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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W.D DEPARTMENT

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

25th November 1880, No. 2,720 W.

Buildings and Roads.
Civil Works.

Read the following paper:—

No. 119. From F. N. THOROWGOOD, Esq., M. Inst. C. E., Superintendent of Madras Harbour Works, to the Secretary to Government, Public Works Department, Buildings and Roads, dated Madras, 3rd November 1880, No. 52 W.

I HAVE the honor to submit the following report of the progress on these works in the past month of October, during which there has been unavoidable delay from many causes.

2. NORTH PIER SUPERSTRUCTURE.—I mentioned in the third paragraph of my report for September that a few days' cessation from blocksetting would be necessary in the early part of October, to allow the blocks in the yard to attain their proper age, as the large number withdrawn from the stock in September had gained considerably on the number made. In consequence of this, no blocksetting was carried on at the north pier for the first nine days of the month, and when work was resumed on the 11th, there were numerous rumours of bad weather to the northward, which was reported to be travelling south.

3. The Titan crane was, therefore, withdrawn to a place of safety, and the end of the piers was clamped together as was done in May last, to be ready for any heavy seas which might wash over the blocks. No bad weather, however, appeared, and on the 19th October I ordered the Titan to be advanced and work to be resumed with caution. Since then there have been 128 blocks set in the north pier, advancing it by a length of 75 lineal feet, and making the total length 3,537½ from the commencement of blockwork. At a distance of 37½ feet from the present termination the widening out for the pier head will commence.

4. Since 30th October the sea has prevented all work on both piers, and at the date of writing there is every sign of continuance of bad weather.

5. NORTH PIER RUBBLE BASE.—Very little work was done at the north pier base in October owing to the steamer *Salisbury* being under repair until the 25th, and to the *Hobart's* being chiefly employed at the south pier base, where rubble was needed more urgently than at the north pier. In the past month only 7,682 tons of laterite were deposited, of which the *Hobart* conveyed 1,980 tons. The state of the sea has prevented me from getting any soundings to indicate the position of the base at the close of the month.

6. CONCRETE BLOCKMAKING.—The manufacture of blocks in the yard has been carried on as briskly as possible, but was interrupted occasionally by heavy rain. During the month 561 blocks were turned out, of which 431 were made by machinery and 130 by hand labor at the south pier yard. All the blocks that are now being made for the north pier are of special design for the pier head, which, if the weather be favorable, will be commenced this month.

7. It will be necessary to suspend blockmaking by machinery for ten days in order to repair the engines, and fix new brasses to the main driving shafts. Advantage will be taken of the rainy season to effect these repairs, which are now in hand.

8. QUARRIES.—The outturn from the quarries was impeded by rain during the latter part of October, and at the Ambatūr quarry the work-people are nearly flooded out by water in the pits. The quantity of laterite delivered from Ambatūr was 17,073 tons, or about 2,000 tons in excess of what was delivered in September. The Ambatūr quarries will be closed in six months' time, and any stone required for rubble after that date will be procured from Pallāvaram.

9. The quarries at Pallāvaram kept up the supply to the usual quantity, 18,060 tons having been sent down in October. The total amount of stone from both quarries received during the month has been 35,133 tons. At the present date work is nearly at a standstill owing to the heavy rains.

10. SOUTH PIER SUPERSTRUCTURE.—Progress at the south pier has been better than at the north, but the necessity for proceeding with great caution at this season has interfered with rapid advance. There were 176 blocks set in south pier during October extending the pier by a length of 101½ lineal feet, and making the total length from the commencement 3,074 feet. The last 50 feet of this length is built on the straight portion of the work leading to the pier head.

11. SOUTH PIER RUBBLE BASE.—The supply of stone to the south pier base was below the usual amount although an improvement upon September's work. There were deposited in October 17,329 tons of stone, of which 8,454 tons were carried by the steamers, and the remainder by cargo boats from the south pier. The state of the sea has prevented me from getting soundings as mentioned when referring to the north pier base.

12. PROTECTIVE WORKS TO THE BEACH.—I regret to have to report that, on the 30th and 31st October, a high tide and heavy surf did considerable damage to the coast to the north of Cassemode. The protective works carried on between the north pier and the police tannah beyond Mr. Coleman's property have answered their purpose well, but about three-fourths of a mile to the north of this the sea is encroaching badly, and the groynes already thrown out have now no beneficial effect. This is accounted for by the fact that very little sand travels along the coast north of the harbour piers.

13. During October 2,091 tons of boulders were thrown down for protection of the coast at those places where danger appeared imminent, but the actual damage done on 31st October was much farther north than our protective works extend. On this subject, however, I shall have to address Government separately.

14. INTERCEPTING DRAIN ALONG BEACH.—The recent heavy rains have tried the intercepting drain to its utmost, and at the same time have made it evident that some steps must be taken to divert the storm overflow from the beach road itself. At present, in a very heavy downpour, the water rushes off the road on to the sand in torrents, and at times finds its way into the wells of the intercepting drain, which thereby gets more work to do than was ever intended. This state of things could be remedied to a great extent by forming the surface of the beach in a proper manner, but as I consider the Municipality ought to attend to this I have as yet done nothing in the matter, but shall address the President of the Municipal Commission on the subject at once. I would remark, however, that the worst case of this flood water running at random over the shore from the road occurs inside a piece of foreshore close to Clive's Battery, recently enclosed by the Municipality. For the state of this portion of the beach I imagine they must, at any rate, be considered responsible.

15. STORES RECEIVED FROM ENGLAND.—The following stores have been received on the works in October from England :—

S. Hankon	...	...	...	...	20 Steel tyres for wheels.
S. Manora	...	...	...	...	2 Block trucks.
S. Nepaul	...	...	...	...	2 Stone-crusher jaws.
Ship Roderich Dhu	...	...	...	...	2 Titan crane chains.
Barque West Australian	...	...	...	...	4,040 Casks Portland cement.
	...	...	...	...	1,878 Do.

The block trucks and steel tyres arrived precisely at the time when they were most needed.

16. EXPENDITURE.—The expenditure on the works during October has been approximately Rs. 1,28,410, and the total expenditure up to 31st October (subject to correction) is Rs. 46,46,570.

17. PLANS AND SECTIONS.—The accompanying lithographed plan shows the high water line as surveyed on the 29th and 30th October. On the 31st (Sunday) the encroachment referred to in paragraph No. 12 took place, and is therefore not shown on this plan. It will be seen that the change in the direction of the waves since 30th September has already begun to make its effects visible to the south of the harbour, and to a small extent on the shore within the harbour to the south of the iron pier.

18. I regret that I am unable to give longitudinal sections of the rubble bases, but as I have already mentioned the sea has been too rough for any marine surveying operations since the 28th October.

No. 120. ORDER THEREON, 25th November 1880, No. 2,720 W.

RECORDED.

2. The Government will await the result of the communication which the Superintendent has addressed to the President of the Municipal Commission upon the subject of the formation of the beach.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

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

" *Self Harbour Works Committee*

Ltd. E. C. Shunker.
Spare Copies



ENGINEERS AND LOCAL
CIVIL WORKS.

Govt. of 1880, Madras.
PUBLIC WORKS.

To
THE SUPERINTENDENT, MADRAS
HARBOUR WORKS.
&c. &c. &c.

Dated November, 1880.

Encl.

Encl.

Encl.

G. O., 24th November 1880, No. 5220 W.

NOVEMBER.
Nos. 119-120.

Progress Report of the Madras Harbour
works for October 1880.—The — recorded
at the result of the examination to the
result of the Madras Harbour on the subject
the formation of the — is forwarded.

No. 52 W -

From

THE SUPERINTENDENT,
MADRAS HARBOUR WORKS.

To

Colonel R. A. Sankey C.B. A.C.
Secretary to Government. P.W. Dept.
Building & Roads
MADRAS, November 3rd 1880.

SIR,

I have the honor to submit the following report of the
progress in these works in the past month of October, during
which there has been unavoidable delay from many causes.

1. I mentioned in the 3rd paragraph of my report for
September that a few days' cessation from block-setting would
be necessary in the early part of October, to allow the blocks
in the yard to attain their proper age, as the large number
withdrawn from the stock in September had gained
considerably in the number made. In consequence of this
no block-setting was carried on at the North Pier for the
first 7 days of the month, and when work was resumed
on the 11th, there were numerous rumours of bad weather
in the northward, which was reported to be travelling South.

2. The Titan crane was, therefore, withdrawn to a place
of safety, and the end of the pins was clamped together
as was done in May last, to be ready for any heavy sea
which might wash over the blocks. No bad weather, however,
appeared, and on the 19th October I ordered the Titan to
be advanced and work to be resumed with caution—

Since then there have been 125 blocks set in the North Pier, advancing it by a length of 75 feet and making the total length 358 1/2 feet from the commencement of block work. At a distance of 37 1/2 feet from the pier the termination the widening out for the pier head will commence.

4. Since October 30 the sea has prevented all work on both piers, and at the date of writing there is every sign of continuance of bad weather.

5. Very little work was done at the North Pier since in October owing to the steamer "Satisfactory" being under repair until the 25th, and to the "Hobart" being chiefly employed at the South Pier base, where rubbles were used more sparingly than at the North Pier. In the past month only 7682 tons of laterite were deposited, of which the "Hobart" conveyed 1930 tons. The state of the sea has prevented the from getting any soundings to indicate the position of the base at the close of the month.

6. The manufacture of blocks in the yard has been carried on as briskly as possible, but was interrupted occasionally by heavy rain. During the month 561 blocks were turned out of which 421 were made by machinery and 130 by hand labor at the South Pier yard. All the blocks that are now being made for the North Pier are of special design for the pier head, which, if the weather be favorable, will be commenced this month.

7. It will be necessary to suspend blockmaking by

North Pier
Rubble base

Concrete
Blockmaking

Quarries

machinery for ten days in order to repair the engine, and fix new brasses to the main driving shafts. Advantage will be taken of the rainy season to effect these repairs, which are now in hand.

8. The outturn from the quarries was impeded by rain during the latter part of October, and at the Ambathur quarry the work people are nearly flooded out by water in the pits. The quantity of laterite delivered from Ambathur was 17070 tons or about 2000 tons in excess of what was delivered in September. The Ambathur quarries will be closed in six months time, and all dry stone required for rubble after that date will be procured from Pallavaram.

9. The quarries at Pallavaram kept up the supply to the same quantity, 13000 tons having been sent down in October. The total amount of stone from both quarries received during the month has been 35123 tons. At the present date work is only at a standstill owing to the heavy rains.

10. Progress at the South Pier has been better than at the North, but the necessity for proceeding with great caution at this season has interfered with rapid advance. There were 176 blocks set in South Pier during October, extending the pier by a length of 101 1/2 feet and making the total length from the commencement 304 feet. The last 50 feet of this length is built on the straight portion of the work leading to the Pier Head.

South Pier
Construction

11 The supply of stone to the South Pier has been
below the usual amount although an improve-
ment upon September's work. There were deposits
in October 1824 some of stone of which vast quantities
were carried by the channels and the remainder
by cargo boats from the South Pier. The state
of the sea has prevented me from getting a satisfactory
account of what relating to the South Pier has
been done.

South Pier
Pier Work

12 I regret to have to report that on the 30th and 31st of
October a high tide and heavy wind did considerable
damage to the coast to the South Pier. The
protection works carried on between the South Pier and
the other South Pier have not been completed and
have answered their purpose well, but about 1/4 of
a mile to the North of the pier is now exposed
back, and the progress of the sea is increasing
and the beach is being cut out. This is due to the
fact that the sea is now running in the
mouth of the harbour.

Pier Work
25. 1824

13 During October 1824 some of the most
thorough work for protection of the coast at this
place where damage appeared. It is not
the actual damage done on October 30th and
31st but the fact that the sea is now running in the
mouth of the harbour. On this subject, however, I shall have to address
myself separately.

Intercepting Drain
along Beach

14 The recent heavy rains have burst the water
catching drain to the utmost and at the same
time have made it evident that some steps must
be taken to divert the storm-water from the
beach head itself. It has not in a very heavy
storm, the water rushes off the road on to
the sand in torrents, and at times finds its way
into the water of the intercepting drain, which
thereby does more work to do than was ever intended.
The state of things could be remedied to a great extent
by forming the surface of the beach in a proper
manner, but as I consider the Municipality ought
to attend to this I have not done nothing as yet.
The Mayor, but I shall address the President of the Board
on the subject of the drain. I should like to
know that the cause of this floodwater running
at random over the beach from the road, occurs in
a place of position close to the South Pier, recently
excavated by the Municipality. For the state of the
position of the beach I imagine they must, at any rate,
be considered responsible.

How much has
been done

15 The following items have been carried
on at the South Pier in October 1824.

A. H. Love

20. Not good for adults

J. Munn

Black Birch

A. Shepard

2. Stone & Co. Chicago

Thy. Friedrich Sch

2. *Therapsid*.

Notre ami, l'abbé Lhuillier

Baroness H. A. Schöller

175. 176. 177.

The block letters and steel types arrived precisely
at the time when they were most needed.

16. The expenditure in the week ending October has been approximately £200 and the total expenditure for October has been £1000.

17. The accompanying table, together with the Section
table, has been prepared as a record of the
Section. On the 3rd of January the water around
Quaid's Island in paragraph 12th took place and
is therefore not shown on this plan. It was to
show that the change in the direction of the water
current. It under 30° has already begun to manifest
its effects south to the south of the Harbour, and
is a small extent on the shore within the
Harbour to the south of the Iron Pier.

18 I protest that I never would be given leave
to attend sessions of the public house, but as

420

I have already mentioned the sea has
been too rough for any marine survey-
ing operations since the 28th October. I

I have the honor to be,
Dear Sir, Yours truly,

21. Heron's gull. Nest. b. c.

Superinducta 62

Madras, 11th Dec 1864.

ch. D
5.15
[Signature]
17.11.80

2720
8

Dir 15.11.80. Pda 25.11.80

7005-

Capt. of (1879) India.

PUBLIC WORKS.

28
11-92

25th Nov. 80 27206.

Nov. 27 1880

Progress Report
of the Hill works
for October 1880.

The — Recorded
the receipt of the
communication
to the President of the
on the subject of the
formation of the
Committee.

Encls 109.