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# TAMIL NADU ARCHIVES

## GOVERNMENT OF TAMIL NADU

*Public works* DEPARTMENT

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| G.O. No. | 239(W)    | Press. |
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Not to be folded or roughly handled

GOVERNMENT OF MADRAS.  
PUBLIC WORKS DEPARTMENT.

14th January 1878, No. 239 W

Buildings and Roads.

Civil Works.

Read the following papers:—

No. 121. From F. N. THOROWGOOD, Esq., Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department, Buildings and Roads Branch, dated Madras, 1st January 1878, No. 66 W.

I HAVE the honor to submit the following report of the progress on these works during the month of December 1877.

2. *North Pier Works.*—The weather during the month was not so favorable for work as I had anticipated, judging from the weather of December 1876, and there were only six days on which block-setting could be carried on. During these days fifteen blocks were set, and the pier was advanced  $14\frac{1}{2}$  lineal feet. The total length of block-work from the point B is now 356 feet.

3. The setting of these fifteen blocks occupied more time than usual in consequence of an error in the slope or batter of the work. This error has gradually been accumulating since the commencement of block-setting, and I judged that it was now time to correct it. To do this required some special arrangements which caused considerable delay.

4. On the 23rd, 24th, 25th, and 26th the sea was very heavy, and the end row of blocks in the north pier settled down so much that it became necessary to reset them, and protect them thoroughly with foreshore of large laterite boulders.

5. *Protective Work.*—In addition to the laterite thrown over from the pier itself to form a foreshore, Masula boats and catamarans have been engaged in widening the base of the pier, taking laterite from the "false start" and from the dispersed boulders on the south of the pier, which are now exposed by the cutting away of the sand. About 374 tons have been thus deposited by boats in December.

6. During the past month seven of the blocks built *in situ* on the top of the laterite bank, which forms a protection to the north side of the block-work, fell over into the sea, and in their present position they serve as an excellent obstruction for the heavy north-easterly seas to break against.

7. *Block-making.*—The block-making machinery has not been at work during the month, as there was a sufficiently large number of blocks already made. There have been 66 of the 6-ton blocks made in the block yard by hand labor. These will be kept in readiness for protective works.

8. No stone has been sent down from Chinnamapett, and work at that place has been stopped till more stone is required. From Ambathoor 70 tons of laterite have been received and deposited in the sea as foreshore.

9. *Buildings.*—The only building work that has been carried on during December is the completing and roofing in of the locomotive engine-shed, and the erection of a weigh-bridge house at the south pier for weighing the South Indian Railway stone wagons. The weigh-bridge for this purpose I have purchased from the South Indian Railway Company.

10. *South Pier.*—At the south pier work has been pushed on whenever the weather would permit. Thirty-two permanent blocks have been satisfactorily set

during the month, which have advanced the pier a length of 33 feet. The total length of block-work now set in the south pier is 76½ lineal feet.

11. During the heavy seas of the 23rd, 24th, and 25th December the blocks at the extreme end of the work settled down considerably owing to the great scour of the waves on the rubble base; no damage was done however, and there is every prospect now of being able to carry the work on briskly.

12. *Stone supply.*—Nearly 200 tons of large granite boulders have been supplied from Palaveram to be used as fernshore on each side of the block-work; and about 960 tons of small stone for the rubble base from the quarry at the 16th mile, South Indian Railway. In addition to this 280 tons of small chips of Palaveram stone have been sent down for concrete block-making. This small stone will be used together with Chinnamapett stone in the concrete blocks, but at present I am not able to use much Chinnamapett stone owing to the jaws of the stone crushers being worn out.

13. *Rubble Base.*—The base of the south pier has been carried out in advance of the blocks by means of stone tipped from boats and catamarans, and thrown in from the Titan crane. This method will have to be adopted until the Hopper barges can be brought alongside the piers.

14. A good supply of 6-ton blocks is kept on hand at the south pier, and eighteen were added to the stock during December. There are now 102 at the south pier ready for use at any minute.

15. *General.*—I have not been able to take any soundings or make observations on the bottom of sea during December, but I hope to have some favorable weather during January 1878, and to be able to take a series of sections at each pier.

16. T.B. S.S. *Hobart* arrived at Madras from Cocanada on the 17th December; her boatmen and boats will be useful for surveying purposes.

17. *Expenditure.*—In compliance with G.O., No. 2,017 W, of 8th December 1877, I have the honor to state that the total sum expended on the works up to date is (about) Rupees 15,00,185. This amount may be subject to correction, as it is not possible to get the details of the accounts properly adjusted up to date so soon after the end of the month.

18. *Summary of work done in 1877.*—I think the following brief summary of the work done during the year 1877 will not be without interest.

19. Two lines of railway have been laid in at Chinnamapett and connected with the Madras Railway, and 9,414 tons of shingle have been delivered from there to the block ground at Royapet; 6,367 tons of laterite have been brought down from Ambethoor, making a total of 14,781 tons of material carried to the works by the Madras Railway in 1877.

20. The South Indian Railway has been extended from Cochrane's Canal to the beach. This work includes the construction of the timber bridge, 200 feet long, over the canal. The line has worked satisfactorily during the past year and has brought down 28,576 tons of stone.

21. A line of railway has been laid in to the quarry at the 16th mile, South Indian Railway, and the quarry has been nearly worked out. 32,136 tons of stone have been brought from the South Indian Railway districts to the south surf bank and pier.

22. With the exception of the jetties for loading the Hopper barges and one or two minor details, all the preliminary works have been completed, of which the principal are—

- The whole of the south block ground,
- Carpenter's shop,
- Fitter's shop and blacksmith's shop,
- Alterations to head office,
- Locomotive engine-shed,
- Erection of south pier Titan, two locomotives,
- Two light travellers and one G.M. crane,
- The whole of the railway along the beach,
- 852 concrete blocks for the permanent work of both piers have been

made, and 366 blocks of 6 tons each for protective purposes. Besides these fifty blocks have been built *in situ* to protect the north pier. At the north pier 305 blocks have been set, and an advance of 315 lineal feet has been made in the block-work. The total length from the original high-water mark on December 31st, 1877, was 1,056 feet. At the south pier 62 blocks have been set and an advance of 75½ lineal feet has been made. The total length from the original high-water mark on December 31st, 1877, was 735 feet. The total amount of stone tipped in 1877 for rubble base is at the north pier 9,850 tons, and at the south pier 1,396 tons.

23. The works have stood the test of a cyclone in May, and the damage sustained was inconsiderable.

24. Plans and sections will follow to-morrow.

No. 121-A. From the same Officer, dated Madras, 5th January 1878, No. 67 W.

I HAVE the honor to forward three tracings of the Harbour Works mentioned in the last paragraph of my letter No. 66 W, dated January 1st, 1878.

2. I have kept the plans back so as to be able to plot the most recent soundings taken at the north pier.

No. 122. ORDER THEREON, 14th January 1878, No. 239 W.

ORDERED to be recorded.

(True Extract.)

Colonel R.E.,

Secretary to Government, P.W.D.

To the Superintendent, Madras Harbour Works.  
" Lieutenant-Colonel Thomson, R.E.  
" Marine Department.

Encl. S. T. Austin.  
Spec Copies

UNITED STATES ARMY  
SIGNAL CORPS  
★  
Genl. of (1878) 31012

PUBLIC WORKS.

THE SIGNAL CORPS  
HEADQUARTERS

Genl. of (1878) 31012

JANUARY

Jan 11-1881

No. 66W.

From

THE SUPERINTENDENT,  
MADRAS HARBOUR WORKS.

To Colonel G. A. Ford, R. E.  
Secretary to Government, P. W. Dept.  
Buildings & Roads Branch.  
Fort St. George, 1<sup>st</sup> January 1878.

SIR,

I have the honor to submit the following report of the progress on these works during the month of December 1877.

2. The weather during the month was not so favourable for work as I had anticipated judging from the weather of December 1876, and there were only 6 days on which block setting could be carried on. During these days 15 blocks were set, and the pier was advanced  $11\frac{1}{2}$  lineal feet. The total length of blockwork from the point B is now 356 feet.

3. The setting of these 15 blocks occupied more time than usual in consequence of an error in the slope or batter of the work. This error has gradually been accumulating since the commencement of block-setting, and I judged that it was now time to correct it. To do this required some special arrangements which caused considerable

North Pier  
works

considerable delay.

4. On the 23<sup>d</sup>, 24<sup>th</sup>, 25<sup>th</sup> & 26<sup>th</sup> the sea was very heavy, and the end row of blocks in the North pier settled down so much that it became necessary to reset them, and protect them thoroughly with foreshore of large laterite boulders.

#### Protective work

5. In addition to the laterite thrown over from the pier itself to form a foreshore, mounds of boats and catamarans have been engaged in widening the base of the pier, taking laterite from the "false start" and from the dispersed boulders on the South of the pier which are now exposed by the cutting away of the sand. About 37 1/2 tons have been thus deposited by boats in December.

6. During the past month seven of the blocks built "in situ" on the top of the laterite bank which forms a protection to the North side of the blockwork, fell over into the sea, and in their present position they serve as an excellent obstruction for the heavy north easterly seas to break against.

7. The blockmaking machinery has not been at work during the month, as there was a sufficiently large number of blocks already made.

#### Blockmaking

There have been 66 of the six ton blocks made in the block yard by hand labour. These will be kept in readiness for protective works.

8. No stone has been sent down from Chinnampett, and work at that place has been stopped till more stone is required. From Ambathoor 70 tons of laterite have been received and deposited in the sea as foreshore.

#### Buildings

9. The only building work that has been carried on during December is the completing and roofing in of the Locomotive Engine shed and the erection of a weigh-bridge house at the South pier for weighing the South Indian Railway stone wagons. The weigh bridge for this purpose, have purchased from the South Indian Railway Company.

#### South Pier

10. At the South pier work has been pushed on whenever the weather would permit. Thirty-two permanent blocks have been satisfactorily set during the month, which have advanced the pier a length of 38 feet. The total length of blockwork now set in the South pier is 75 1/2 lineal feet.

11. During the heavy seas of the 23<sup>d</sup>, 24<sup>th</sup> and 25<sup>th</sup> December, the blocks at the extreme end of

of the work settled down considerably owing to the great scour of the waves on the rubble base; - no damage was done however and there is every prospect now of being able to carry the work on briskly. -

12. Nearly 200 tons of large granite boulders have been supplied from Palaveram to be used as foreshore on each side of the blockwork; and about 960 tons of small stone for the rubble base from the quarry at the 15<sup>th</sup> mile South Indian Railway. In addition to this 280 tons of small chips of Palaveram stone have been sent down for concrete blockmaking. This small stone will be used together with Chinnampett stone in the concrete blocks, but at present I am not able to use much Chinnampett stone owing to the jaws of the stone crushers being worn out.

Stone supply

13. The base of the South Pier has been carried out in advance of the blocks, by means of stone tipped from boats and cutamaras, and thrown in from the Titan Crane. This method will have to be adopted until the Hopper barges can be brought alongside the piers.

Rubble Base

14. A good supply of six ton blocks is

V. P. 3

is kept on hand at the South Pier, and eighteen more added to the stock during December. - There are now 102 at the South Pier ready for use at any minute. -

General

15. I have not been able to take any soundings or make observations on the bottom of sea during December, but I hope to have some favourable weather during January 1878, and to be able to take a series of sections at each pier. -

16. The S.S. "Hobart" arrived at Madras from Arcanota on the 17<sup>th</sup> December, Her boatmen and boats will be useful for surveying purposes.

Expenditure

17. In compliance with G.O. No. 2017 of 8<sup>th</sup> December 1877, I have the honor to state that the total sum expended on the works up to date is (about) Rs 15,09,180. - This amount may be subject to correction as it is not possible to get the details of the accounts properly adjusted up to date so soon after the end of the month.

Summary of work done in 1877

18. I think the following brief summary of the work done during the year 1877 will not be without interest. -

19. Two lines of railway have been laid in

at Chinnampitt and connected with the  
Madras Railway, and 944 tons of shingle  
have been delivered from there to the block  
ground at Nagasaram. - 5567 tons of labrite  
have been brought down from Amballoor  
making a total of 11,751 tons of material  
carried to the works by the Madras Railway  
in 1877.

20. The South Indian Railway has been  
extended from Cochrane's Canal to the  
beach. This work includes the construction of  
the timber bridge 200 feet long over the canal.  
The line has worked satisfactorily during the  
past year and has brought down 28,576 tons  
of stone. -

21. A line of railway has been laid in to the  
quarry at the 16<sup>th</sup> mile, South Indian Railway,  
and the quarry has been nearly worked out.  
32,136 tons of stone have been brought from the  
South Indian Railway districts to the South  
Sea bank and pier. -

22. With the exception of the jetties for loading  
the Hopper barges and one or two minor  
details, all the Preliminary Works have been  
completed

completed of which the principal are,  
the whole of the South Block ground,  
Carpenter's shop, <sup>239</sup>  
Fitter's shop & blacksmith's shop,  
Alterations to Read. Office,  
Locomotive Engine shed,  
Erection of South Pier Jetty, 2 Locomotives,  
2 Light travellers and one Goliath crane,  
The whole of the railway along the beach,  
852 Concrete blocks for the Permanent  
work of both piers have been made, and  
366 blocks of six tons each for protective  
purpose. Besides these 50 blocks have been  
built "in situ" to protect the North Pier. -  
At the North pier 305 blocks have been set,  
and an advance of 313 lineal feet has  
been made in the blockwork. -

The total length from the original High Water  
mark on December 31<sup>st</sup> 1877 was 1056 feet. -  
At the South pier 62 blocks have been set  
and an advance of 75½ lineal feet has  
been made. The total length from the  
original High Water mark on December 31<sup>st</sup>  
1877 was 735 feet. The total amount of stone  
tipped

1539  
239  
1540

tipped in 1877, for rubble base is at the North  
Per 9850 tons, and at the South pier  
1396 tons.

23. The works have stood the test of a  
cyclone in May, and the damage sus-  
tained was inconsiderable.

24. Plans and sections will follow tomorrow.

I have the honor to be,

Sir,

Your most obedient servant,

G. H. Mervin-Good.

Superintendent  
Madras Harbour Works

Buildings & Roads

From The Superintendent  
Madras Harbour Works

No. 6612  
Dated 1<sup>st</sup> January 1878

Progress Report  
Submits report of progress of  
the works during December 1877

No. 6712

P 6

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From

THE SUPERINTENDENT,  
MADRAS HARBOUR WORKS.

To Colonel G. A. Ford, R. E.  
Secretary to Government, P. W. Dept.  
Buildings & Roads Branch  
MADRAS, 5<sup>th</sup> January 1878.

SIR,

I have the honor to forward three tracings  
of the Harbour Works mentioned in the last  
paragraph of my letter No. 6612, dated January  
1<sup>st</sup> 1878. -

2. I have kept the plans back so as to be  
able to plot the most recent soundings taken  
at the North Pier. -

Have the honor to be,

Sir,

Your most obedient servant

A. H. Morrogh.

Superintendent

Madras Harbour Works

239  
7

Buildings & Roads

From  
The Superintendent  
Madras Harbour Works

From the Superintendent, Madras Harbour  
Works No. 66 W and 67 W dated 5<sup>th</sup> January 1878.

FOR ORDERS.

G.O.S. Dec 1877 No 2017. W.

1067 W  
Dated 5<sup>th</sup> January 1878

10 of enclosures 3 &  
3 Plans given to  
L. A. V. S.

Progress Report

Forwards 3 tracings in con-  
nection with the Progress Report  
for December 1877.

Fort St. George  
8<sup>th</sup> Jan 1878

We shall want all  
the proceeds that has  
not accumulated for  
the purpose.

M. J.

Edmund Collett  
Secretary to Govt. P. W. D.

I suppose this is the amt.  
of the 1<sup>st</sup> of Jan. The  
line of the 31.12.77  
appears the district  
enclosing South of the  
K. Riv. becoming  
more uniformly parallel  
to the coast line

The pins. I am entirely  
convinced 'Lauray' is  
the look like unglazed  
porcelain -

I do not think any  
Opinion can be  
found as I believe  
the former one is the  
better. Spending the  
time taken over a  
Historical Review  
Section —

To the Hon. the Senate,  
of the State of New York,  
I have the honor to acknowledge  
the receipt of your letter of the  
10th inst. in relation to the  
proposed amendment to the  
Constitution of the State,  
and in reply to inform you  
that the same has been  
forwarded to the proper  
authorities for their consideration.

dear Mr. [unclear]  
 I have just received your letter of the 10th inst. and am glad to hear that you are well.  
 I am well at present and hope these few lines will find you the same.  
 I am, dear Mr. [unclear], very respectfully,  
 your obedient servant,  
 [unclear]

239  
9

County of ...  
The year of ...  
To the ...  
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150

FOR ORDERS.

The ...  
has been ...  
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*[Faint handwritten notes and stamps]*  
138 R.  
Dec 23rd 9th Feb. 78  
Recorded

11/78

Disp<sup>d</sup>  
21.1.78

Supt. H. ...  
H. L. ...  
Marine Dept.

Aug 2.78

*Oct 22 1878*

Office of 1878 *Madras.*  
PUBLIC WORKS.

To *the Secy. to the Govt. of Madras*

Date  
Issued

Recd.

Encl.

*G. O. 14 January 1878, No. 296*

Nos.

*Madras Harbour Works.  
Progress report of the  
for December 1877 Accounts*

*W. H. D. S.*