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Introduction of physical science and engineering classes into the Civil Engineering Department

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[No. 29.] From W. S. Atkinson, Esq, M.A., Director of Public Instruction, Lower Provinces, to the Officiating Secretary to the Government of Bengal, General Department, - (Ni. 2480, dated Fort William, the 8th July 1871.)

With reference to your office No. 1152, dated 30th June, from the Principal of the Presidency College and to state that I concur in Mr. Sutcliffe's views. I believe that on educational grounds, selection is desirable for the first-year class of the engineering department as at present constituted; but the plan of having a lower class with a lower standard might probably be tried with advantage, The Lieutenant-Governor's declared intentions regarding admissions to the subordinate executive service, will probably make such a class attractive to many students who do not intend to qualify for the engineering profession, The old Hare School building may be made temporarily available for some of the classes till better accommodation can be provided.

2. In regard to the engineering scholarship-holders there can be no doubt that more effective supervision is required for them with systematic instruction while they are attached to works in progress, and it would be desirable that Mr. Sutcliffe and the professor of engineering should hold a conference on the subject with the chief engineering as now suggested.

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[No. 30] From J. Sutcliffe, Esq., Principal of the Presidency College, to the Director of Public Instruction, Lower Provinces, - (No. 1603, dated Calcutta, the 30th June 1871.)

I have the honor to report on the questions raised in paragraph 12 of the resolution of the Government, dated 11th April 1871, which you call for in you No. 1840 of 10th May.

2. The class-rooms set apart for the Engineering department are the best and most commodious at my disposal. Those for the second and third-year students are at present large enough for the accommodation of all the students, I have hitherto been able to promote upon the annual examination in May. The class-room set apart for the first-year class is, however, inadequate for proper accommodation of the large number of students now annually seeking admission to the department. I have no other accommodation, however, at my disposal, and I am obliged to do the best I can under the circumstances. In asking you to restrict the admission of the first-year class to candidates who had passed the entrance examination in the 1st or 2nd division, I was influenced not only by the difficulty of providing accommodation for a very large class and of giving that

efficient supervision over their studies which students in their first-year especially need, but also by the fact that candidates who have attained the university entrance examination a bare pass in the 3rd division are not qualified to enter upon a course of engineering studies, such as is laid down in our programme. The standard of admission into the old civil engineering college was at one time that of the first arts examination, and that is now the standard of admission to the senior department of the Roorkey college. It happened, however, that engineering studies became unpopular from some cause, and I believe that the old college must have been closed had not the standard of admission been reduced. The university entrance examination was accordingly made the standard for admission to the old college, and this standard was in force when the college was closed as a separate institution, and a department of engineering opened at the Presidency College, to which the students then on the rolls were transferred. Year by year there has been an increasing number of applicants for admission to the department, and there being no restriction now in force, I have admitted to the first-year class of this session no less than 80 students, a number nearly equal to the entire number on the rolls in the three classes for the year reviewed in the resolution. The last session opened with 62 students on the roll of the first-year class, and during the session 12 students left the department finding engineering studies distasteful, or that they could not make satisfactory progress. The remaining 50 went up to the annual examination in May, and upon the result of the examination I was only able to promote 26 to the second-year class. Of those who failed, 8 have joined the first-year class for another session, and the rest have left the college. Of the students admitted this session, I find that 45 passed the entrance examination in the 1st or 2nd division. From the experience of the past years, I am warranted in considering that not more than 30 of these will make satisfactory progress in the studies of the year. Very few natives have an aptitude for engineering studies, and it is disheartening to a professor to find a large proportion of his class unable to follow his teaching. I think the present staff quite equal to the instruction of the largest class of students really fit to take up engineering studies we are likely to have at present, but I think it would be well, even in the interests of the students themselves, that there should now be some principle of selection laid down. The want of suitable accommodation for the large first-year class we now have is a difficulty for which I cannot propose any immediate remedy. But as the old Hare School building will be vacated during the next cold season, that might be repaired and altered to suit the wants of the junior class of engineering. Further, the propriety of opening a class to receive more elementary instructions than that now laid down in our first-year class might be considered when there is a room (as there would be in the Hare School building) for the separate accommodation of such a class. In some such way as this I am disposed to think the views of His Honour might be carried out, whilst the teaching in the regular classes would, as at present, be confined to the course laid down for the university examination, and for the tests for employment in the department of public works.

3. As regards the supervision of scholarship-holders who are attached to officers in the presidency division, I would suggest that we should hold a conference with the chief engineer on this question. The scholarship plan is excellent in theory, but I am not sure that we cannot devise some plan which will work better practically and without any increase of cost to Government. At any rate,

if you approve of the consultation I propose with the chief engineer, I shall be prepared to submit the conclusion to which I have come after two years;s experience of the working scholarship scheme.

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[No. 31] From R.H. Wilson, Esq., Officiating Under-Secretary to the Government of Bengal, to the Director of Public Instruction, Lower Provinces, - [No. 2196, dated Fort William, the 26th July, 1871.]

I am directed to acknowledge the receipt of your Letter No.2480, dated 8th instant, with its enclosure, and in reply to inform you that the Lieutenant- Governor approves of the proposal made by Mr. Sutcliffe to utilise the Hare School building for the accommodation of the first year class in the civil engineering department of the Presidency College. It is presumed that these buildings will be vacated and available next cold season, when the new building will be ready.

2. With reference to the proposal to open a lower class of civil engineering, I am to say that the Lieutenant-Governor agrees that it may be desirable to start a style of education in the elements of engineering of a lower, or at any rate of a more general and popular character, fitting students to do a little more practical work in the civil department, rather than to become first-rate engineers, and His Honor will gladly promote any efficient arrangements of the kind.

3. I am, however, to observe that the arrangement for this scheme cannot be effected till accommodation is provided, and I am to request that you will be so good as to submit, for the Lieutenant-Governor's consideration, a fuller report showing the mode of carrying out the scheme in the Hare School building, which Mr. Sutcliffe states might be repaired and altered to suit the requirements of the proposed class. A report should be at the same time be submitted showing the professional staff that would be required to conduct such a class, and the expense that the scheme will involve.

4. The Lieutenant-Governor authorizes the meeting of a conference for the purpose of considering the supervision which should be exercised over scholarship-holders in the civil-engineering department of the Presidency College.

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[No. 32] From R.H. Wilson, Esq., Officiating Under-Secretary to the Government of Bengal, to the Director of Public Instruction, Lower Provinces, - [No. 2197, dated Fort William, the 26th July, 1871.]

With reference to my letter No. 2196 of this day's date on the subject of the civil engineering class of the Presidency College, I am directed to say that the Lieutenant-Governor understands that the committee of the Calcutta University have recommended the introduction of popular science in the university course, and its substitution (either compulsory or optional) for some other subjects.

I am to request that you will keep these movements carefully in view, and be prepared with plans for the re-arrangement of staff and expenditure of Government colleges, by which expenditure on some of the literary subjects may be diminished, and provision made for physical science and engineering.

2. If there is to be any reconstruction, it will be better that both these subjects should be provided for at the same time.

3. I am to observe that the late orders regarding the Berhampore College point to a ready mode of doing this in the mofussil colleges, but the Lieutenant-Governor would also like careful consideration of the manner of effecting it in the Presidency College.