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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W DEPARTMENT

G.O. No.
B.P. No. 4493W Press. ~~Mis.~~

Dated 25-11-1878 ~~197~~.

Not to be folded or roughly handled

A.K

4493/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

25th November 1878, No. 4,493 W.

Buildings and Roads.
Civil Works.

Read the following papers :—

No. 282. From F. N. THOROWGOOD, Esq., Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department, dated Madras, 2nd November 1878, No. 43 W.

I HAVE the honor to report the following amount of progress on these works during October 1878.

2. NORTH PIER SUPERSTRUCTURE.—Blocksetting on the north pier has been delayed by several causes during the past month. On the 4th, 5th, and 24th native workmen were absent owing to those days being festivals. On the 10th and 15th blocksetting was stopped by my orders in order to allow the rubble base to be kept well in advance of the blocks, and on the 16th, 28th, and 29th the sea was too rough to allow of any diving being done. During the month 152 blocks were set, advancing the work by a distance of 90 lineal feet. The total length of blockwork from the point B was on October 31st 1,212½ feet.

3. RUBBLE BASE.—The rubble base has been tipped throughout the whole of October by means of cargo and Masula boats as the steam hoppers are away at Cocanada. The amount of base deposited has been 10,849 tons, which is a larger quantity than in any previous month. This branch of the work is one that requires pushing on more than any other, as it is desirable that the laterite should have some time to settle and consolidate before the weight of the blocks comes upon it.

4. BLOCKMAKING.—Blockmaking by machinery has been carried on in the yard at Royapooram at a sufficient rate of speed to keep the block platforms well filled. During October 200 blocks for the superstructure were turned out. Most of these were made with General Morgan's cement.

5. QUARRIES.—The quarry at Ambathoor has been constantly worked during October, but some difficulties are met with now owing to the weight of the Madras Railway Company's engines, which proves rather too much for the light permanent way which laid down for quarry lines. I am in correspondence with the Agent and Manager on the subject, and it is probable that great alterations will have to be made in the gradients and curves at Ambathoor. These alterations will increase the cost of the rubble base considerably and possibly cause delay. During October 12,344 tons of laterite were sent down to the Harbour Works from Ambathoor.

6. The quarries on the South Indian Railway have also been kept in full work supplying granite for blockmaking and stone for the south pier base. There were 7,337 tons of stone supplied from these quarries during the month, making a total quantity from all sources of 19,681 tons of laterite and stone together—a larger amount than has been received in any previous month.

7. SOUTH PIER SUPERSTRUCTURE.—I regret to have to report that the sand accumulation at the south pier during the past month brought the work to a standstill until the 31st. Dredging was tried whenever possible, but the depth of sand was too great for the dredger to make any impression upon it. Fortunately on the 27th

and 28th a fresh northerly wind sprang up bringing a heavy sea from the north-east, the effect of this was speedily felt at the south pier, and the sand was gradually swept away, so that on the 31st two blocks were successfully set. There appears to be every reason for hoping that when the north-east monsoon has fairly set in a rapid rate of progress may be expected at the south pier. The length of blockwork on October 31st was 570¾ feet from the point E, the same as on September 30th.

8. RUBBLE BASE.—The sand accumulation and the consequent broken water around the pier have interfered all through the month with the depositing of rubble base, the quantity of stone thrown in during October being only 1,726 tons. It is to be hoped that such a small return of work at the south pier will not again have to be reported.

9. SEA ENCROACHMENT NORTH OF HARBOUR.—The sea has continued to encroach heavily to the north, and the points of attack have been various. Whenever such work seemed urgently needed rough retaining walls of laterite have been built, but the encroachments have still continued and have cut off some of the new groynes at the landward end. Since the end of May I have devoted 6,295 tons of laterite to these protective works, of which 1,680 tons were used in October. A more full report will shortly be submitted to Government on this subject.

10. SOUNDINGS, SECTIONS, &c.—During October Mr. Beardmore has completed a new survey of the whole roadstead which when plotted will prove very useful and interesting. The traversing lines of the survey are the same as were used by Lieutenant Jarrad in 1876 and by Mr. Beardmore and myself last February. We now have most complete records of the state of the harbour area up to the present date.

11. PLANS AND SECTIONS.—Accompanying this report are two tracings, one a general plan of the harbour, and the other a longitudinal section of the north pier.

12. EXPENDITURE.—The total expenditure up to the 31st October 1878 is Rupees 22,35,605.

13. GENERAL.—The new ground for blockmaking at the south pier is progressing rapidly, and a light travelling crane for shifting the block frames, &c., is well advanced in construction. Blockmaking by hand labor will be commenced on this ground as soon as possible, and it is probable that with both block platforms stocked with blocks the future progress of both north and south piers will be more rapid than hitherto.

No. 282-A. From F. N. THOROWGOOD, Esq., Superintendent, Madras Harbour Works, to the Chief Engineer, Public Works Department, dated Fort St. George, 15th November 1878, No. 45 W.

IN reply to your memorandum, No. 4,989, of the 6th instant, I have the honor to submit the following brief report.

2. It is only since the 8th November that the current has been decidedly towards the south in the neighbourhood of the harbour, although far out in the Bay of Bengal vessels have met with strong currents southward for many weeks past.

3. At the immediate end of the south pier of these works the sand accumulation over the rubble foundation has decreased in depth by six feet. There only remains about eighteen inches or two feet of sand now over the base, which will easily be removed when the Titan crane (now under repair) is again at work.

4. At a distance of 80 feet eastward from the end of the south pier there is 3′ 6″ more water over the sand accumulation than in September, and at 160 feet eastward it remains the same as in September. Each day of this north-east wind and sea clears away a certain amount of the sand.

5. With regard to the visible accumulation between the south pier and the Fort not much change has taken place as yet. An alteration in this line of sand is more the result of blows from waves than of the action of currents, and as the sea has been generally very smooth since the north-east wind set in not much sand has been cut out.

6. For a distance of 600 feet southward of the blockwork of the pier the sand has receded about 22 feet. At a distance of 900 feet there is no alteration, and at a distance of 2,400 feet from the pier the shore has advanced about 20 feet since October 31st.

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7. I would remark that work at the south pier is not now stopped on account of sand, but because while working the dredger on the 6th instant one of the wheels in the top gear of the Titan broke all to pieces. It happens to be a particularly awkward piece of gear to repair, and no duplicate of the part exists. I hope blocksetting will be resumed on the 18th November.

No. 283. ORDER THEREON, 25th November 1878, No. 4,493 W.

ORDERED to be recorded.

(True Extract.)

(Signed) E. A. FOORD, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintendent, Madras Harbour Works.
" Marine Department.

Exd. C. Howarth.
Spare Copies

No. 43. W.

4493/3 P 1

From

The SUPERINTENDENT,
MADRAS HARBOUR WORKS,

To

Colonel E. A. Foord R.E.
Secretary to Government P. W. D.

Madras, 2nd November 1878.

Sir,

I have the honor to report the following amoun of progress on these works during October 1878.

North Pier Superstructure — 2 Blocksetting on the North pier has been delayed by several causes during the past month - On the 4th 5th and 24th native workmen were absent owing to those days being festivals. On the 11th and 15th blocksetting was stopped by my orders in order to allow the rubble base to be kept well in advance of the blocks, and on the 16th 28th and 29th the sea was too rough to allow of any diving being done - During the month 152 blocks were set, advancing the work by a distance of 90 lineal feet - The total length of blockwork from the point 16 was on October 31st 1212½ feet -

Rubble Base — 3. The rubble base has been tipped throughout the whole of October by means of cargo and Masula boats as the steam hoppers are away at Coconada - The amount of base deposited has been 10,849 tons which is a larger quantity than in any previous month - This branch of the work is one that requires pushing on more than any other as it is desirable that the laterite should have sometime to settle and consolidate before the weight of the blocks comes upon it

Blockmaking

4 Blockmaking by machinery has been carried on in the yard at Royapooram at a sufficient rate of speed to keep the block platforms well filled - During October 200 blocks for the superstructure were turned out most of these were made with General Morgan's cement -

Quarries

5 The quarry at Ambathoor has been constantly worked during October, but some difficulties are met with now owing to the weight of the Madras Railway Company's engines, which prove rather too much for the light permanent way which is laid down for quarry lines - I am in correspondence with the Agent and Manager on the subject and it is probable that great alterations will have to be made in the gradients and curves at Ambuthoor - These alterations will increase the cost of the rubble base considerably and possibly cause delay - During October 12,344 tons of laterite were sent down to the Harbour Works from Ambathoor.

6 The quarries on the South Indian Railway have also been kept in full work supplying granite for blockmaking and stone for the South pier base - There were 7337 tons of stone supplied from these quarries during the month, making a total quantity from all sources of 19681 tons of laterite and stone together - A larger amount than has been received in any previous month

South Pier Superstructure.

7 I regret to have to report that the sand accumulation at the South Pier during the past month brought the work to a standstill until the 31st - Dredging was tried whenever possible but the depth of sand was too great for the dredgers to make any impression upon it -

P 2

Fortunately on the 27th and 28th a fresh northerly wind sprang up bringing a heavy sea from the north east, the effect of this was speedily felt at the South pier and the sand was gradually swept away, so that on the 31st two blocks were successfully set - There appears to be every reason for hoping that when the North East monsoon has fairly set in a rapid rate of progress may be expected at the South Pier - The length of blockwork on October 31st, was 570¾ feet from the point E, the same as on September 30th.

Rubble Base

8 The sand accumulation and the consequent broken water around the pier have interfered all through the month with the depositing of rubble base, the quantity of stone thrown in during October being only 1726 tons. It is to be hoped that such a small return of work at the South pier will not again have to be reported.

Sea encroachment North of Harbour.

9 The sea has continued to encroach heavily to the north, and the points of attack have been various - Whenever such work seemed urgently needed rough retaining walls of laterite have been built, but the encroachments have still continued and have cut off some of the new groynes at the landward end. Since the end of May I have devoted 6295 tons of laterite to these protective works, of which 1680 tons were used in October - A more full report will shortly be submitted to Government on this subject.

Soundings. Sections &c

10 During October Mr Beardmore has completed a new survey of the whole Roadstead which when plotted will prove very useful and interesting - The traversing lines of the survey are the same as were used by Lieut. Jarrad in 1876 and by Mr Beardmore and myself

last February – We now have most complete records of the state of the Harbour area up to the present date –

11 Accompanying this report are two tracings, one a general plan of the Harbour and the other a longitudinal section of the North Pier — Plans + Sections

12 The total expenditure up to the 31st October 1878 is Rupees 22,35,605 — Expenditure

13 The new ground for blockmaking at the South Pier is progressing rapidly, and a light travelling crane for shifting the block frames &c is well advanced in construction. Blockmaking by hand labour will be commenced on this ground as soon as possible, and it is probable that with both block platforms stocked with blocks the future progress of both North and South piers will be more rapid than hitherto. — General

I have the honor to be,
Sir
Your most Obedient Servt.

J. N. Thorowgood.
Superintendent
M. H. Works

4493/5

P.W. 1878

From N° 12472

E° 19-10-78 No 4093 W.

The Superintendent
M. H. Works

dated 2nd }
Recd 5 } November 1878

Reports the amount of progress made during October 1878. on these works

D° 6-11-78 No 25 W

No. 45 W.

4493/6

From

THE SUPERINTENDENT,
MADRAS HARBOUR WORKS,

To Colonel E. A. Foord, R.E.
Chief Engineer,
Public Works Department,
Fort Saint George.

MADRAS, 15th November 1878.

SIR,

In reply to your Memorandum No. 4989 of the 6th instant, I have the honor to submit the following brief report.—

2. It is only since the 8th November that the current has been decidedly towards the South in the neighbourhood of the Harbour, although far out in the Bay of Bengal, vessels have met with strong currents southward for many weeks past.

3. At the immediate end of the South pier of these works, the sand accumulation over the rubble foundation has decreased in depth by six feet. There only remains about eighteen inches or two feet of sand now over the base, which will easily be removed when the Titan Crane (now under

repair

repairs is again at work.–

4. At a distance of 80 feet eastward from the end of the South pier there is 3'. 6" more water over the sand accumulation than in September and at 160 feet eastward it remains the same as in September– Each day of this North East wind and sea clears away a certain amount of the sand.–

5. With regard to the visible accumulation between the South pier and the Fort not much change has taken place as yet. An alteration in this line of sand is more the result of blows from waves than of the action of currents and as the sea has been generally very smooth since the North East wind set in, not much sand has been cut out.–

6. For a distance of 600 feet southward of the blockwork of the pier the sand has receded about 22 feet. At a distance of 900 feet there is no alteration, and at a distance of 2400 feet from the pier the shore has advanced about 20 feet since October 31st.–

7. I would remark that work at the South pier is not now stopped on account of sand but because while working the dredger on the 6th instant, one of the wheels in the top gear of the Titan broke all to pieces. It happens to be a particularly awkward piece of gear to repair and no duplicate of the part exists.– I hope block setting will be resumed on the 18th November.–

I have the honor to be,
Sir,
Your most Obedient Servant
F. N. Hurrowgood
Superintendent
Madras Harbour Works

No. 12892

Buildings & Roads

From
The Superintendent
Madras Harbour Work

No. 45 W
Dated 15th November 1878.

Submits report on the state of the currents, — called for in Memo: No. 4959. —

Cir 18-11 Rek 27-11.

P. W. D.

4493/8

Letter from the Supt. Madras Harbour Works No. 45 W dated 15th November 1878.

Circulated in continuation of the Progress Report.

E A Ford Col: RE
Secy: to Govt. P.W.D.

Novr. 1878.

A. S. P.
15/11

PUBLIC WORKS DEPARTMENT.

4493/9

From the Superintendent Madras Harbour Works, No. 43 H. d/ 2d Novr 1878.

FOR ORDERS.

~~The Superintendent has been asked to report briefly on the 15th of the month the effect of the strong Northerly current at present prevailing on the sand accumulation.~~

Secy: to Govt: P.W.D.

6th Novr: 1878.

6/11

5/11

FOR ORDERS.

Hon. W. Hudleston

Hon. Sir W. Robinson
K.C.S.I.

Min. from the same

Hon. D. F. Carmichael

Ct. Vol. 1247²
& 1289²

5

D & R
Cl works.

No. 4493 W d/ 25th Nov/78.

Recorded

24-11-78

Supt. M.A. Works
Marine Dept.

Desp. 6-12-78

Cir 6-11-98 R25/11

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10

Cr 1422 ~~1389~~

Govt. of [1878] Madras.

PUBLIC WORKS

27-11-78

To

Dated

Vided

Recd.

G. O. 25 Nov 1878, No. 4693 W

Nos. 282 @ 283

Madras Harbour Works

Progress Report of the — for Oct 1878 recorded