill in boys' and to calisthenics in girls' schools."

1,028. ASSAM had in 1896-97 an aided secondary school at Shillong with 18 pupils. This institution was closed during the quinquennium, and now the only European school in Assam is a small Government primary school at Shillong with ten pupils. At Amraoti in BERAR there is a small Anglican mixed school opened in 1897-98, and a larger convent school teaching 23 girls and 20 little boys. There are no schools for Europeans in the NORTH-WEST FRONTIER PROVINCE or in COORG.

1,029. The above description of the schools existing in the various provinces will have made it clear that they have been established and located, not on any preconceived system or on a concerted consideration of the needs of different places and classes, but whenever and wherever the various denominational authorities thought they discovered a want to be supplied or an opportunity to be used. This indiscriminate opening of schools is a concomitant of the system under which the extension and management of educational facilities is left to private societies or individuals who receive aid from the State in return for obedience to certain fixed principles and rules. It has been noticed on more than one occasion that the system has resulted in waste of energy; in some places the number of schools is more than sufficient to supply the needs of the community and schools have injured one another by their mutual competition. Thus Agra with about 400 pupils has 5 European high schools. Comment has been made above on the financial difficulties which have beset the St. Paul's School, Darjeeling, the defunct Mussoorie School, and the Bishop Cotton School at Simla, and in all three cases the competition of other schools has been pointed to as one of the causes of declining prosperity. The phenomenon is not confined to these schools or to these places; it has been more or less felt all over India. Had it been possible to establish and distribute schools on the sole consideration of supplying adequately the needs of the community, there is little doubt that it would have been possible to maintain stronger and better equipped institutions capable of employing more highly paid and better qualified instructors, and capable of giving a sounder education, than many of the European schools which now exist in India. The system of private denominational management aided by State contribution has, however, achieved much for the education of

Defects of  
the aided  
system.



the European community and probably no other system would have accomplished what it has done. It is, however, well that the defects of the system should not be left out of sight.

Educational agencies.

1,030. Some idea of the extent to which the several educational agencies share in the public instruction of European pupils will be derived from the following table, which shows the number of pupils in different classes of European schools in Bengal, the United Provinces, and the Punjab in December 1903:—

Roman Catholic schools . . . . .	6,724
Church of England schools . . . . .	2,943
Railway schools . . . . .	1,379
Non-conformist schools . . . . .	1,195
Martinière and Doveton schools . . . . .	707
Lawrence Military asylums . . . . .	681
Private proprietary schools . . . . .	461
Station schools . . . . .	460
Government schools . . . . .	273
Church of Scotland schools . . . . .	104
TOTAL	14,927

The position occupied by the Church of Rome deserves special notice. In all provinces the list of schools is full of Catholic names, and these names include many of the largest schools. The Roman Catholic schools enjoy this special advantage when they compete with their neighbours, that the great majority of the masters, mistresses and teachers are members of religious orders who work without remuneration.

Railway schools.

1,031. In dealing with the schools in each province mention has been made of the railway schools. They also require notice apart. The majority are mixed day schools for the children of railway employés. There are also some night schools for apprentices and workmen. Separate schools are maintained for Europeans and Natives. From the nature of the case the schools are mostly small, and in general they do not teach beyond the middle or primary stage. Taking the schools in Bengal as representative of the type, the staff consists usually of two or three mistresses educated in India. On the East Indian Railway, each school is managed by a local committee which is under the general control of an officer of the Railway styled the Superintendent of Schools. The schools are supported by grants from the Railway and from the Government, and by fees. At the close of the year 1902 there were 78 railway Schools for Europeans on all the lines throughout India. The total number of pupils on the rolls was 3,080, giving an average strength of about 40 per school. Of these pupils 2,851 were children, and 229 were apprentices and workmen. The total income of the European railway schools in 1902 was R2,42,388, or an average of R3,108 per school. Of this total, R26,995 was derived from the Government, R1,08,483 from the Railways, and R1,06,910 from fees. When the number of employés is not large enough to justify the provision of a railway school, and there already exists a public or private school in the town, the tuition fees of the railway children are borne wholly or in part by the railway.

Mention has been made of the "Oakgrove" East Indian Railway boarding schools for boys and girls at Mussoorie. On the 30th June 1902 there were 345 pupils on the rolls, and the expenditure in the year ending with that date was R69,431. The schools are primarily intended for the children of employés of the East Indian railway, but they also receive children from other lines at a higher rate of fees, and even children unconnected with the railways.

### The Grant-in-Aid of European Schools.

#### Recognition of Schools.

Rules of the Bengal Code.

1,032. The Code for European schools lays down, for those provinces to which it applies, the conditions on which grants-in-aid are made to such schools. In the first place, aid is rendered, in accordance with the general principle which governs the relation of the State towards public instruction in India, solely on

account of the secular instruction given in the schools, and the following clauses relating to religious instruction are inserted in the first Chapter of the Code:—

Every school aided by Government under the provisions of this Code shall be conducted in accordance with the following Regulations:—

- (a) It shall not be required, as a condition of any child being admitted into or continuing in the school as a day-scholar, that he shall attend or abstain from attending any Sunday school or any place of religious worship; or that he shall attend any religious observance or any instruction in religious subjects in the school or elsewhere, from which observance or instruction he may be withdrawn by his parent; or that he shall, if withdrawn by his parent, attend the school on any day exclusively set apart for religious observance by the religious body to which his parent belongs.
- (b) The time or times during which any religious observance is practised or instruction in religious subjects is given, at any meeting of the school, shall be either at the beginning or at the end, or at the beginning and the end, of such meeting, and shall be inserted in a time-table to be kept permanently and conspicuously affixed in every school-room; and any day-scholar may be withdrawn by his parent from such observance or instruction without forfeiting any of the other benefits of the school.
- (c) The school shall be open at all times and in all its departments to the inspection of the departmental Inspector, so, however, that it shall be no part of the duties of such Inspector to inquire into any instruction in religious subjects given at such school, or to examine any scholar therein in religious knowledge, or in any religious subject or book.

Formerly the conscience clauses applied to boarders as well as to day-scholars, but the regulations were withdrawn in the former case on the advice of the Committee of 1885.

1,033. The following general conditions must be observed by all schools receiving aid under the Code:—

- (1) The school must be managed by a body of responsible governors.
- (2) The school premises must be healthy and safe; the rooms must be well ventilated, lighted, and (if need be) warmed, and they must, as far as possible, be well arranged for teaching; there must be proper arrangements for boarders; the accommodation must be sufficient, and the equipment must be adequate and suitable.
- (3) The staff must be sufficient and competent, and each teacher must have received a letter of recognition.\*
- (4) The studies must be conducted according to a time-table submitted to the Department.
- (5) The scholars must be satisfactorily taught according to a course recognized by the Code.
- (6) The prescribed registers and accounts must be kept, and the prescribed returns must be submitted.
- (7) The school must be open to inspection.
- (8) The transfer rules must be observed.

No grant may be given to school in any of the following circumstances:—

- (1) If, except under special conditions, there is an average attendance of less than 12 European scholars.
- (2) If the Local Government considers the school to be unnecessary or unsuited to the requirements of the locality.
- (3) If the school income is sufficient to maintain its efficiency.
- (4) If the school is conducted for private profit or is farmed out by the managers to the teachers.

1,034. In MADRAS, European schools must obey the general conditions for the grant-in-aid to schools. There is a conscience clause for European schools similar to that in the Bengal Code, and its operation is not restricted to day pupils. In BOMBAY and BURMA the conditions for European and native schools are the same. Rules in provinces not under the Code.

1,035. European schools, like native schools, may be recognized as public institutions eligible to receive Government scholars and to send up their pupils for the Government scholarship examinations without fulfilling all the conditions for the receipt of State aid. As already stated, the large majority of European Recognition of unaided schools.

schools are aided, but a few of the largest institutions are unaided but recognized schools. St. Joseph's College, Darjeeling, and the St. Xaviers, La Martinière, and Doveton Colleges, Calcutta, are in this position.

#### Mode of fixing the grant.

Provinces of  
the Bengal  
Code.

1,036. The first Bengal Code introduced a system of payment by results, but the arrangement proving unsatisfactory and even harmful, it was replaced by a system of grants based on attendance.

The following forms of grant are now recognised by the Code :—

- (1) Ordinary maintenance grants,
- (2) Grants for free scholars.
- (3) Grants to orphanages and schools for children of the poor, and grants-in-aid of boarding charges.
- (4) Special maintenance grants.
- (5) Building grants.

Grants of the first two classes are paid annually upon the basis of attendance during the previous year. To be entitled to the full grant a school must have held 380 "full school meetings." The following definition of the term "full school meeting" is given in the Code :—

By a "full school meeting" is meant a period of two hours secular instruction on the same day, or if two school meetings are held on the same day, neither of them being for a period of less than one hour of secular instruction, they shall be reckoned as two "full school meetings" if they include together not less than four hours of secular instruction. In no case may more than two school meetings be counted on the same day.

Taking an ordinary school day to consist of two meetings, and allowing for Sundays and three months' holidays, this gives a liberal margin of 90 "full school meetings." If the school has held less than 380 meetings a proportionate reduction is made in the grant.

1,037. The following are the scales for the calculation of ordinary grants :—

	Rupees per annum.	
(a) Infant section . . . . .	20	for each of the first 10 scholars.
	15	" " second " "
	10	" " remaining "
(b) Primary section . . . . .	25	for each of the first 20 scholars.
	20	" " second " "
	15	" " remaining "
(c) Middle section . . . . .	40	for each of the first 20 scholars.
	30	" " second " "
	20	" " remaining "
(d) High-section . . . . .	120	for each of the first 5 scholars.
	90	" " second " "
	50	" " remaining "

Free scholar grants are given in the United Provinces at the rate of R12 a year for each free day scholar, and at the rate of R48 a year for each free boarder. In lieu of the grant for each free boarder, special grants may be made in aid of boarding charges. Special grants may also be made to boarding schools in aid of the boarding charges of children residing in places in the province where there is no school of a standard suited to their requirements.

Special maintenance grants are made chiefly—

- (1) To schools in places where there is a small or poor European population.
- (2) To schools newly established, or newly brought under the Code.
- (3) To schools for the education of the poor, to provide materials for, and instruction in, drill, gymnastics and athletics, drawing, object lessons, and industrial subjects.
- (4) To practising schools attached to training colleges.

The Local Government may give special grants for any other reason, and may also cause a school to be aided specially instead of under the Code. In the United Provinces six large schools receive fixed grants, and the boys' Diocesan School at Naini Tal, the boys' and girls' High Schools at Allahabad, and three schools for the poor receive special grants. In Bengal there are no special grants (apart from the temporary assistance to St. Paul's, Darjeeling, and a

monthly grant of R5 for every child in the St. Andrew's Colonial Homes, Kalimpong), and in the Punjab the only special grant is that paid to the Lawrence Asylum at Murree. Except in the case of orphanages and other poor schools the total grant may not exceed the income derived from other sources.

Building grants may be made in aid—

- (1) of erecting, enlarging, or furnishing school buildings;
- (2) of executing expensive repairs;
- (3) in special cases, in payment of debt incurred for school buildings.

1,038. The system sketched in the above paragraphs aims at providing a general scheme of aid based on the size and needs of the institutions, and makes specially liberal provision for poor children, and for the children of parents who live in up-country stations where there are few educational facilities. It is said, however, that the system of grants based on attendance has not always been found satisfactory.

1,039. In MADRAS, the general Grant-in-aid Code regulates European as well Madras. as native schools, but there are certain special provisions relating to schools of the former class. The grants for European schools are paid from Provincial Revenues, and results grants are paid at a rate 50 per cent. above the ordinary standard in the case of European pupils in general, and at double rates in the case of European pupils in hill schools. Most of the remaining special provisions have relation to the education of poor children. The Madras Code deals specially with poor children of all classes, and the following regulations for poor Europeans have, in many cases, their counterpart in other regulations for poor natives. To qualify a European pupil to be treated as "poor" it must be shown that the ordinary monthly income of the family does not exceed R7 for each member. The minimum attendance rule may be relaxed in the case of poor European schools, and the grants to such schools are based on the "salary grant" system. The salary grants are also calculated at enhanced rates. Thus a grant not exceeding two-thirds or one-half of the total salary may be given for mistresses of poor European schools according as they hold trained or untrained teachers' certificates. In schools in which the results grant system is in force, double rates may be paid for poor European pupils. Special grants are also given in aid of European orphanages and homes for destitute European children. These grants are at a maximum rate per child of R3-8 a month for food, and R6 a half-year (or R12 in hill sanatoria) for clothing.

1,040. A special chapter of the BOMBAY grant-in-aid code is devoted to Bombay. European schools; the system which it describes is similar to that which prevails in native schools. It has already been said that there are nine special standards for European schools. The full results grants in standards I to VIII are as follows:—

	R
Standard I . . . . .	10
Standard II . . . . .	15
Standard III . . . . .	20
Standard IV . . . . .	25
Standard V . . . . .	36
Standard VI . . . . .	50
Standard VII . . . . .	75
Standard VIII . . . . .	90

Grants for girls are at the same rate, but an additional grant of R5 may be awarded for good plain needle-work. A capitation allowance of R4 may be given for children of the ages of four to seven, if suitably taught in an infant class.

1,041. In BURMA, *ordinary*, as distinct from *special* and *building* grants, Burma. are calculated on the principle that the Government should pay to day schools the difference between their income and expenditure, both of these being estimated in a definite manner prescribed by the Government. These general grants are supplemented by a system of orphan, boarder, and apprentice stipends.

### School Life.

Life in different types of schools.

1,042. In describing the schools it has been explained that they may be divided broadly into the following main types: boarding schools for boys and girls in the hills, and some schools of a similar type in the plains; secondary schools for boys and girls in the plains which are mainly day schools, but sometimes also take boarding pupils; mixed primary day schools in the plains, mostly for poor children and for the children of railway employes; and lastly, orphanages and other-boarding establishments for poor children. The life and discipline differ considerably in these various classes of institutions. The routine in the secondary boarding schools for girls and boys is modelled on that of similar institutions in England; in the day schools the type approximates more closely to that of an ordinary Indian school; and in the orphanages the arrangements resemble those of an orphanage at home. A large proportion of the children, and especially of those in the north of India, enjoy the advantages of the common life and training of the boarding schools. In Bengal secondary schools for boys and girls, the figures stand as follows:—

<i>Boys.</i>			
	Institutions.	Pupils.	Boarders.
In the hills . . . . .	3	450	429
In Calcutta . . . . .	8	1,333	332
In the districts . . . . .	4	493	350
<i>Girls.</i>			
In the hills . . . . .	8	472	433
In Calcutta . . . . .	16	1,796	366
In the districts . . . . .	5	425	238

In the Punjab 61 per cent. of the boy pupils, and 62 per cent. of the girl pupils, of secondary schools are boarders. In Bombay the corresponding percentages are only 29 and 22.

Discipline.

1,043. On the whole discipline is well cared for. In schools of the Church of England type the monitorial system is sometimes used and the methods in general resemble those of England. In Roman Catholic schools for boys, and in convent schools for girls, the discipline is similar to that which prevails in Roman Catholic schools on the Continent, including the constant supervision of the children both at work and at play. In small schools, such as the railway schools, the mistress has to encounter some difficulties in maintaining discipline. She is much in the hands of the parents who are often members of the school committee, and who also are under no legal obligation to send their children to school. On the whole, however, she usually succeeds in keeping her school well up to the mark. In the Lawrence Asylums the discipline is of a semi-military character.

Moral training.

1,044. The denominational character of the institutions helps greatly in the bestowal of religious and moral training. School prayers are held every day and religious instruction is given.

Physical training.

1,045. The physical training of boys receives on the whole adequate attention, but this most important matter is not so well looked after in all schools for girls. The boys have their drill, gymnastics, and games, and some of the large schools have trained gymnastic instructors. Volunteering is much practised in India, and the cadet corps form a valuable portion of the physical training in a number of schools. Special grants are made by the Government towards such corps.

Holidays and vacations.

1,046. Vacation time varies in the schools of the hills and the plains. In hill schools a long holiday is usually given in the winter (in Bengal from about the beginning of December to the end of February), when the children rejoin their parents in the plains. In the schools of the plains the vacations are distributed over the year. Thus in St. Joseph's school for boys at Calcutta, the 1903 vacations were: March 26th to April 1st, May 14th to June 16th, and December 10th to January 16th. In the Loreto House school for girls in Calcutta, the vacations were: 26th March to 10th April, 10th May to 9th June, 29th September to 13th October, and 15th December to 15th January. Besides the Sunday holiday one or more half holidays, or one whole holiday, are given during the week.

1,047. The remarks made in this section may be illustrated by a description of the routine in a hill boarding school for boys and for girls. In the Government school at Kurseong the day is spent in the following manner: Prayers are read at 8-30 A.M., and then lessons are held from 8-45 to 11. At 11 o'clock the boys breakfast, and work begins again at 12-15 and lasts until dinner at 2-15. From 3-30 to 5-30 is the time for games and drill. From 5-45 to 6-30 in the evening the four highest standards work, and the lower standards drill. At 6-45 the boys have tea. Every Saturday a weekly examination is held for the whole school. There is no work on Wednesday after 2-15, nor on Saturday after 11 o'clock. For purposes of games and drill (including the drill of the cadet corps) the school is divided into four squads—A, B, C and D. The A squad is composed of boys over 14, the B squad of boys between 12 and 14, the C squad of boys between 10 and 12, and the D squad of boys under 10. Times are arranged so that while one squad is playing games (cricket, football, tennis or hockey), two others are drilled. Besides the A to D squads, there is a specially selected squad who are trained in more advanced gymnastics. Physical drill for the whole school is also held for three quarters of an hour once a week.

Daily routine in two selected schools.

In the Diocesan girls' school at Darjeeling the working day opens with prayers and a hymn at 8-45 A.M. (8-15 on Saturdays) and closes with prayers at 2-15 P.M. (1 P.M. on Saturdays). Class study (except in the infant stage) lasts from 9 to 10, and again from 11-15 to 2-15. There is a quarter of an hour musical drill every day, except Wednesday and Saturday, between the hours of 10 and 11. In the afternoon there is class singing for half an hour twice in the week, needle-work once a week for Standards IV to VIII, and lessons (optional) in painting, music, and dancing. Preparation is done in the evening, and also, in the case of classes IV to VIII, early in the morning.

### Courses of Study.

#### Provinces of the Bengal Code.

1,048. Under the Bengal Code as it stood before 1895 the course of studies was prescribed by means of a schedule which defined the standard which each class was expected to arrive at by the end of the year, and no mention was made of the process by which that end was to be attained. The success of the pupils in the annual examinations corresponding to these standards determined the maintenance grant earned by the school. When the system of results grants was abolished this plan became unsuitable. The Committee of 1895 said:—

General features of the course.

The allotted portions of a year's work given under the head "Standards of examination" in Schedule I were fair enough when all that was demanded of the teachers was that a certain definite amount of work should be gone through by the end of the year. They were at liberty to give any collateral information, or to pause in the day's lesson in order to pay particular attention to points of interest arising in it, but they were not required to do this, and they were required to finish their work within a given time. Under the new system the teachers are expected to work with broader views: to aim not so much at bringing their pupils to acquire a knowledge of certain particular facts and processes, as at training them to observe carefully whatever comes before them, and to reason about what they see and learn. With this wider purpose added to their work, teachers cannot be expected in all cases to cover the same ground as before, even though a sounder system of teaching may be expected to make good at the end what was apparently lost at the outset on laying a sure foundation.

The Committee, therefore, drew up a new schedule (which they styled Schedule I B) which prescribed the course to be followed in each class, instead of the standard according to which the pupils should be examined at the end of each year. They retained the old schedule (now styled Schedule I A) as an alternative for schools in which the results-grant system might be retained, but in practice Schedule B is always followed, and it will suffice to examine the course of studies based on it. The schedule fixes the general scope and standard of the curriculum, and in some cases gives the names of text books to define the course more clearly. The details are filled in by the Local Governments, and they have authority to introduce modifications. In general, however, the course laid down in the Code is closely followed and the text books which it mentions are still used. It may be remarked, in passing, that it is doubtful whether the preponderating influence of examinations over teaching has been so much diminished, and whether the character of the teaching has so greatly improved, as the framers of the revised Code anticipated would be the case.

**Standards.** 1,049. It has already been explained that the full course of a European school (above the infant stage) is divided into eight classes or standards, and that Standards I to IV comprise the primary stage, Standards V to VII the middle stage, and Standard VIII the highest stage. Each of the first seven standards occupies one year. Two years are usually given to the eighth standard in Bengal, sometimes two years and sometimes one year in the Punjab, and usually one year only in the United Provinces. The course for the eighth standard laid down in the Code requires two years for its careful study, but school masters sometimes find it difficult to resist the desire of parents that their children should be pushed through the course. The duration of the full course is thus eight or nine years. The same standards apply to all grades of schools, and the children of a Eurasian school in a large town, many of whom never read beyond the primary stage, follow the same course as the lower forms of a secondary boarding school for children of the well-to-do classes. Special provision is, however, made for the teaching of practical and industrial subjects in orphanages and other schools for the poor.

**Infant stage.** 1,050. The infant classes are divided into a lower and an upper division. In the lower division the rules defining the course are as follows :—

The children should be taught to recognise the letters of the alphabet and to read words of two letters at sight.

The children should be practised in counting various objects, in order to form ideas of number. Small numbers such as three and four should be used at first, and the children should gradually learn to count up to ten.

Simple lessons on form, position, colour and easily recognised qualities should be regularly given, followed after a time by simple object lessons with the special purpose of training the children to notice these qualities, etc., for themselves.

Singing (by ear), exercising, and marching should be practised between other lessons, as a relief from them, and should occupy a large part of the children's time.

Girls should be taught how to thread a needle, and how to use a thimble.

The rules for the upper division are as follows :—

*Reading.*—Should be practised from a very simple reader until the children can recognise easy words of three or four letters at sight.

*Poetry.*—Simple poetry, such as nursery rhymes, should be learnt by repeating them after the teacher. Care should be taken to make the children understand what they learn.

*Spelling.*—The spelling of easy familiar words to be learnt, and the children should be exercised in writing these words as well as spelling them orally.

*Handwriting.*—Great attention must be given to the proper formation of the letters, capital and small, and the figures 1 to 9.

*Transcription.*—Easy passages from the simple reader in use.

*Dictation.*—Easy words which the children have previously learnt to spell.

*Counting.*—The children should be gradually trained to count higher numbers at least up to twenty.

*Arithmetic.*—The addition of two concrete numbers each less than ten should be practised, beginning with the smallest, and gradually introducing the higher ones. Addition tables should be gradually introduced.

*Object Lesson.*—As in the lower division.

*Singing.*—As in the lower division.

*Needlework.*—The children should be taught to hem on coarse material, e.g., a duster.

In the better equipped schools kindergarten instruction plays an important part in the teaching of the infant classes. There are a few lady teachers in India who have received instruction in kindergarten training in Europe, and some others have been taught in normal classes in this country. In Bengal the Kurseong Training College and the Welland Memorial School, Calcutta, give instruction in kindergarten methods.

**Primary,  
middle, and  
high stages.**

1,051. In the primary stage the compulsory subjects are English, arithmetic, geography, object lessons, and needlework (for girls). In the middle stage they are the same with the addition of history. The optional subjects in the primary standards are Latin, French, drawing, and singing. In the middle standards algebra, Euclid, elementary science, and domestic economy (for girls) are added. Optional subjects may not be taught without the sanction of the Inspector, who must satisfy himself, in the case of each subject, that the teachers concerned are competent to teach it properly, and that its introduction into the curriculum will not prejudicially affect the teaching of the compulsory

subjects. A definite course is not laid down for the high department. The Code says that the course of studies should consist in preparation for the high school examination, or for such other examinations as have been recognized by the Local Government for this purpose. The high school examination course is the most frequently followed, and as it forms a natural prolongation of the primary and middle courses it will be convenient to consider it in this place, leaving to a later stage the discussion of the various alternatives which are permitted and followed. There are only two compulsory subjects in the high school examination—English and arithmetic. The voluntary subjects are: Latin, French, geography, history, algebra, Euclid, elementary science, logic, political economy, and domestic economy.

1,052. The following account of the course of study in the various subjects is illustrated by the curriculum in the highest form of the primary department (Standard IV), in the highest form of the middle department (Standard VII), and in the high school (Standard VIII). Description  
by subjects.

1,053. ENGLISH.—In the primary school the English course comprises reading, repetition of poetry, hand-writing, transcription, dictation, composition, spelling, and grammar and analysis. In the middle school the subjects are the same with the omission of transcription. In the high school the subjects are grammar, composition, and prescribed text-books in prose and poetry. The *reading* consists of passages from reading books of suitable progressive difficulty. In Standard IV the classes are required to learn by themselves at least 12 lines of *poetry* weekly, which have been previously repeated after the teacher. Stress is laid on the obligation to make the pupils understand before they learn by heart. In Standard VII the poetry required for the middle school examination is prescribed, and the whole or a considerable portion must be committed to memory. *Handwriting* is taught by the use of copy and exercise books, and pupils are made to transcribe passages of poetry and prose. In Standard IV the *composition* exercises consist in simple letters on easy subjects, and in the reproduction of the substance of short stories and simple poems. In Standard VII similar tasks of a more difficult character are set, and pupils are also required to give a description of subjects which have been taught in class, and of scenes and incidents within the range of their experience. Paraphrasing and easy essay writing are also practised. The *spelling* in Standard IV extends to words met with in the readers, words commonly used by the children, and all words used in connection with the work of the class. It is recommended that this subject should be taught incidentally in connection with every lesson. The course of *grammar* in Standard IV comprises simple parsing and analysis. In Standard VII more difficult parsing and analysis are prescribed, and prefixes and affixes are studied. English.

1,054. ARITHMETIC.—In Standard IV the course includes :—

- (1) Regular practice in addition and multiplication tables, and in the tables of weights and measures.
- (2) Numeration and notation—millions.
- (3) G. C. M. and L. C. M. Reduction. Easy vulgar fractions. Simple proportion. Problems. Regular practice in the work of the lower standards.
- (4) Problems in mental arithmetic.

Arithmetic.

In Standard VII the course is as follows :—

- (1) Revision of tables of weights and measures.
- (2) Percentages. Profit and Loss. Discount. Exchange. Stocks. Regular practice in the work of lower standards.
- (3) Problems in mental arithmetic.

In the high school examination candidates are tested in the whole subject.

1,055. GEOGRAPHY.—The study of geography begins in Standard II with the shape and surface of the earth and the points of the compass. In this standard rough plans of the school compound and immediate neighbourhood are drawn on the black board by the teacher, and on slates or paper by the children. In Geography.



Standard IV the pupils study the geography of England and Wales, and latitude and longitude. In Standard VII the course includes the physical, political, and commercial geography of India. In Standard VIII the subject is again the geography of India, and the scope is defined by Chisholm's "Geography of India and Ceylon."

**History.** 1,056. **HISTORY.**—The subject is begun in Standard V, and the three years of the middle course are devoted to the study of English History. The extent in point of detail is defined by Gardiner's "Outlines of English History." For Standard VIII the subjects are the history of England as defined by its treatment in Ransome's "Short History of England," and the history of India from the time of Baber as defined in Hunter's "Brief History of the Indian People."

**Object lessons.** 1,057. **OBJECT LESSONS.**—In the primary and middle schools object lessons must be given at least once a week in class. The following instructions are given for the guidance of teachers of primary classes:—

The teacher should give oral lessons, amply illustrated, on the animals, plants, and the things in general by which we are surrounded; on common properties, such as hardness, softness, brittleness, tenacity, porosity, etc., met with in familiar substances; on the use of various substances as determined by their qualities; on the various states or forms in which substances are found, solid, liquid, and gaseous, and instances of familiar changes in certain substances from one state to another; elementary notions of physical science connected with subjects such as heat, gravity, atmospheric pressure, etc.; and elementary ideas of human anatomy, physiology, etc.

The following examples are mentioned in the Code as a guide to the teacher in selecting lessons for the middle school: lessons connected with the physical geography studied by the class, lessons connected with the science courses, lessons connected with any industry carried on in the district.

**Needlework.** 1,058. **NEEDLEWORK.**—The Code prescribes a graduated course in plain needlework, darning and knitting; it also directs that girls should be taught to mend their own clothes, and to darn their own stockings. Special attention is paid to needlework, etc., as a portion of the industrial training in poor schools, and we shall revert to this aspect of the subject later on. In some secondary schools for girls fancy and art needlework are taught beyond the scope of the Code.

**French.** 1,059. **FRENCH.**—This subject is begun in Standard IV. The middle school course takes the pupil up to reading from a text-book, the rules of syntax, translation of easy prose into French, and simple letter writing and the use of simple idioms. The high school course includes:—(a) text-books, with accidence, syntax, and allusions, (b) composition of simple continuous prose and original letters, (c) unseen passages for translation into English.

**Latin.** 1,060. **LATIN.**—This subject is also begun in Standard IV. The middle school course comprises accidence and syntax, prescribed text-books, and easy unseen passages. In the Punjab the prescribed text-book contained selections from "Cornelius Nepos." The high school examination comprises: (a) text-books, with accidence, syntax, and allusions, (b) translation of sentences from English into Latin, (c) unseen passages for translation into English. In the Punjab examination for 1903, the prescribed text-books were Cicero, "De Senectute," and Virgil, "Æneid," Book VI.

**Vernacular languages.** 1,061. **VERNACULAR LANGUAGES OF INDIA.**—The vernacular languages of India are not included among the subjects prescribed in the Bengal Code, but they are recognized as a suitable portion of the course. Their study, which has not hitherto received all the attention it deserves, is of great importance, because a knowledge of the vernacular is a very desirable, and even necessary, portion of the equipment of a youth in most of the careers open to him in this country, and the want of it places the European boy at a disadvantage when competing with Indians for both Government and private posts. In the United Provinces and the Punjab vernacular languages form a compulsory portion of the course, in Bengal they are rarely taught. The teaching in the lower forms of the United

Provinces schools is fairly good, in the upper forms the subject is not compulsory for examination purposes and it is shirked. Instruction is given by a Munshi. Vernacular languages are often taught in girls' schools. In the Punjab the teaching of vernacular languages is on the whole improving. In the Punjab middle school examination the test in this subject comprises: (a) Translation into English from the prescribed text-book, with explanation of words and passages; and translation of unseen passages. (b) Translation in the Persian character of eight lines from a simple book; easy questions in grammar; translation into Urdu in the Persian character of a short passage from an easy English reader. In the high school examination the subjects are: (a) Translation from the prescribed text-book, with questions on grammar, to test acquaintance with inflections and construction; and translation of unseen passages. (b) Translation into Urdu in the Persian character of simple continuous prose, and simple letter writing.

1,062. EUCLID.—The study of Euclid is begun in Standard V, and the Euclid course in Standard VII includes Book I and exercises thereon. In the high school examination the papers are set on Books I to IV.

1,063. ALGEBRA.—This subject is also begun in Standard V. In Standard Algebra VII the pupil is taken up to simultaneous equations of two unknown quantities and square root. In Standard VIII the course extends to quadratics of one unknown quantity and easy indices and surds.

1,064. SCIENCE.—The course of instruction in the middle and high schools Science is very elementary. It is recommended that the subject should be taught chiefly by oral lessons with copious experiment and illustration. The scope of the course is defined by Loewy's "Graduated Course of Natural Science," Part I, and Foster's "Primer of Physiology." The high school course is defined by the same portion of Loewy's book and by Huxley's "Elementary Physiology."

1,065. DRAWING.—For the primary school the Code prescribes merely a Drawing graduated course in free-hand to be approved by the Inspector. For the middle school the training prescribed is as follows:—

**FREEHAND.**—The copying of figures should be practised, and attention should be paid to the finish (lining in) of the drawings, clean lines and an entire absence of "smudge" being insisted upon.

**PERSPECTIVE.**—At least sufficient instruction should be given in perspective to enable the scholars to understand the broad principles connected with the vanishing of receding parallel straight lines and the foreshortening of circles in planes at an angle with the picture plane, and to enable the scholars to draw with intelligence the outlines of simple geometrical solids and other easy objects from the actual objects themselves. If possible, a little geometrical perspective should be taught.

**MODEL DRAWING.**—Regular practice should be given in carefully graduated exercises, introducing at first easy rectilinear figures, such as a cube, or a paralleloiped; next, figures containing circular outlines such as a cylinder, or a cone; next, figures containing octagons, triangles, and more difficult rectilinear combinations; next, objects with irregular curves in their outlines, such as a water jug, a hat; and lastly, combinations of the foregoing.

In some schools, and especially in the more important secondary schools for girls, instruction is given in drawing and painting beyond the simple course laid down in the Code, the character of the instruction being similar to that given in schools of the same class in England. On the whole, however, adequate attention has not been given to this important means of education. In Bengal it has been greatly neglected, and no attempt is made to teach it throughout the school in any institution except the Kurseong girls' school. In the United Provinces, on the other hand, it is well taught throughout the course in most girls' schools and in some boys' schools, but it does not occupy a proper place in primary schools. In the Punjab there has been considerable improvement of recent years, and drawing is now taught in the Lawrence Asylums, the Cathedral Orphanages, the Auckland House Girls' School, the American Baptist High School for boys, etc. In some of these schools the subject is well taught,

Domestic  
economy.

1,066. DOMESTIC ECONOMY.—This is a course for girls. The study of Dr. Mann's "Domestic Economy and Household Science" is prescribed, and it is recommended that the subject should be taught as far as possible by oral lessons.

Music.

1,067. MUSIC.—In the infant school children are taught action and other kindergarten songs. For the primary and middle schools a course in Tonic Solfa, approved by the Inspector, is prescribed. In secondary schools for girls the subject of music receives a degree of attention similar to that which is given to it in schools of the same class in England, and some of the larger schools have several mistresses or professors for teaching the different branches of the subject. Thus on the staff of the Woodstock School at Mussoorie there are four teachers of pianoforte and singing, three teachers of pianoforte and calisthenics, and a teacher of the violin. Arrangements are made in India and Burma, by recognised Musical Corporations in England, for holding examinations of all grades, and these examinations are said to be popular and much used.

High school  
courses.

1,068. It has been explained that grants are given for pupils reading in the high department of the school for any examination recognized by the Local Government. Among these examinations the high school examination of the Education Department takes the first place, and it is recognized as an entrance test by the Universities of Calcutta, Allahabad and the Punjab.

The high school course has been the subject of much discussion. The Committee of 1881 contemplated that boys should complete the seventh standard by the age of 15, and that if they wished to proceed further in their studies, they should read for another two years and then go up for the entrance examination of one of the Universities, an alternative course being prescribed for those who might not wish to present themselves for this examination. The Government of India considered that the University examination was not suitable for pupils of European schools and they therefore cut it out of the original Code, leaving only the examination introduced as an alternative by the Committee. It was then represented that the European schools ought not to be severed from the University, and that the Code regulations were unsuitable inasmuch as the matriculation course was commonly taught in the schools. The Government of India admitted the force of these considerations and permitted the introduction of two alternative courses, the first being the existing high school course, and the second the matriculation course with certain subjects added in order to make it equivalent to the other course. The Committee of 1885 pointed out that, although the matriculation examination was admittedly not generally suitable for European schools, yet it was practically the only examination used, and that the additional subjects prescribed by the Code were not studied. The prestige and commercial value of a matriculation certificate were such as to render it secure against competition. An attempt was made to remedy this defect by varying the terms of the Code. Schools were divided into two classes, the first teaching the departmental course and aided under the Code, and the second teaching the matriculation course and eligible for fixed grants under the orders of the Local Government. In 1886, schools were permitted to follow, and receive aid for, both courses. The alteration made in the Code did not succeed in diminishing the predominance of the matriculation examination. In 1891, not a single boys' school in Bengal had established high school examination classes in place of, or in addition to, the entrance class. In girls' schools the high school examination was more popular, partly on account of the exclusion of mathematics from the course. The Committee of 1895 found that in nearly every province a very decided preference was shown by scholars and their parents for the entrance examination, particularly where boys were concerned. In the Code of 1895 the position of the high school examination was improved by the provision of scholarships which might be gained by its candidates, and under that Code the examination has gained wider and more general recognition until it has become more popular than the examination of the Universities. In 1901-02 in the four provinces of Bengal, the United Provinces, the Punjab and the Central Provinces only 19 European candidates passed in the matriculation examination against 245 in the high school examination. The present popularity of the high school examination may be partly due to the circumstance that the only compulsory subjects are English and arithmetic.

1,069. In Bengal the only alternative to the high school and matriculation examinations authorised by the Local Government under the Code is the Senior Cambridge Local examination for St. Paul's School, Darjeeling. In the United Provinces the list of alternatives is as follows :—(1) The examinations for admission to the Engineering Colleges at Rurki and Sibpur; (2) the examinations for admission to the inferior grade of the Accounts Department and of the State Railways' Traffic Department, the Survey Department, and the Salt Department; and (3) the examinations for admission to the Engineering and Locomotive Departments of the East Indian Railway. In the Punjab the list includes the London Matriculation examination; the Rurki College Entrance examination, the examination for admission to the Dehra-Dun Forest School, the Clerical and Commercial examination of the Punjab University, the Cambridge Senior Local examination, and the Senior Commercial examination of the London Chamber of Commerce. In including examinations of the United Kingdom in the list regard is had to the circumstance that it may be useful to a boy educated in India to hold the certificate of some standard examination which is recognized by the authorities of educational and other institutions in England.

1,070. The course of instruction given under the Code may be further illustrated by the following abstract of the time-tables of typical schools, showing the distribution during a week of the hours of secular class study :— Illustrative time-tables.

(1) *Government Boarding School for Boys at Kurseong.*

(a) Standard VIII—

		Hours.			Hours.
English	.	5	Algebra	.	2
Geography	.	1½	Science	.	2½
Latin	.	3	Drawing	.	½
Arithmetic	.	3	Carpentry	.	¾
Euclid	.	2½	Singing	.	1½

(b) Standard I—

		Hours.			Hours.
Reading	.	2	Geography	.	1½
Writing	.	2	Object lessons	.	1
Spelling	.	1	Arithmetic and tables	.	3½
Dictation	.	½	Drawing	.	1½
Recitation	.	½	Singing	.	2½
Grammar	.	½			

(2) *St. Joseph's (Roman Catholic) Boarding and Day School for Boys at Calcutta—*

Standard VIII—

		H. M.			H. M.
English—			Mathematics—		
Text	.	3 45	Arithmetic	.	3 45
Grammar	.	1 30	Euclid	.	2 5
Composition	.	2 45	Algebra	.	2 15
Latin—			Political economy	.	1 30
Text	.	2 55	Physiology	.	1 0
Composition	.	2 30			

(3) *Diocesan Boarding School for Girls at Darjeeling—*

Standard VIII—

		Hours.			Hours.
Grammar and analysis	.	1½	Latin	.	3
Composition	.	¾	Arithmetic	.	5
English Literature	.	1½	Euclid	.	1½
History	.	3	Algebra	.	1½
French	.	3½	Needlework	.	2½
			Class singing	.	1

Domestic economy may be taken in place of Euclid, geography and additional algebra in place of Latin, and drawing in place of needlework.

## Standard IV—

Hours.		Hours.	
Grammar and analysis	2	Latin	1½
Dictation	3½	Arithmetic	4½
English Literature	2½	Elementary Physics	½
Geography	1½	Drawing	½
Map drawing	¾	Singing	½
French	2	Needlework	2
		Class singing	1

Additional arithmetic may be taken in place of Latin.

## Infant class—

Hours.	
Reading, spelling, meanings, writing	6
Arithmetic and tables	2½
Object lessons	½
Kindergarten drawing, colouring, and recitation	2½
Kindergarten drill, games, and singing	3
Clay modelling	½
Needlework	1

In addition to the general course optional instruction is given in painting, music, theory of music, the violin, and dancing.

(4) *Gouldsmith Free Day School for Boys and Girls at Calcutta.*

## Standard V—

H. M.		H. M.	
Reading and spelling	3 0	Geography	0 50
Grammar	3 0	Map drawing	0 40
Copy	1 0	Object lessons	0 30
Dictation	0 40	Drawing	1 0
Composition	1 20	Type-writing and short-hand	3 30
Arithmetic	3 10	Singing	1 45
History	2 0		

The course for girls is the same as that for boys, except that they take cooking, domestic economy, and needlework in place of history, drawing, and type-writing and short-hand.

Comments on the quality of the teaching.

1,071. The following brief remarks are recorded in the Provincial Reports for 1901-02 regarding the quality of the instruction given in the European schools. In BENGAL, the Inspector says:—Comparing the working of the schools now with what was done in 1897 considerable improvement has taken place in the teaching of English and arithmetic, the two compulsory subjects at the annual examination. Algebra, Euclid, and French are better taught now than then, although I hope to find further improvement. There is little difference in regard to the other subjects taught." In the UNITED PROVINCES it is said that: "there has been an improvement as compared with last year in the English papers, also in Latin and perspective drawing; but in mathematics, history, and science the quality of the teaching and the attainments of the taught cannot be regarded as satisfactory, and more attention will have to be paid to them in future." In the PUNJAB Report it is said that object lessons and technical training receive increasing attention. In this province the character of the teaching still leaves much to be desired, and more trained teachers are greatly needed.

## Provinces not under the Bengal Code.

1,072. In MADRAS, the compulsory subjects in European, as in native, schools are reading, writing, and arithmetic, but the language learnt is of course English instead of a vernacular. The voluntary subjects are in general the same for the two classes of schools, but the following provisions relating specially to European primary and middle departments may be noticed. Vernacular languages form an optional subject for European schools, and a special course is provided for them. In the list of "second languages," Latin, French, or German are given as alternatives for Sanskrit, Arabic, or Persian. Special courses of singing and needle-work are also prescribed for European schools. The Madras return of special European schools includes three schools of music for girls.

1,073. The BOMBAY Grant-in-aid Code prescribes eight special standards for European schools. The following are the subjects for the lowest standard :—

- 1st Head.*—Arithmetic.—Multiplication table to  $12 \times 12$ , notation and numeration up to 1,000.  
*2nd Head.*—Reading an easy child's book.  
*3rd Head.*—Writing to dictation five words of one syllable from the book read.  
*4th and 5th Heads.*—Optional subjects.

For the highest standard the subjects are as follows :—

- 1st Head.*—(a) Arithmetic, complete.  
 (b) Euclid, Books I and II, with simple deductions.  
 (c) Algebra—G. C. M., L. C. M., simple equations, square and cube roots.  
*2nd Head.*—English.  
 (a) One thousand five hundred lines of English poetry, with understanding of the meaning, grammar, etymology, and elements of prosody.  
 (b) Four hundred lines of the poetry to be learnt by heart.  
 (c) A paraphrase of about 14 lines, or an essay.  
*3rd Head.*—(a) History of England and India.  
 (b) Geography—Detailed physical and political geography of England. Map-drawing from memory to illustrate history. An outline map of the British Isles or any country of Europe to be drawn from memory; and the principal boundaries, mountains, rivers, and cities to be marked.  
*4th Head.*—Second Language—Latin, Sanskrit, Persian, French, German, or any local Indian vernacular.  
*5th and 6th Heads.*—Optional subjects.

In the three highest standards girls may take up any portion of science or domestic economy, treated in a popular way, equal in amount and difficulty to one of MacMillan's Science Primers, in place of Euclid and Algebra. With regard to the optional subjects it is laid down that school managers should make due provision for suitable instruction in such subjects as object lessons, drill and gymnastics, class singing, drawing, manual training, elementary science, commercial instruction, and music and domestic economy for girls. It is not necessary that a school should teach all these subjects, but it is expected that every school will make provision for the teaching of two at least among them. Managers are given great freedom in planning and carrying out courses of instruction in these subjects. For the compulsory subjects, also, the prescribed standards are meant to serve as a guide, and managers may, with the consent of the Department, introduce changes into the curriculum.

#### Industrial Training in poor Schools.

1,074. It is provided in the Bengal Code that schools for the poor may, with the previous sanction of the Department, substitute a course of training in various kinds of useful practical work, such as drill, gymnastics and athletics, drawing, household duties (in girls' schools), short-hand and typewriting, modelling in clay, carpentry, and smith's work, for one or more of the subjects included in Schedule I, without reduction of the grant. This provision is the outcome of a discussion by the Committee of 1895 on industrial education in poor schools. The Committee considered that: "It may ordinarily be assumed, as a result of the acute competition that exists for every form of clerical employment, and for other reasons as well, that a large proportion, if not the majority, of the scholars whose case we are considering will take to some form of active, out-of-door, or industrial pursuit,—some occupation in which bodily strength and manual dexterity are essential. It is true that Anglo-Indian parents, even of the lower classes, often regard with distaste the notion of their sons doing any manual work. The pressure of circumstances is gradually weakening this objection

Regulations  
of the Bengal  
Code.

and as experience shows that boys of European extraction, born and bred in this country, can be turned into good workmen if their energies are directed into a proper channel from a sufficiently early age, it is reasonable to expect that if encouragement is given to European schools to open industrial classes, the manual training that they offer will be of solid value in after years to the scholars who attend them." The Committee considered that the best way to achieve the end in view was to encourage schools for the poor to include in the course subjects which would train the children to use their hands and eyes and accustom them to industrial occupations. Even the carpentry and blacksmith's shops which the Committee hoped to see attached to large boarding schools were to be conducted with this view: it was not proposed to teach the boys to earn a livelihood in any particular calling, but to enable them to handle tools and fit them to enter a workshop of any class. The Committee recognised that short-hand and typewriting did not come within the scope of this scheme, but these subjects have an immediate commercial value, while at the same time they can be sufficiently taught in schools; they were accordingly included in the list. The Committee thought it desirable to give a free hand to school managers in the selection of subjects, and the Code does not therefore attempt to define a curriculum.

Industrial classes under the provisions of the Bengal Code.

1,075. Considerable use is made of the industrial provisions of the Code, and especially in orphanages and boarding schools for poor or destitute children such as the various Lawrence Asylums. The PUNJAB Director gives the following account of the industrial and technical side of poor schools in that province:—

The Lawrence Military Asylum at Sanawar is the only institution in the Punjab that provides for European boys or girls a thorough technical or industrial training. The boys learn cooking, telegraphy, carpentry, instrumental music, printing, proof-reading, simple book-binding, etc. The girls learn cooking, stocking making, dress-making and domestic work. In the Murree Asylum 27 girls learn cookery, 73 boys learn carpentry, and 4 pupils learn typewriting. In the Cathedral orphanage, Lahore, the boys learn typewriting, drawing, and short-hand, and the authorities intend to introduce simple carpentry and to set up a small printing press. The girls learn stocking making, cooking, dress-making, domestic work, etc. In the Mayo industrial school the girls do all the household work, their own dress-making, and some fancy needle work. Proposals are also under consideration to start industrial and technical training in the Convent school, Simla, such as house management and cooking, the treatment of ordinary ailments, the management of a sick-room and the compounding simple medicines, cutting out and making of dresses and under-clothing, also fancy work of various kinds.

There is little industrial training in BENGAL and the UNITED PROVINCES. At the Colvin Free School (Diocesan) Allahabad, the boys are taught a little carpentry, and typewriting and short-hand have been introduced into some schools for the poor in Bengal.

In the CENTRAL PROVINCES "the St. Francis De Sale's Mission School, Nagpur, has a workshop attached to it. The work turned out is meant entirely for the use of the mission itself. Some 60 boys are under instruction in the workshop, but the primary object is not to train them as artisans, but to develop their faculties by the manual training which working at handicrafts affords."\* An industrial class for girls was also opened in the St. Joseph's Convent School at Nagpur in 1898-99. This appears to be an institution of somewhat higher class than the poor schools of the Code. Writing in 1899-1900, the Inspector said:—

There are in all 43 students in the Industrial Department, of whom 12 are not regular pupils of the Convent, but consist of old pupils or girls who have discontinued their general studies. The remaining 31 are ordinary pupils, who receive industrial training in addition to the general course. The pupils are taught advanced needle-work, dress-making, typewriting, and cookery. The progress in each branch at my visit was decidedly promising.

Industrial classes in other provinces.

1,076. The industrial side of European schools receives considerable attention in MADRAS. There are industrial departments or classes in St. Aloysius' School, Vizagapatam; in St. Patrick's Orphanage, Adyar; in the Presentation Convent Orphanage, Black Town; in the Presentation Convent, First School, Vepery; in the Lawrence Asylum, Ootacamund; and in the Egmore Military Female Orphan Asylum. BOMBAY returns only one industrial school for European boys.

\* Central Provinces Report for 1901-1902, page 33.

### Examinations.

1,077. The Bengal Code provides for the holding of primary, middle, and high school examinations "for the purpose of enabling the progress of scholars to be thoroughly tested at definite stages of their school career, namely, on completing the course of instruction for primary standards, for middle standards, and for high school classes, respectively." Separate examinations are held in each province to which the Code applies. Pupils may not ordinarily be promoted from one stage to another until they have passed the examination at the end of the previous stage, unless with the special sanction of the Inspector. The examinations are also used for the award of scholarships, and they dominate much of the school work. A pass in the high school examination forms the leaving certificate for those who complete the full school course. The Universities accept this certificate as the equivalent of the matriculation examination; and it also aids boys in seeking employment. The middle school examination is the leaving examination for the many pupils who do not proceed beyond the middle stage, and its certificate is used in obtaining employment as teachers and in other capacities. The syllabus of the examination is given in outline in the Code, and is based on the courses for the corresponding stages. Subjects are divided into compulsory and optional. Pass marks are 30 per cent. of the possible aggregate. The names of successful candidates are arranged in order of merit, and they are divided into three classes according to the percentage of aggregate marks which they obtain. In provinces which are not under the Bengal Code, European candidates present themselves for the general school examinations, which are modified for them in the manner indicated in describing the curriculum.

1,078. At the present time few pupils of the Bengal Code provinces follow the matriculation course. In 1901-02 eight boys passed the matriculation examination in Bengal, 2 in the United Provinces, 5 in the Punjab, and 4 in the Central Provinces. Two girls passed in Bengal and 5 in the United Provinces. One boy passed the School Final examination in the United Provinces. The number of boys and girls who presented themselves for the high school examination is not stated. In Bengal 25 boys and 32 girls passed in 1901-02, against 16 boys and 17 girls in 1896-97. In the United Provinces 75 boys and 50 girls were successful in 1901-1902. Speaking of the school examination generally, the Director remarks that in 1901-02 the girls, as usual, did better than the boys. In the Punjab 28 boys and 20 girls passed against a total of 15 in 1896-97. In the Central Provinces only one boy and 6 girls passed. In Bengal the number of passes was one-seventh of the number of pupils in the high stage, in the United Provinces and the Punjab it was about one-third, and in the Central Provinces one-tenth.

In Madras 16 out of 81 boys and 31 out of 107 girls were successful at the matriculation examination. No European candidates presented themselves at the upper secondary examination. In Bombay 10 boys and 20 girls passed the matriculation examination, one boy passed the school final examination, and one boy passed the 2nd grade public service certificate examination. In Burma 22 boys and 16 girls passed the matriculation examination. During the quinquennium four Europeans in this province qualified by competition for appointment as Myoòks.

The comparatively large number of girls who passed the various examinations in Madras, Bombay, and Bengal is worthy of note.

1,079. Taking all the provinces together the results of the middle school and upper primary examinations stand as follows:—

<i>Middle school examination.</i>				Total.
	Boys.	Girls.		
1896-97	457	404		861
1901-02	564	595		1,159
<i>Upper primary examination.</i>				Total.
	Boys.	Girls.		
1896-97	947	598		1,545
1901-02	770	851		1,621

General system.

Examinations of the high stage.

Middle and primary examinations.



### Pupils in Primary and Secondary Schools.

General  
statistics.

1,080. Of the 31,000 European pupils on the rolls of both European and Native schools, 29,000 were studying in schools for general education. This forms so large a proportion of the total that it will be convenient to defer the examination of the rate of progress and the comparison between pupils and population, to the section of this chapter which relates to the general statistics for European pupils. In the present section we may confine ourselves to the consideration of the figures showing the number of pupils in the different classes of schools and in the different stages of instruction.

Stages of  
instruction.

1,081. Of the 29,583 pupils (both European and Native) in European schools for general education, 26,450 were in secondary and only 3,133 in primary schools. The corresponding figures for 1896-97 were 24,288 and 3,271. This proportion affords a striking contrast to the figures for Native schools, in which 84 per cent. of the total number of students are primary school pupils. In 1901-02 the number of pupils of European schools in the different stages of general instruction was as follows :—

High stage . . . . .	2,351
Middle „ . . . . .	6,941
Upper primary stage . . . . .	6,841
Lower „ „ . . . . .	13,450

The percentage of pupils in different stages of general instruction in European and Native institutions contrasts as follows :—

	European.	Native.
Collegiate stage . . . . .	2.1	.4
High „ . . . . .	7.8	2.1
Middle „ . . . . .	22.9	4.6
Upper primary stage . . . . .	22.6	11.3
Lower „ „ . . . . .	44.5	81.6

Comparing European school pupils at different periods the result is as follows :—

	1891-92.	1896-97.	1901-02.
Collegiate stage . . . . .	.6	.7	2.1
High „ . . . . .	6.3	6.5	7.8
Middle „ . . . . .	23.5	24.1	22.9
Upper primary stage . . . . .	21.3	22.2	22.6
Lower „ „ . . . . .	48.2	46.5	44.6

During the quinquennium the number in stages above the primary increased by 1.5 per cent. ; a rise of 1.4 per cent. in the collegiate stage and of 1.3 per cent. in the high stage being partly counterbalanced by a fall of 1.2 per cent. in the middle stage.

Taking actual numbers the increase in pupils by stages in the quinquennium under review and in the previous quinquennium was as follows :—

	1891-92 to 1896-97.	1896-97 to 1901-02.
High stage . . . . .	227	571
Middle stage . . . . .	929	242
Primary „ . . . . .	2,055	1,211

Boys and  
girls.

1,082. The number of boys and girls in the different stages of instruction contrasts as follows :—

	Boys.	Girls.
High stage . . . . .	1,503	848
Middle stage . . . . .	3,780	3,161
Primary „ . . . . .	10,166	10,125

On an average, therefore, boys carry their instruction further than girls.

The European middle school stage is a three years' course and lasts on an average from about the ages of 11 to 13 to about the ages of 14 to 16. We may gain some idea of the proportion of European children who carry their instruction

beyond the primary stage by comparing the pupils in the middle stage of European schools with the number of European and Eurasian children returned at the census of 1901 as between the ages of 12 and 15. The comparison gives the following result :—

	Boys.	Girls.
Children between the ages of 12 and 15	4,986	5,130
Children in the middle school stage	3,780	3,161

The figures for children in the middle school stage exclude the European pupils of Native schools, and include, on the other hand, the Native pupils of European schools. The net result is probably slightly more favourable than that shown by the above figures. The high stage lasts on an average for about two years, and there is evidently a great falling off after the middle stage since the number of pupils in the high stage amounts only to 1,503 boys and 848 girls.

### Teachers.

1,083. Numerically the staff of the schools appears to be in general fairly adequate. In secondary schools for boys in Bengal the number of pupils per teacher varies in most cases from about 10 to 20. In secondary schools for girls there are on an average fewer pupils per teacher, both because many of the schools are smaller, and because extra subjects (music, needlework, painting, etc.) are taught. In some schools there are only 5 or 6 girls to each teacher, and in very few schools are there more than 15. In the United Provinces the average number of pupils per teacher is 10 in high schools and 13 both in middle and primary schools. In the Punjab the average is 13 for schools of all grades. In Madras the number of pupils per teacher is greater and averages as follows :—

Upper secondary schools for boys	.	.	.	22
Lower	„	„	„	18
Upper	„	„	„ girls	12
Lower	„	„	„	13

1,084. The teachers are recruited from many different sources. The large Church of England secondary schools for boys have generally several graduates of the United Kingdom on their staff; some of the mistresses of girls' schools of the same class are ladies educated at home; in the Roman Catholic schools the majority of the teachers are members of the religious orders which maintain the institutions; in the mission schools of other denominations there are usually some teachers belonging to the mission and educated in Europe or America. For the rest, the teachers are mainly educated in India and are engaged in India by the managers of the different classes of institutions. A minority have graduated in Indian Universities, others have passed the first arts or entrance examination, others again the high or middle school examination or some other school or qualifying test. In the mixed day schools most of the teachers are ladies, and ladies are also sometimes employed in the infant classes of schools for boys.

1,085. It is a grave defect of the system that so few of the teachers recruited in India have received any special training to fit them for their duties. The Bengal Code provides for control over the appointment of teachers by requiring all teachers in aided schools to hold a letter of recognition from the Inspector. Under the Code as it stood before 1895 every teacher and assistant teacher had to be "certificated." But the schools could not be left without teachers, and it was therefore found impossible to avoid granting the certificates to persons with little general education and with little or no special knowledge of the art of teaching. As the Committee of 1895 said: "the existing rules have therefore not only permitted the award of teachers' certificates to mediocrity, they have forced it; and consequently the certificates are not and never have been sufficient evidence that their holders are capable teachers." To avoid the degradation of the certificate a simple letter of recognition was substituted for it in the present edition of the Code. Few of those holding the letters of recognition are trained teachers and many show no other evidence of a general education than the middle school certificate. Recognized teachers who have gone through a specified course of training or hold other specified qualifications may be granted a "proficiency certificate," but very few teachers have obtained a certificate of this character.

1,086. The general position may be illustrated by an analysis of the figures for the PUNJAB. The 198 teachers in the European schools (including gymnastic instructors, munshis, work mistresses, etc., as well as ordinary teachers) include the following:—holding qualifications of the United Kingdom or foreign qualifications, 34; holding Indian general education qualifications, 36; holding some sort of Indian trained teachers' qualification, 16; holding only or mainly letters of recognition under the Code, 30; members of religious orders, 57; and with no special qualifications (apart from practice in teaching), 25. The English and foreign qualifications are of a very miscellaneous character, their holders comprise B. A.'s of Oxford, Cambridge, and London; certificated teachers of the English Education Department; persons who have passed the Oxford and Cambridge Senior Local examinations; a certificated kindergarten teacher of the Froebel Union; a certificated pupil of the Paris Conservatoire of Music, etc., etc. The Indian general education qualifications are divided as follow: B. A.—4, F. A.—4, matriculation—7, European high school examination—16, and middle school examination—5. The trained teachers include one holder of a proficiency certificate under the Code, 4 holders of Government certificates, four passed students of training schools, 5 teachers trained in kindergarten methods; one certificated pupil teacher; and one holder of a gymnastic certificate.

Training of  
teachers.

1,087. Active measures are now being taken to provide efficient training for teachers of European schools, but it cannot be said that much had been done up to the end of the quinquennium under review, although the subject had been often discussed. The denominational character of the schools raises difficulties in the way of establishing non-denominational training colleges, and although the Codes provide for the grant of aid to training institutions, little advantage has been taken of their provisions.

1,088. In MADRAS there is no special institution for training European teachers. In 1901-1902 two European girls were under training at the Saidapet College, and during the quinquennium six Europeans passed the practical test for the diploma of Licentiate in Teaching of the Madras University. Only one European boy underwent training in a normal school during the quinquennium, but in 1901-1902, 50 European girls were attending normal schools and classes. Thirty-one of these girls were in the Presidency Training School for mistresses, and they formed half the total number of pupils in that institution.

In BOMBAY there are no normal institutions for European boys, and no such boys were returned as studying teaching. There are normal classes attached to the Girgaum Girls' School and the Byculla Convent School at Bombay, and to the Convent School at Karachi. Twenty-four girls were under instruction at the end of 1901-1902, and 16 girls passed an examination in teaching.

In BENGAL a Government Training College for European teachers was established at Kurseong near Darjeeling in 1899-1900. It is attached to the Victoria Boys' School, is equipped for the instruction of ten female and six male students, and is under the superintendence of an officer with training college experience in England. At the end of 1902-1903 nine female students and no European male students were on the rolls. A class for natives is attached to the College. The course for Europeans lasts for one year, and is both practical and theoretical. No definite curriculum has been prescribed, the number of pupils being few the Superintendent is able to give personal instructions suited to the requirements of each student. There are classes for teaching kindergarten methods in the Welland Memorial School, and in the Methodist Girls' School at Calcutta.

In the UNITED PROVINCES stipends are offered to Europeans and Eurasians who are willing to attend the Government Training College for native teachers at Allahabad, and arrangements have been made for their board and lodging at the boys' high school, one Eurasian boy was attending the college as a stipend holder in 1901-02. There is a training class for European mistresses attached to the All Saints' Diocesan School at Naini Tal which was attended by nine pupils. Nine girls passed the teachers' examination during the year. A few European pupils are trained in the normal class of the Isabella Thoburn College at Lucknow and are examined for the teachers' certificate. In the PUNJAB there is no

school for training European boys or girls as teachers, and no European pupils attended the normal classes for natives in 1901-1902. In BURMA there is a small normal class attached to St. John's Convent School at Rangoon, and some European boys and girls attend the normal schools for natives. At the end of 1901-1902, 29 boys and 25 girls were being trained as teachers, and 24 pupils passed examinations for teachers during the year. At the end of 1901-1902 one European boy was studying in a normal school in ASSAM, and no European pupils were being trained as teachers in the other minor provinces.

1,089. In all 30 boys and 108 girls were studying in normal institutions at the end of 1901-1902. The teaching profession is more popular among girls than among boys, and the facilities for their instruction are greater. But at the end of the quinquennium the position as regards the training of both masters and mistresses for European schools was unsatisfactory.

1,090. The Bengal Code (before it was revised in 1902) encouraged the employment of pupil teachers, by offering special grants to schools on their account, payable on the fulfilment of prescribed conditions relating to training, duties, etc. Little use was made of this opportunity. In BENGAL there were in 1901-1902 only three recognised pupil-teachers, all belonging to the Calcutta Free Girls' School. In the UNITED PROVINCES there were no pupil-teachers under the Code, but a few schools have their own pupil-teacher system. The Sanawar Asylum is the only institution in the PUNJAB in which pupil-teachers were employed in accordance with the terms of the Code.

### Professional and Technical Training.

1,091. The returns show Europeans studying for the professions of engineering, medicine, teaching, and law. We have dealt already with the training of teachers. For the other subjects there are no institutions specially designed for Europeans, they receive their training in the general colleges and schools.

1,092. Engineering is a favourite subject among European boys since success in the course leads to certain and congenial employment. In 1901-1902 there were 110 European students in the four Engineering Colleges, and they constituted one-eighth of the total number of scholars. The number was 16 less than in 1896-1897. Sixty-six of the pupils were at Rurki, 37 at Sibpur, and 7 at Madras. At the Rurki College in 1901-1902, five European pupils passed the final examination of the Civil Engineering class against one native pupil, 19 passed the Upper Subordinate Examination, and 6 the British Military Survey Class. In Bengal, one European student qualified for the degree of Bachelor of Engineering; one passed the First Engineering Examination; one the Overseers' Examination; two the Sub-Overseers' Examination; and 7 the Public Works Accountants' Examination. The returns for engineering and surveying schools show 3 European pupils in Madras, one in Bengal, and 35 in Burma. Two pupils passed the school engineering and survey examination in Madras, and in Burma eight passed the engineering and one the survey examination. Ten stipends a year are awarded to European boys in Burma to enable them to be trained in various workshops.

1,093. At the end of 1901-1902, 155 male pupils and 35 female pupils were studying in the four Medical Colleges against a total of 101 in 1896-1897. In 1891-1892 the number was returned at 235. No explanation is given of these remarkable fluctuations. Ninety-nine of the pupils were in the Medical College, Calcutta, and formed one-sixth of the total number of pupils, 72 were in the Government Medical College, Bombay, and formed one-eighth of the total, 11 were at Madras, and 8 at Lahore. In addition to the college pupils, 86 European boys and 27 European girls were studying in various medical schools. All the boys and 15 of the girls were in Madras, and 9 of the girls were in the Punjab. Two students qualified for the degree of Bachelor of Medicine at Madras, and one for the Licentiate in Medicine and Surgery at Calcutta. At Lahore two students passed the special certificate examination for females. Considering the number of students, the number qualifying for a degree is very small. Thirty-nine students passed school medical examinations in Madras.

Law.

1,094. Few Europeans take up the study of Law. In 1901-1902 there were 13 male students in law colleges against 11 in 1896-97. One Madras student qualified for the degree of Bachelor of Laws in 1901-02.

Technical training.

1,095. There is little technical education of Europeans. The statistical returns show 37 European pupils in schools of art, 65 in commercial schools, 165 in technical and industrial schools, and 624 in "other schools." Except those under the first two heads, most of these pupils are apparently boys and girls in industrial classes or departments, such as those which have been described in the section dealing with general education to which they more properly belong. All but one of the pupils in "commercial" schools were learning typewriting and short-hand in Calcutta. A certain number of Europeans appear in the statements of successful candidates at the public technical examinations. Fifty-nine passed the school of art examination at Madras, 7 at Bombay, and 1 at Calcutta. Eight Europeans passed the Senior Commercial examination at Bombay, and 32 passed various industrial school examinations in Madras.

There is a technical school for girls at Kurseong—the St. Helen's Technical School under the direction of the Daughters of the Cross. After completing the middle school course, the pupils may go through a further course in one or more of the following subjects: (1) domestic economy and cooking, (2) nursing and the management of an infirmary or sick room, and (3) dress making and millinery.

### General Statistics of Pupils.

Pupils under instruction.

1,096. The total number of Europeans under instruction at the end of 1901-02 was 31,122, and, as already stated, all but 3,138 of these pupils were in European schools and colleges. The total number of pupils increased by 1,946 during the period under review, by 3,381 during the years 1892-93 to 1897-98, and by 2,290 during the years 1887-88 to 1891-92. It would not be just to conclude from the smaller increase during the last quinquennium that progress has become less satisfactory. The increase of the European and Eurasian population was slower during the decade ending 1901 than during the decade ending 1891, and very possibly it was slower during the second than during the first-half of the later decade. Again, the number of children who do not receive some form of school instruction must be small, and it may be anticipated that as the limit is approached the rate of increase will be slower. In estimating the progress of education in India it is customary to take the school age population at 15 per cent. of the total. The percentage of European children actually at school on the total population greatly exceeds this figure. It is useless to make an estimate for males because of the British troops, but confining the calculation to females it is found that, at the end of 1901-02, 18.4 per cent. of the total female population were at school. Where education is so nearly universal percentage statistics of this character fail to give much indication of how many children are still untaught.

1,097. If the Census statistics gave the number of children of the ages of 6 to 18, a more useful comparison might be made. In the tables, however, the figures are given for the ages of 0-12 and 12-15. The total number of European and Eurasian children between the ages of 0 and 15 was returned at 53,000 and the total number of boys and girls under instruction amounts to 31,000. The number of children of school-going age must, however, be much less than 53,000. Even if the European and Eurasian population between the ages of 6 and 18 were known it would still be necessary to take into account the circumstance that some children are educated entirely at home, and that others are taught at home until they are perhaps 11 or 12 years of age. To find out how many children remain untaught it would be necessary to make an actual investigation into the circumstances of each place. The result of such an investigation is given for the Punjab districts. The returns for 1901-02 (omitting Gurdaspur District) showed a total number of 692 children between the ages of 6 and 18. Of these, 512 attended schools, 102 were being privately educated, and 78 (31 boys and 47 girls) were receiving no education.

1,098. In the several provinces the total number of European children at school in 1901-02 was as follows :—

	Pupils by provinces.
Bengal . . . . .	8,038
Madras . . . . .	7,661
United Provinces . . . . .	4,293
Bombay . . . . .	4,164
Burma . . . . .	3,025
Punjab . . . . .	2,582
Central Provinces . . . . .	1,271
Berar . . . . .	66
Assam . . . . .	15
Coorg . . . . .	7

In considering the provincial figures it must be borne in mind that many children are educated outside the province in which their parents live. Burma sends many of its boys to India; some of the small provinces send children to the schools in the larger provinces; and pupils go to the Himalayan boarding school from all over the north, and even from other parts, of India.

The following provinces show the greatest increase :—

Burma . . . . .	717
United Provinces . . . . .	692
Bombay . . . . .	328
Bengal . . . . .	220
Central Provinces . . . . .	104

Madras shows a decrease of 145. In that province the number of girls advanced in all stages except the primary and technical, while the number of boys declined in all stages except the upper secondary and technical.

1,099. Although a comparison between the number of pupils and the number of children under the age of 15 does not afford in itself an indication of the number of children remaining untaught, yet this comparison may be used in comparing the state of education in the different provinces and among boys and girls. Throughout the area dealt with in this report the number of European pupils under instruction amounted to 59 per cent. of the number of children under 15 years of age. For boys the percentage was 63 and for girls 55. If we compare the percentages in the principal provinces the result is as follows :—

	Boys.	Girls.	Boys and girls.
Madras . . . . .	61	58	60
Bombay . . . . .	55	57	56
Bengal . . . . .	74	55	64
United Provinces . . . . .	71	55	63
Punjab . . . . .	49	58	54
Burma . . . . .	63	55	59
Central Provinces . . . . .	61	66	63

With regard to boys, Bengal no doubt owes its prominence partly to pupils from Assam and Burma, and the United Provinces to its hill schools. In the Punjab there are probably a greater proportion of British Army children than in other provinces. Among girls there is no very great variation except for the remarkably high figure in the Central Provinces. There are a number of convent schools in that province, and possibly they are attended by pupils from outside the province.\*

### Expenditure.

1,100. The total expenditure, direct and indirect, on European colleges and schools in 1901-1902 was R44,32,000; it increased by 8½ lakhs during the quinquennium. Of the total expenditure in 1901-1902, R9,02,000 was contributed by public, and R34,78,000 by private funds.† Of the public funds R8,82,000 were derived from Government Revenues, and R20,000 from Municipal and Local funds; of the private funds, R15,91,000 are derived from fees and R18,87,000 from subscriptions, endowments, religious societies, and miscellaneous sources. The contributions from public funds increased during

\* The figures in this section do not take into account children in British Army schools; in 1903 there were 2,737 children in these schools.  
 † Excludes R52,744 indirect expenditure in Burma not distributed by sources.

the quinquennium by R1,16,000, from fees by R2,80,000, and from miscellaneous private sources by R3,79,000. The increase of total expenditure was greatest in the following provinces :—

	R
Bengal . . . . .	3,72,000
United Provinces . . . . .	1,90,000
Madras . . . . .	1,74,000

Cost of  
educating a  
child.

1,101. The average annual cost of educating a pupil in a secondary or primary school for Europeans was R89·6 in 1891-92, R97·4 in 1896-97, and about R92 in 1901-02. The decrease is apparent only, being due to expenditure on boarding houses—shown under miscellaneous in 1901-02 for some provinces which distributed it among classes of institutions in 1896-97. The cost varies greatly in different classes of institutions. The following table shows the average annual cost of a boarder (based on the figures for the four years, 1899-1900 to 1902-03) in some of the large secondary schools of the hills :—

	R
St. Pauls, Darjeeling . . . . .	796
Bishop Cotton School, Simla . . . . .	449
Oak Openings, Naini Tal . . . . .	434
Diocesan School, Naini Tal . . . . .	393
Philander Smith Institute, Mussoorie . . . . .	255

Fees.

1,102. The average incidence of tuition fees per pupil in secondary and primary schools for the year 1901-02 was as follows :—

United Provinces . . . . .	49
Bengal . . . . .	31
Bombay . . . . .	30
Punjab . . . . .	30
Central Provinces . . . . .	24
Madras . . . . .	10

The rates of fees differ greatly in the various classes of institutions, and a considerable proportion of free pupils brings down the average. All these circumstances diminish the value of the general figures. The following are the rates of monthly fees levied in certain typical schools in Bengal :—

- (1) St. Paul's School for Boys, Darjeeling—R50 a month or R100 in the Rector's House.
- (2) St. Joseph's School for Boys, Darjeeling—About R40 to R50.
- (3) Government Boys' and Girls' schools, Kurseong—children of Government servants R13 to R26 according to the salary of the father ; general students, R30.
- (4) Diocesan Girls' School, Darjeeling—R40, R45, and R50, in different departments of the school.
- (5) Loreto Convent, Darjeeling—R40.
- (6) St. Joseph's School, Calcutta—Boarders R22 ; day pupils R3 to R6.
- (7) Loreto House, Calcutta—R35 boarders ; day pupils R6, R8, and R10 in different departments.
- (8) St. James' Parochial School (primary day)—R1, R1-8, and R2 in different classes.
- (9) Primary schools of the East Indian Railway—R2 for the first child and R1-8 per each subsequent child of the same parent. Children of employes on a salary of less than R80 pay half rates.

The following is a similar list for the Punjab :—

- (1) Bishop Cotton School, Simla—boarders, varies from R250 (per annum) for boys under 12 to R490 (per annum) for boys over 18 ; day scholars, varies from R90 (per annum) for boys under 12 to R170 (per annum) for boys over 19.
- (2) Auckland House School, Simla—boarders R36 ; day scholars R7-8 to R12.
- (3) Boys' High School, Lahore—R10 high department, R7 middle department, R5 primary department.
- (4) Convent Boarding School, Simla—R23, or R12-4 in the poor school.

Scholarships.

1,103. In 1901-02 the total expenditure on scholarships amounted to R41,404, of this total, R20,577 was incurred in the United Provinces, R7,532 in Bengal, R5,312 in Bombay, R3,381 in Madras, R2,176 in the Punjab, R816 in Burma, R810 in Assam, and R800 in the Central Provinces.

The Bengal Code prescribes a regular scheme of graduated scholarships : they are of three grades—primary, middle, and high, and their number and value are determined by the Local Governments. The scholarships are awarded on the results of the Code examinations and are tenable only in recognized

institutions which conform to the transfer rules. Primary scholarships are tenable for three years in a school of higher grade than primary. Middle scholarships are tenable for two years in a high school, for three years during apprenticeship as a pupil-teacher, or for five years in a technical school. High scholarships are tenable for two years by students pursuing a recognized course of study in any institution within the Province approved for this purpose by the Local Government. In Madras and Bombay Europeans come under the general scholarship rules.

In MADRAS European girls gained 3 out of the 25 scholarships annually awarded by Government on the results of the matriculation examination. In the PUNJAB there were 34 scholarships current at the end of 1901-02, against 32 in 1896-97. Thirty-two were Government scholarships and two were paid from private sources. Of the Government scholarships, 15 were held by boys and 17 by girls. In addition one college scholarship was held at the Woodstock School for Girls, Mussoorie. In the CENTRAL PROVINCES scholarships are given for orphans, and for technical and industrial training.

### Army Schools.

1,104. No account has hitherto been given in this Chapter of the British Army schools; they do not come within the scope of the Civil Education Departments, but their work forms so important a part of the education of Europeans in India that it is desirable to give a brief description of the system. Introductory.

1,105. The children of the British soldier, in India, as at home and in the colonies, receive education at the expense of the Government; this education is compulsory. It is ordinarily given in special army schools, but, subject to certain conditions and safeguards, the children of soldiers may be sent to civil schools. General system.

1,106. Every regiment of British Cavalry, every regiment of British Infantry, and every two Batteries or Companies of Artillery, when brigaded, has a trained army school master, and a trained army school mistress, attached to it, the total number of schools being (1903)— Schools and pupils.

Elder children's schools . . . . .	130
Infant schools . . . . .	121

The number of children in regiments and batteries in 1903 was as follows:—

Elder children . . . . .	1,284
Infants . . . . .	1,453
TOTAL	2,737

This gives, practically, 10 and 12 as the average number of pupils attending elder children's and infant schools, respectively. Schools, however, vary much in size, some few having as many as 40 or 50 pupils, whilst others have only two or three. The Indian system differs from the home system in that, in the former, schools are *regimental* and not *garrison*, and that the boys and girls are taught together, and not separately. In India barracks are more scattered than in England, and for climatic reasons amongst others, it is rarely possible to form garrison schools. As regards regulations and curriculum, however, the two systems are identical; the Director of Army schools at the War Office, sending out inspectors, school masters and school mistresses, and prescribing the course of study as well as the methods of teaching.

1,107. The Director of Military education in India, an officer of the Head-quarter Staff, in addition to the military education of officers, has entire charge of the army schools. He is assisted at head-quarters by an officer selected from the Inspectors serving in India, who may be deputed to visit schools in the Bengal and Punjab Commands when the Director is prevented by his other duties from visiting them himself. He is assisted as regards schools in the Madras and Bombay Commands by a Deputy Assistant Adjutant General who, under his orders, visits and reports on all schools and carries on all official work connected with the Department in these two Commands. For the subordinate work of military school inspection, India is divided into six circles, to each of which an Army School Inspector is appointed. Their duties are, *inter alia*, to visit, inspect, and examine, all military schools in their circles, to examine and report Control and inspection.



on each child individually, and to decide upon its promotion to higher standards. Inspectors are required to visit every school at least twice a year, and also to pay occasional "surprise" visits.

Teachers.

1,108. The conditions of appointment and service of school masters and school mistresses are laid down in the regulations; they serve for pension. The duties of a school master are:—

- (a) to teach all elder children between 8 and 14;
- (b) to teach adults and enlisted boys who are working for the various certificates of education;
- (c) to teach the infants in the absence of a school mistress; and
- (d) to keep the registers, prepare the returns, etc.

The duties of a school mistress are:—

- (a) to teach all infants between the ages of 4 and 8;
- (b) to instruct elder girls in sewing;
- (c) to teach her pupil teachers and monitresses;
- (d) to keep the registers, prepare the returns, etc.

She is not under the authority of the school master. Pupil teachers and monitresses may be appointed to schools by Commanding Officers of units; they are usually chosen from among girls who wish to enter the department as school mistresses.

School life.

1,109. The schools are all day schools. Thursday as well as Sunday is a whole holiday. For elder children the hours of class study are 5 a day, and home lessons are given to all elder children, except those that are delicate. Children in the infant school are not set home tasks. Discipline, as might be expected in such small schools, is well maintained, and strict attention is paid to punctuality, neatness, and cleanliness. Physical drill is taught daily (in accordance with an authorized course) for at least a quarter of an hour, or three times a week for at least half an hour. In some schools dumb-bells are used with great advantage.

Course of instruction.

1,110. Children are classified in 7 standards according to age; thus, standard I, the senior class in the mistress's school is for children between the ages of 7 and 8; standard II, the junior class in the master's school is for children between 8 and 9; the Standards rise year by year until Standard VII is reached, for children between 13 and 14 years of age. Children are permitted to remain at school after the age of 14 provided their conduct is satisfactory. After passing out of Standard VII, they are classed as Standard Ex. VII. No special course is prescribed for these children who usually repeat the work of Standard VII, but proportionately greater thoroughness is exacted. The Inspector decides in each case whether the child is fit for promotion.

Subjects of study.

1,111. Children in the infant school below Standard I are taught reading, writing, and arithmetic, and the mistress further instructs her pupils in scripture, singing, physical drill, kindergarten occupations, floral tracing, and colouring. The curriculum for elder children (including also Standard I) is divided into classes of subjects as follows:—

Elementary	{	Reading. Writing. Arithmetic.
Class	{	Recitation. English, <i>i.e.</i> , grammar and analysis. English History. Geography. Singing. Physical drill. Sewing (for elder girls).
Specific (for boys only) in the VI, VII and Ex. VII Standards.	{	Algebra. Euclid. Mensuration.
Miscellaneous	{	Scripture. National emblems. Metric system. Temperance { Scriptural aspect. { Economic    " Health and sanitation.