

- (1) Number of pages 6
 (2) Date of repair 17 July 86
 (3) Initials of the Referencer lang

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No.	3268	Press.
B.P. No.		Mis.
Dated	19-6-1877	1977-7-

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Not to be folded or roughly handled

7. The channel has been filled up with sand, and some acres of sand are now lying in shore of the cut; it is most discouraging to have to work in such a place.

as after every tide some clearing needs to be done, and the expense of cutting through 640 yards is great.

8. I would point out that at the south end is the natural outlet of the river, and that the great floods of 1872 and 1874 passed along the face of the salt platform and every flood of any consequence in the river must do so.

9. I cannot understand how the Government can be responsible for any injury done by floods to buildings badly built on their river banks; the fact of bad building or neglect in repairing is easily proved, but if they are to be responsible the cost of a groyne at the point would not be equal to that of once cutting of the channel now under treatment.

From Lieutenant T. SMITHER, Assistant Engineer, No. 1 Range, Chingleput, to Colonel F. J. MOBERLY, R.E., Superintending Engineer, Chingleput, dated Ennore, 28th April 1877, No. 117.

In my letter, dated 26th instant, No. 103, I reported to you that the protecting bund yielded at 3 p.m. on the 25th idem, and the water at once rushed in and continued to run, and it continued to run until low tide yesterday, when, owing to the channel silting up to 4.32 above sill of lock, it ceased for a short time.

2. The cut widened to 60 feet, thereby bringing in 15 feet of each bank, which the force of water was not sufficient to carry off. It was therefore deposited in the bed of the channel.

3. When the water first entered the channel, it reached to the shoulders of an ordinary sized man, but became shallower until it was only knee deep (1½ feet) at end of channel. This morning a float passed through the same distance in 60 seconds.

4. From end of groyne to western end of cutting is 1,716 feet, which length may possibly account for the peculiar fact that the water appeared not to be able to get in sufficiently fast, and the water striking the north end of cutting and adjacent beach rolled back and struck with great force the lee side of the groyne, carrying a portion away and acting also as a buffer for the following wave.

5. The groyne was too near the cutting by 80 feet, and its direction from the beach should have been 112° 30' or even more, as the wave after breaking flowed at that angle. This is evident from the depth of water in that direction and the contour of the beach north of the cut.

I thought so at one time but am beginning to doubt. No proof in my opinion. Lieutenant Smither does not understand my object.

6. The inner end of channel is now 2' 07" above sill of lock, and at crest of beach 4' 00" or 2' 14" below what is said to be M.S.L., the sea does not enter with that force and volume that was to be expected.

7. The height of water when the water entered the cut was 1' 30" above sill level, and 3' 48" above that datum. During the influx, the water remains very high about the inner end of channel, but afterwards flows off in a very gradual manner.

8. The end of the present groyne is 186 feet east or sea ward of the ring bund of last year, and the protecting bund of this year was about 40 feet more out than the latter.

9. The beach south of the groyne has silted up to its end, and a good deal of sand has been deposited on the lee side. The backwash appears to be about 60 feet, and there the sand deposits to the height mentioned, viz., 4 feet above sill of lock. To lengthen the groyne would, I believe, have no beneficial effect.

10. There was no silt deposited by last night's influx, the levels at 9 A.M. yesterday and to-day being the same; yesterday's influx was the lowest and least we have had. There was scarcely any wind, and the sea was as smooth as a pond.

11. Whatever may be the result of our operations, there can be no doubt, if the bund had not yielded on the 25th, we should not have done so well as we have.

12. To keep the cut open is merely a question of cost, whether to deepen it daily or only before and during high tides is the better plan as to supply of water, and its cost can only be

determined by experiment. The supply of water for salt manufacturing purposes can doubtless be kept up; but as far as rendering the canal navigable for even the smallest boats is, in my opinion, out of the question, except we are aided by high winds.

13. A statement of the cost of opening the bar and keeping it open to-day included is appended to this letter.

14. Pending the receipt of your orders I have directed coolies to be employed to remove silt or repair the groyne, &c.

Statement of the Cost of opening and keeping the Ennore Bar up to 28th April 1877.

Quantity.	Descriptions.	Rate.	Per.	Amount.	Total.
		RS. A. P.		RS. A. P.	RS. A. P.
Materials.					
24½	Tons of casuarina stakes ...	11 0 0	Ton.	265 6 0	
	Do. cart-hire ..	...	...	20 10 0	
4,000	Cocoanut leaves including cartage.	1 4 0	100	50 0 0	
400	Bamboo mats, small ...	0 2 6	Each.	62 8 0	
200	Bamboos, large ...	6 0 0	100	12 0 0	
15	Bundles, small bamboos ...	0 6 0	at	5 10 0	
	Bandy-hire ...	...	...	1 8 0	
3,000	Gunny bags ...	14 0 0	100	420 0 0	
	Bandy-hire ...	...	...	4 8 0	
400	Cocoanut ropes ...	3 2 0	100	12 8 0	
2	Maunds gunny bags, string.	4 0 0	Maund.	8 0 0	
	Needles, large and small, and mullet, &c.	...	...	7 0 0	869 10 0
Labor.					
465	Boatmen ...	0 8 0	Each.	232 8 0	
30	Carpenters ...	0 8 0	...	15 0 0	
24	Do. ...	0 4 0	...	6 0 0	
263	Men coolies, day and night	0 4 0	...	65 12 0	
253	Women do., do. ...	0 2 0	...	31 10 0	350 14 0
10,128	Cubic yards removing sand from channel, &c.	0 2 0	C. yard.	1,266 0 0	1,266 0 0
Maintaining the Bar from 26th to 28th April.					
596	Men coolies ...	0 4 0	Each.	149 0 0	
669	Women coolies ...	0 2 0	...	83 10 0	
51	Boatmen ...	0 8 0	...	25 8 0	258 2 0
	Total ...	...	...	...	2,744 10 0

(Signed) T. SMITHER, Lieutenant, Assistant Engineer.
28th April 1877.

No. 311-A. From Colonel F. J. MOBERLY, R.E., Superintending Engineer, Chingleput, to the Chief Engineer, Public Works Department, dated St. Thomas' Mount, 19th May 1877, No. 581.

In continuation of my No. 367 of 30th ultimo, I have the honor to report that feeling very confident from the action of the sea on the 26th ultimo that the only

prospect of successfully opening the mouth of the river from the sea lay in the sudden removal of a barrier placed as far into the sea as I could put it, I resolved on trying further experiments in the means of using powder.

2. Captain Twynam, R.A., Commissary of Ordnance, St. Thomas' Mount, had accompanied me on my first attempt and very kindly, with the permission of the Inspector-General of Ordnance and Magazines undertook the details of the experiments. He soon found that we had tried to obtain too much from the battery and that twenty cells would fire only one fuse.

3. He therefore arranged to have the three cases of powder which I considered necessary connected by tubes carrying quick match, which in a small experiment exploded simultaneously.

4. Captain Twynam and the Overseer at the proof range, Serjeant Clarke arranged all accordingly and again accompanied me on the 11th instant to Covelong; on the 12th at low water the charges were laid and covered in, a light screen enclosing the beach on one side to H.W.M. The battery worked perfectly, but the powder would not explode, and on removing it at low water next day we found that the junction of one of the lateral tubes had broken, probably in laying the charge, and the powder was utterly wet.

5. It was very disappointing, as when the screen gave way an hour after a fair rush of the sea came into the river and raised the level of the water a mile away 7 inches in two tides. This water did not scour, but ran in a continuous stream, which encourages me to think that in such a gap as the explosion of powder would make, we should have a current such as it would take some days to fill.

6. I am not by any means sanguine that we could by one mouth affect the level of the water over so large an area as the estuaries and artificial cuts between the Adyar and Palar, but I have very little doubt of filling the basin of the Cooum in three days.

7. Of course all further work is rendered unnecessary by the floods in the rivers which must have filled everything to overflowing. I have not received any reports yet, but I was obliged to try to open the Adyar yesterday, as it was dangerously high, before it forced a passage near St. Thome.

8. The accounts shall be prepared directly.

9. In conclusion, I must express my thanks to Colonel Cadell, C.B., R.A., and the Ordnance Officers in the Arsenal, who afforded me every assistance in their power. Captain Twynam and Serjeant Clarke's services were most valuable, and, though the work new to us all was not successful, we have, I think, learned much for any future occasion.

No. 312.

ORDER THEREON, 29th May 1877, No. 162 W.

RECORDED.

2. The late heavy rain renders further attempts needless.

(True Extract.)

To the Superintending Engineer, Chingleput.
" Revenue Department.

Exd. E. C. Shunker.

Spare Copies

Ed. J. M. Colonel, R.E.,
Secretary to Government, P.W.D.

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Revenue Department

N^o 2828

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of 1877: Madras.

PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,
CHINGLEPUT,
&c., &c., &c.

Dated May 29th.

Issued

Recd. 9th June

Encl.

G. O., 29th May 1877, No. 162 W.

For Memo

MAY.

Nos. 311-312.

Cowlong and Ennore Bars.—Reports on
the progress made in opening the
recorded.

J: 3268

Comm^d to the
Board of Revenue

15-2-20-11-12
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