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[Despatch Abstract.]

College of Engineering, Madras.

Reviewing the report on the working of the — during 1902.

BACK PAPERS.

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Government {1903} of Madras.

EDUCATIONAL.

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ORIGINAL

G.O., &c., Nos. 244, 245, 25th May 1903.

N. F.

MAY.

College of Engineering, Madras.

Reviewing the report on the working of the — during 1902.

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

Read—the following paper:—

From the Hon'ble Mr. G. H. STUART, M.A., Director of Public Instruction, to the Secretary to Government, Educational department, dated Madras, 13th May 1903, Cur. No. 3671.

I have the honour to submit, for the information of Government, a copy of my Proceedings, Dis. No. 2888, dated 8th instant, reviewing the report on the working of the College of Engineering during 1902.

Enclosure.

Proceedings of the Director of Public Instruction, Dis. No. 2888, dated 8th May 1903.

Read the following letter from Lieutenant-Colonel H. D. LOVE, R.E., Principal, College of Engineering, to the Director of Public Instruction, dated Madras, 7th April 1903, No. 267-C.:—

I have the honour to submit the Administration Report of the College of Engineering for the year 1902.

2. *Staff.*—Mr. W. H. James, B.Sc., M.I.M.E., continued to occupy the chair of Mechanical Engineering vacant by the employment of Mr. Chatterton on special duty. The chair of Civil Engineering still remained unfilled owing to the inability of the Public Works Department to lend the services of a suitable officer, and the duties were performed as in the previous year by Mr. James assisted by the Chief Instructors.

Mr. W. H. Goddard, Instructor in Surveying, returned from leave on the 7th August 1902, when the incumbents of the various appointments made during his absence reverted to their permanent posts.

M.R.Ry. Ramaswami Sivan, B.A., nominally Second Assistant Instructor in Drawing, was transferred, on the 2nd December, to the Agricultural College, his place being filled by M.R.Ry. R. Satakopa Aiyangar, M.A., L.T.

M.R.Ry. V. Balasundara Mudaliyar, Accountant, was granted combined privilege leave and furlough for one year from the 1st September, his duties being carried on, as a temporary measure, by the Head Clerk.

The scheme for the increase in numbers and pay of the menial establishment, which was alluded to in last year's report, was given effect to in July.

3. *Numbers.*—The numbers on the rolls at the end of the year were—

Class.	Practical course.	In college.			Total.
		Third year.	Second year.	First year.	
Engineer class	*10	13	13	14	50
Engineer Subordinate class	*25	31	36	35	127
Sub-Overseer and Surveyor class	..	..	36	44	80
Draftsman class	..	..	31	44	75
Total	35	44	116	137	332

* Includes one independent candidate.

Excluding the students engaged in practical courses, the total number actually in the college on the 31st December 1902 was 297. The corresponding totals for the last five years were—

Years.	No.
1902	297
1901	307
1900	306
1899	277
1898	286

The decrease in numbers in 1902 is due to the abolition of the Artisan class which usually contained about 45 students. Allowing for this difference, it will be seen that the numbers in the regular College classes in 1902 exceeded those of 1901 by 35.

The distribution of the students by classes of the community, by districts, and by wealth and occupation of parents is given in Appendices A, B and C. Of the total number, 75 per cent. were Brahmans against 67 per cent. in 1901, 14 per cent. other caste Hindus, 5 per cent. Native Christians, 5 per cent. Europeans and Eurasians and 1 per cent. Muhammadans. As regards districts, Tanjore was represented by 31 per cent., Trichinopoly 10 per cent., Tinnevelly 8 per cent., Madura 7 per cent., and Madras and Gódávari 5 per cent. each. It is remarkable that the College should prove so unattractive to residents of Madras City.

4. *Entrance Examinations.*—The numbers offering for admission were—

Class.	Examined.	Passed.	Admitted.
Engineer class	* 30	20	15
Engineer Subordinate class	† 190	143	§ 35
Sub-Overseer and Surveyor class	‡ 276	80	35
Draftsman class	137	31	27

* Of these 26 had passed or appeared for the B.A. degree examination.
† Of these 1 had passed the B.A. and 19 the F.A. examination.
‡ Of these 37 had passed the Matriculation examination.
§ Of these 4 were Military students, 1 had passed the B.A. and 9 the F.A. examination.

The numbers of applicants were somewhat less than in the previous year. The maximum numbers however joined the three senior classes, and the competition for the Engineer Subordinate class and the Sub-Overseer and Surveyor class continued to be keen.

5. *Examintions of December* 1902.—The Board of Examiners was presided over by Mr. Strange as in the previous year. Mr. Middlemast set the mathematical papers for Mr. Llewellyn Jones during the latter's absence on furlough, but Mr. Jones returned in time to value the answer papers. The following is an abstract of the results of the examinations:—

(*a*) *Engineer Class.*—The third year division contained 13 students, all of whom passed the final examination. The average percentage of the total marks was 60. Two independent candidates presented themselves for the examination and one passed. The second and first year divisions containing 12 and 14 students, respectively, appeared for the term examinations and obtained 56 and 66 per cent. of the total marks.

(*b*) *Engineer Subordinate Class.*—The senior division of 31 students appeared for the final examination, and 30 were successful. The average percentage of marks gained was 62. Five independent candidates also presented themselves and three passed. The intermediate and junior divisions of 36 and 35 students, respectively, appeared for the term examinations and secured 62 and 51 per cent. of the total marks.

(*c*) *Sub-Overseer and Surveyor Class.*—Of the 36 students in the senior division, 35 passed the final examination. The average percentage of marks was 63.

Eight independent candidates also presented themselves and two passed. From the junior division of the class containing 44 students, 43 appeared for the term examination and secured an average of 59 per cent. of the total marks.

(*d*) *Draftsman Class.*—In the senior division 31 students presented themselves and 26 passed. The average marks were 59 per cent. Four independent candidates were also examined and two passed. In the junior division of the class 44 students appeared for the term examination and obtained an average of 60 per cent. of the total marks.

6. *Comparison of Results.*—The percentages of marks secured under the various subject heads by the senior divisions of classes are compared in Appendix D with the average results of the preceding four years. From the figures given it is apparent that all four classes have done exceptionally well, the excess over the average percentages of total marks being 4 per cent. in the Engineer class, 9 per cent. in the Engineer Subordinate class, 6 per cent. in the Sub-Overseer and Surveyor class, and 7 per cent. in the Draftsman class.

7. *Practical Courses.*—Ten Engineer and 25 Engineer Subordinate students were under practical instruction from March 1902. Six of the Engineer students who elected to become Mechanical Engineers attended a workshop course—two in the Madras Railway Locomotive shops, three in the Madras Public Work Workshops and one in the Public Work Workshops at Bezwada. Four who desired to become Civil Engineers worked in Public Works Divisions. The reports received regarding them were on the whole satisfactory.

The Engineer Subordinate students were drafted to Public Works Divisions. The successive batches coming to Madras for the riding course received training at the Public Work Workshops in the fitting of portable engines. The reports received regarding the work done were generally satisfactory, but the course of one student was extended by six months on account of want of progress.

8. *Military Students.*—The total number of military students during the latter half of the year was twelve, distributed as follows :—

Practical course	... ...	2
Engineer Subordinate class,	senior division	1
Do.	intermediate division	5
Do.	junior division	4

The students on works have satisfactorily completed their course and have been posted permanently to the Public Works Department. The student in the senior division passed the final examination and proceeded to the practical course.

9. *Surveying.*—A single survey camp was formed in July and maintained for about five weeks in place of the two camps lasting three weeks each which have hitherto been held in April and July. The camp was superintended by the Professor of Engineering and was under the direct charge of Mr. W. C. H. Littlewood, acting Instructor in Surveying, who was aided by five assistants. The number of students in camp was 190 and the total cost was Rs. 2,198.

10. *Inspections.*—The usual inspections were made of works in progress at Madras. In September a tour extending over five days was made by two divisions of the Engineer class, one of the Engineer Subordinate class, and one of the Sub-Overseer and Surveyor class to the Palár anicut system in North Arcot for the inspection of irrigation works. The party was accompanied by the Professor of Engineering and the Instructors in Civil and Mechanical Engineering. In October a tour of six days was made by the other two divisions of the Engineer Subordinate class to the Thamrapak anicut system. A similar tour was made later by the senior division of the Draftsman class.

11. *Workshop and Laboratories.*—The Professor of Engineering reports as follows :—

"All classes received instruction in workshop practice during the year, but it was possible for the Draftsman class to attend only during the absence of the remaining classes in survey camp. The numbers were—

Engineer students	42
Engineer Subordinate students	102
Sub-Overseer and Surveyor students	82
Draftsman students	78

"Progress, as shown by the work done during the year and by examinations at the end of the term, was satisfactory except in the case of the Sub-Overseer and Surveyor class. Steps have been taken to increase the supervision exercised over these students.

"One stipendiary apprentice was under training during the year.

"A fair amount of use has been made of the testing apparatus for demonstration purposes and general testing work. Indicator gears and dynamometers have been fitted to both the gas and oil engines, and students have had opportunities of carrying out tests on them. Full use could not be made of the gas engine, as the supply of gas was cut off during the greater part of the year.

"Most of the furniture in hand for the college was completed. No suggestions were submitted for additions to the machine tools during the year owing to want of space. Further development in this direction is not possible until the accommodation at disposal is increased."

A scheme for the extension of the workshops and laboratories was drawn up and submitted during the year under review.

12. *Physical Training and Recreation.*—Instruction in gymnastics and drill was given as usual and the examination held at the end of the year gave satisfactory results.

Mr. James, the Honorary Secretary of the Recreation Club, reports as follows :—

"The Cricket, Football, Hockey and Tennis Clubs were all well supported and at the request of a number of the students the game of Badminton was introduced.

"In the inter-class competitions, the Engineer class failed to retain the Foot-ball cup, and for the first time since the institution of the competitions was unsuccessful all round, the intermediate division of the Engineer Subordinate class winning both the Cricket and Foot-ball cups, while the senior division of the Draftsman class carried off the Hockey cup.

"At the commencement of the year, a new and substantial roof was erected over the pavilion, the old roof having become very dilapidated. The most pressing need at present is dressing-room accommodation, but nothing can be done towards providing it until the debt incurred on account of the pavilion has been cleared off.

"Although land was allotted two years ago for the much-needed extension of the recreation ground, no use has yet been made of the concession, as the Consulting Architect has not cleared and levelled the surface.

"I wish to acknowledge the assistance I have received from Mr. Goddard in connection with cricket and from the assistant Instructors who have acted as Secretaries of the various clubs particularly M.R.Ry. S. Subrahmanya Aiyar who has devoted considerable time to the interests of these associations.

"M.R.Ry. Subrahmanya Aiyar reports that good use was made of the reading-room during the year and that the conduct of the students using the room was satisfactory."

13. *Library.*—During the year 248 volumes were added to the library which now contains 4,154 volumes. Besides books received by indent on Messrs. Baker & Co., the following presentations are acknowledged :—

Proceedings of the institution of Civil Engineers, 119 volumes	*the late* Mr. E. J. Moore.
Proceedings of the American Society of Engineers, 8 volumes	Mr. F. J. E. Spring, C.I.E.
Professional Papers of the corps of Royal Engineers, 5 volumes	Capt. G. R. Hearn, R.E.

The books issued to students numbered 3,315 and to the staff 363 against 3,395 and 408, respectively, in the previous year, while 1,805 references were made to the Consulting Library.

14. *Attendance and Conduct.*—The percentage of numbers present to numbers on the roll was 94·7 for the College Department and 92·1 for the school Department. Particulars are given in Appendix E. Owing to the prevalence of dengue fever, there were numerous cases of absence supported by medical certificate. Two casualties occurred through illness.

There were no instances of serious misconduct during the year.

15. *University Examinations.*—Seven students of the senior division of the Engineer class appeared for the B.E. degree examination in January 1902 and three were successful, two in the Civil and one in the Mechanical Branch. Six ex-students also presented themselves but none of these passed the examination.

Sixteen candidates offered themselves for the First examination in Engineering, of whom thirteen were second-year and the remainder third-year students. Thirteen in all were successful.

16. *Buildings.*—The structural alterations mentioned as necessary in the last annual report, viz., a lavatory for the European members of the staff and additional lights at the north end of the ground-floor drawing office were not provided by the Consulting Architect during the year.

17. *Government Technical Examinations.*—Ten students voluntarily presented themselves for examination, viz., one from the Engineer Subordinate class, four from the Sub-Overseer and Surveyor class and five from the Draftsman class. Six different subjects were taken up and there were ten papers in all. Six students were successful, viz., one in the Intermediate grade and five in the Elementary. Particulars are given in Appendix F.

18. *Employment of Passed Students of* 1901.—Of the ten Engineers who completed their practical course early in 1902, the senior, N. Swaminatha Aiyar, B.A., B.E., was appointed Assistant Engineer in the Provincial Service of the Public Works Department on Rs. 250. Of the remainder, two joined the Local Fund service as temporary Assistant Engineers on Rs. 150 and Rs. 100; one was appointed Assistant Engineer in a Native State on Rs. 120; two became Sub-Divisional officers (one in Government service and one under a Local Board) on Rs. 150 and Rs. 100; two were appointed Industrial Assistants in the School of Arts on Rs. 150; one accepted employment as an Upper Subordinate in the Public Works Department on Rs. 60 and one remained unemployed.

Out of the 34 Engineer Subordinates who completed their practical course early in 1902, 21 are known to have secured employment. Eighteen were appointed to the Upper Subordinate establishment of the Public Works Department, one to the Revenue Department, one accepted an appointment as Surveyor and one entered the service of a Native State. The salary obtained was in most cases Rs. 60.

Of the 29 Sub-Overseers who passed out in December 1901, 19 are known to be employed as Sub-Overseers or Surveyors. Five were appointed to the Public Works Department, eight to the Revenue Department, three to Local Boards and three in Native States. The salaries ranged from Rs. 25 to Rs. 80, the average being Rs. 42.

Out of 20 Draftsmen who obtained certificates in December 1901, 12 were employed during the year, viz., ten in the Public Works Department, one in Railway service and one in a Native State. Salaries ranged from Rs. 15 to Rs. 30, the average being Rs. 26.

Particulars of the vacancies notified during the year are given in Appendix G.

19. *Revision of Rules.*—Provision was made for the increase of the subsistence allowances payable during the year of practical training to students posted to hill stations from Rs. 50 and Rs. 25 to Rs. 60 and Rs. 37½ in the Engineer class and from Rs. 30 and Rs. 20 to Rs. 40 and Rs. 30 in the Engineer Subordinate class.

20. *Financial Details.*—On reference to Appendix H, it will be seen that the receipts amounted to Rs. 28,656 and the charges to Rs. 94,731. The net cost to

Government was therefore Rs. 66,075. Dividing this sum by the average number of students on the rolls, it appears that the net cost of educating each student was Rs. 220. The receipts were practically the same as in the previous year; the increase in the charges is due to the circumstance that the full salary of the Professor of Engineering is included, while in 1901 the chair was vacant for four months. Full financial details for the official year 1901–1902 were submitted with the annual returns. An abstract of receipts and charges for the last five years is given in Appendix K.

21. *General.*—The assistance rendered by the members of the staff is acknowledged. The Professors have co-operated cordially with the Principal; and the ready help given by Mr. James on all occasions, notwithstanding the heavy work which has devolved on him through the non-appointment of a second Professor of Engineering is specially brought to notice. The Chief Instructors have worked zealously, and the assistants, though not all of equal merit, have performed their duties efficiently.

APPENDIX A.

Distribution of Students according to Classes of the Community on the 31st December 1902.

Classes.	Europeans and Eurasians	Native Christians	Hindus.					Aborigines.	Others.	Total.
			Muhammadans.	Brahmans.	Non-Brahman Caste Hindus.	Panchamas.	Other classes.			
Engineer classes	..	3	1	35	1	..	..	..	..	40
Engineer Subordinate classes	11	3	..	79	9	..	..	..	..	102
Sub-Overseer and Surveyor classes	2	4	2	58	14	..	..	..	..	80
Draftsman classes	..	4	..	52	19	..	..	..	..	75
Total ..	13	14	3	224	43	..	..	..	..	297

APPENDIX B.

Distribution of Students by Districts on the 31st December 1902.

Districts.	Engineer class.	Engineer Subordinate class.	Sub-Overseer and Surveyor class.	Draftsman class.	Total.
Vizagapatam	1	2	..	..	3
Gódávari	2	3	5	6	16
Kistna	2	3	2	1	8
Nellore	..	1	..	..	1
Madras	2	3	4	7	16
Chingleput	..	4	5	1	10
North Arcot	3	4	1	2	10
South Arcot	1	2	3	4	10
Tanjore	14	28	21	29	92
Trichinopoly	3	8	11	9	31
Madura	1	10	7	4	22
Tinnevelly	3	11	5	6	25
Coimbatore	1	1	5	2	9
Salem	1	1	1	2	5
Malabar	..	1	2	1	4
South Canara	1	3	..	..	4
Pudukkóttai	..	2	1	..	3
Cochin	1	3	1	..	5
Mysore	3	..	2	..	5
Travancore	..	2	4	1	7
Rajaputana	1	..	..	..	1
Military students	..	10	..	..	10
Total ..	40	102	80	75	297

APPENDIX C.

Distribution of students by wealth and occupation of parents on the 31st December 1902.

Classes in the College.	Wealth.				Occupation.								
	Richer class.	Middle class.	Poorer class.	Total.	Officials.	Petty officials.	Traders.	Landholders.	Artisans.	Coolies.	Mendicants	Others.	Total.
Engineer class—													
Third year	..	13	..	13	6	..	1	6	..	..	..	..	13
Second year	1	11	1	13	6	1	..	6	..	..	..	..	13
First year	3	10	1	14	9	..	..	5	..	..	..	..	14
Engineer Subordinate class—													
Third year	..	25	6	31	12	..	2	17	..	..	..	..	31
Second year	1	34	1	36	16	2	6	12	..	..	..	..	36
First year	..	28	7	35	17	2	..	16	..	..	..	..	35
Sub-Overseer and Surveyor class—													
Second year	..	31	5	36	14	1	2	19	..	..	..	..	36
First year	3	35	6	44	21	1	3	19	..	..	..	..	44
Draftsman class—													
Second year	..	24	7	31	18	2	3	8	..	..	..	..	31
First year	..	35	9	44	17	2	4	20	1	..	..	..	44
Total ..	8	246	43	297	136	11	21	128	1	..	..	..	297

APPENDIX D.

Comparison of results of annual examination.

Class.	1902.	Average of preceding four years.
	PER CENT.	PER CENT.
Engineer class—Senior division—		
Mathematics	57	57
Science	50	49
Engineering	60	59
Drawing	63	59
Surveying	65	63
Language	58	58
Drills and Exercises	66	60
Total ...	60	56
Engineer Subordinate class—Senior division—		
Mathematics	61	55
Engineering	60	56
Drawing	63	54
Surveying	66	57
Language	56	56
Drills and Exercises	62	63
Total ...	62	53
Sub-Overseer and Surveyor class—Senior division—		
Surveying	65	62
Engineering	62	56
Drawing	60	58
Drills and Exercises	63	51
Total ...	63	57
Draftsman class—Senior division—		
Geometrical, &c., Drawing	56	52
Building Construction and Drawing	57	56
Machine Drawing	62	60
Estimating	62	61
Drills and Exercises	56	...
Total ...	59	52

APPENDIX E.

Average numbers and attendance in 1902.

	Average number on rolls.	Average daily attendance.
College Department—		
Engineer class, third year...	13·0	12·4
Do. second year	12·5	11·9
Do. first year	14·8	13·8
Engineer Subordinate class, third year	31·0	29·4
Do. second year	36·0	33·9
Do. first year	35·0	33·3
Total ...	142·3	134·7
School Department—		
Sub-Overseer and Surveyor class, second year ...	36·0	33·0
Do. do. first year ...	45·1	41·6
Draftsman class, second year	32·2	29·8
Do. first year	44·4	40·9
Total ...	157·7	145·3
Grand Total ...	300·0	280·0

Percentage of numbers present to number on the rolls—

College department	94·7
School do.	92·1

APPENDIX F.

Government Technical Examinations of 1902.

Subject.	Grade.	Number examined.				Number passed.
		Engineer Subordinate class.	Sub-Overseer and Surveyor class.	Draftsman class.	Total.	
Building, Drawing and Estimating	E.	..	1	..	1	..
Surveying and Levelling	E.	..	1	..	1	1
Mensuration	E.	..	1	2	3	1
Freehand and Outline Drawing	E.	..	..	1	1	1
Geometrical Drawing	I.	1	..	..	1	..
	E.	..	..	1	1	1
Practical Plane and Solid Geometry ..	I.	1	..	..	1	1
	E.	..	..	1	1	1
Total ..	I.	1	1	..	2	1
	E.	..	3	5	8	5

APPENDIX G.

Classification of vacancies notified during the year 1902.

—	Government.			Local Boards and Municipalities.				Railways.				Native States.				Private employes.				
	Rs. 100 to 200.	Rs. 50 to 100.	Under Rs. 50.	Above Rs. 200.	Rs. 100 to 200.	Rs. 50 to 100.	Under Rs. 50.	Above Rs. 200.	Rs. 100 to 200.	Rs. 50 to 100.	Under Rs. 50.	Above Rs. 200.	Rs. 100 to 200.	Rs. 50 to 100.	Under Rs. 50.	Above Rs. 200.	Rs. 100 to 200.	Rs. 50 to 100.	Under Rs. 50.	Total.
Engineer or Assistant	1	..	..	5	1	..	..	2	..	..	..	..	1	..	..	1	..	..	..	11
Supervisor ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Overseer	..	..	..	..	2	8	3	..	..	..	..	..	..	..	..	..	..	..	..	17
Sub-Overseer ..	..	3	6	..	..	1	3	..	..	1	1	..	1	1	..	..	..	2	..	17
Draftsman ..	..	3	12	..	..	1	2	..	1	..	1	..	..	2	..	..	..	..	2	30
Surveyor	..	13	7	..	..	..	..	..	..	..	..	..	..	1	7	..	..	..	..	20
Anicut or Conservancy Superintendent.	..	2	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
Total ..	1	21	32	5	3	10	8	2	1	1	2	..	2	4	7	1	..	2	2	104

APPENDIX H.

Financial detail for 1902.

Receipts—				Rs.	A.	P.
Tuition fees—						
College department				10,933	0	0
School do.				8,244	0	0
				19,177	0	0
Entrance and final examination fees				9,312	0	0
Miscellaneous receipts				166	12	5
			Total ...	28,655	12	5
Charges—						
Principal				19,227	0	0
Professor, masters and teachers				43,201	5	2
Clerks, librarian and servants				6,021	6	4
Board of Examiners				3,505	0	0
Library and prize allowances				913	10	7
Books and instruments				124	5	0
Other Europe stores				4,382	0	10
Other heads of contingent charges				9,555	6	8
Travelling allowances				529	2	3
Scholarships				4,623	2	7
Exchange compensation allowance				2,049	0	0
House-rent				600	0	0
			Total ...	94,731	7	5
Net cost to Government				Rs. 66,075	11	0
Average number of students on rolls, ...				300		
Net cost per student				Rs. 220	4	0
Average tuition fees paid per student per annum—						
College department				Rs. 76	3	3
School do.				Rs. 52	4	5

APPENDIX K.

Financial details.

—	1902.	1901.	1900.	1899.	1898.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts	28,656	28,366	25,829	21,821	17,553
Charges	94,731	90,046	94,394	89,538	75,480
Net cost to Government	66,075	61,680	68,565	67,718	57,928
Average number of students	300	314	307	283	285
Net cost per student	220	196	223	239	203

Proceedings, Dis. No. 2888 of 1903.

Staff.—There were a few changes in the staff; but these were of minor importance.

2. *Accommodation.*—Steps are being taken to provide a lavatory for the European members and additional lights for the drawing office.

3. *Workshops.*—The progress made by the students in the workshop was satisfactory except in the case of the sub-overseer and surveyor class. It is noted that steps have been taken to increase the supervision exercised over the students of this class. The Consulting Architect has been directed by Government to prepare plans and estimates for the extension of the workshops and laboratories.

4. *Strength and Attendance.*—Excluding the 35 students in their practical course, there were under instruction at the close of the year 297 students or ten less than in the previous year. There was no real decrease, however, the apparent loss being due to the closing of the artisan class, while the other classes, especially the sub-overseer and surveyor and draftsman classes, really showed an advance in strength.

5. *Examinations.*—The results of the B.E. degree examination were not as good as those of the previous year, but at the First examination in Engineering there was an improvement, the percentage of success having further risen from 67 to 81. Very good results were obtained by the college at the board examinations and the independent candidates also showed on the whole an improvement. The statistics in Appendix D speak favourably of the teaching in the various subjects.

For the Government technical examinations, ten subject candidates went up, of whom six passed or a percentage of 60 against 23 in the previous year. A much smaller number however appeared for these examinations.

6. *Military Students.*—Excluding the two students in their practical course, ten military students were in the college against nine in the previous year. There was but one student in the senior division and he passed the final examination.

7. *Practical Course.*—Ten engineer and 25 engineer subordinate students were under practical instruction, and the reports received regarding their work were satisfactory except in the case of one engineer subordinate student whose practical course was extended by six months for want of due progress.

8. *Discipline and Conduct.*—The conduct of the students was satisfactory.

9. *Employment of Passed Students.*—Nearly two-thirds of the students who passed out obtained employment. It is noted that of the nine engineer students who found employment as many as five entered Government service, two of these taking up work in the industrial department of the School of Arts.

10. *Finance.*—Both the receipts and charges rose during the year, the former by about Rs. 300 and the latter by about Rs. 4,700, the increase in the latter case appearing mainly under staff. The net cost to Government was thus about Rs. 4,400 more than in the previous year and consequently the net cost per student which fell from Rs. 223 to Rs. 196 in 1901 rose again during the year to Rs. 220.

11. *General.*—The administration of the college during the year was creditable to the Principal and the staff.

(A true Extract.)

G. H. STUART,
Director of Public Instruction.

To the Principal, College of Engineering, with a spare copy.
" Principals of other Government Colleges.
" Inspectors of Schools.
" Superintendent, School of Arts.

Copy to President, Board of Examiners,
College of Engineering.
" Chief Engineer, Public Works Department, for information.
" Editors, Indian Journal of Education and Educational Review.
" Government (with C.L.)

Order—No. 244, Educational, dated 25th May 1903.

The working of the College continued to be satisfactory although owing to the abolition of the artisan class there was a nominal falling off in the total strength of the institution. The average cost of educating each pupil which fell to Rs. 196 in 1901 rose again to Rs. 220, but the chair of Engineering was vacant for four months in 1901. Except in the case of the B.E. degree examination the results of the various University and College examinations were good.

2. Steps are being taken to fill up the newly created chair of Civil Engineering.

3. The number of Engineer students annually passing out of the College appears to range from 10 to 15 and it is doubtful whether such a number is sufficient to meet the demand which now exists for qualified Engineers. The opinion of the Chief Engineer on this point will be obtained in the Public Works department and the Director of Public Instruction will be requested to state whether there would be any difficulty in raising the number of the admissions into the Engineer class which are now limited by rule to 15 to some higher figure, perhaps 30. The Director of Public Instruction is also requested to furnish information as to the castes to which the successful candidates for the Engineer class have belonged during each of the last five years, and if it appears that any one caste unduly predominates, to state whether it would be feasible to reserve any proportion of vacancies for other castes.

(True Extract.)

A. G. CARDEW,
Ag. Secretary to Government.

To the Director of Public Instruction.
" Public Works department.
Editors' Table.

Letter—No. 245, Educational, dated 25th May 1903, to the Under Secretary of State for India.

With reference to Lord Hartington's despatch No. 9, Public Works, dated the 18th May 1882, I am directed to forward a copy of the Proceedings of the Madras Government, No. 244 of this date, reviewing the report on the working of the College of Engineering during the year 1902.

A. G. CARDEW,
Acting Secretary to Government.

Exd. A. F. Eccleston.

8

Educational Department.

NOTES CONNECTED WITH G.O., Nos. 244, 245, EDUCATIONAL, DATED 25th MAY 1903.

[Subject.—*Report on the College of Engineering.*]

From the Director of Public Instruction, No. 3671, *dated* 13*th May* 1903.

Paragraph 4 of the report shows that out of 20 who passed the entrance examination for the Engineer class only 15 were admitted. Why is this limit imposed?

A. G. Cardew—18-5-03.

Under rule 28 on page 7 of G.O., No. 366, Educational, dated 28th June 1901, the number of students to be admitted annually to the Engineer class is ordinarily limited to 15. This rule was first introduced in 1885—*vide* article 4 (1) of the rules on page 18 of the volume put up. The limit of 15 has been imposed with reference to the accommodation available and also partly in consideration of the expenditure involved in paying subsistence allowance to the students who pass out annually and who go in for their practical course.

P. T. Tharyan—18-5-03.

The Honourable Member's attention is invited to paragraph 18 of the annual report, which bears out what I told him the other day as to the salaries which youths leaving the Engineer class can command. The supply of 10 Engineers per annum is not sufficient for the requirements of the country, and the limitation of the number admitted to 15 is short-sighted economy, as it immensely increases the cost per unit. Any professor who can teach at all can teach a class of 30 almost as well as one of 15. It would perhaps be found, if enquiry were made, that there is now accommodation for more than 15. The payment of subsistence allowance cannot be a large item in a college costing nearly a lakh of rupees a year. Another advantage of increasing the admissions would be to give some class other than Brahmans a chance. As things are now, the competition is so severe that only Brahmans get in.

A. G. Cardew—18-5-03.

The opinion of the Public Works department and of the Director of Public Instruction may be taken on the advisability of increasing the number of admissions to the class.

2. If it is the case that only Brahmans make their way in, the fact should be altered by reservations of place for other castes.

J. T[homson]—19-5-03.

Please revise the draft accordingly.

A. G. Cardew—20-5-03.

A revised draft is submitted. Under rule 37, places are reserved for Europeans and Eurasians and Muhammadans, but there are hardly any competitors. Some reservation may perhaps be now made for non-Brahman Hindus and Native Christians: the point may, however, be considered on receipt of the Director's and the Public Works department's replies.

P. T. Tharyan—20-5-03.

We must first find out what are the facts. I was told that for at least two years all successful competitors had been Brahmans. The draft may issue with the concurrence of the Public Works department.

A. G. CARDEW—20-5-03.

To the Public Works department.

PUBLIC WORKS DEPARTMENT.

Accepted.

W. B. DEWINTON—22-5-03.

To the Educational department.

EDUCATIONAL DEPARTMENT.

The draft may now issue.

P. T. THARYAN—23-5-03.

Yes.

A. G. CARDEW—24-5-03.

[G.O., Nos. 244, 245, Educational, dated 25th May 1903.]

1,000-11-3-01.

Educational (1903) Department.

CURRENT No. 778

From

[Name] The Hon'ble Mr. G.H. Stuart, M.A.,

[Designation] Director of Public Instruction,

[Station] MADRAS.

SECRETARY TO GOVERNMENT
15 MAY 1903
LOCAL & MUNICIPAL DEPARTMENT

Cur.No. 3671 of 03

Received ——— *190* .

Dated 13th MAY *1903.*

Enclosures ———

Registered 15 - 5 - *1903.*

SUBJECT.

Submitting copy of Proceedings Dis.No.2888, dated 8th May 1903, reviewing the report on the working of the College of Engineering during 1902.

BACK PAPERS.

G.O.No.322-323 Ed. 29-5-02 G.O.No.366 Ed. 28-6-02	

FURTHER PAPERS.

To

The Secretary to Government,

Educational Department.

Sir,

I have the honour to submit for the information of Government a copy of my Proceedings Dis.No. 2888, dated 8th instant reviewing the report on the working of the College of Engineering during 1902.

I have the honour to be,

Sir,

Your most obedient servant,

T Nicols

For Director of Public Instruction.

[E. 3]

1,000—5-12-02.

EDUCATIONAL DEPARTMENT.

3

40 244-5-03

25-5-03

READ AGAIN G.O., No. ....., dated ..... 190 .

" " " " ....., " ..... 190 .

READ ALSO:—

C. No. 778, From the D.P.I., No. 3671, dated 13-5- 1903.

" " ....., " " ....., " ....., " ..... 190 .

" " ....., " " ....., " ....., " ..... 190 .

ORDER No. ....., dated ..... 190 .

P.D.

The working of the College continued to be satisfactory (although) owing to the abolition of the Artisan class there was a nominal falling off in the total strength of the institution. The average cost of educating each pupil which fell to Rs 196 in 1901 rose (again) to Rs 220 in 1902 but the Chair of Engineering was vacant for four months in the former year. Except in the case of the B.E. degree examination the results of the various University and College examinations were good.

2. Steps are being taken to fill up the newly created Chair of Civil Engineering.

P.D. 7/5/03

Letter

4

Letter

To the Under Secretary of State
for India.

Sir,

With reference to Lord Hartington's despatch No 9, Public works, dated the 18th May 1882, I am directed to forward a copy of the Proceedings of the Madras Govt. No of this date, reviewing the report on the working of the College of Engineering during the year 1902.

Blf
18.5.03

Bg
7/6/5/3

778

HM
Please see note below
B

[E. / 3]
1,000—5-12-6

5

EDUCATIONAL DEPARTMENT.

11

READ AGAIN G.O., No. ______, dated ______ 190 .

" " " ______, " ______ 190 .

READ ALSO:—

C. No. 778, From the Director of Public Instruction, No. 3671, dated 13-5-1903.

" " ______, " " ______, " ______ 190 .

" " ______, " " ______, " ______ 190 .

ORDER No. 244, dated 25-5-1903.

P.S.

Desp
25/5/03

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2. Steps are being taken to fill up the newly created chair of Civil Engineering.

3.

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3. The number of Engineer students annually passing out of the College appears to range from 10 to 15 and it is doubtful whether such a number is sufficient to meet the demand which now exists for qualified Engineers. The opinion of the Chief Engineer on this point will be obtained in the P.W.D. and the Director of Public Instruction will be requested to state whether there would be any difficulty in rasing the number of the admissions into the Engineer class which are now limited by rule to 15 to some higher figure, perhaps 30. The Director of Public Instruction is also requested to furnish information as to the castes to which the successful candidates for the Engineef class have belonged during each of the last five years, and if it appears that any one caste unduly predominates, to state whether it would be feasible to reserve any proportion of vacancies for other castes.

P.T.T.
20-5-03.

A.G.C.
20-5-03.

Letter No. 2453 25-5-03.

To

The Under Secretary of State
for India.

Sir,

With reference to Lord Hartington's despatch No.9, Public Works, dated the 18th May 1882, I am directed to forward

a

7

a copy of the Proceedings of the Madras Government No. of this date reviewing the report on the working of the College of Engineering during the year 1902.

I have &c.,

P.T.T.
20-5-03.

A.G.C.
20-5-03.

First copy sent to Press.

Returned for signature.

Despatched in print.

NUMBER OF COPIES REQUIRED. { Order complete. 40 / Letter only. 5 / Order complete with Letter. 25

READ AGAIN G.O., No. 190 . , DATED

CURRENT No.

ENCLOSURES TO C. No.

CODE OF GOVERNMENT.

LETTER OF GOVERNMENT.

AGREEMENT WITH DITTO.

NOT FILLED UP, BEING MEANT FOR DESPATCH IN ORIGINAL.

P.—
A = Print in full.
B = Not to be printed.
P = Print abstract only.
Q = Print heading only.