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Government of Madras.

Public Works DEPARTMENT.

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*Proceedings of the Madras Government, Public Works Department,
7th December 1864.*

No. 110. Read the following Proceedings of the Madras Government in the Educational Department :—

Passing orders on the Report framed by the Director of Public Instruction, in communication with the Superintending Engineers, on the result of the training given in the Civil Engineering College, in the case of those Students who have been appointed to the Department Public Works.

(Here enter 2nd December 1864, No. 363.)

No. 111. ORDER THEREON, 7th December 1864, No. 3,487.

Communicated to the Superintending Engineer, 4th Division, who will be requested to report, in communication with the Principal of the Civil Engineering College, whether, in order to give the passed Students of that Institution some degree of practical training in the duties of the Public Works Department, prior to their appointment therein, arrangements could not be made for their employment, for a short period, under the Executive Officers at or near the Presidency.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 4th Division.
,, Principal of the Civil Engineering College.

" *Atk. Sup. Eng.*

Exd. T. O'Connor.

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*Proceedings of the Madras Government, Educational Department,
2nd December 1864.*

Read the following papers :—

No. 7. From E. B. POWELL, Esq., Director of Public Instruction; to the Chief Secretary to Government, Fort Saint George, dated Madras, 14th July 1864, No. 1348.

I regret to be compelled to request the attention of Government to correspondence which has passed between Lieutenant Colonel Chambers, Superintending Engineer, 1st Division, and myself.

2. In paragraph 29 of Order of Government, No. 266, of the 23rd October 1863, I was directed, in reference to the Civil Engineering College, to "ascertain from time to time, from the several Superintending Engineers, what has been the result of the College training in the case of those students who have been placed under them."

3. In accordance with the above order, on the 4th November 1863 I addressed a Circular to the several Superintending Engineers, notifying the instructions of Government, and requesting them to favor me with the required information.

4. In a reply dated the 13th November, Colonel Chambers stated, "I beg to inform you that I am not acquainted with any of the pupils from the Civil Engineering College employed in the 1st Division."

5. On the 23rd March 1864 I wrote again to the Superintending Engineer, requesting him to give me the information sought in my letter of the 4th November preceding; and I said in my communication, "I understand your reply to the above letter (*i. e.*, that of the 4th November) to signify that when you wrote you had not had opportunities of forming an opinion regarding the pupils of the Civil Engineering College employed in the 1st Division. I presume that now you are in a position to furnish me with the information I have been directed by Government to obtain."

6. In a letter, replying to the foregoing, and dated the 4th April, Colonel Chambers says, "I regret that I am not yet able to afford you the information you desire."

7. On the 3rd June I again addressed Colonel Chambers, asking for the information originally solicited, which, I may observe, I was desirous of introducing into my Annual Report.

8. The Superintending Engineer's reply to the last communication is simply "I beg to inform you that the information asked for in letters as per margin was furnished on the 13th November 1863, and 4th April 1864."

9. It will be observed that the last letter is utterly irreconcilable with those to which it refers. The earlier communications declared that the Superintending Engineer was not in a position to give me the information I sought; the last asserts that the information was actually given in those letters.

10. It would, I consider, be a waste of time for me to address further letters upon the subject to Colonel Chambers; while it is clear I cannot without his co-operation carry out the orders of Government. I feel it necessary also to complain of the discourtesy shown me by the Superintending Engineer in the correspondence now summarised.

* Requested to be returned.

11. I beg to forward the letters* of Colonel Chambers, and office copies of my own to that officer, along with this communication.

No. 8. From E. B. POWELL, Esq., Director of Public Instruction; to the Chief Secretary to Government, Fort Saint George, dated Madras, 20th July 1864, No. 1363.

In Order of Government, No. 266 of October 23rd, 1863, I was directed to ascertain from time to time, from the several Superintending Engineers, the result of the training given at the Civil Engineering College to such of the ex-students of that institution as were employed in their Divisions. I now proceed to lay before Government the views entertained by the respective Superintending Engineers.

2. I am unable to make any report regarding the ex-students employed in the
1st Division. 1st Division. letter No. 1348 of the 14th instant.

3. In the 2nd Division Colonel Anderson speaks favorably of the men upon the whole: one he praises very highly, but
2nd Division. observes that complaints are made that some of the ex-students do not show sufficient energy of character, but allow their Maistries to have too much of their own way.

4. Colonel Hemery, the Superintending Engineer of the 3rd Division, reports
3rd Division. very unfavorably of the ex-pupils under his orders. He says, they "acquire a smattering of several non-essential subjects, which are never likely to be of the least use to them, and which they forget before they have been a month up-country, and they are not thoroughly grounded in any one essential subject." The studies he objects to are Statics, Hydraulics, and Quadratic Equations. Colonel Hemery also observes, that the Military students ought to devote more time to the Vernacular languages; so far as he has had an opportunity of judging, "they do not know a dozen words of Telugu on leaving College."

5. Colonel Boileau sends in a tabular Statement of the qualifications of the
4th Division. ex-pupils employed in the 4th Division; and in the letter accompanying it he says, "It will be seen that, with one exception, all the men are spoken of in the highest terms by the Range Officers under whom they are respectively employed, and that the whole are likely to prove efficient servants of the State."

6. Of the men employed in the 5th Division Colonel Hitchins speaks favorably; he also says that the reports
5th Division. received by him from "the different Range Officers, regarding the pupils from the College, are very favorable." The Superintending Engineer then proceeds to observe as follows:—"I have often suggested to Colonel Carpendale, and I beg now to repeat what I have often urged upon his attention, that the success of the men trained at the College would be complete if they were placed under the direction of some good executive agent for one year, instead of being at once placed in executive charge of a Taluq, as they are at present."

7. Captain Bean, the Acting Superintending Engineer of the 6th Division, mentions that he had under him only two
6th Division. ex-students of the Civil Engineering College. He speaks favorably of both, but observes that he was not able to report more in detail as he had only lately joined the Division.

8. When I first wrote to Colonel Walker, the Superintending Engineer, 7th Division, that officer in reply observed that the only one of the Civil Engineering College pupils who had been fairly tried at that time was Mr. Nordmann, the Manager of his office, and of him Colonel Walker remarked, "His efficiency must be imputed rather to the superiority of his general education than to the special studies of the College." In a letter, dated the 23rd ultimo, the Superintending Engineer says, he thought it would be of interest to note the opinions formed of the pupils by "the most intelligent and hardest working upper subordinates" of his Division, and forwards reports from Supervisors Smither, Wiffen and Nordmann. Colonel Walker says, his own opinion is summed up in the following extract from Mr. Smither's report:—"There can be no doubt that the knowledge imparted to the men under tuition at the Civil Engineering College, greatly tends to improve them for making good use of the details they may afterwards acquire." Of the three Supervisors one, Nordmann, is an ex-student; his opinion therefore can scarcely be received as an impartial verdict. The other two Supervisors consider that practical knowledge is much wanting; they complain that a man is made an Overseer before he possesses such knowledge, and they observe that the consequence is, he is laughed at and imposed upon by the workmen.

9. The Superintending Engineer of the 8th Division, who has under him seven subordinates educated at the College,
8th Division. speaks of the men as follows:—

"I cannot find that they have shown any capacity to put into practice the theory, which, I suppose, they have learned at College; as far as I have seen, the College has done no good whatever to the Department.

"I believe that the College may be made very valuable, if a change were made in the system of education, which I am only able to judge of by its fruits, as I have never seen the working of the Institution.

"I find that none of the students learn any language in the College. I see by the papers that they study and are examined in Tamil and Telugu, but except the East Indians, none will make the least attempt at speaking; they are consequently completely in the hands of the interpreter whom they must employ, frequently a servant.

"I find that put on the ruined bank of a tank to make an estimate, they are perfectly helpless; they have, apparently, no idea of making out on the ground the data for their calculations; dimensions being given, they can make the estimate, but this is not what I want Overseers for; the end of it is, that they learn afresh from a Native Maistry who has some system of guess-work more or less accurate.

"I see that they learn mechanics at the College; judging from the questions set at the examination they study the theory far more minutely than 90 per cent. of them can ever need, while they simply know nothing about the practice. The best Overseer that I have, carries all his bricks, mortar, &c., up a rough ramp of palmyra trees; his College training has not apparently shown him the use of a light crane, or whip and block tackle.

"Another student from the College rolled large beams of stone up the ramp of the Palamcottah fort wall by help of levers moved by gangs of convicts about seven

"feet a day, till Captain Paxton pointed out that in the stores were blocks and crabs, which, with slight arrangement, lifted a number of stones each day the whole height.

"I mention these examples, because I believe that it is in such points as these that the College system might be vastly improved. If the students learnt to use the various simple mechanical appliances, they could afterwards introduce them on public works in supersession of the exceedingly rude means employed by the natives.

"I would suggest further that a small workshop should be set up, and every student be obliged to learn at least how to use the various tools required for brick-layers, masons, carpenters, and smiths. I do not lay any stress on his being a finished workman, he can only become that by practice; but if he can show the native laborers how to handle the more useful English tools, he will be doing a vast deal of good.

"As an example, I may point out that, in spite of higher price for labor and materials at the Mount, work was turned out as cheaply as, and far better than, it is in Madura. In the workshop there I had a native Overseer who had learnt the use of his tools under a skilled Mechanical Engineer."

10. As some of the ex-students of the Civil Engineering College are employed in Mysore and Hyderabad, I thought it fitting to apply to the Chief Engineers of those Provinces for their opinions on the subject referred to in this letter.

11. Major Sankey, the Officiating Chief Engineer of Mysore, furnished me with a tabular Statement, showing the estimate formed of the ex-pupils employed within his jurisdiction. The judgments formed of the men are generally favorable; out of 14 students only two are declared to be unsatisfactory.

12. Captain Price, the Chief Engineer at Hyderabad, has only two ex-pupils under him; of these men, one a European is reported on favorably in every respect, except as regards the knowledge of the Vernacular; of the other it is said he "does not show the effect of high training in the manner of conducting his duties."

13. The subjoined table shows the opinion entertained in the several Divisions, and in Mysore and Hyderabad regarding the qualifications of subordinates trained in the Civil Engineering College.

1st Division.	2nd Division.	3rd Division.	4th Division.	5th Division.	6th Division.	7th Division.	8th Division.	Mysore.	Hyderabad.
No information.	Favorable.	Very unfavorable.	Favorable.	Favorable. Improvement suggested.	Favorable.	Generally favorable. More practical knowledge wanted.	Very unfavorable.	Decidedly favorable.	Doubtful.

14. Upon the whole the result is favorable to the College; but it appears to me that Colonel Hitchins' suggestion is well worthy of consideration, and I beg to recommend it to the attention of Government.

* Requested to be returned.

15. I forward along with this letter the original reports* of the Superintending Engineers.

No. 9. ORDER THEREON, 2nd December 1864, No. 366.

In the Proceedings of Government reviewing the Annual Report on Public Instruction for 1862-63, the Director of Public Instruction was instructed to ascertain, from time to time, from the several Superintending Engineers, what has been the result of the training given in the Civil Engineering College in the case of those students who have been placed under them.

2. With the letters above recorded, the Director has submitted the replies given by the Superintending Engineers, and by the Chief Engineers of Mysore and Hyderabad to the reference made by him. The Superintending Engineers of the 2nd, 4th, 5th, 6th, and 7th Divisions, and the Officiating Chief Engineer of Mysore, all speak in terms more or less favorable of the manner in which the ex-students of the College acquit themselves in the Department. The Chief Engineer at Hyderabad has only two ex-students under him. Of one he reports well, except as regards a knowledge of the Vernacular; of the other, indifferently. Colonel Boileau states that, with one exception, all the men are spoken of in the highest terms by the Range Officers under whom they are respectively employed; and that the whole are likely to prove efficient servants of the State. Colonel Walker has "no doubt that the knowledge imparted to the men under tuition at the Civil Engineering College tends greatly to improve them for making good use of the details which they may afterwards acquire."

3. On the other hand, the Superintending Engineers of the 4th and 8th Divisions, Colonel Hemery and Captain Moberly, make very unfavorable reports. Colonel Hemery states that the College students acquire a smattering of several non-essential subjects which are never likely to be of the least use to them, and which they forget before they have been a month up-country; and that the European students learn little or nothing of the Vernacular languages in which they are supposed to pass. According to Captain Moberly, the ex-students "show no capacity to put into practice the theory which they are supposed to have learnt at College;" and, as far as he has seen, "the College has done no good whatever to the Department." He adverts also to their ignorance of simple mechanical appliances.

4. It is difficult to arrive at a conclusion as to the actual results of the College from reports so essentially different as those above quoted from. On the whole, however, the Governor in Council is disposed to think that, while the students trained in the College are generally well grounded in the theory of the subjects which they are taught, there is a deficiency in their practical training which probably can only be supplied, as Colonel Hitchins suggests, by their being employed under skilled Executive Officers, before they are invested with any responsible duties. The best means of meeting this want will be considered in the Public Works Department.

5. The Governor in Council views with much disapprobation the course taken by Colonel Chambers in pertinaciously declining to furnish the Director with any report on the results of the College training as shown by the men employed in his Division. If, as would appear, none of the ex-students had been under Colonel Chambers' personal observation, it was clearly his duty to obtain the requisite information from the officers in charge of the Ranges in which they were employed. The view which the Government take of Colonel Chambers' conduct in this matter, will be communicated to that officer through His Excellency the Commander-in-Chief.

(True Extract.)

G. J. Chambers
Chief Secretary.

To the Public Works Department. ✓
" Military Department.
" Commander-in-Chief (Adjutant General's Department.)
" Director of Public Instruction.

Exd. J. Tulloch.

Let

No 3487

*Communicated to the Superintendent
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tion, some degree of practical training in
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near the Presidency.*

*To Mr. Supt. Engr. & Co. 12th December
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1884*

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Passing orders on the
Report of the Director
of Public Instruction, in com-
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Sup^r Eng^r, on the re-
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D. P. W.
With an order

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