

- (1) Number of pages 12
(2) Date of repair 7-10-69
(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No.	388	Press
B.P. No.		Mis.
Dated	11-2-1876	196

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*Proceedings of the Madras Government, Public Works Department,
24th January 1876.*

No. 398.

Read the following papers:—

No. 822.

Progress Report of the Jeypore Ghaut for the 1st-half of the official year 1875-76.

From this report the Chief Engineer learns that out of the reduced allotment of Rupees 10,000 for this work Rupees 6,460 have already been expended, mostly of course at the close of last season's operations as this season's work had not commenced.

Of that amount, no less than Rupees 1,015, or about 15½ per cent., have been expended on temporary establishments and sundries, Rupees 275 in providing accommodation for the Executive Engineer and for coolies, and Rupees 4,943 on actual work.

Of work, earth-work is represented by a quantity of 17,568 cubic yards, costing Rupees 2,928, which is at the rate of six cubic yards per rupee; stone revetments by a quantity of 1,247 cubic yards, costing Rupees 935, or 12 Annas per cubic yard; and boring, blasting, and removing rock by a quantity of 372 cubic yards, costing Rupees 930, or Rupees 2½ per cubic yard.

The Chief Engineer will defer detailed remarks until he shall have received similar statements regarding all previous expenditure of former years, which he requests may be submitted without delay. He would merely desire to be informed how the quantities above noted have been determined, whether by actual measurement or by proportionment of the amount paid for labor between certain descriptions of work supposed to have been the result of that labor at certain fixed rates. This involves statement whether labor is paid for by the day or by task.

(Signed) G. W. WALKER, Major-General, R.E.,
Chief Engineer, Public Works Department.

7th December 1875.

To the District Engineer, Vizagapatam.

No. 399.

MEMORANDUM.

THE outlay on the new Pottinghy Ghaut up to the end of the working season of 1875 is detailed in the accompanying statement. It amounted to Rupees 42,308-7-6 against an approximate estimate of Rupees 1,84,500 sanctioned in G.O., No. 1,944, of 5th August 1873, and the expenditure upon the few items given may be abstracted as follows, viz.:—

	Estimate.	Outlay.	
		RS.	A. P.
Road-work	1,57,500	40,251	6 11
Minor bridges	...	...	...
Dry stone drains	25,000	...	...
Three larger bridges	2,000	2,000	...
Engineer's bungalow	...	...	...
Total	1,84,500	42,303	7 6

The effective result of the above expenditure is—

78,408 cubic yards of earth-work,
6,817 do. of stone revetments,
1,287 do. of rock blasted and removed,
Three miles of catch-drains,
One bungalow commenced,

or, as put by Mr. Nordmann, the actual state of the road is this: 20 miles have been

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widened to an average width of 13 feet (some parts to 16, some to 19 feet), except in places where the chief rocky obstacles occur; where bridle-path only has been cut to an aggregate length not amounting to 1 mile.

It will be quite impossible to compare the amount of work actually done with that which remains to be encountered, until a regular estimate shall have been received giving the measurements precisely. But judging from Mr. Nordmann's report of the nature of the line traversed by the new ghaut in paragraph 13 of his letter, No. 1,606, of 31st December, the amount of rock hitherto blasted is a mere flea-bite compared to what remains to be done.

Considering the nature of the work and the difficulties as regards labor, it is no wonder that the Executive Engineer should again press for the assistance of a Company of Sappers as he did before in his letters disposed of by G.Os., No. 2,326 of 19th September 1873, and No. 3,006 of 22nd October 1874. But no hope of such assistance can be held out to him as Sapper labor has already been resorted to for a similar work in the district with disastrous effects on the health of the men, and the experiment is not likely to be tried again.

FORT ST. GEORGE,
20th January 1876.

(Signed)

G. W. WALKER, Major-General, R.E.,
Chief Engineer, Public Works Department.

Statement showing Details of Expenditure on the Jeypore Ghaut from 1st February 1875 to 31st March 1875.

Particulars.	Amount.	Remarks.
<i>Preliminary Expenses.</i>	RS. A. P.	
Exploring, clearing, and terracing 50 miles, at Rupees 7-8-0 per mile ...	375 0 0	
Surveying ghaut ...	25 0 0	
Clearing jungle for camps and road ...	406 0 0	
Building and maintaining huts and sheds ...	1,846 0 7	
Potinghy bungalow and road to it ...	2,057 0 7	
Tree nursery for <i>Eucalyptus globulus</i> ...	20 0 0	
Road across Potinghy ghaut ...	373 5 0	
	5,102 6 2	
<i>Purchase of Tools and Stores and Carriage and Repairs of ditto.</i>		
New supplies ...	140 6 0	
Carriage and repairs ...	644 11 4	
Medical stores ...	835 9 0	
Powder from Amman ...	390 13 0	
Watchmen for Powder Magazine at Vizagapatam ...	72 0 0	
	2,082 7 10	
<i>Road-making.</i>		
Excavating and breaking up, at Rs. 250 ...	5,000 0 0	
Building stone ...	5,160 9 4	6,817 cubic yards.
Blasting and removing rocks ...	2,434 5 11	1,287 do.
Setting catch-drains ...	350 0 0	

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Particulars.	Amount.	Remarks.
	RS. A. P.	
<i>Road-making.—(Concl'd.)</i>		
Widening new road to 13 and 16 respectively (earth-work) ...	3,067 7 9	78,408 cubic yards.
Repairing monsoon damages ...	348 1 0	
	7,720 8 0	
Temporary establishment ...	6,812 7 10	
Tappal Runners ...	147 12 0	
	6,960 3 10	
Sundries ...	441 13 8	
	2,308 7 6	* This includes the pay of Maistries, Gumastahs, Store Peons, Paiks, commission to headmen of villages, &c., on which account 30 per cent. may be deducted and debited to different descriptions of work.

No. 399-A. From K. F. NORDMANN, Esq., Officiating District Engineer, Vizagapatam, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Camp, Vizianagram, 16th December 1875, No. 1,525.

With reference to G.O., No. 2,675, dated 17th September 1875 and the Acting Collector's report of public works in this district printed with the Government One copy of letter, No. 1,987, of 15th Nov. 1875. " " " 1,364, of 20th " " Order, I have the honor to submit the following observations which I think it necessary to make in order to prevent a wrong impression regarding the state of some works in the district being conveyed to Government, which would be likely to be the case if some of the statements in the Acting Collector's report, which seem to be conceived in a spirit of unkind criticism, were not qualified and explained.

2. The Acting Collector in paragraph 9 of his report states that the work of completing the Agent's bungalow at Koraput "has made little progress." This would seem to imply that the Public Works Department was to blame for the slow progress. But this is not so. This department did not take charge of the building until near the end of the official year and under the most unfavorable circumstances. The Agent's department had the sole control of the limited local labor-market, and any outsider, such as the Department Public Works was in those parts at that time, could make but little progress, except with the direct countenance and aid of the Agent's department.

3. I will not say that such aid was not afforded. (But the want of previous proper organisation in the working establishment and the almost complete absence of a sufficient supply of materials (such as bricks, tiles, timber, &c.) were with to set on the work naturally impeded progress. The whole building might have been completed before the last monsoon if the necessary precaution had been taken by the Agent's department during the three seasons the work had been in progress of having a sufficient stock of timber and tiles to complete the roof. But no such precaution had been exercised.

4. Consequently, when this department towards the end of the working season took charge of this large work in an out-of-the-way locality and found not the neces-

sary materials ready wherewith to proceed, nor adequate arrangements made to procure them, there was delay. We did the best in our power, used up what materials we could, covered in the unfinished building with thatch to keep the monsoon rains out, and secured the little stock of material remaining on hand for use after the rains. From this it will be seen that the delay was not owing to this department, but was distinctly traceable to the failure on the part of the Agent's department to make adequate and timely provision of material, to prevent stoppages or delay in the work.

It may be said that the Agent's department could not be held entirely responsible for this failure, for the work was foreign to the officers of that department to whom it ought perhaps never to have been entrusted, and under the circumstances they did the best they could. But I think they are decidedly wrong when they turn round and accuse this department of causing that delay which is distinctly and exclusively owing to their own bad management and want of forethought.

6. In paragraph 10 of his report the Acting Collector alludes to the unfinished state of the hill jail, and in this connection speaks of "the very unsatisfactory state of things at Koraput" which, he says, is due to the Overseer who was eventually dismissed. But there is no connection between the Overseer's delinquencies and the unfinished state of the jail. The jail was handed over to this department in a very unsatisfactory state at the end of January when the Overseer joined.

7. The walls of the five wards were nearly completed, those of the guard-room, cook-house, and store-shed were not so; the well was not commenced. The bricks used throughout the building were bad, the workmanship was execrable, many of the walls were far from being perpendicular. The worst ones were pulled down and rebuilt by my orders; they ought all to have been pulled down, but that in such a locality where work is done under difficulties many defects must be overlooked. The small amount of timber work that had been done to the roof was badly done. There were no bricks or tiles nor sufficient timber on hand to carry on the work. Previous seasons which should have been made use of to collect all necessary materials had been wasted; consequently, when we took charge of the work and found no materials ready there was delay.

8. Building materials in a place like Koraput are not to be got ready in a week or a month, particularly by new comers such as this department was. Hence this delay as well as that in the case of the Agent's bungalow was not due to any fault of the Public Works Department, but to the failure of the Agent's department to make adequate and timely provision for the supply of the most necessary building materials wherewith to carry on the work.

9. The Acting Collector comments on the "failure to supply a competent successor" to the Overseer at Koraput. I need not point out how difficult it is, under any circumstances, to get a competent Overseer for a place like Koraput; however, in this instance the defaulting Overseer was dismissed on the 15th March, and a competent successor sent by this department arrived at Koraput on the 3rd of May. In the interim the works were looked after by a very subordinate. The "failure," therefore, of which the Acting Collector speaks in this respect did not occur.

10. In paragraph 14 the Acting Collector says that almost all the roads in the district are unbridged, with the exception of one river. This statement, if not modified, must convey a very wrong impression to those who are not acquainted with the

district. It would be more correct to say, as it is more in accordance with the facts of the case, that most of the smaller streams are bridged and not only the larger streams are wanting bridges, but which, owing to their great probable cost, can only be undertaken at the rate of one in every two or three years. On the whole, as regards bridges and the general state of the roads I consider this district compares very favorably with other districts I have seen. Some of the lines of road in the district are in better order than any of the same length I have seen in other parts of the country. The so-called trunk road has been neglected for a number of years, but is now being taken in hand. The figures in the comparative statement in the letter of the Collector do not refer to the whole of the Public Works in the district, but only to those works which were carried out from Imperial and Provincial Funds. The expenditure on roads from Local Funds was for "New Works" Rupees 51,877 and for "Repairs" Rupees 82,003, making a total under "Communications, Local," of Rupees 1,33,880.

11. Regarding the new Pottinghy Ghaut the Acting Collector says: "Twenty miles of this ghaut-road have been in places widened to an average width of 13 feet; where difficulties existed, however, the difficulties remain." I consider this description very inaccurate and apt to create a wrong impression of the actual state of the work. By the side of such unfair criticism it is not strange that the Acting Collector quite omits to give this department due credit for planning and carrying out a great and difficult work like the new ghaut in a comparatively short time and in the face of great obstacles and hardships in a locality and climate which have unfortunately cost several lives. The difficult trace through a most intricate country receives no acknowledgment. There were several traces, with more or less to recommend them, feasible between the termini of Pottinghy and Salur (24 miles); but only one of all these feasible lines was absolutely correct. The trace that was made is the correct line, for promptly selecting which some credit is due to this department.

12. It is inaccurate to say that "20 miles have been in places widened to an average width of 13 feet." The actual state of the road is this: 20 miles have been widened to an average width of 13 feet (some parts to 16, some to 19 feet), except in places where the magnitude of the rocky obstacles delayed the widening out of the road; but even in those places a bridle-path was made, so that the whole of the ghaut was passable for man and beast when the Acting Collector passed down. There was some scrambling required in two or three places only where the largest masses of rocks are. But though there was scrambling the places were passable. The aggregate length of bridle-path not widened out does not amount to a mile out of 20 miles of ghaut-road; but including this bridle-path the average width for the whole ghaut is still 13 feet.

13. "Where difficulties existed, the difficulties remain." This is as inaccurate as the first part of the statement. The Acting Collector in passing down the new ghaut evidently did not stop to even roughly estimate the quantities of rock blasted and removed and of revetments built; otherwise, he could not have made such a statement. And having never seen the difficulties that existed before they were removed, he was unable to realise the original number and magnitude of those difficulties. In comfortably riding down a new ghaut-road, the observer inexperienced in ghaut-work not unnaturally fails to correctly value the amount of obstacles and

difficulties that had to be removed in making the road. Mr. Goodrich only saw the obstacles that were still there, but he quite failed to realise those that had existed before, and what amount of work had been done in removing obstacles that no longer obstructed the path. The register of work shows that up to February (the month in which Mr. Goodrich inspected the ghaut) more than 600 cubic yards of rock had been blasted removed along the line, and 4,000 cubic yards of revetments had been built. It was, therefore, wrong to say "where difficulties existed they remain." This statement gave the Government the impression that only the easy work had been done, and that a great deal of work left undone which is very far from being the case.

14. I have inspected the ghaut lately, just before the work was resumed, after the monsoon. It was much overgrown with weeds and jungle which spring up in a short time during the rainy season. The rains had done some damage to the road surface, but not more than was to have been expected; a few small landslips had occurred; a few stone revetments,—chiefly those built along the face of large slanting sheet rocks, in order to afford standing room for blasting operations,—had given way. I am now having these rebuilt, the landslips and undergrowth cleared away, the most difficult places widened out to 13 feet, and the rocks blasted, but only on the lower part of the ghaut, as the limited grant for this year will not allow of work being carried on along the whole line as formerly. The final detailed estimate for the whole ghaut has been under preparation for some time, and is well advanced.

15. I submit the copy of a letter* on the same subject from the Acting Collector which was received by my predecessor who, it seems to me, failed to take adequate notice of it, since he neither brought the matter to the knowledge of Government nor called upon a Range Officer accused of "misrepresenting" facts for an explanation. I also annex a copy of my predecessor's reply† to the Acting Collector's letter. With reference to the last part of Major Hindle's letter, I have to observe that no "strict injunctions" or orders of any kind were issued on the subject by that officer. The Acting Collector's letter embodies an extract from a report by his Assistant Agent in Jeyvare, which report it is necessary for me to notice somewhat in detail, as it contains gross inaccuracies, and utterly fails to give an adequate or correct idea of the state of the ghaut.

16. The Assistant Agent asserts that the Government have been "misinformed" regarding the state of the ghaut and the reported average width of 13 feet. Instead of this he describes the ghaut, "where there is a track at all," as "2 feet wide, and frequently to a breadth of from 3 to 13 feet." Nothing could be more accurate or less in accordance with the facts of the case than this description. And the Assistant Agent hazards these random remarks, while at the same time admitting that he did not take a single measurement. In fact, he went up the ghaut while it was overgrown with jungle, just after the monsoon, before work had been resumed; and he was unable to see anything beyond the weeds and jungle, and the narrow foot-path for carrying Cattle traffic through the undergrowth along the new line of road.

17. Judging from his remarks, I do not consider the Assistant Agent competent to report upon a work like the ghaut. Indeed, this is scarcely to be expected, for

none but a practical Engineer can satisfactorily draw up such a report. But this, I submit, did not justify the Assistant Agent to make random statements and to assert, without taking measurements, that Government had been "misinformed,"—a term that might much more aptly be coupled with his own statements.

18. If the Assistant Agent had taken the trouble to measure the width of the road at regular intervals of, say, 100 yards, and struck the average, he would have found that the width averages 13 feet; and if he had looked beyond the weeds and bushes sprung up during the rains, which obstructed his path and his view, he could not have failed to notice a vast amount of rocks blasted and removed and stone revetments built. It was only near Sunki where the jungle had not happened to overgrow the road that Captain Blaxland was able to see the width, but did not measure it; and he admits that there the road was 13 feet wide, but says that this is the case in no other place "for more than half a mile at a stretch,"—an assertion which I can only characterise as totally at variance with the facts. The parts widened out to 16 and 19 feet, respectively, escaped his notice.

19. Captain Blaxland says that he could only ride up the ghaut for 2 miles, and then had to send his horse back. This conveys the impression that only 2 miles of the ghaut were passable on horseback, while, in reality, the whole length was so passable, with the exception of two or three large masses of rocks and of a few revetments that had been damaged by the rains and are now being rebuilt on the lower part of the ghaut. The upper 10 miles from Sunkipental to Pottinghy, I rode with comfort (a few days after the Assistant Agent had gone up), having to dismount but once or twice.

20. I have thought it my duty to submit these observations in order to make the Government clearly aware of the actual state of the work, since the reports of both the Collector and his Assistant, if not corrected, would lead the Government to form an erroneous idea of the progress made with the ghaut, and would cast reproach upon the Public Works Department, and especially upon the officer who has done the work,—a reproach which would be utterly undeserved where, as here, credit is due.

From H. ST. A. GOODRICH, Esq., Acting Collector and Agent to the Governor of Fort Saint George at Vizagapatam, to R. F. NORMANN, Esq., Officiating District Engineer, Vizagapatam, dated 15th November 1875, No. 1,987.

I enclose that you will give your best consideration to the following matters:—

2. In my report on Public Works for 1874-75, dated 1st July 1875, I stated in paragraph 12 of my letter as follows:—

"Twenty miles of this ghaut-road have been in places widened to an average width of 13 feet; where difficulties existed the difficulties remain."

3. I had previously, in my letter of 1st April 1875, recorded in the Proceedings, Judicial Department, of 18th ultimo, written: "The work executed already by R. F. Normann is admirable" * * * * "I cannot tell when this great work will be complete, but I believe that the work to be done can be got through before the end of the working season of 1877."

4. In their order (Public Works Department) of September 17th, No. 2,675, the Government remark in paragraph 4: "The Executive Engineer * * states generally in his progress report for March that the 20 miles of ghaut-road have been widened to an average of 13 feet."

Received by me, 11th October 1875.

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5. Knowing from my personal observation in the end of February that it was scarcely possible that this statement could be correct, I ordered my Special Assistant to inspect and report, and he visited the ghaut and went up it a few days ago. He states, in a letter to me, that Government have been misinformed when it was stated that the ghaut had been widened to 13 feet throughout 20 miles, writing from the top of the ghaut after marching up it.

6. He says that the Executive Engineer has "grubbed out all the earth he can get from round and behind the stones, but on account of these stones I would rather describe the ghaut as being a track, where there is a track at all,—of 2 feet breadth widening frequently to a breadth of from 3 to 13 feet, winding in and out of boulders. Occasionally, there is no track, and you are brought up standing by a mass of rock * *. I could only ride up the first 2 miles of the ghaut, and from thence had to send my horse back * *. In a few places the ghaut has also become impassable by landslips * *. The best piece I saw was a length of about 1½ miles out of Sunki where it certainly is widened to an average of 13 feet; in no other place is this to be found for more than half a mile at a stretch I should say, though of course I did not measure."

7. In my report quoted in paragraph *supra*, I wrote that the tappal runners had been sent back to the old line of ghaut in June last, as the rains were expected to make the new line quite impassable. The wording of their order in the Department Public Works on that report gives the impression that Government are not correctly informed as to the amount of work done; and as I believe they are under a wrong impression as to the probable date of the completion of the ghaut, I feel bound to repeat the words of my first report, "where difficulties existed, the difficulties remain."

From Major J. W. HINDLE, Officiating District Engineer, to H. St. A. GOODRICH, Esq., Acting Collector of Vizagapatam, dated Waltair, 20th November 1875, No. 1,364.

WITH reference to your letter, No. 1,987, dated 15th November 1875, I have the honor to state that in the Government order alluded to the Executive Engineer has been directed to confine his attention solely to the difficult portions of the ghaut. I am unable to give any opinion on the work, as I have not been able to visit it, but strict injunctions have been issued that the difficult portions should be dealt with first.

No. 399-B. From H. St. A. GOODRICH, Esq., Acting Collector and Agent to the Governor of Fort Saint George at Vizagapatam, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Nursapatam, 27th December 1875, No. 1 Extra.

I HAVE received from the Acting District Engineer an extract from a Report from him to you wherein certain remarks of mine contained in a letter* to his predecessor are commented on.
*No. 1,987, 15th November 1875.

I think it right to explain to you how the necessity for my making those remarks arose.
2. I had the opportunity of inspecting the Jeypore ghaut after the 20th February last. The report on my inspection I reported to Government in my letter of 1st April, wherein orders were passed (G.O., 18th October 1875, No. 2,257, Judicial Department), and were received by me, 25th October.

I mentioned the progress made in my Public Works Report for the year 1874-75, dated 1st July, wherein orders were passed (G.O., 17th September 1875, No. 2,675, Public Works Department), and reached my office on the 17th October.

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3. I then observed that the Government had been informed in the Executive Engineer's Progress Report for March 1875 that the 20 miles of ghaut had been then widened to an average width of 13 feet. Had this been the case the work, which must have been done in April, May, and the early part of June, would have brought the work far more nearly to completion than I had expected, and the fact of the tappal runners having deserted it for the old line which is rugged and difficult in June led me to doubt whether the Executive Engineer had not been misled as to the state of the work at the end of March.

To satisfy my own doubts I asked Captain Blaxland, the Special Assistant Agent, to inform me what the present state of the new ghaut was, and on receipt of his reply I wrote to the District Engineer.

4. Mr. Nordmann appears to think that Captain Blaxland's letter purports to be a report on the manner in which the work has been executed. I extracted all that he wrote concerning the ghaut, and his remarks refer alone to the amount of work visible. He is not a shoemaker, and I dare say cannot make boots, but he knows whether he has any, and whether they fit; he is not an Engineer, and may not be able to make roads, but he knows whether the path he is on is passable or the reverse.

On each occasion when I have written of what I saw of Mr. Nordmann's work I spoke highly of its excellence and solidity.

5. In order that the District Engineer might perform the inspection which I believed to be his duty I wrote to him to draw his attention to the conflict between the reports I had made in April and July and the Progress Report for March, adding my reasons for doing so, which I presumed would induce him this year to inspect the work.

Had I anticipated that Mr. Nordmann would succeed Major Hindle, I should have written to you direct.

No. 400. ORDER THEREON, 24th January 1876, No. 182.

CIVIL WORKS, No. 22.

HIS GRACE the Governor in Council remarks that in paragraph 2 of G.O. No. 2,675, of 17th September, the Public

Works Department was fully exculpated from whatever blame the wording of the Collector's report may have appeared to impute to it in connection with the Assistant Agent's bungalow at Koraput; the Collector's statement of the actual progress of the building was simply accepted.

2. Similarly, the Public Works Department was not held to blame with reference to the Koraput Hill Jail. It is distinctly admitted that that work was handed over from Civil to Public Works Agency in a very unsatisfactory state, which the details now given by Mr. Nordmann confirm. Altogether, though the spirit of the Collector's remarks was not animadverted on, Mr. Nordmann might have rested satisfied that they had not prejudicially affected the opinion of Government as to his management of the works lately transferred to his charge at Koraput. No notice was considered necessary of the Collector's general remarks on the unbridged condition of the roads of the district, as not having particular connection with the subject of his report, which related to the progress made with Public Works in 1874-75.

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3. His Grace the Governor in Council accepts Mr. Nordmann's estimate of the actual state of the ghaut-road, *viz.*, that 20 miles have been widened out to an average width of 13 feet.

4. But it is clear from the Chief Engineer's analysis above recorded that the quantity of the most difficult portion of work remaining to be done is excessive compared to that already accomplished, and that the instructions of paragraph 4 of the Government Order, based on the Collector's remarks, as to concentration of all effort on the difficult portions of the work, were not uncalled for. But all controversy as to actual state of progress will cease when Mr. Nordmann shall have submitted a detailed estimate of the ghaut, in which shall be shown the amount of work already performed. He may rely upon full credit having been given him for the energy and skill displayed in the trace of the ghaut; and it would appear from the Collector's letter, No. 1 Extra, of 27th December, that in a report recorded with an order in the Judicial Department, No. 2,257, of 18th October 1875, he has spoken of "the work executed already by Mr. Nordmann as *admirable*." No reproach attaches, therefore, to Mr. Nordmann or to the Department Public Works generally with reference to their works on the ghaut or at Koraput. And it was the object of G.O., No. 2,675, of 17th September, to bring about such systematic action as should secure their bringing so ably planned a work as the new Pottinghy ghaut to a successful completion, doing credit alike to the individuals concerned in it and to the department to which they belong.

(True Extract.)

Ch. Mather Major-General, R.E.,
Secretary to Government.

To the District Engineer, Vizagapatam.
" Revenue Department.
" Judicial

Exd. F. R. Bantleman.
Spare Copies

Revenue Department
No 600

Cobt. of 1876 Madras.

PUBLIC WORKS.

To

THE DISTRICT ENGINEER,
VIZAGAPATAM.
&c., &c., &c.

Dated January 24th.

Issued

Recd. Feb'y 11^o

Encl.

G. O., 24th January 1876, No. 182.

JANUARY.

Nos. 398-400

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Public Works, Vizagapatam. - Pass on
orders on certain correspondence regarding
the —

No 388

Can be sent to the
Board of Revenue

11 Feb'y 1876

14 To the District Officer Sec. 14 Feb