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Report of the College Inspector
Committee. 1912.

REPORT OF THE COMMITTEE APPOINTED BY THE SYNDICATE
TO INSPECT THE COLLEGES AFFILIATED TO THE UNIVER-
SITY OF BOMBAY.

The Committee appointed by the Syndicate to inspect the affiliated Colleges began its visitation of the Colleges in July and, with the exception of the Government Law School which was inspected in February of the current year, all the Colleges were visited before the close of the second Term of 1912. Our experience of the difficulty of carrying out this visitation in the course of a term in which the Colleges to be inspected, including those to which most of the members of the Committee belong, are under the strain of their heaviest work suggests the advisability of arranging that this inspection should take place during the first Term, and it is recommended that when the next inspection is ordered effect may be given to this suggestion.

Before submitting our report on the individual Colleges visited, we venture to present the following observations on some of the more general questions which arise in connection with such an inspection as that in which we have been engaged and also on those points to which the Committee was instructed to give special attention.

We consider that the University of Bombay is to be congratulated on the general condition of its affiliated Colleges. We found all the Colleges housed in excellent buildings, some recently enlarged and others in the process of enlargement. With hardly an exception there was in each College a decided advance also in equipment as regards apparatus and other means of instruction, and everywhere, except in one instance, earnest efforts were being made to prepare for the new conditions arising out of the recent modifications of the University courses.

In all the Arts Colleges there was a marked increase in the number of students, an increase which seemed to be in excess of what might have been expected simply from the natural expansion of education in the Presidency. It appeared to be due, in part, to the large number of insufficiently prepared candidates who were allowed to pass in recent Matriculation Examinations of the University. It was admitted in every College that the proportion of students in the first year's class who have been found to be, in this sense, unfit was very large, this proportion being, according to the statements of the Heads of Colleges, on the average, as large as one-third of the total number in the class. The unpreparedness of these students was said to be especially marked in respect of their knowledge of English. In several Colleges complaints were made in regard to carelessness in spelling, handwriting and composition. The general impression which forced itself upon us was that, on the very threshold of the University course, most serious defects were to be met with requiring an immediate remedy.

The remedy would appear to lie in a stricter Matriculation Examination. We are of opinion that the remodelled Matriculation Examination would supply a remedy if the standards for passing in each subject, especially in English, were raised as well as the total required for passing in the whole examination. Greater attention should be paid to the teaching of English in the High Schools recognised by the University. The system hitherto followed has induced reliance on mere memory work, while the only system that can be regarded as satisfactory is one which shall necessitate wider reading in English and more frequent practice in the oral and written use of it.

There can be no doubt that the teaching of English, especially in the upper forms of many recognised High Schools, is very imperfectly performed and

that this is due in large measure to the want of properly qualified teachers of English. The mere possession of a University degree, even a good degree, is no guarantee that its possessor is qualified to impart efficient instruction in English. It is a matter for regret that so little has been done to provide for the adequate training of secondary teachers. A beginning has been made in this Presidency; but the Presidency is still many years behind some other parts of India in this respect and cannot be said even yet to have fully realized the urgency of the problem of the equipment of its Secondary Schools with a body of efficient teachers.

We are of opinion that the University should also render help in this direction by making its recognition of High Schools a more serious process than it has been hitherto. We would suggest that before any High School is recognised it should be visited by a Committee appointed by the Syndicate, as it is not possible to judge simply from a written schedule whether the staff as reported consists of properly qualified instructors. Further, we would draw attention to the fact that no steps have ever been taken to give effect to Rule 15 of the Regulations under the head of Registration of Schools, page 863 of the University Calendar, 1912-1913. Under this rule an annual report should be called for and, when it seems necessary, an inspection ordered for the purpose of ensuring that a High School continues to maintain the standard of equipment required by the University.

No general remarks applicable to all the Colleges can be made with reference to the professorial staff. In this respect the Colleges exhibit a great amount of variety in their professorial equipment. In some of them we found a strong body of men with special qualifications for their respective positions; but in others we observed a number of men possessed of a good general education holding the position of Professor who had no special qualifications for the position and were lacking in experience. They are such as might be regarded rather as men in training for professorial service than as men qualified to occupy the position of a Professor in a College. In some Colleges the salaries offered are not sufficient to attract the right class of men and these Colleges we found to be inadequately staffed. In some cases the financial resources of the College are from this point of view most inadequate.

We noticed also a considerable variety in respect of the amount of work performed by the professors. In many places the tendency to regard their College duties as exhausted by the performance of the work set down in the time-table was too manifest.

Everywhere we were struck by the growth in the size of the first year's class, the class preparing for the Previous Examination. In most Colleges about one-half of the entire number of the students belong to this class. These swollen classes present their own special problem, for a want of individual attention in the case of these young students—the students who need it most—is inevitable under such conditions.

An improved Matriculation Examination would no doubt help to modify these conditions by reducing the size of these classes and bringing into them a better prepared type of student. Still, even under such improved conditions, the problem of the care of these junior students will always remain a serious problem and it is well to consider what steps might be taken to secure a more efficient supervision of young men suddenly passing from the exact discipline of the School to the freer life of the College. In some Colleges the attempt has been made to place these students in groups under the tutorial guidance of the whole body of the professors; but some additional special agency seems to be necessary. The difficulty might, we think, be met and other advantages in the matter of the training of a professorial staff might at the same time be secured by the creation of a number of assistant professorships, the men selected for these appointments being drawn principally from the ranks of the Dakshina Fellows. The present system of assigning these Fellowships seems to

leave much to be desired. In some of the smaller Colleges the number of Fellows is relatively too great, in some of the larger Colleges it is far too small. A readjustment seems to be necessary here in order to secure that the Dakshina Fellows shall in all cases be men of the highest attainments and shall have an opportunity of engaging in tutorial work by which they might be trained for higher educational duties. In some cases the Dakshina Fellow has no duties to perform which prepare him in any special way for an educational career, in other cases ample opportunity is given for engaging in the work of teaching.

It appears to us that it might be desirable to recommend Government to encourage Colleges to select approved Dakshina Grants-in-aid to Colleges. Fellows for the position of Assistant Professor and to offer grants to Colleges to aid them in making such appointments. The grants-in-aid made to Colleges appear from the returns submitted to us to be in several cases very inadequate amounting to about one-eighth of the total expenditure of the College. There appears to be room, therefore, for additional grants of the kind which we recommend. From amongst men thus trained by College experience it might be expected that the ranks of the Professoriate might in course of time be re-inforced. At present graduates of University distinction but without experience are thrust into these positions, with the inevitable result that the ideals of the Professoriate are in danger of being lowered and the efficiency of the Colleges is impaired.

The suggestion has been made that some of the evils above referred to might be avoided by fixing a maximum number for Size of Classes. each class or section of a class. This method appears to us to be too mechanical and wherever it may seem fit to resort to this method it ought not to be applied with mechanical rigidity. If the College building admits of it and the Professor is equal to the task, there can be no objection to lecturing to large classes, provided the class is otherwise dealt with, as for example by means of tutorial assistance, in manageable sections. In this way the practice of resorting to cramming institutions might be discouraged.

Another solution that has been suggested is that the Colleges should be relieved of this overpressure through the recognition Recognition of selected High Schools. for the purposes of the first year's course of certain selected High Schools. This solution would involve an entirely new departure and is not without its special difficulties; but in view of the present conditions of College education in this Presidency it is one to which the attention of the University may well be directed. This has been suggested only as a temporary expedient; the ultimate solution lies in so raising the standard of admission to the University and consequently the standard of High School instruction generally that only students capable of entering on what is now the second year's course shall gain admission to the University.

In the course of our visits to the various Colleges we had frequent opportunities of ascertaining the views entertained in The new B.A. courses. various educational centres regarding the new courses. The opinion was often expressed that the new pass B.A. is too limited in its scope—an opinion which we are inclined to think is well founded—and in some quarters this course appeared to be in danger of being treated too lightly. In some cases too little provision was being made for the instruction of students taking the "pass" courses. We are of opinion that the work of the candidates for the "pass" degree should be even more strenuous than it was under the old system, and that there should be no diminution in the amount of instruction in whatever way it may be imparted. It is hoped that even if the number of lectures should have to be diminished the students will be under the immediate direction of their professors for no less a period than formerly, and that such direction of studies outside the lecture hours should be included within the ordinary duties of a professor. Even in the Pass course Colleges should select only such groups as they are able, with the staff they possess, to deal with according to this method.

The necessity of a careful selection of subjects in the Honours course is obviously still greater. We found that Colleges have not considered all that is involved in these Honours Honours courses.

courses and the demand which they will make on the teaching staff, both inside and outside the class room. Some Colleges seemed disposed to undertake Honours in all subjects, others with better judgment were proposing to select a limited number of subjects in which they were specially equipped.

It appears to us that this is a matter which requires regulation. We would suggest that each College should inform the Syndicate in which subjects it proposes to teach for Honours, and that after the expiry of two years the Syndicate should decide, after proper inquiry, whether the staff and equipment of the College justify the continuance of such courses. Even under this regulation there will be the danger that during the initial years the standard of the Honours Examinations may be lowered if no effort be made by the College to discriminate carefully between men who should go in for Honours and men who should not.

In many Colleges we found that the Honours courses were adversely criticised either (a) as involving merely a quantitative difference in particular subjects, or (b) as being so extensive as to render impossible anything but a superficial study of the subject prescribed. The former criticism was directed against the Honours courses in English, the latter referred specially to the Honours courses in History and Philosophy.

It was the universal opinion in all the Colleges which we visited that post-graduate teaching should be provided by the University. We found that provision for such teaching existed in some Colleges only for particular subjects, especially scientific subjects; in others there was no provision for the teaching of any post-graduate subject. Speaking generally we may say that there is no organised system of post-graduate teaching in the Colleges. In the efforts which the University is now making to organize M.A. courses it has the support of all the Colleges.

We found that with respect to Honours Courses the prevailing opinion was in favour of a system of intercollegiate lectures carried on with the cognizance of the Syndicate and under conditions approved by the Syndicate.

With regard to the courses in Science the need of a more specific connection between the course selected for the Intermediate Science Examination and that selected for the B.Sc. degree examination was pointed out. We also received strong representations regarding the entire omission of English from the Science courses.

It seems necessary to emphasise the fact that the new B.Sc. is of a much higher standard than the old—a fact apparently not generally recognised in the Colleges. In our opinion it will be necessary to ensure that the examinations shall in future be regulated strictly by the new standard and not by the traditions of the old examination.

We found that a considerable diversity of practice prevailed in the matter of the internal administration of Colleges. In some Colleges the College staff as a whole appeared to have a greater part in the management of the College than in others. In our opinion no College can be regarded as in a satisfactory condition in respect of its internal administration in which each member of the staff does not feel that he has a share in and a responsibility for the working of the entire College.

In the case of a College under a Board of Management the Principal should be an "*ex officio*" member and the staff should be represented on the Board of Management by one or more of its members. In one College we found that the staff was strongly represented on the Board of Management, nearly one-half of the members of the Board of Management being members of the College staff.

We observed gratifying signs of the ability of students to manage certain departments of their College life, and that the success of such management was most marked when the students had the sympathetic guidance of some member of the College staff. It seems most desirable that, if possible, every member of the College staff should have some definite responsibility that would bring

him into touch with the students as a body over and above the contact which he has with them in the routine work of his classes.

While in every College money had been expended year by year on the purchase of books for the Library, few of the College libraries appeared to us to be sufficiently equipped for the purposes of the Honours courses—or for any advanced study. We observed that amongst the students there was a neglect of general reading and that the Libraries were not arranged so as to encourage such reading. It is desirable that every large College should have a full-time librarian. With a full-time librarian a much freer use of the library would become possible. Students should receive encouragement and guidance from their Professors in general reading. In most College libraries there was a marked want of current scientific literature—a deficiency which makes any serious attempt at research work almost impossible.

In our opinion wherever Government has provided scientific libraries for science institutes, these should be made available for all the Colleges doing similar work.

With a few exceptions the hostel accommodation is everywhere inadequate. The hostels which we visited are however on the whole extremely good and in most cases very popular.

In conclusion we consider it necessary to draw attention to a matter in regard to which considerable diversity of practice appears to obtain. From the statistics published by the University it is absolutely impossible to draw any conclusion in regard to the relative efficiency of Colleges, because the Heads of Colleges do not follow the same practice in granting permission to students to appear at the various examinations. Some Principals allow all who have kept the requisite number of terms to appear; others send up more or less carefully selected candidates only. In consequence of this disparity of method the percentage of successful students is estimated on a varying basis and no reliable comparison is possible.

We would recommend that in future the returns should show not only the number of candidates sent up, but also the number who had completed the necessary attendance, and that the percentage of successful candidates should be calculated on the basis of the number returned as having completed the necessary attendance and not on the basis of the number of candidates permitted to appear at the University Examinations.

D. MACKICHAN.

HAROLD H. MANN.

H. SIERP, S. J.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

TABLE I.

Arts Colleges.

Arts Colleges.	Staff.				No. of Students reading for							No. of Students who passed Previous Examination, 1911.				No. of Students who passed Intermediate Arts, 1911.				No. of Students who passed Intermediate Science, 1911.				No. of Students who passed B. A. Examination, 1911.				No. of Students who passed B. Sc. Examination, 1911.				No. of Students who passed M. A. Examination, 1911.			
	No. of European Professors.	No. of Indian Professors.	No. of Assistant Professors.	No. of Fellows.	Previous Examination.	Intermediate in Arts.	B. A. Degree.	Intermediate Science.	B. Sc. Degree.	M. A. Degree.	Total.	Class I.	Class II.	Pass.	Total.	Class I.	Class II.	Pass.	Total.	Class I.	Class II.	Pass.	Total.	Class I.	Class II.	Pass.	Total.	Class I.	Class II.	Pass.	Total.	Class I.	Class II.	Pass.	Total.
I. Elphinstone College, Bombay	6	7	2	6	169	71	107	10	6	33	401	2	19	46	67	1	20	26	47	..	2	4	6	2	20	30	52	..	1	1	2	..	6	8	14
II. Deccan College, Poona	4	2	5	6	93	65	90	..	..	7	235	..	14	80	44	2	7	20	29	..	..	..	..	..	10	23	38	..	..	..	..	..	1	5	6
III. Wilson College, Bombay	8	4	2	4	324	124	203	15	7	21	694	..	26	107	183	4	24	67	95	..	..	7	7	1	22	69	82	..	5	6	11	..	2	8	10
IV. St. Xavier's College, Bombay	11	1	5	3	252	115	135	9	..	20	531	4	24	93	121	..	13	53	66	..	..	1	1	1	12	20	43	..	..	1	1	..	3	8	11
V. Gujarat College, Ahmedabad	2	6	..	3	209	70	98	..	..	..	375	1	19	50	70	..	10	33	43	..	..	..	..	1	20	21	32	..	..	..	..	..	..	..	..
VI. Rajaram College, Kolhapur	1	5	..	..	81	31	..	..	..	..	112	2	7	16	25	..	7	14	21	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VII. Baroda College, Baroda	3	8	2	2	203	77	95	5	2	2+2*	366	2	9	44	55	..	7	38	45	..	..	2	2	..	6	19	25	1	5	2	8	..	..	..	..
VIII. Fergusson College, Poona	..	21	..	3	395	170	233	21	11	15	835	1	41	128	168	2	24	107	133	..	5	7	12	2	18	58	78	..	1	2	3	..	2	4	6
IX. Samajdas College, Bhavnagar	..	6	2	..	75	20	28	..	..	..	123	1	4	10	15	..	6	12	18	..	..	..	..	..	1	10	11	..	..	..	..	..	..	1	1
X. D. J. Sind College, Karachi	2	6	1	3	147	53	76	..	..	..	278	1	13	34	53	..	12	39	51	..	..	1	1	..	20	23	43	..	..	..	..	..	5	4	9
XI. Bahauddin College, Junagad	1	7	2	..	79	32	46	..	..	14	171	..	2	20	22	..	5	14	19	..	..	..	..	..	2	10	12	..	..	..	..	..	1	..	1

* Reading or M. Sc.

TABLE II.

Professional Colleges.

Colleges.	Staff.				Students (Old course).				Students (New course).				No. who passed 1st Examination (1911) (Old course).				No. who passed 2nd Examination (1911) (Old course).				No. who passed Degree Examination (1911) (Old course).				No. who passed 1st Examination (1911) (New course).				No. who passed 2nd Examination (1911) (New course).				No. who passed Degree Examination (1911) (New course).			
	No. of Europeans Professors.	No. of Indian Professors.	No. of Lecturers.	No. of Tutors, Fellows and Demonstrators.	Reading for 1st Examination.	Reading for 2nd Examination.	Reading for Degree Examination.	Total.	Reading for 1st Examination.	Reading for 2nd Examination.	Reading for Degree Examination.	Total.	Class I.	Class II.	Pass.	Total.	Class I.	Class II.	Pass.	Total.	Class I.	Class II.	Pass.	Total.	Class I.	Class II.	Pass.	Total.	Class I.	Class II.	Pass.	Total.	Class I.	Class II.	Pass.	Total.
I. Grant Medical College, Bombay ..	12	3	5	23	...	6	89	105	111	174	96	381	2	5	...	7	3	53	...	56	...	55	...	55	2	80	...	82	7	47	...	54	...	4	...	4
II. College of Engineering, Poona ...	4	3	2	5	...	...	...	...	...	...	...	102	...	...	...	...	...	...	...	...	2	11	3	16	8	35	...	43	7	17	2	26	...	8	...	8
III. Agricultural College, Poona ...	3	3	3	4	...	...	...	15	...	...	...	72	...	22	...	22	...	16	...	16	...	22	...	22	...	...	...	...	...	...	...	...	...	...	...	...
IV. Government Law School ...	1	5	...	...	...	...	...	...	1st LL.B.	...	2nd LL.B.	165	462	8	71	...	74	...	79	...	79	...	79	...	June 1911	...	...	...	...	...	...	...	...	...	...	...
									5	103	...	113	3	96	...	99	...	November 1911.

TABLE III.

Financial Statement (1911-12.)

Colleges.	Receipts.					Expenditure.						
	Received from funds of Governing Body.	Provincial, State or Local grants.	Fees and Residence charges, etc.	Other sources.	Total Receipts.	On Staff.	On apparatus.	On Library.	Other expenditure.	Total.	Expended on apparatus during past three years.	Cost of education per student.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a.
I. Elphinstone College ... ..	...	36,413	48,345	19,115	1,03,873	76,364	2,089	1,664	23,086	1,03,873	6,705	259 0
II. Deccan College ... ..	...	40,569	22,370	217	63,156		No returns.	...	...	63,156	2,100	268 12
III. Wilson College	16,224	11,800	55,047	1,633	81,764	64,926	1,836	997	17,005	84,764	8,967	122 0
IV. St. Xavier's College ... ..	...	11,800	54,443	1,212	67,455	43,607	15,332	Library furniture and apparatus.	8,016	67,455	18,283	127 0
V. Gujarát College	14,139	25,000	22,866	13,196	75,201	33,415	424	756	26,234	60,919	5,526	162 7
VI. Rájárám College ... ..	...	14,606	4,164	2,300	21,070	17,931	...	227	2,300	20,458	70	182 10
VII. Baroda College ... ..	...	63,183	16,412	399	79,994	65,315	1,115	1,197	12,367	79,994	9,715	207 4
VIII. Fergusson College ... ..	...	11,800	42,540	3,304	56,644	28,590	9,898	1,400	19,222	59,110	19,839	70 12
IX. Samaldas College ... ..	...	17,121	4,592	300	22,013	18,111	Apparatus, Library.	650	3,252	22,013	...	179 0
X. D. J. Sind College	6,900	21,800	27,192	...	55,892	44,486	1,274	1,503	14,831	62,094	4,592	223 6
XI. Bahauddin College ... ..	...	38,583	5,480	...	44,063	36,751	1,548	1,761	4,003	44,063	4,124	257 11
XII. Professor Gajjar's Laboratory...			Not inspected.			No students for the present.						
XIII. Government Law School ... ..	...	...	37,892	1,875	39,767	23,244	...	1,800	1,700	26,774	...	53 0
XIV. Grant Medical College ... ..	...	1,31,632	95,074	6,116	2,32,822	1,63,775	26,190	1,440	41,417	2,32,822	78,956	479 1
XV. College of Engineering ... ..	...	72,065	17,730	1,824	91,619	68,363	2,227	1,369	19,660	91,619	10,258	565 9
XVI. Agricultural College ... ..	...	85,760	2,562	100	88,422	57,349	6,063	2,773	19,575	85,760	*12,518	1,191 2

* Including amount expended on research work.

I.

ELPHINSTONE COLLEGE.

Elphinstone College, which is the premier Government Arts College in virtue of age and size, under the Bombay University, is essentially a city college. It has all the advantages which such a position gives of being in touch with the world, with public feeling and with public movements: it has all the disadvantages which also result from it, in that it can only have a small percentage of its students resident, in that in such a position it is difficult to create and maintain an academic atmosphere, and in that it occupies cramped quarters, which make development on the present site beyond a certain stage out of the question.

The College is situated in the Fort, Bombay, in an extremely central position, easily accessible by train and by tramway. It forms really part of the Government Secretariat building, although separated from it by a door. It uses all the storeys in its section of the building above the ground floor, a large part of the latter being reserved for the library of the Law College. In this building are also accommodated the classes of the Government Law college after 5-30 p. m. every day. The accommodation which it possesses can therefore hardly be considered as satisfactory or suitable. The lecture rooms are noisy, being liable to interference from each other and to distracting sounds coming from the street. The laboratories altogether are poor, except that in Physics, and even for the small amount of work required of them are totally inadequate. The size of the biological laboratory prevents the collection of an adequate number of specimens; the condition of the chemical laboratory renders proper teaching, even up to the ordinary degree standard, scarcely possible. The Physical laboratory and arrangements are better—but these will be referred to later. In general, so far as Science is concerned, it is high time that the teaching should be transferred to better quarters, where the teachers can do more justice to themselves and to their students. It is with pleasure the Committee note that the present accommodation for Science teaching which (except in Physics) is extremely unsatisfactory, will soon be no longer needed, as the Science teaching will be imparted in the new Science Institute adjoining. If the College be considered as a pure Arts College of the present size, the accommodation is probably sufficient. But it will not allow of much expansion either in number of students or in range of work—even when the rooms now used for Science laboratories are devoted to other purposes. The Committee suggest that one of two policies should be adopted. Either the size of the College, in respect of number of students and range of teaching, should be limited, or a strong effort should be made to obtain the use of an additional part of the building for College purposes.

As far as equipment on the Arts side is concerned the Committee have little to criticise and in view of the approaching transfer of the Science department to the new institution, it is hardly necessary to discuss at any length the arrangements in the Science departments. In regard to the latter it may be stated, however, that while grants in the past seem to have been adequate (Rs. 6,705 having been spent in the last three years) they do not seem to have been by any means always wisely expended. The Physics department is very largely a museum of curiosities while the chemical and biological sections seem to have been starved until recently. It is evident that in the last two or three years the expenditure, especially on the biological section, has been good and wise; yet on the whole, considering the amount that has been spent for many years, the Committee do not think that the equipment is as useful or as adequate as might have been expected.

The library is a good Students' library, and is well used. Judging by what the Committee saw, it is one of the best used libraries in the Colleges affiliated to the University. The amount of money granted for it, is probably sufficient

if it is only supposed to be a library for students working up to the B.A. degree—provided the staff have a first class reference library available elsewhere. It is not sufficient if it is the only resource of post-graduate or Honours students and of the staff. This library so far as its contents and use are concerned, is a strong argument for the development of a University library for the higher work of the University. The library is too much a room for general conversation, and it would be an excellent thing if silence could be insisted on, so that work might be done there, as there is much time, as will be shown, spent by the students in the College without classes to attend.

The total number of students is 369, of whom only 109 are resident, or 29·5 per cent., this being the full capacity of the hostel. The hostel, though it can never be an ideal place for the residence of students, has been very much improved since the last inspection, and after some few further changes—already designed—have been carried out, will probably be as good as it can be made. The arrangements for supervision and control seem satisfactory.

The necessity for a larger hostel is perhaps less felt at the Elphinstone College, as this is essentially a Bombay College. No less than 179 students or 48·5 per cent. of the total number come from Bombay city and presumably are able to live with their parents or guardians. The remainder come from the following districts :—

Konkan	...	...	39 or 10·6 per cent. of the total.
Southern Marátha Country (including States)	...	...	11 or 3·0 per cent.
Deccan	...	...	11 or 3·0 per cent.
Gujarát and Káthiáwár	...	...	75 or 20·3 per cent.
Sind	...	...	15 or 4·1 per cent.
Rájputána, Central India and the Nizám's Dominions	...	...	5 or 1·3 per cent.

It is curious how the local areas from which the colleges draw their students are so well defined. In this case, apart from Bombay, nearly all the students come from Gujarát and Káthiáwár, and from the Konkan.

At the time of the inspection 48·5 per cent. of the students were in the Previous class, 19·1 per cent. were studying for the Intermediate Arts examination, and 29·0 per cent. in the Junior and Senior B. A. classes. About six per cent. of the students were studying for Science degrees. There is a larger proportion of post-graduate students at this College than at any other Arts College, these numbering 32 and forming 8·7 per cent. of the total number. The proportion of the students in the Previous class is high; the complaint was made here, as elsewhere, that a considerable number of them were hardly of University standard and should not have passed the Matriculation Examination. The class of 169 is quite as large as the College can accommodate, and seems too large for effective teaching in the class rooms available. The Committee feel strongly that the number of admissions to this class should be limited, and they think that, having regard to the nature of the class rooms, the limit has been practically reached. Having regard to the large size of the class, it would seem to be specially important that adequate arrangements should be made for the organisation of work and study outside actual lecture hours, and for some tutorial supervision of the students in smaller sections. This is done, the Committee were informed, in the case of English composition, not only in the Previous class but throughout the College, by utilising the services of practically the whole College staff for the correction of essays and the discussion of them with the students. This is good, and the system might be profitably extended to other subjects, especially in the lower classes. Beyond this, every student has, at present, according to the time tables, much vacant time during College hours, in which, in the Previous class particularly, direction of studies and reading would be most valuable. This would get rid, in part at any rate, of the dangers attending the sudden transition from School to the College which drew in the Committee's opinion at present so serious. With regard to this last point, an illustration might be drawn from the time table of a

student taking Sanskrit in the Previous class as his second language. Between 11-30 and 4-30 he would be occupied in classes as follows:—

Monday—Occupied $3\frac{1}{2}$ hours : free $1\frac{1}{2}$ hours.

Tuesday—Occupied $2\frac{3}{4}$ hours : free $2\frac{1}{4}$ hours.

Wednesday—Occupied 2 hours and sometimes $2\frac{3}{4}$ hours : free 3 hours or $2\frac{1}{4}$ hours.

Thursday—Occupied $3\frac{3}{4}$ hours : free $1\frac{1}{4}$ hours.

Friday—Occupied $2\frac{1}{2}$ hours : free $2\frac{1}{2}$ hours.

How important the direction of studies in this large amount of free time is, must be at once obvious, and the very large and useful library gives a facility for the profitable use of this time, under direction, which does not exist in all Colleges.

The staff of the College is a large one, larger in proportion to the number of students than in almost any Arts College under the Bombay University. It consists of eight full Professors (including the Principal) and seven Lecturers. They are arranged by subjects, as follows:—

English.—Three Professors, of whom one takes History in addition and another Latin.

History and Political Economy.—Two Professors, of whom one professes English Literature in addition.

Mathematics.—One Professor and one Lecturer.

Philosophy and Logic.—One Professor.

Sanskrit.—One Professor and one Lecturer.

Persian.—One Professor and one Lecturer.

French.—One Lecturer (half time).

Physics.—One Lecturer.

Chemistry.—One Lecturer.

Biology.—One Lecturer.

One criticism may be made with regard to this staff. There does not seem to be provision for the future. Beyond the six Fellows who assist in the teaching, there is no staff *in training* for the higher positions, who might be well employed in the tutorial and directing work outside actual lecture hours as above suggested.

This is especially necessary if the college is to provide adequately for the new Honours courses of the University. It is the ambition of the College to provide Honours teaching in each of the voluntary groups laid down in the new regulations for the B. A. examination. While the Committee sympathise with this ambition on the part of the College, yet they cannot think it a wise one, unless arrangements are made for a very considerable increase in the staff to cope with it. This increase need not be necessarily in the professorial staff, but arrangements might well be made which would relieve the Professors of a considerable part of the routine mechanical work which they at present have, and at the same time provide the much needed tutorial arrangements, to be carried out by a junior staff inspired by the idea of reaching the higher positions in the future. Unless this be done the Committee do not think that Honours should be undertaken in all subjects. They hardly care to suggest in what subjects Honours should be attempted, as the inspection has not placed them in command of the necessary data, but they think that these must be strictly limited unless the staff be supplemented, possibly in the manner suggested.

The Committee made inquiries regarding the way in which the new courses were to be carried out, and came to the conclusion that the new Pass courses in the B. A. were hardly considered, in some cases, seriously enough. Thus, for instance, it was suggested that seven hours' lecture teaching per week was all that was necessary to cover adequately the course for a student who was taking the "Literature" optional of the B. A., and beyond this, organised arrangements were not made for anything but a weekly essay. If this conception is correct, then it is evident that the new Pass course is not what the University intended it to be, and its standard

is ridiculously low. No other College has, however, proposed that so little lecture time should be devoted to it. This is an exceptional case perhaps; students taking the other optional groups have to devote a larger amount of time to their work in College. But in most cases, the Committee consider that the time allotted in the time table to the subjects of the Pass B. A. course indicate either (1) that the conception of the new course prevalent at the Elphinstone College is that it is a course much more superficial than was really intended, or (2) that the work prescribed by the University for the new course is very inadequate even for an ordinary student, or (3) that the course can only furnish a reasonable amount of work for two years, if lectures are supplemented by a well organised tutorial system. In the opinion of the Committee the last alternative is the most probable, and the previous proposals regarding the staff are based on this opinion. If this is not true, a course which can be adequately covered by seven or even ten hours' teaching a week without careful direction being given as to the utilisation of the rest of the time stands self-condemned: it is obviously detrimental to the character and *morale* of an average student.

With regard to the languages studied in the College, these are almost exclusively Sanskrit, Persian and French,—the others (Avesta and Pahlavi 5 students, Latin 4 students, and Pali 1 student) being only taken by a very small number of the students. The proportion of the students taking the three most popular languages was as follows:—

Sanskrit	...	...	...	...	38.6 per cent.
Persian	...	...	...	...	31.7 per cent.
French	...	...	...	...	26.8 per cent.

Among optional subjects for the B.A. degree, Literature is the most popular, being taken by 34.6 per cent. of the students, while 24.3 per cent. take History, 16 per cent. Chemistry and Physics, 9.3 per cent. Philosophy, the same proportion Natural Science, and only 6.5 per cent. Mathematics. If the experimental sciences be excluded from consideration, as they will shortly be removed from the College as subjects for the B.A. degree course, it will be seen that a little under one-half read in Literature, about a third in History and Political Economy.

It has been already noticed that there is a larger proportion of post-graduate students in Elphinstone College than in most of the other colleges. This is partly accounted for by the large number (6) of Dakshina Fellowships at the disposal of the College. Probably the arrangements for their training are also as well organised there as anywhere else in the University. The number of lecture hours for the M.A. is as follows (leaving science out of consideration):—

History and Political Economy	...	...	...	6 hours a week.
Philosophy	...	...	...	2 hours a week.
English	...	...	...	2 hours a week.
Sanskrit	...	...	...	4 hours a week.
Persian	...	...	...	3 hours a week.

Of course for advanced study such as that for the degree of M.A., the instruction must very largely consist in suggestions for private reading, research, and investigation, but after allowance has been made the figures show how unorganised these higher courses are even at the Elphinstone College, and how very necessary it is for the University itself to undertake the direction of the post-graduate courses.

D. MACKICHAN.

HAROLD H. MANN.

H. SIERP, S. J.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

II.

DECCAN COLLEGE.

The Deccan College, on account of its situation, possesses advantages which no other Arts College in the Bombay University can claim to have. It lies apart from the busy life of a city; it has a higher proportion of resident students than any other college; a large part of the senior staff are able to live in the immediate neighbourhood of the students; and the number of students is sufficiently limited for each to be personally known to almost every member of the College staff.

The College is situated on the high land overlooking the Mulla Mutha river valley at Poona, about three miles from the city, and is surrounded by a wide stretch of open country. The number of students is only 235, of whom 185 are resident or nearly 79 per cent. of the total number. The buildings used for residential purposes seem excellent, are well planned, and though not of uniform design, are all well adapted for residential purposes.

The Deccan College has never prepared for any but the Arts degrees of the Bombay University. At the time of inspection 39·5 per cent. of the students were studying for the Previous Examination, 19·1 per cent. were in the Intermediate Class, 38·2 per cent. were preparing for the B.A. Final Examination, and the remainder were studying for M.A. The languages studied are almost exclusively Sanskrit and Persian, only five B.A. students taking any other second language. Among optional subjects History is the most popular being taken by 41 per cent. of the B.A. students, while 34·5 per cent. take Literature, 18 per cent. Mathematics, 5·5 per cent. Science. Only one student is at present taking Philosophy. The Committee cannot avoid regretting the fact that Philosophy has ceased to be one of the subjects for which the Deccan College was renowned. This subject under the guidance of a succession of Professors, the last of whom was Dr. Selby, had been cultivated to a considerable degree, but now even a professorship of Philosophy has ceased to exist. In the three Government Arts Colleges only eleven students in all are reading for degrees in Philosophy, and of these ten are at Elphinstone College, Bombay.

The Deccan College draws its students chiefly from the Deccan and Southern Marátha Country. They may be classified roughly as follows:—

Southern Division of the Bombay Presidency	...	...	94
Southern Marátha States	...	...	22
Central Division of the Bombay Presidency...	...	...	94
Northern Division of the Bombay Presidency	...	...	5
Miscellaneous (Berar 5, Nizam's Dominions 6, Sind 4, Bombay 3, Quetta 1, Káthiáwár 1)	...	...	20
			235

It is thus essentially, as it has been for many years, the College for the Southern Marátha Country. It would probably be more affected proportionately than any other by the establishment of a College in the South of the Bombay Presidency.

So far as University results are concerned the College has in the past taken a good position, but this position has hardly been maintained in recent years. The figures are shown in the statistical tables. But as the Committee has noted in their general report, too much reliance must not be placed on these figures. In the Deccan College all students who have completed the necessary attendance required to qualify them for appearing at a University examination are allowed to go up for it, and hence, naturally, the percentage results might not appear as good as formerly on this account. In this connection it may be noted that, so far as the Committee can learn, test examinations of all kinds have been abolished in the College, and the students are left without any means of ascertaining their

progress and the staff have no means of periodically testing the effectiveness of their teaching. The Committee are very doubtful as to whether this is a wise arrangement. No doubt in a small College, especially in a residential College, where close contact is possible between the staff and students, the necessity for systematised examinations is not so great as in a larger institution, but even when all this is taken into account, it seems a doubtful experiment.

An experiment like this would be much less open to criticism if the relations between the staff and students were intimate. This leads to a consideration of the question of the present staff. This consists of five professors, two lecturers, and four assistants, arranged as follows :—

History and Political Economy	...	...	One Professor.
English	...	...	Two Professors.
Mathematics	...	...	One Professor and one Assistant.
Sanskrit	...	...	One Professor and two Assistants.
Persian	...	...	One Lecturer.
Science	...	...	One Lecturer.
Logic	...	...	One Assistant.

The staff seems strong enough for what is now being attempted, though perhaps it is a pity that the number of full Professors has been reduced by one since the last inspection. The inspection, as can be well understood, did not allow of any adequate opinion being formed as to the relationship between students and staff, but the fact should be again insisted on that if the college is to be run on the lines on which it is being conducted, that relationship must be *very* close and intimate, outside the College hours. This would apply in particular to the senior staff.

In view of the New Courses now laid down by the University the Committee consider that the staff will have to be strengthened or the number of subjects which can be taken at this college will necessarily have to be limited. For the new B.A. degree, it would seem quite out of the question for any other optional subjects to be taken, even for the Pass degree, than History and Political Economy, English Literature, Mathematics, Sanskrit, and Persian. For Honours, it is a question whether all these subjects should be taken. Certainly no weakening of the staff is possible in any of these, if Honours courses are to be attempted. It is understood that Science training for the B.A. will *not* be given under the new regulations, and the Committee think this is not only wise, but essential. Philosophy cannot and should not be attempted at present.

The buildings used for college teaching are open to considerable criticism. Most of them were designed a good number of years ago, but even some of the more recent additions leave much to be desired. But the arrangement is perhaps more open to criticism than the buildings themselves. The residential quarters are mixed up with the rooms for teaching, the teaching rooms are very scattered and in many respects the arrangement is as bad as in any college we have visited. The Committee do not recommend a large increase in the buildings, but they do strongly insist on the re-arrangement of the space available, with a view to its better utilisation. The Committee were not satisfied with the arrangements proposed for teaching the new Science course required in the first year University course. The accommodation and equipment for science teaching has always been inadequate and unsatisfactory at the Deccan College. With an increase in the number of students taking Science, even though it be elementary science, it was proposed to cut down the very limited laboratory space formerly devoted to it to little more than half the previous amount. The Committee would draw the attention of the Syndicate to this. The Deccan College was the only college visited which was not attempting to make adequate arrangements for the new course in this respect. This matter is particularly important, because now that the Previous Examination is abolished, it becomes more than ever necessary for the Syndicate to see that the arrangements for carrying out the first year's course are adequate. The amount of money spent on apparatus seems sufficient, if wisely spent.

The Library is a good one, and is better housed than in almost any of the Colleges under the Bombay University. It does not seem to be used as much as might be the case; it is only open for the issue of books during three hours a week, and the books are not readily and easily accessible to students. The amount of money available for the library is Rs. 750 per annum, which is hardly adequate if serious work is to be attempted in any subject. If the College is to limit itself so far as serious work is concerned to certain subjects in the future, it may be enough; but the Committee would urge that, if possible, the amount should be raised. The presence of the large and valuable library of Sanskrit manuscripts in the college ought to be an extremely stimulating fact, in inducing real Sanskrit research. Though these manuscripts take up extremely valuable space, yet the stimulus which they might give would be a most valuable one. We could not find much trace of such a stimulus, but it ought to be present, and the Deccan College *ought* to develop as a centre of Sanskrit study and research.

On the whole the impression made by the Deccan College was 'disappointing. The advantages which it possesses have been already referred to, and possessing these advantages, it ought to be a place where it is possible to induce a real academic spirit, somewhat analogous to that prevailing in the old universities of both East and West. The Committee has criticised details of buildings, of equipment, of library, of staff, of methods,—but these they recognise are details. The greatest disappointment was the absence of the special tone and atmosphere which the unique position of the College ought to give it. To the creation of this atmosphere, they consider that in a very special sense the energies of a College occupying the situation and unrivalled opportunities of the Deccan College should be devoted.

D. MACKICHAN.

HAROLD H. MANN.

H. SIERP, S. J.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

III.

WILSON COLLEGE.

The oldest aided college in Bombay—or, indeed, under the University—is the Wilson College, situated on perhaps the choicest site in the city on the shore of Back Bay, in a building of which the first part was completed in 1890, but to which additions have constantly been made.

The Governing Body of the College has since 1907 been the Foreign Missions Committee of the United Free Church of Scotland which pays an annual contribution to the funds of the College. The European professors are appointed by the Committee in Scotland in consultation with the College authorities. The College is maintained from funds annually contributed by the United Free Church, the fees of the students and the Government grant. The internal management of the College is in the hands of the Principal and Professors.

The buildings of the College are commodious and airy, and situated in a picturesque and comparatively cool and quiet neighbourhood. They provide a large hall for public lectures and examination purposes. The library is accommodated in the gallery of the hall. The lecture rooms on the three storeys are large, commodious and well lighted and ventilated. The accommodation provided for the chemical and physical laboratories is on the whole sufficient. The laboratory for biology is unsatisfactory, though this is more marked in the equipment than in the rooms devoted to it. The botanical garden which was contemplated has not yet been made in the grounds of the College.

In considering the sufficiency of the accommodation in the College it must be remembered that it is the largest in Bombay, and has nearly 700 students. Were it not for the very large Previous classes, the Committee would consider that the accommodation provided would be sufficient and satisfactory for normal expansion for a good number of years to come. But with a Previous class of over three hundred students, which has to be divided into two sections for most subjects, in addition to all the other higher classes, it is doubtful whether the numbers in the College are not at present as large as they can properly be. Some might think they were already too large, but it is certain that so long as the Previous Class is of the present size the College cannot increase much further either in that or in any other direction.

Turning to equipment, the Committee have little to criticise. The lecture rooms are well designed for their purpose, and in some respects are ahead of almost anything in Western India for purposes of demonstration. So far as Science is concerned, the equipment for Physics is satisfactory, and the arrangements which were being made for the course in Physics of the first year under the new regulations seemed adequate to meet the case. There will always in the larger colleges be a difficulty of arranging for the Practical Physics under the new courses. But this has been met at the Wilson College by arranging to take the students of the Previous Class in six sections, each of from fifty to sixty students, at times which do not interfere with the other work of the students. Three special demonstrators (one of whom is an Assistant Professor and two are Dakshina Fellows) have been retained for the purpose of guiding the actual practical work under the Professor of Physics. The Committee think that the arrangement is as good as can be made at present. The Chemical laboratory and its associated rooms are good and well equipped even for advanced work. The Biological equipment is, however, very unsatisfactory, even for the amount of work required for the B.A. degree. Even if, in the future, Biology is only taught for the Intermediate Science and the B.A. degree, a great deal of extension will be required. Collections of both animals and plants must be made and maintained, means of cultivating and breeding both

animals and plants must be provided, and the opportunities for really close microscopical study must be made far more efficient than at present. The need for these things has perhaps not always been recognized in the past; but they will be necessary to meet the demands of the new courses.

The library, as has already been noted, is accommodated on the gallery of the great hall. A large enough room, where study in quiet would be possible is, in the opinion of the Committee, a great desideratum. Since the last inspection Rs. 2,160 have been expended on books, which is certainly not too much, considering the width and variety of the subjects taught in the College. At present students who wish to use the library pay a library fee of Re. 1 per term. Such a fee the Committee consider is justified, provided it is made compulsory. It is hardly justified if it is optional, as it is certain that one of the objects of attending college is to have free access to authorities and sources of information. While therefore they have no objection to a fee it must be equally paid by all if it is not to be an evil. The whole produce of such a fee should be devoted to the supply of additional books to the library. At the same time the Professors might well make it a rule to encourage the students in their private reading of the general literature available in the library as well as of other related books apart from the specified text-books which they use. So far as the staff and post-graduate or Honours students are concerned, the library is far from adequate, thus emphasising the urgent need of a rapid extension of the University library to meet the needs of Colleges in Bombay.

The total number of students is 694, of whom only 78 are resident, for whom 39 rooms are provided in the College compound. One of the professors resides in the hostel, and the Principal himself lives in the compound. The arrangements for supervision are excellent. At present, as will be seen, only 11·2 per cent. of the students are resident, but there is a very large demand for the available rooms, and there is little doubt that the large new hostel now in course of erection will be completely occupied. This hostel which closely adjoins the College will be a handsome structure, and the light, ventilation and sanitary arrangements will be very satisfactory. The whole of the Imperial grant of the last three years has been devoted to it, and it will cost about Rs. 1,80,000. It will accommodate 120 additional students, and then hostel accommodation will be provided by the College for about 28 per cent. of its students.

The Wilson College draws its students from nearly every part of the sphere of influence of the Bombay University. It is far less a Bombay City College than the other Arts Colleges of Bombay, and hence the provision of large hostel accommodation is a wise and almost necessary matter. The Committee do not consider that even with the new hostel the College will be by any means over-provided for its needs. The students come from the following districts:—

Bombay City ...	...	204	or	29·3	per cent. of the total.
Konkan (including Thána, Kánara, and Goa)	...	259	„	37·2	„ „
Gujarát and Káthiáwár	...	180	„	25·9	„ „
Deccan and Kolhápur	...	45	„	6·4	„ „
Mysore	...	8	„	1·2	„ „

At the time of the inspection 46·7 per cent. of the students were in the Previous Class, 17·9 per cent. were studying for the Intermediate Arts Examination, and 29·2 per cent. were in the Senior and Junior B.A. Classes. This is about the same proportion as seems normal at present in the Bombay colleges. About 3·2 per cent. of the students were studying for Science degrees. The post-graduate students numbered 3 per cent. of the total number.

The number of students in the Previous Class is, as has already been mentioned, quite as large as ought to be admitted considering the accommodation and the way in which it absorbs the time of the staff. There is the same complaint here as elsewhere in regard to the quality of a certain proportion of those who pass the Matriculation and enter College.

The staff is a large one and is very largely composed of missionaries from Europe whose educational qualifications are high. But there are also six graduates of high standing of the Bombay University on the professorial staff. Altogether there are thirteen Professors, one Shástri and four Fellows who take part in the teaching. There is one Professor of English, but he receives the help of three other European Professors, who besides teaching their special subject take part in the teaching of English. Two Professors teach Mathematics, two Professors teach History, one Professor teaches Logic and Moral Philosophy, two Professors and two Fellows teach Physics and Chemistry, one Professor teaches Biology and Natural Science, one Professor and a Shástri teach Sanskrit, one Professor and a Fellow teach French, one Professor teaches Persian and Arabic, one Fellow teaches the Previous class Avesta and Pahlavi, two Professors take part in the teaching of Latin, and one Professor teaches Political Economy and Intermediate Logic besides English.

The Professors are very fully occupied, and their work leaves them little time for doing much research and must make it difficult for them to keep themselves abreast of the latest developments of their subjects. The College contemplates several additions to the corps of Professors in the early future and these are needed.

The Committee might call attention to this College as an example of the need for the provision of a corps of younger men who are working up to the position of Professor which they will ultimately occupy. Whether they are called Assistant Professors, Tutors, Lecturers or by any other name, it seems essential that something of this sort should exist at the Wilson College if the best use is to be made of the professorial staff which exists, and the very large classes, especially those of the first year, are to be adequately dealt with. The greatest pressure is in English, and here the difficulty is greatest, because it is held—and with much reason—by the College authorities that all English teaching should be done by men who come from English-speaking countries. If this view is maintained, then a substantial increase in the European staff is an urgent matter. For other subjects, however, it would seem necessary in almost every subject which is seriously taken up to have junior men in training and holding junior appointments. Whether this can be brought about or not is, the Committee understand, almost entirely a matter of finance, but they feel that in some way or other provision must be made for such assistance at an early date. Without it the development of a regular tutorial system is out of question; and the development of a tutorial system seems the only way of dealing with the large city Colleges of the Bombay University.

At present the College teaches five optional groups for the B.A. Examination. Of these, Chemistry and Physics is taken by the greatest number (a fact in which the Wilson College stands alone), namely, by 29 per cent. of the B.A. students, 28 per cent. take Literature, and $24\frac{1}{2}$ per cent. take History: while Philosophy is the Optional of $9\frac{1}{2}$ per cent. of the B.A. students, and Mathematics of 9 per cent.

The College contemplates teaching for the Arts degree under the new regulations in the five optional groups of Literature (Sanskrit, Persian, French), Philosophy, History and Economics, Mathematics, and Chemistry and Physics, and the Honours courses in English, Sanskrit and Philosophy. Without some additional provision for much of the routine and mechanical work as suggested in a previous paragraph the Committee feel that this cannot be adequately done, and recommend a restriction of the number of subjects to be attempted. The fact of the increased difficulty of the new B.A. courses and the higher standard that ought to be required seems to be recognized by the staff of the College.

With regard to the languages studied in the College, these are, as elsewhere, most largely Sanskrit, Persian and French, but there are a considerable number who take Latin and Avesta and Pahlavi. The proportion of the students taking the various languages is as follows:—

Sanskrit	...	...	...	67 per cent.
Persian	...	...	...	14, "
French	...	...	...	13, "
Latin	...	...	...	$2\frac{1}{2}$, "
Avesta	...	...	...	$2\frac{1}{2}$, "

At present M.A. candidates receive some instruction in English and Philosophy, and a very complete course in Physics and Chemistry. But Physical and Natural Science will cease to be M.A. subjects under the new regulations. The authorities are doubtful about providing post-graduate instruction in History. In Mathematics M.A. candidates at present receive no instruction. Thus, while some direct instruction is given to M.A. candidates, the chief help they get (except in the Science subjects) is tutorial aid from the Professors who guide and advise them in their reading and studies and occasionally solve their difficulties.

In all aided colleges, which have not the large resources of Government at their disposal, development is very largely a matter of finance, even when its necessity is recognized. In the present case, out of a total income of Rs. 84,764, the fees, rents and library subscriptions amounted to 65 per cent., or roughly two-thirds of the receipts; the contribution of the United Free Church of Scotland amounted to 19·1 per cent., or nearly one-fifth, but the Government grant came to 13·9 per cent. or only one-seventh of the total receipts. If the principle recommended by the Education Commission of 1883 of estimating the Government grant at one-half the local resources be followed, the Provincial grant should be three times what it is at present. A larger grant from Government seems to be necessary for the enlargement of the local staff and the improvement of their status and pay, and for the extension of the library and laboratories, some of which require expansion and larger equipment.

The cost of the staff amounted to 76·6 per cent. or fully three-fourths of the total expenditure, the fellowships and scholarships amounted to 7·6 per cent., the furniture, library, apparatus and repairs together cost only 4·7 per cent., and the miscellaneous expenses came to 10·8 per cent.

HAROLD H. MANN.

H. SIERP, S. J.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

IV.

ST. XAVIER'S COLLEGE.

The third Arts College in point of age in Bombay is St. Xavier's College, conducted by members of the Society of Jesus. It, together with the St. Xavier's High School, is in charge of the Rector, the Principals of the two Institutions, and one Professor of each Institution appointed by the Superior of the Mission. The College at present receives no financial support from the Society of Jesus, and is maintained solely from fees, and the Government grants.

The College is situated in an excellent position, and with the new additions made since the last inspection the buildings may be described as large and commodious. The accommodation now provided is more in proportion to the number of students than that in any Bombay College. The new additions consist of a large new wing, very solidly constructed, of three storeys, in which, not only all the work in Science is accommodated (except that in Chemistry), but there are also several large halls which can be used for larger classes, for public lectures and for examinations. The quarters provided for Chemistry remain as before, and are by no means so good as those provided for the other subjects, and are not nearly large enough for the classes which now work in them, unless these latter are split up into sections. The rooms devoted to the Arts classes are fairly good. Those in the old building are somewhat old fashioned but those in the new wing are well arranged and satisfactory.

In equipment also there has been a very great improvement since the last inspection. In the Science sections, the arrangements proposed for the new Physics course in the first year are adequate, and the apparatus for the higher Physics course, for Chemistry, and for Biology are satisfactory. The large amount of Rs. 15,263 has been spent on apparatus since the last inspection. The large epidiascope obtained for lecture illustration is a very valuable help in teaching.

The library is a very small one, and in the opinion of the Committee is not large enough or good enough for a college of the type of St. Xavier's. The policy of the College has been to place in each professor's hands a good collection of books in his subject, but not to extend greatly the number of volumes available for general reading by the students. Hence the number of books is only 1,168, though Rs. 3,000 have been spent during the past three years. It seems clear that this is a matter in which development is necessary, and there is great need of expansion and large additions, especially if higher work in the various subjects is to be undertaken. In the past there has been far too much limitation of outlook throughout the University, to what is contained in the prescribed text-books, and the only remedy for this would seem to be to provide a large library, and give directions for using it. Not only are books required but space for consulting them on the spot is needed.

The total number of students is 531, the rise having been very rapid since the last inspection. Of these only 73 are resident or 13·7 per cent., a smaller proportion than in any Bombay college. The hostel so far as it goes is a well arranged, well managed, and comfortable building. All the resident students with the exception of six have one room each, and the building has a flat roof which may be used for recreation. Considering that nearly forty-five per cent. of the students do not belong to Bombay City, the Committee think that an early extension of the hostel is extremely desirable.

St. Xavier's College is, however, more a Bombay City College than any other, more so even than Elphinstone College. 55·4 per cent. of the students

belong to Bombay, and therefore, presumably, are able to live at their own homes. The remainder come from the following districts :—

Gujarát and Káthiáwár	... 102 or 19·2 per cent.
Konkan, Goa and Kánara	... 45 or 8·5 per cent.
Deccan	... 15 or 2·8 per cent.
Sind	... 17 or 3·2 per cent.
Southern Marátha Country	... 12 or 2·3 per cent.

This college, as might be expected, has the majority of the students from Goa who are studying at the University.

At the time of the inspection 47·2 per cent. of the students were in the Previous Class, 21·5 per cent. were studying for the Intermediate Arts Examination and 25·4 per cent. were in the Junior and Senior B.A. classes. Only nine students (1·7 per cent.) were studying for Science degrees, and these entirely in the Intermediate class, though more Science work is done at this College than at any Arts College in Bombay. It is for the Science in the Arts examinations that the students chiefly work, and this will probably continue to be the case in the future. The post-graduate students numbered twenty or 3·8 per cent. of the total number. The proportion of the students in the various classes does not differ widely from what obtains in other Bombay colleges, and calls for no special remarks, except that in the opinion of the Committee the Previous Class is quite large enough, and cannot be further increased without interfering with the higher work of the College.

The College staff consists of twelve Jesuit fathers, three other Professors, and two assistant professors, these last being employed in the Science teaching. As is usual, the four Fellows assist in teaching. The arrangement of work according to subjects is as follows :—

English	...	... Three Professors.
History and Political Economy	...	... Two Professors, and for part of the time a third.
Mathematics	...	... One Professor.
Sanskrit	...	... One Professor.
Persian	...	... One Professor.
Latin	...	... Two Professors.
French	...	... One Professor and one Assistant.
Physics	...	... One Professor.
Chemistry	...	... One Professor and one Assistant.
Biology	...	... One Professor and one Assistant.

The same criticism can be made in regard to the staff of this college as has been made elsewhere. While the members are highly qualified and experienced, they have not the necessary assistance to make tutorial work and the direction of studies, which are requisite with very large classes, at all an easy matter. At present, while the Professors are ready to assist students outside lecture hours, there is no organised system of tutorial classes, or of direction of studies. There is no need to labour this point, as sufficient has been said about it in the general part of the present report. But the Committee cannot but think that without such constant direction and tutorial contact with students, the large Previous and other classes in many of our Colleges are a great evil.

The College proposes to prepare for the B. A. degree under the new regulations in all the optional subjects now taught by it except Mathematics. These are as follows, with the proportion of the total who take each group :—

Chemistry and Physics	... 39·2 per cent.
Languages and Literature	... 31·1 per cent.
History	... 18·5 per cent.
Natural Science	... 9·6 per cent.

Mathematics is now taken by two students, but it is not intended to prepare for the B. A. degree in this Optional subject in the future. The Committee are pleased to note that the college is proposing to specialise in certain subjects,

notably History and Latin in the new Honour courses, and they think that this is the proper policy in view of the high standard which should be maintained in the Honours examinations.

With regard to languages studied in the college these are somewhat different from those usual in the Bombay University Colleges. Here French is the most popular, followed by Persian, and then by Sanskrit, while Latin occupies an important place.

The number of post-graduate students, studying for the M. A. Examination is twenty. There are well organised and well arranged courses in Chemistry and Natural Science, and fourteen of such students are taking these subjects. The others are working at History and Languages. The arrangements and organisations of the courses in these subjects are very similar to those which have been criticised in the case of other Colleges. The necessity that the University should take over the organisation of post-graduate study has been very manifest wherever the Committee went during the inspection.

As in the case of other aided Colleges, development is limited by financial exigencies. In the present case there is no source of income outside the fees and the Government grant. The fees, in fact, form 74.7 per cent. of the College income. The additional fees paid by resident students which are fairly high amount to 6 per cent. of the College income. The provincial grant of Rs. 11,800 which amounts to 17.5 per cent. of the total income is too small. On the principle of estimating the grant from public funds at half the local resources, the provincial grant should not have been less than Rs. 27,000. The staff cost 64.8 per cent. of the total expenditure. The expenditure on library, apparatus, and furniture amounted to 27.9 per cent. and miscellaneous expenditure to 9 per cent.

On the whole, the Committee have found little to criticise in St. Xavier's College. The accommodation in Chemistry is manifestly inadequate for the large classes taken; the library is insufficient and ought to be very largely developed; the hostel is small for the size of the college. In addition, the organisation of work in the lower classes—where the numbers are very high—outside the lecture rooms is not being attempted and yet it is very necessary. It seems to be the only way of justifying the continuance of these very large classes.

D. MACKICHAN.

HAROLD H. MANN.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

V.

GUJARAT COLLEGE.

The Gujarát College at Ahmedabad was in a state of transition when it was inspected by the Committee. On the one hand, after ranking for many years as an aided College and being under the control of a Board, partly appointed by Government and partly elected by 'privileged subscribers,' it had just been taken over by Government to be kept entirely under its control; on the other hand, it was in the throes of many extensions. Of these the Madhavlal Science Institute was the most important but they comprised also additions to the hostels and a new College hall. The Committee thus saw the College while very active changes were going on, and it is extremely difficult to judge how far these changes will affect the position and working of the College in the future.

The Gujarát College at Ahmedabad is far enough from the city to have the advantage of space and quietness, but near enough to render it possible for students to reside there and come out daily for classes and study. The building is on the whole a very good one, in a picturesque position, and has fairly adequate accommodation for the number of students it possesses at present (except perhaps in the Previous Class) if only Arts courses are taught. The Science accommodation has been hopelessly inadequate, but the buildings of the new Science Institute adjoining, which were nearing completion at the time of inspection and will provide ample and good accommodation, render unnecessary any reference to the inadequacy of the arrangements for Science teaching in the past. So far as class rooms are concerned, the absence of a good lecture room, large enough to accommodate the Previous Class, was a great want. The central Hall was, in fact, used for this purpose, for which it was hardly suited. It is understood that it is designed to place a floor across the great hall, and convert the upper part into a library and the lower part into a class room. This would improve matters somewhat, but so long as a very large Previous Class exists, the arrangements for accommodating it require very careful consideration.

Turning to equipment, the College seems fairly well provided, as an Arts College. In the new Science Institute, so far as we could see, no expense was being spared to bring and keep the equipment up to date. The Committee hope that there will be no weakening in this direction, if the College desires to become and remain the leading (if not the only) Science Institute in the northern section of the Bombay University's sphere of influence.

The library is not a good one, and the Committee would suggest that the attention of the College authorities should be called to the necessity of improving it, especially in those directions in which the College desires to teach according to the new B.A. Standard. Unless it is improved, it is doubtful how far any Honours course under the new regulations can be adequately undertaken by the College. It is also desirable that arrangements should be made for its being consulted on the spot by keeping it open longer, and giving every facility for using it by affording easy access to the books for reading and reference in the library itself. The library is certainly quite inadequate for any serious post-graduate study.

The total number of students is 375. It is thus as large now as Elphinstone College, Bombay. Of these, 154 or 41 per cent. are resident. This is a higher proportion than in most city Colleges, but great efforts have been made in recent years to develop the hostel accommodation at the Gujarát College, the whole of the Imperial grant having been devoted to this purpose. The Committee understand that further additions will shortly be made. The result is that a large amount of hostel space exists, but the buildings are dull, heavy, and certainly have no æsthetic qualities. From a sanitary point of view the Committee finds nothing to object to in these hostels, but they were perhaps

the least attractive hostels met with in the tour. It does not seem that much can be done now to improve this, but the careful laying out of the grounds outside might do a good deal to relieve the present depressing appearance.

The students are nearly all drawn from Gujarát, and by far the larger proportion from Northern Gujarát. They may be classed as follows:—

British Gujarát	...	...	272
Baroda State	...	...	14
Other states in Gujarát	...	...	11
Káthiáwár	...	...	36
Bombay	...	...	3
Poona	...	...	3
Various	...	...	36

No information is forthcoming as to where students belonging to the very large item 'various' come from, but it is evident that the College may be said to cater for Gujarát and Káthiáwár alone.

At the time of the inspection 55·7 per cent. of the students were in the Previous Class, 18·6 per cent. were studying for the Intermediate Arts Examination, and 25·6 per cent. were in the Junior and Senior B. A. Classes. The proportion in the Previous Class was high—too high the Committee are inclined to think—unless its abnormal size, proportionately, is due simply to the recent rapid increase of the College. This increase has been very remarkable, as the following figures show:—

			Number of students.
1908	...	...	161
1909	...	...	227
1910	...	...	278
1911	...	...	305
1912	...	...	375

Thus in five years the College has much more than doubled in size, and this would naturally render it likely that an exceptionally large proportion would be found in the lower classes. The only doubt as to the correctness of this explanation arises from the fact that the proportion in the Intermediate Class is not high—in fact, rather lower than would be expected. And this would suggest that there is a very large leakage from the College after the Previous Examination, a leakage which is not desirable.

The Committee would account for this leakage in several ways. There is no doubt that the Bombay colleges have a certain attracting power to good students on account of their age and prestige, and also because they are supposed to be in close touch with the latest University movements. But this is not all. The Committee are inclined to attribute the loss of students largely to the unsatisfactory staff possessed by the Gujarát College. The Committee do not wish to be misunderstood. The staff are men of high attainments, but they have, as a whole, little experience—less perhaps than the staff in any college under the Bombay University—and they are too few in number to deal adequately, without assistance, with the large number of students now attending the College. Leaving out the staff of the Science Institute, and also omitting the Principal, of the remainder of the staff there is only one man who has served more than six years, and only two who have served more than two years. The average service of the members of the staff (excluding the Principal) is only $4\frac{1}{2}$ years. You have thus a college, rapidly growing in size, with a Previous Class of over two hundred students, staffed with young men of limited experience. This is a very serious matter, and demands early attention. It showed itself in a measure in the condition of some of the classes.

Further, the staff is not large enough. The Committee would suggest the appointment of additional Professors on the Arts side, especially in English, and also as of special importance they recommend that the junior appointments in several of the subjects should be created if any real attempt is to be made to deal with the higher work contemplated in the new courses. They consider that it

is in the inexperience and insufficiency of the staff that the chief explanation of the relatively small proportion of students in the higher classes in the College is to be found.

The Previous Class has reached the highest limit that is possible in the buildings at present at the disposal of the College. A class of two hundred is already too large, and cannot be increased unless it is divided—an arrangement for which there appears to be no accommodation.

There are apparently no post-graduate students, and with the present staff post-graduate work ought not to be attempted. So far as the new B.A. and Honours courses are concerned, the Committee were glad to note that it was intended to limit the number of subjects which were to be taken up in the College to English, Sanskrit, and History and Economics. At present in the B.A. course 45 per cent. of the students take History as their Optional subject, 23 per cent. Science (that is, Physics and Chemistry), 22 per cent. Literature, and 10 per cent. Mathematics. As in almost all colleges Sanskrit is by far the most popular language—70 per cent. of the students taking this language, 19 per cent. Persian and 11 per cent. French.

The Principal of the College has drawn the special attention of the Committee to two matters—

(1) The necessity of a change in the University terms. The month of June is exceptionally hot and work at this season is in some years almost impossible. This matter is, however, now before the Syndicate, and as it is being fully discussed there, largely at the instance of the Principal of the Gujarát College, there is no need for the Committee to discuss the matter.

(2) The question of making grants for research to the staff of the College from the Imperial grant. This, the Committee feel, is a matter for the future. The 'research fund' authorized by the Senate has not yet come into existence, and there is no doubt that science workers at all properly equipped Colléges will be able to receive help from this fund when it is fully established.

Generally with regard to the Gujarát College the Committee feel that it occupies a peculiar position. It is very rapidly increasing, especially in the lower classes, and the time has come to call a halt in the Previous Class, as there is neither accommodation for a larger number, nor a staff sufficient to deal with them. It is evident that no part of Western India is more alive to the value of higher University education than Upper Gujarát, and it is hoped that it will not be necessary to limit access to the College, but rather to provide a larger and more experienced staff as well as the additional accommodation required to meet the demand so rapidly growing.

D. MACKICHAN.
HAROLD H. MANN.
H. SIERP, S. J.
L. T. ROSE-HUTCHINSON.
H. J. BHABHA.

VI.

RAJARAM COLLEGE.

The Rajaram College at Kolhápúr is the only surviving second grade college of the Bombay University, containing as it does only such classes as lead up to the Intermediate Arts Examination of the University. It is perhaps more closely connected with a High School than any other college, occupying the same building with the High School and forming in many respects a continuation of the work of the High School rather than a separate institution.

The College is in the centre of Kolhápúr City. It has a building of fine proportions and of striking appearance, which ought to be kept in a better state of repair. If the College occupied the building alone, there would be ample accommodation for most of the purposes of a full Arts college with a student population of about two hundred students. As it is, it shares this building with the Rajaram High School, and hence is cramped even for a second-grade college with one hundred and twelve students. The College, like nearly all Arts colleges, is growing. There has been a considerable increase in the number of students in recent years. It cannot, and ought not to be allowed to grow much further unless it is able to occupy a larger proportion of the building. The accommodation devoted to college purposes at present consists of the necessary lecture rooms for the Previous and Intermediate Classes, rooms which had been used for a Science laboratory and were being extended and laid out for the science teaching of the Previous Class under the new regulations at the time of our visit, a library which it shares with the High School, rooms for the Principal and Professors, and a large College Hall. The remainder of the building was used for the work of the Rajaram High School. Regarding this accommodation the Committee would only remark with pleasure on the efforts which are being made to meet the requirements of the new regulations for the first year's college course, especially in the matter of the provision of accommodation for the Practical Science teaching. Though the room will be probably a little dark, yet it is on the whole satisfactory for a class of the strength likely to be taught in the Rajaram College.

With regard to equipment for this Practical Science teaching the College was making great efforts to make this as satisfactory as possible. The authorities discussed with the Committee the details of what was required, and were quite ready to spend the money necessary for the purpose; and it will, so far as could be seen, be spent wisely. It must be recognized, however, that a regular annual grant will be needed to keep this equipment up to date, and it is hoped that this will be available. As in so many other Colleges, the apparatus already in hand savoured rather of the Museum than of the working Laboratory, but with the advent of the new course it is hoped that it will be fully recognized that apparatus is intended for use, and that when not used it merely encumbers space which might be better employed.

The library is a good one, is accessible, and is apparently well used. It is open during practically the whole of college hours. It contains 6,670 books, a very goodly number, but a good deal of it consists of old literature rather than modern material. The amount now spent on it is inadequate (Rs. 428 only has been spent in the last three years) even if it is only considered as a library for students reading up to the Intermediate Standard, and the Committee would urge that more liberal treatment should be given to it. It is a very satisfactory arrangement that the Professors and staff have access to and can use the State library, which in certain lines is very well equipped with books, and thus supplements the College library.

The number of students is 112, of whom none are resident in the sense of their hostels being under the control of the College. But there are a number of students' hostels in the city, which are under the supervision of the State or

of influential Committees for Jains, Maráthás, Lingáyats and other sections of the community. In view of the existence of these hostels, the College has given up providing its own hostel accommodation. While this may be a wise arrangement, the Committee would urge that the College Principal should have a very important voice in the management and conduct of such hostels, even when they are independent.

The students are nearly all drawn from the Southern Marátha Country, and chiefly from the Southern Marátha States. They come from the following districts :—

Kolhápur State	...	...	61 or 54·5 per cent.
Southern Marátha States	...	...	17 or 15·2 per cent.
Southern Marátha Country (British)	...	...	18 or 16·1 per cent.
Deccan	...	...	10 or 8·9 per cent.
Konkan	...	...	5 or 4·5 per cent.
Hyderabad (Deccan)	...	...	1 or ·9 per cent.

Practically 70 per cent. of the students, therefore, came from the Southern Marátha States. In view of the demand which has arisen for a college for the Southern Marátha Country, it is important to notice how few students the Rajaram College draws from that part of the country, outside the various Southern Marátha States.

At the time of the inspection there were 81 students in the Previous Class and 31 in the Intermediate. The proportion is a normal one, and about what would be expected. Judging by University results the College has done well. In the Previous Examination the percentage of passes has been 53, 37 and 32 respectively in the past three years, while three students have obtained First class and twenty-one Second class out of a total of eighty-two who passed. In the Intermediate Examination the number of passes has been for the last three years 61 per cent. of those sent up, of whom 16 out of 57 obtained Second class.

The staff on the whole is good and experienced and appears sufficient for the work, though, as some of the Professors are engaged also in High School work, it is difficult to know how far it is really adequate. Some of the more experienced men are often called away on State duty. The Professor of Science was away on such duty at the time of the inspection.

The provision for athletics is good—particularly good—and all forms of sport are encouraged.

In general, the Committee feel that the College is in a period of transition from being a mere appendage to the Rajaram High School to becoming an independent institution with a vigorous life of its own. Its numbers are growing—growing fast—but the limit has been reached, unless more space and other facilities even more important are at its disposal in the future.

D. MACKICHAN.
 HAROLD H. MANN.
 H. SIERP, S. J.
 L. T. ROSE-HUTCHINSON.
 H. J. BHABHA.

VII.

BARODA COLLEGE.

This College is maintained by His Highness the Mahārāja of Baroda and is under the control of the Baroda Department of Education acting through the Minister of Education.

It possesses imposing buildings of considerable architectural pretensions; but the internal accommodation is far from being adequate to the needs of the College. When the College was last inspected it was recommended that the High School Classes which now occupy a considerable portion of the available space should be removed to a separate building so as to leave a larger number of rooms at the disposal of the College. We understand that a new High School building is in course of erection, but even with the additional space that will thus become available for the College the present building will not be fully adequate to its needs in view of recent changes in the curriculum of the University. Additional laboratories are required and while it might be possible to partially meet this need by utilising the rooms that will be vacated by the High School, the most satisfactory solution would be found in the erection of new laboratories in connection with the existing building. This College has from the beginning devoted considerable attention to the cultivation of Science and it appears to us that His Highness the Mahārāja of Baroda, who has done so much to encourage Technical Education in his capital might fitly complete his educational system by placing the Science department of his College on a more satisfactory footing.

At present the College is so deficient in the kind of accommodation that is required for the teaching of Science that it proposes to utilise the public Hall of the College for the purposes of the first year's course in Practical Physics. This is only a makeshift to meet the present distress—a temporary expedient which it is hoped it will not be necessary to continue beyond this year.

The College is provided with several hostel buildings erected in different parts of the large *campus* in which the College is situated. Of 386 students, 151 are resident in the College—a good proportion. The older hostel is not a well arranged building. Several of its rooms are badly lighted and the general aspect is lacking in brightness. The newer buildings are a great improvement on the old. Near them stands the residence of one of the Professors who is responsible for the superintendence of the resident students.

Sufficient attention is being paid to athletics. Within the College grounds space is found for all the usual College games.

The College Library possesses a considerable collection of well-chosen books which finds accommodation in the gallery of the College Hall. The annual expenditure under this head seems to be on a fairly liberal scale.

The supply of apparatus in the departments of Physics, Chemistry and Biology appears to be adequate, the various collections in the State Museum being also made available for the students of the College. The want of proper Laboratory space made it difficult to judge fully of the adequacy of the apparatus for practical Laboratory work. A good deal has been spent on apparatus; but much of it appeared to have been expended on showy apparatus which will seldom come into ordinary use, while on the other hand apparatus for every day requirements was deficient. The inconvenience of having only one lecture room for Physics and Chemistry still continues.

The College staff consists of two English Professors—the Principal and the Professor of Physics,—one French Professor and ten Indian Professors and two Fellows. Of the ten Indian Professors some were graduates of considerable

experience—others were men of limited experience who should rather have entered the service of the College in the grade of Assistant Professors.

We discussed with the Principal and the Professors the future programme of the College and were pleased to find that they intended to limit the number of Honours Courses to be provided for in the College by selecting only those courses for which they considered the College to be properly equipped.

The fact that a considerable number of students leave this College and join other Colleges for the most advanced parts of their courses seems to indicate that the teaching of the higher branches stands in need of strengthening. A College occupying the position which this College occupies in the State of Baroda ought to be able to retain its students and the fact that this College does not completely succeed in doing so seems to call for serious attention.

To whatever causes it may be due, there appeared to be in the College a lack of that enthusiasm which calls forth the best work both from the staff and from the students.

D. MACKICHAN.

HAROLD H. MANN.

H. SIERP, S. J.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

VIII.

FERGUSSON COLLEGE, POONA.

This College is under the control of the Governing Body of the Deccan Education Society which consists of eight members of the Council, three of whom are also members of the College Staff.

The College Staff consists of 21 Indian Professors, two of whom have proceeded to Germany for higher study.

Of the large body of students attending this College (835) 16·1 per cent. (134) were in residence at the College, the remainder living in the city. Of these nearly 2 per cent. were studying for the M. A., 4 per cent. were preparing for the examinations in Science, 28 per cent. were in the B. A. classes, 20 per cent. were studying for the Intermediate Examination in Arts and 46 per cent. for the Previous Examination.

More than 86 per cent. of the students had selected Sanskrit as their Classical Language, a little over 4 per cent. had selected Persian, the remainder Pali and French.

Students were being prepared for the B. A. degree in all the optional courses and for the M. A. in seven of the recognised branches.

Nearly 32 per cent. of the students belong to Poona, the remainder being drawn from over 30 different districts, about 24 per cent. of the total or nearly 200 coming from the Southern Marátha Country and the Native States of that part of the Presidency.

The College Library contained a good selection of books belonging to the various departments of study included in the optional courses and the yearly allotment of funds to the Library appeared to be sufficient to provide for its steady growth.

In the year preceding the inspection Rs. 9,858 had been expended on Chemical, Physical and Biological apparatus, Rs. 19,839 having been spent for this purpose during the three years that had elapsed since the last inspection.

The total expenditure on the College was relatively to the number of the students small, *viz.*, Rs. 59,110, of which Rs. 28,590 or a little over 48 per cent. of the total was spent on the College Staff. The monthly value of the Scholarships was Rs. 322.

During the past three years the success of the College in the University Examinations was maintained in all the examinations except the Previous in which the percentage of passes showed a diminution such as took place in the case of all the Colleges and due probably to the same cause, the unpreparedness of a large number of the candidates who were allowed to pass the Matriculation Examination of the preceding year.

The College occupies a large airy site on the rising ground outside the city and recent acquisitions of land have placed it in possession of a fine athletic field available for all forms of exercise. It is compulsory on all resident students to take part in some form of physical exercise.

We note that the Imperial grant was to be devoted to sending a life member to England, the third to be thus sent abroad, for the purpose of increasing his efficiency as a teacher of English. This method of preparing members of the staff for more effective service deserves commendation and is one of many evidences that came under our observation of the enterprising spirit of the promoters of this College.

The remarkable growth of this College has rendered necessary an extension of the buildings and at the time of our visit a large new auditorium or theatre was nearing completion, another building begun after the last inspection having been already completed.

These buildings have been erected in a plain inexpensive style. They are strongly built and will serve well the purpose for which they have been constructed although they lack the elegance which one would like to see in this large pile of educational buildings placed on so commanding a site.

The growth of the College has led to serious overcrowding in some of the class rooms. In the first year's class each division seemed to be too large for effective teaching and the Intermediate class seemed to have reached the point at which sub-division was necessary.

The constant additions to the staff that are thus rendered necessary were made by drafting in new professors from the graduates of the College. While several members of the staff were men of high qualifications, and trained by considerable experience it could not be said of all that they were qualified to occupy the position of professors in a College. They had taken high degrees but they had not in all cases been trained by previous experience as assistant professors to fill the positions which were being assigned to them. We fear that this method of appointing numbers of men from year to year to meet the demands of growing classes may tend to lower the standard of the professoriate in this College. Professors do not arise within our University with the same rapidity with which the size of College classes increases and in the opinion of the Committee it would be wise to institute a preparatory grade of Assistant Professors, in order that the position of Professors should be reserved for men who had not only distinguished themselves at the University but had also won by experience a title to the position of a College Professor.

The laboratories and apparatus, as the financial returns submitted to us shewed, were receiving a considerable amount of attention from the College authorities. In the department of Physics the apparatus appeared to us to be adequate for the courses hitherto taught. A characteristic feature was the manufacture in the College itself of a number of the instruments in use in this department.

This is a satisfactory evidence of the zeal with which the Professor in this department discharges his duties. The instruments thus produced lacked the finish of those imported from outside, but they seemed to be quite adequate to their purpose and if the students are kept in touch with the methods of their construction they must have their own special value from the point of view of education in the manipulation of scientific apparatus.

The equipment in the Physical Department appears to us to be more satisfactory than that provided in the two other departments of Science. The Chemical Laboratory is small and its appliances are much less complete. No doubt they serve the purpose so far as they go, but some of the arrangements are rather crude. It is important to be able to extemporise appliances; but there is both comfort and intellectual improvement to be gained from good fittings and neatly arranged apparatus.

The collections in the Natural Science Department were extensive and a considerable sum of money had been expended on them. They consisted, however, too largely of imported models and specimens which cannot take the place of collections made locally by the Professor and his co-workers. The Botanical Garden is well kept and well arranged. The attention bestowed upon it is an evidence of the desire of this College to do its best in each of the departments of study that it seeks to cultivate.

The College hostel appeared to us to be well managed and its appointments suited to the needs of the students. It provides a healthy home for the students who have the privilege of residing there; but a College with such a large attendance would seem to require much more accommodation of this kind than is at present available. The attention of the College authorities should be directed to this need. A very large number of the students reside in the city of Poona under conditions very different from those which obtain in the extensive grounds of the College and we should be glad to see the hostel accommodation doubled. Sites in the neighbourhood of the College are inexpensive compared with those that are available in a large city and with such facilities for hostel extension the College should be urged to expand its accommodation for the residence of its students.

We have already suggested that the College attendance has increased with too great rapidity. We have grave doubts as to the possibility of maintaining the influence of a College over such an enormous body of students. The time appears to have arrived for the founding of more Colleges in this Presidency. The opening of a College in the southern section of the Presidency would greatly relieve the Colleges in Poona and also to some extent those of Bombay and every encouragement ought to be given to efforts that are being made to render this possible.

This College appeared to contemplate Honours courses in practically all the subjects of the B. A. curriculum. Considering the staff available it seemed to us that in this respect the aims of the College were too comprehensive. Concentration on a certain limited number of subjects would be advisable.

In the post-graduate courses there was systematic instruction in some subjects; but as elsewhere this department of the work was only partially organised. Colleges in Poona cannot avail themselves of the opportunity for post-graduate study the University proposes to open to Bombay students; but there seems to be no reason why Poona should not participate in the benefit of a similar scheme. We understand that the Deccan College and the Fergusson College have certain intercollegiate arrangements for advanced study in Mathematics. This system seems capable of further expansion.

We cannot close our report on this College without bearing testimony to the zeal and enterprise which are manifest in every department of its work. The majority of its staff are life members of the Society. They live for the College and they have succeeded in making it a success so far as this can be gauged by the results of University Examinations; but our observation of the methods of its work gave us the impression that too great stress was being laid upon Examination success and too little on things that constitute real education. It gave the Committee the impression that the students were working mainly for examinations and that the Professors in their teaching appeared to be animated too much by similar considerations.

D. MACKICHAN.

HAROLD H. MANN.

H. SIERP, S. J.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

IX.

SAMALDAS COLLEGE.

The Bhávnagar College is the smallest of the First Grade Colleges affiliated to the Bombay University, the total number of students being 123 at the time of the inspection. It is maintained by the Bhávnagar State and is under the immediate supervision of the Diván Sáheb.

The College is a fine building providing ample accommodation for the classes taught. A new hostel, to accommodate 30 students, was under construction at the time of inspection. After the completion of this building there will be accommodation for 58 students, or 47 per cent. of the total number of students. As the College is essentially a Bhávnagar College and draws the majority of its students from that town, this provision seems to be large enough, rather too large if only intended for outsiders. But it seems that many students from the town prefer the College quarters to their homes, especially as there is no room-rent to be paid.

Of the 123 students, 61 per cent. are in the Previous Class, 16·2 per cent. in the Intermediate and 23·8 per cent. in the B.A. Class. The large percentage in the Previous Class is mostly due to the large increase in the attendance which has risen to almost double that of preceding years.

In the B.A. course History attracts the majority of students, *viz.*, 50 per cent.; 17·9 per cent. take Literature, the same percentage takes Mathematics and 14·2 per cent. Logic and Philosophy.

The library is well stocked and well equipped.

The teaching of Physics in the Intermediate Class has been greatly improved and we were glad to see that the preparations for teaching the new course of the first year were well devised and in a fair state of progress.

One cannot help feeling that it must be very hard for the staff which contains some members of high scientific attainments, to work under circumstances that are far from encouraging. The College tries to maintain a position which is above its means. The staff is underpaid and inadequate, especially for teaching the new courses. Sixteen hours' teaching seems already to be rather too much for the Principal, but the introduction of the new courses will mean an addition of several hours a week to what might appear to be the maximum for any Professor. The smallness of the staff makes some extraordinary combinations necessary, for instance one Professor has to teach, unassisted, History in the Previous Class, History and Political Economy in the B.A. Obligatory and the B.A. Voluntary and English in the B.A. Voluntary.

The smallness of certain classes is another striking feature of this College. The total number of students, as mentioned already is 123; of whom 75 are in the Previous, 20 in the Intermediate and 28 in the B.A. Class.

Looking at these figures and the smallness of the staff one is tempted to ask whether it is worth while to maintain voluntary B.A. courses, in Logic and Moral Philosophy and in Mathematics with 4 or 5 students in each, in a two years' course. Even an Intermediate Class of 20 students seems to be too small in proportion to the necessary work and expenses.

There is evidently need for a First year's Class at Bhávnagar, as the relatively large number (75) shows and we would suggest that this class should be retained. But we venture to think that the funds expended at present on higher College work, beyond the Previous, could be utilised with more advantage in other directions. There is evidently need for technical and agricultural education in Káthiáwár for which at present no provision is made. It seems to the Committee that Bhávnagar should try to use its resources in that direction, leaving to the other College in Káthiáwár the higher Arts courses. Such a step would solve the long standing difficulty of two Arts Colleges in a relatively small area and gain for Bhávnagar the honour of having started an Institute which will have a far-reaching influence on the development of Káthiáwár.

D. MAČKICHAŃ.

HAROLD H. MANN.

H. SIERP, S. J.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

X.

D. J. SIND COLLEGE.

This College which was founded in Karáchi a little over quarter of a century ago is under the control of the Sind College Board. This Board consists of five *ex officio* members, who are leading Government officials, two members appointed by Government and about sixteen non-official members elected by various bodies throughout the province. Subject to the ultimate authority of this Board the practical administration is carried on by a Standing Committee, one-half of the members being nominated by the President who is the Commissioner in Sind, the other half being appointed by the Board. At present this Standing Committee consists of four members, two of whom are Government officials and two are non-official members of the Board. The Principal of the College is Secretary of the Board but is only a consultative member.

The Principal expressed himself as satisfied with this arrangement; but it appears to us desirable that the Principal should be an *ex officio* member of the Board enjoying the same privileges as every other member. We found that the staff of the College as a whole were not satisfied with the relations now existing between the Governing Board and the College. They appeared to feel they were not sufficiently in touch with the management and in our opinion a heartier and more enthusiastic co-operation between the Board and the College staff would be secured if the latter had the right of nominating one or two of its members to seats on the Board. This would render impossible the complaint which was made to us by a number of the members of the staff that they were kept in the dark as to the plans of the Board.

This College has participated in the recent remarkable expansion in the numbers on the rolls of the Arts Colleges of the University. The numbers on the rolls of the Previous Class are more than one-half of the whole attendance. This the Principal attributes to the leniency of recent Matriculation Examinations.

The success of the College in the University Examinations has maintained as in former years a high level, but for the reasons which have been stated in the first part of this report, it is not possible to draw reliable inferences from the percentages reported. We think that notwithstanding the unsatisfactoriness of the present method of estimating these percentages, it may reasonably be concluded that the capacity of the Sindi students is above the average and that the D. J. College supplies them with efficient means of instruction.

We noted that great attention was being paid to athletics and that this College offered facilities for athletic culture quite equal to those which are to be found in some of the largest Colleges.

The hostel accommodation although not adequate to the needs of the College is excellent and the arrangements for its supervision are very satisfactory. The building contains a number of large well-furnished airy rooms with spacious verandahs. The College is now pushing forward the scheme for a second hostel and when these efforts are successful the College will be fully provided with the accommodation that is needed for those students whose homes are at a distance from the city.

The College building has undergone extensive repairs since the date of last inspection. Wooden beams have been substituted for the iron-girders which were considered to be responsible for the cracks throughout the building that awakened anxiety as to its stability, and it is to be hoped that the building which is a handsome structure is now secure.

The College possesses a well-equipped library which receives a liberal grant from the College funds. It has also a smaller library which is under the management of the students themselves and provides books and periodicals for general reading.

We found that arrangements were being made for the instruction of the first year's class in Practical Physics under the new University scheme of studies. The arrangements proposed appeared to us to be adequate for the purpose.

In view of the extent to which the College intends to take part in Science teaching in all the new courses it is necessary to call attention to the inadequacy of the College staff.

There is only one Professor and one Lecturer for the Physics and Chemistry courses. Even with the addition of demonstrators to assist in the work of the elementary course this provision is quite insufficient. Another full-time professor is needed. This was felt long ago, but through a mistake on the part of the Board referred to in the last inspection report a Professor of Natural Science was brought out from England, a considerable portion of whose time is devoted to the teaching of English, the work required in the department of Biology being insufficient to claim the whole time of a professor on the scale which obtains in this College. It was a Professor in the department of Physics or Chemistry that was wanted; but the word "Science" without any further qualification having been used in the letter sent to England by the Board, the department of Natural Science was provided for and that of Physics and Chemistry was left understaffed. The professor sent out has done valuable work for the College; but its most pressing needs remain unrelieved. This seems to show the need for a much closer touch between the staff and the Board than exists at present.

The Physical and Chemical Laboratories appeared to us to be very insufficiently equipped. Much of the apparatus was badly out of repair. The general unsatisfactory condition of the College in its Science Department is not due to any neglect on the part of the indefatigable Professor who has charge of this section, but simply to the inadequacy of the staff of the College in this branch of its work. We would recommend the University to insist on the appointment of an additional Professor in this department.

This is all the more necessary in view of the large number of Honours Courses which the College appeared to have in contemplation—courses for which the College has not the necessary equipment. It seemed to us that this whole question had not been considered with sufficient seriousness and when we met the staff we found that the Professors as a whole were of opinion that they ought to curtail the number of subjects in which Honours courses should be undertaken.

The present staff consists of two Europeans, the Principal and the Professor of English and Biology, six Indian Professors and one Lecturer (in Physics and Chemistry), together with three Dakshina Fellows. The Board has provided salaries for its Indian Professors sufficient to attract and retain the services of men of ability, and we found the standard of the Indian professoriate in this College to be as high as in most of the Colleges of the University.

We learn that arrangements are now under the consideration of the Government according to which the two European members of the staff shall become members of the Educational Department, the Indian members to remain as they now are, Professors appointed by the Board. Sind still desires to have its College remain an aided College under independent management—a desire with which we cannot but sympathise. It is no part of our province to discuss the new policy. We think it our duty to refer to it and to point out the novelty of the experiment about to be made. We feel doubtful as to the success of the experiment in a College, the staff of which did not appear to us to show evidence of perfectly harmonious working even under present conditions. We were struck during our tour through the Presidency by the number of Sindi students whom we found scattered over the various Colleges of the Presidency. Even allowing for the migratory tendencies of the Sindi students, it seemed to us an exceptional feature in College life that so many Sindi students should detach themselves from their College and take the more advanced parts of their course in other Colleges. It is not desirable that this practice should prevail so largely as it seems to do in this particular case, and the influence of the College is impaired by these frequent desertions. We could not escape the conviction that this College started by the Sind Board of Education had not yet succeeded in enlisting the sympathy and interest of the whole province. Sectional differences and jealousies seemed to stand in the way of this much to be desired result. It is our conviction that unless the College succeeds in breaking down these differences it can never accomplish the purpose of its founders and become what it ought to be, the crown of the educational system of the province of Sind.

D. MACKICHAN.

HAROLD H. MANN.

H. SIERP, S. J.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

XI.

BAHAUDDIN COLLEGE.

The Junágad College is one of the finest College buildings in the Bombay Presidency, and beautifully situated. It is divided into three parts, two side wings for class rooms and a central hall, which occupies more than half the available space. The wings contain 16 class rooms, all of the same size. The College grounds are very large and contain two cricket fields and two tennis courts.

In spite of its imposing building the College has for a long time been suffering badly from want of room. Of the 16 class rooms, eight are at present occupied by the High School, leaving to the College only a similar number of rooms and the central hall which is used as library, reading room and examination hall. More accommodation for College classes should be found as soon as possible and we are glad to hear that the removal of the High School classes is imminent. As soon as accommodation for the High School classes has been found elsewhere, and the new building for the teaching of Physics in the First Year's Class which is under construction, is finished, the College will have sufficient room for its proper development.

The staff of the College consists of men of high qualifications and educational experience, many of its members having been connected with the College from its beginning, more than 10 years ago. They do their work with enthusiasm and marked success, as the examination results show. The great number of failures in 1911 was due to plague causing the closing of the lectures in the middle of August.

There cannot, however, be any doubt that the staff needs considerable strengthening if it is to be equal to the task of teaching the new courses, even if some of the voluntary subjects, taught at present, are given up. Even under the old rules it seems rather ambitious to teach in the B. A. Class Voluntary English with 3 different Second Languages, Logic and Moral Philosophy, Mathematics, Physics and Chemistry, History and Political Economy with the small staff which the College at present possesses. It is also clearly impossible for one man to teach Physics in the Intermediate and the B. A. Voluntary together with Chemistry, even if helped by an Assistant who is at the same time Chemical Analyser to Government and College Librarian. Again, it seems expecting too much of a man to make him teach Poetry and Composition in the Intermediate class and English Voluntary in the B. A. class in addition to Logic and Moral Philosophy.

The number of Voluntary subjects in the B. A. classes should be limited. At present History and Languages attract the majority of students, the former 58·8 per cent. and the latter 26 per cent. of all the B. A. students. There are only 5 students or 10·8 per cent. taking Physics and Chemistry, whilst Logic and Philosophy and Mathematics have only one student each. We suggest that the subjects which attract very few students, be dropped and the staff be strengthened in the remaining ones. It is also very doubtful whether French should be kept for the B. A. course. Whilst Sanskrit attracted last year 65·2 per cent. of the B. A. students and Persian 26 per cent., the number of B. A. students taking French was only 8·8 per cent. of the whole.

There is a large number of M. A. students at the College, more than 8 per cent. of the students. Considering the large amount of work which the Professors have to do, the teaching for the M. A. must remain unsatisfactory and the Committee is decidedly of opinion that it should be dropped as soon as possible.

At the time of inspection 50 per cent. of the students were in the P. E., 20 per cent. in the Intermediate and about 30 per cent. in the B. A. class. The proportions are normal and apparently there is not much leakage after the Intermediate Examination.

There are good hostels near the college which provide room for 95 students and three Professors.

The College Library is good, but not sufficiently accessible, as it is open for not more than 1½ hour daily.

In spite of the fact that there are two full Colleges in Káthiáwár, many Káthiáwár students leave their native country and spend their College career at outside centres. This is evidently very unsatisfactory and the utmost efforts should be made to prevent this leakage as soon as possible.

The only way of accomplishing this is to have one very efficient College in Káthiáwár, which should fulfil the highest requirements. This however requires an amalgamation of the two existing Colleges, as two rival Colleges in the immediate neighbourhood of each other will never succeed in meeting the educational wants of the young men of the Province. The continually increasing requirements of University education make it impossible for an individual State to cope with the problem. Co-operation is necessary and we hope that minor difficulties will be overcome in order to create a College which can stand comparison with other institutions of the Bombay University and be worthy of Káthiáwár.

D. MACKICHAN.

HAROLD H. MANN.

H. SIERP, S. J.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

XII.

PROFESSOR GAJJAR'S TECHNO-CHEMICAL LABORATORY, BOMBAY.

This Laboratory was not visited by the Committee, Professor Gajjar having informed them that at present no work was being carried on in it in connection with the University courses. He informed us also that he had not closed the laboratory and that it would be still maintained for some time in readiness for use by students of the University in case its services might at any time be required.

XIII.

GOVERNMENT LAW SCHOOL.

This College continues to be conducted on the lines that have been followed for a number of years. It draws its students from the Arts graduates of the University and as the number of such graduates is continually increasing, the rolls of the College show a growing influx of students. Last year there were 297 in the first year's class and 165 in the second year, a total of 462, which has been considerably exceeded during the current year.

The College makes use of the class-rooms of Elphinstone College after the usual College hours. With its staff of six Professors including the Principal it has all the appearance of a fully equipped College in Law.

The only premises which belong exclusively to the College are the large hall with a smaller room attached to it which occupies the ground floor of the building in which the Elphinstone College is situated. These rooms contain the Library of the College, which consists of a valuable collection of Law books and Law Reports. It is probably here that the chief value of the institution is to be found, as the students who have generally a large amount of time at their disposal can, if so inclined, pursue in the Library their private study of the subjects of their course. The suggestion made to us by the Principal that it would be a great advantage to these students to have expert guidance in the use of the Library is a valuable one. We would bring this matter to the notice of the University and suggest that steps should be taken to give effect to the proposal.

As we have indicated above, the College possesses a large staff of highly qualified professors, learned in their various departments. The connection of each of these with the College is limited to an hour's lecture during a few evenings in each week of the term. However seriously they may be disposed to regard the limited duties assigned to them, even a casual visit to the classes is sufficient to show that only an *extremely* limited section of these classes take their work seriously. We found one class-room, the largest available, overcrowded with an attendance of more than 300 students, of whom only those who sat in the front benches were able to hear the lecture and derive any profit from it. The remainder were satisfied to have their attendance registered. This is done by a very laborious system of entries in a College register, in which each student daily signs his name. The process occupies about an hour of the time preceding the lectures. That students regarded this as the main advantage to be derived from their attendance at the College was obvious from the amount of literature—certainly not bearing on their studies, novels, etc.,—with which they fortified themselves against the lecture hour. In another class-room we found that certain points of vantage which could scarcely be regarded as parts of the class-room were preferred to the raised benches opposite the lecturer's platform which were by no means filled.

We were confirmed by what we saw in the opinion which is generally entertained, that for most students attendance at this College has too long been a mere form to be gone through in obedience to University requirements. We believe that none are more conscious of this than the Principal and Professors themselves who are in some cases endeavouring to make the work of their classes a reality. Our observations are intended to cast no reflection on them, but only on the system under which they are called to work. In looking into the finances we discovered that Government is making an annual profit of about Rs. 16,000 on these courses of study. For many years this institution has been worked at a profit to Government and in recent years the amount of the profit has been in the neighbourhood of the sum above stated. We feel that it is the first duty of Government to devote this money to the purposes of the institution. We would suggest as a first step the carrying out in some form of the Principal's proposal that students making use of the Library should be

under expert guidance in their reading. But this is a very small instalment of the reforms that are needed. There ought to be a fully equipped Law School with its own lecture-rooms, attended by students not simply at the closing hour of the day but at other hours also with a staff sufficient to secure efficient teaching not merely of a small fraction of the students but of the whole body. We would invite the University of Bombay to address itself seriously to the problem of placing the studies in the Faculty of Law on a proper footing and organising for this purpose, as has been done already in the Calcutta and Madras Universities, a Law College that shall be a College not merely in name but in the full sense of what that name ought to stand for. As at present organised it is not a College and if the present arrangements are perpetuated they will continue to bring discredit to the University.

Every University of any standing in other countries which possesses a Faculty of Law has also its full-time professors and while as a rule eminent practitioners cannot be expected to sacrifice the practice of their profession to the teaching of Law, it ought to be possible to find men of high attainments in this branch of knowledge who would prefer the academic life to that of the Courts of Law. Instead of a number of men devoting a portion of their time to lecturing, a small number of properly paid professors whose whole work should consist in teaching and guiding the studies of students in this Faculty would prove a much more effective instrument of University education. We believe that the time is fully come for transforming this institution into a really efficient College. Even the funds that are now available would go a long way towards the achievement of this object and Government, which has for many years enjoyed quite a large revenue from the institution as it is now conducted, might well be expected to furnish any additional contributions that might be necessary for the completion of such a scheme. We would, therefore, recommend the University to deal at the earliest opportunity with this urgent problem and to invite the co-operation of Government in the measures that may be found necessary in order to deal effectively with it. We would further suggest that if a scheme of this kind were carried into effect, a considerable amount of space now used for the Law Library would thus become available for the purposes of the Elphinstone College which is not too liberally provided with accommodation.

D. MACKICHAN.

HAROLD H. MANN.

H. SIERP, S. J.

L. T. ROSE-HUTCHINSON.

H. J. BHABHA.

XIV.

GRANT MEDICAL COLLEGE.

This is the only College which shows a diminution in the number of its students; but as this reduction in the numbers is due to a careful selection of the students to be admitted and a limitation of their number proportioned to the capacity of the College, it must be regarded with satisfaction. The College is certain to attain an increased efficiency under these conditions which offer to the individual student a greater opportunity for profitable study in the lecture room, and especially in the practical and clinical classes.

The number of students shown in the College returns was 486, of whom more than one-half are Hindus, nearly one-fourth are Pársis and the remainder are Christians, Jews and Muhammadans.

The College is passing through a transition period. The old courses have disappeared gradually since the date of the last inspection and the new courses have come into full operation. We note, confining our observation to the new courses, the small proportion of successful candidates in the three University examinations which lead up to the M. B., B. S. degree. In the first examination 51 per cent. were successful, in the second 38 per cent. and in the final examination 17 per cent., 4 passing out of 23.

No doubt this large percentage of failures may be satisfactory from the point of view of public safety, but it is not satisfactory from the point of view of the College or the University. It was probably due to the fact that in this period of transition from the old courses to the new, the students of the College had not learned that the standard of attainment required by the University for the new degree was very different from that which they were accustomed to associate with the examinations for the old degree of L. M. & S.

The staff of this College is large in respect of Professors and Lecturers and their assistants whether Tutors or Fellows; but the almost entire absence from the list of full-time Professors must affect the general efficiency of the College. We are aware that in no University are the Medical Colleges manned entirely by Professors whose whole time is devoted to teaching. Medical Professors in certain departments must be in touch with medical practice if their work is to keep pace with the general advance of their science; but there are many subjects in the medical curriculum with regard to which this does not hold, and we believe that there is room in this College for a larger number of full-time Professors. We note that certain disadvantageous arrangements of very old standing remain unchanged. The rule of the Indian Medical Service which adds to the duties of the Resident Surgeon of the European General Hospital, those of Professor of Materia Medica in the Grant Medical College is one which cannot stand examination and amongst its other disadvantages it still results as in former days in short-lived Professorships.

The relation of this College to the Indian Medical Service is the explanation of this and other anomalies which one encounters in studying the arrangements of the College. We observe that Government has on various occasions recognised the necessity of modifying these arrangements and is now adding to the staff Professors who are not members of the Indian Medical Service. Care must, however, be taken to see that Professors thus appointed are not only specialists in their respective subjects, but are also men of the same high qualifications and of the same experience as the members of the Indian Medical Service who have hitherto held such appointments.

The position of the Principal of this College is one of great administrative responsibility and ought not to be regarded as simply a step in the official career of a member of the Indian Medical Service. If the Principal of this College is to be promoted in the ranks of the Service, the only appointment which he ought to look forward to should be that of Surgeon-General and he should under no circumstances be transferred to military duty. We would also suggest that it is not in the interests of the College to appoint to the office of

Principal a member of the service who is near promotion or near the termination of his service.

Notwithstanding these peculiar features in the constitution of the College it is to be congratulated on the position which it has won for itself and the distinction it has brought to the University. It is essentially a progressive institution. Each University Inspection Committee finds new developments in progress. The most conspicuous developments which we noted were the addition to the College of its splendidly equipped Physiological Laboratory in which opportunities for the most advanced work in Physiology are afforded and the completion of the large lecture theatre adjoining it which was in course of construction at the time of the last inspection. These form a most important addition to the already extensive collection of buildings that fill the great compound of the College and Hospital.

In marked contrast with these are the laboratories and class-rooms devoted to several of the other departments. The class-room in which the Professors of Chemistry and Physics deliver their lectures is still unsatisfactory, although it has undergone some improvement since the date of the last inspection. It still leaves much to be desired. The Pathological Museum is a small room limited in space and consequently in facilities for extension. The small collection of specimens which it contains would hardly appear to be in keeping with the great importance of a museum of this kind for teaching purposes or the wealth of material which must be available from the large group of hospitals in the same compound.

The number of class-rooms available for lecture purposes appears to us to be very much below the number required for a College containing about 500 students and to be altogether out of proportion to the number of lectures and tutorial classes provided for in the Syllabus and required by the University curriculum. Enquiry elicited the fact that considerable difficulty is experienced in filling in all the lectures and classes and that in some cases, owing to the lack of proper accommodation, arrangements have had to be made that can hardly be considered satisfactory, while tutorial classes are largely limited by the same consideration. The departments for the teaching of Biology, Materia Medica, Pharmacology and Bacteriology are very much in need of proper accommodation and facilities for teaching, while the department of Physics although it has recently been improved, is much cramped and requires extension. This question of additional accommodation appears to us to call for immediate action. The College has long since outgrown its buildings.

In this connection we noted that a very large portion of the main College building is occupied by the Department of the Chemical Analyser to Government. This department being absolutely separate and distinct from the College, it seems to us extraordinary that, in face of the general overcrowding referred to, it should continue to be housed in the College buildings, thereby hindering the development and expansion of the College itself. We were informed that the question of removing the Chemical Analyser's Department out of the College building has been under consideration for a long time past, but that nothing has up to the present been decided. We therefore take this opportunity of supporting in the strongest manner possible the energetic demand of the Principal for its expulsion contained in the last report of the College. Not only is the Chemical Analyser's Department itself in great need of larger and more suitable premises but its continued presence in the College buildings deprives the College of space which is urgently required for its own purposes. The removal of this department would provide for the expansion of the Physical Laboratory of the College and would also afford accommodation for Biology. Materia Medica classes would be well accommodated in the Petit laboratory which has recently been vacated by the Physiological Department. The Bacteriological Laboratory cannot be suitably accommodated in any of the existing buildings and a new building is urgently required for this department.

We were impressed by the large number of Tutors and Fellows on the staff of this College, but learned to our disappointment that by reason of want of teaching room and of a wise organization of this large auxiliary force the individual help received by students in the various branches of their studies was much less than might have been expected and much less than it ought to be. We are of opinion that the reorganisation of this staff and the provision of accommodation for its work would greatly increase the efficiency of the teaching without any substantial addition to the annual expenditure. Such a re-organisation would

also serve a most useful purpose in the discovery of men suited for promotion to the higher teaching appointments in the College.

The College Library is housed on the first floor of the main College building which it shares with the Pathological Museum. The library contains a large collection of scientific books, memoirs and periodicals, a considerable proportion of which are old editions which are merely of historical value. The number of modern works on medical and other scientific subjects does not appear to us to be in proportion to the needs of this large College, more especially as it is the only Medical College in the Presidency and the Library is the only reference Library of its kind available for medical graduates.

The present Library grant is Rs. 1,000 per annum, a sum which has to cover the cost of books and periodicals as well as the binding of the latter. The very large range of the subjects comprised in the curriculum would suggest that this grant is quite inadequate. The library catalogue is entirely out of date, the last edition having been compiled in 1892 more than twenty years ago. There is no whole-time librarian, a single clerk being responsible for the duties of librarian as well as the preparation and care of the Museum specimens. The Committee feel that under the circumstances the College Library cannot satisfactorily fulfil its object and strongly recommend the early appointment of a full-time librarian, the compilation of an up-to-date catalogue, and a liberal increase in the Library Grant.

The College hostel has been the subject of much adverse criticism both from within and from without the College. The lighting and ventilation of the rooms particularly called forth the strong condemnation of the last Committee of Inspection. Since the time of the last inspection various means have been adopted with a view to improve the lighting and ventilation of several of the rooms and considerable improvement has thereby been effected. The general design of the building, its proximity to the main road on one side and the Byculla Iron-works on another side are conditions, however, that can only continue to call forth adverse criticism at each recurring inspection, and it seems to us an anomaly that of all the Colleges the Medical College should have been provided with a building so unsuitably placed and of such an unsatisfactory design.

We were informed that the widening of the main road contemplated by the City Improvement Trust threatens to bring the new avenue up to within some four feet of the plinth of the building. If this scheme matures the position of the hostel as now located will become simply impossible and the wing of the building which faces the main road will be wholly useless for the purposes for which it is intended. Notwithstanding these adverse circumstances the rooms are full and more hostel accommodation is required to meet the demand. In view of the neighbourhood in which the College is situated, it is most necessary that additional hostel accommodation should be provided at an early date and that in any scheme for increased hostel accommodation special attention should be paid to the securing of a site that will ensure quiet and freedom from external distractions and a design that will provide sufficient light and ventilation. Till such provision is made the hostel accommodation in this College must continue to be unsatisfactory.

Our notice was specially directed to the location of a public latrine abutting on the College grounds. The close proximity of this latrine to the College hostel and the residential quarters for Assistant Surgeons is from every point of view to be most strongly condemned, and it is to be hoped that the Municipality of Bombay will respond to the crying demand for the removal of this latrine to some other site in which it cannot prove a nuisance to the College.

In this College due attention is paid to Athletics. The College is to be congratulated on the recent acquisition of a site on Kennedy Sea Face for an Athletic field which, if taken advantage of by students, will contribute greatly to the healthiness of their College life.

D. MACKICHAN.

HAROLD H. MANI

H. SIERP, S. J.

H. J. BHABHA.

XV.

COLLEGE OF ENGINEERING.

The Poona College of Engineering is the oldest College of its kind in India. The foundation stone of the main building was laid as early as 1865 when the teaching of Engineering in India was in its infancy. The accommodation provided in the old building was long ago found to be insufficient and additional accommodation has had to be provided. We were glad to see that the College is in a state of development at present which promises well for the future.

A new Chemical Laboratory has lately been built in a separate block. It contains a large lecture-room and a fine laboratory for students, well lighted and well ventilated, besides some good rooms for balances, stores and the private work of the Professor and his assistants. In the same building the collection of mineralogical and geological specimens has found a place; these had just been arranged and this Department was not yet in complete working order at the time of our visit. The old Chemical laboratory is being transformed into an Electrical laboratory, to meet the present requirements of the College. A large laboratory for Mechanical Engineering is under construction. As far as we could judge from the plans, it will be a fine addition to the College and promises to become a first class institute of its kind.

As almost always happens in such cases, the outcome of such transformations is not an articulated whole, but a congeries of rooms, adapted as far as possible to the new needs as they arose. On the whole, the interior of the main building does not look very inviting, and this impression is further increased by the highly raised galleries which mar the proportion of the rooms. Much could be done if the furniture underwent a complete renewal, some of it being of a very old-fashioned type and even looking rather dilapidated. But even then a great deal which is not satisfactory and can hardly be changed would remain. The present Physics lecture-rooms will always suffer from being a later addition to the original building, and it will be scarcely possible to find in the old building a better place for storing the instruments, which at present are kept on the first floor and have to be brought down by a lift or a staircase built into the lecture-room.

On the completion of the laboratory for Mechanical Engineering the College intends to open special courses in that branch, a long looked for development, as at present but one of the three alternative courses for the B. E. degree is represented in the work of the College. The College should be urged to provide in the near future also for more advanced courses in Electrical Engineering, which is sure to be taken up in the future by an increasing number of students.

The College staff is efficient and large enough for the present requirements of the College, at least as far as the superior appointments are concerned. There have been several additions since the time of the last inspection. The post of the Professor of Engineering has been filled and an Assistant Professor of Mechanical Engineering has been added to the staff. The offices of the Professor of Chemistry and Geology have been separated and a full-time Professor of Chemistry has been appointed. The Professor of Geology is lent during the monsoon term by the Geological Survey. This latter arrangement of a visiting Professor of Geology who spends only one term in the College, is eminently unsatisfactory. Although the courses are short, they could easily be spread over the whole year. Students, in whom an interest in the subject is awakened, would then enjoy the advantage of the help and guidance of a Professor during a proper period of study, and might thereby be stimulated to engage in research work in the subject. The geological museum would also seem to require the presence of such a Professor throughout the year for its proper supervision.

The assistant staff needs strengthening, at least in some subjects. Though three drawing masters are to be found on the list of the College staff there is only one Demonstrator, *viz.* in Physics. There are besides two College Fellows who help the staff in giving instruction in Practical Surveying and Elementary Mathematics and Science. This arrangement is scarcely satisfactory and leaves to the Professors a good deal of demonstration work which could easily be done by junior men.

An improvement in this direction would have beneficial effects in another direction as well. As far as we could see, there is at present little or no research work done in the College, a serious want in an institution like this where an atmosphere of scientific research ought to exist. One of the reasons for this is without doubt the large amount of teaching duties some of the Professors have to perform. The most obvious remedy would be to relieve them of part of it by giving them the necessary assistance and thus enabling them to devote more time to scientific investigations. The want of this stimulating atmosphere in the College is probably the reason why even when such time has been available full advantage has not been taken of it.

The Library in its present condition is essentially unsatisfactory and utterly unworthy of the only Engineering College in Western India, in its accommodation, in its equipment, in the supply of books, in their arrangement and in the facilities which exist for consulting them. The rooms in which the Library is placed are insufficient in size and the book cases are most unsuitable. We are surprised that so little has been done to improve the condition and management of the library since the last visit of the Inspection Committee. The library as it now stands is in need of immediate improvement especially in two particulars. A librarian who can devote his time to the care and to the issuing of the books is required. One who is only a librarian in name, and whose time is already fully occupied with other work, is manifestly unable to perform the duties of such an office. Further proper accommodation must be found for it in the building and the book cases in which the volumes are placed should either be improved or replaced by cases more suitable for the purpose.

The number of students is at present 153. About 47 per cent. live in the College Hostel, a fine substantial building, under the supervision of one of the Professors.

Twenty-five per cent. of the students are from other Presidencies. Of the Bombay students 45 per cent. are from the Deccan and the Southern Marátha Country, 17 per cent. from Bombay, 16 per cent. from Káthiáwár and 13 per cent. from Gujarát. On the whole, the type of students, who join the College, is good, a careful selection being possible on account of the great number of applicants, many of whom have passed examinations above those prescribed for entrance into the College. This state of things has its advantages, but also its drawbacks which will be felt perhaps more as soon as the new Arts courses have come into operation. A student for instance who has passed his Int. Sc. Examination, in group I of the new course and joins the first year's course of the Engineering College will have to undergo a training in 6 subjects, 3 of which he has already studied in his Arts College, *viz.* Mathematics, Physics and Chemistry, in almost identical form. There remain only 3 new subjects, Drawing, Practical Carpentry and the elements of Engineering, which are scarcely enough to occupy an able student for a full year. We suggest that the College should try to make the second year after Matriculation really the first year of its course for practically all its students. In order to render this possible, the first step necessary would be to reduce the number of students coming from other Presidencies and create in this way the vacancies which are eagerly looked for by many Arts students of the Bombay University.

D. MACKICHAN.
 HAROLD H. MANN.
 H. SIERP, S. J.
 L. T. ROSE-HUTCHINSON.
 H. J. BHABHA.

XVI.

AGRICULTURAL COLLEGE.

The Agricultural College in Poona has advantages of its own which very few scientific institutions affiliated to the Bombay University enjoy. It has been erected but recently, with a definite object in view and neither money nor effort has been spared to make it a first class institute, in its building as well as in its equipment. Government have fully recognized the importance of higher Agricultural training in this Presidency and continue to contribute annually a sum which amounts to almost Rs. 1,200 for every student studying at the College. Many of the difficulties which exist elsewhere and hinder progress are here absent. This must have its influence on Professors and students alike and create an atmosphere which is most favourable for scientific work.

The College consists of three large buildings—a central structure with two side blocks. The central building contains a spacious hall, a fine piece of architecture, but perhaps too elaborate in some respects. Above the hall is the Library, a large and cheerful room. The rooms in the side wings of the building contain the offices of the Professor of Agriculture, the Zoological and Botanical laboratories, the botanical, zoological and agricultural collections and some class-rooms. One of the side blocks contains the Chemical Laboratories, fine and spacious rooms, well planned and equipped, the offices of the Principal and the laboratories of the Agricultural Chemist to Government. The third block is under construction. It is intended to be a hostel with accommodation for 120 students.

The staff of the College is large enough as far as the University courses are concerned, and well graded. We were glad to see that a good deal of research is going on in this College. In all departments, especially in the chemical and botanical, we found a healthy and enthusiastic scientific life. This must have its influence on the students and give them a training which will be of great help to them in after life. But we would call the attention of the Syndicate to the additional positions filled by the Professors of the College over and above that of teaching and the devotion of a part of the College buildings to other purposes. The three professors of the College all hold other positions. Thus the Principal and Professor of Chemistry is also Agricultural Chemist to the Government of Bombay, the Professor of Botany is also Economic Botanist to the Government of Bombay, and the Professor of Agriculture is in charge of the Government Civil Dairy at Kirkee. Thus none of the superior staff of the College are whole-time officers, so far as the College is concerned, in the ordinary sense, though it is understood that the College has always the first claim on their time.

This double position has the advantage that the professors are continually kept in touch with the agricultural department and with the agricultural problems of the Presidency for the sake of which the College has been founded.

But there is, on the other hand, an undeniable drawback in the working of the present arrangement. The double position results in the fact that the College vacation is not usually vacation for the staff, at any rate in a very large measure. It also results in the devotion of a considerable amount of space in the College buildings to other than College purposes. It is for the authorities to find such a remedy as will enable the professors to get holidays which are such not merely in name but in fact.

There are 72 students on the rolls, of whom 43 per cent. are reading for F. Ag., 32 per cent. for S. Ag. and 25 per cent. for B. Ag.

Besides these, there are other students taking the University course, with a view not to obtain a University degree, but a special College Diploma. They

are 15 in number (F. Ag. 7, S. Ag. 4, B. Ag. 4). 60 are resident students out of the 72 regular students, and in addition 12 of the special students.

The accommodation provided for resident students is at present far from satisfactory; 38 students are staying in special College quarters, the remainder are accommodated in bungalows hired for the purpose by the College. The Assistant Professor of Agriculture is in charge of the College quarters.

10 students have come from other provinces. The rest are recruited as follows:—almost 60 per cent. come from the Deccan and the Southern Marátha Country, 24 per cent. from Gujarát, above 14 per cent. from Bombay and the Konkan. These numbers show that the College is chiefly working for the country in which it is situated and that its influence on Gujarát and Káthiáwár is not yet what it ought to be considering the agricultural importance of that part of the Bombay Presidency.

The type of students which this College attracts is not always what one should desire. At present only very few of the better students select a course at the Agricultural College for their degree examination. This is very unsatisfactory and must tend in course of time to lower the standard of the teaching. It is of the utmost importance for the development of the College that serious efforts be made to render an Agricultural degree more attractive.

The College is to be congratulated on its splendid library which has been developed in a very short time and contains above 5,300 volumes. Four years ago it did not exist. On the separation from the College of Science being completed, a number of books (chiefly old and out of date) on Agriculture, Botany and Veterinary Science were handed over to the College and formed a nucleus for the future. A special grant of Rs. 6,000 per annum was made in 1909 for Library purposes, and has been continued during the two following years. With the funds thus made available and a number of presentations of books, the library has rapidly increased. The number of books which it contained at the end of the last three years was as follows:—

1908-09	...	...	...	1,182
1909-10	...	...	...	2,780
1910-11	...	...	...	4,000

This library is intended to be a public library, and is consulted to a fair extent not only by College students, but by gentlemen from all parts of the Presidency. The annual expenditure for the future will be Rs. 2,700, a sum which should suffice to develop it into a first class instrument in the line of research it represents.

A College society, under the name of "Agricultural Association and Debating Society" is in a very flourishing condition at the College. Practically all the papers read are contributed by College students or by members of the staff, and distinguished outsiders are occasionally invited to take the chair. A College Magazine has been produced, which is in its third volume. It is designed to be a high class technical agricultural journal and has a considerable circulation among the general public.

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