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**MADRAS RECORD OFFICE.****Government of Madras.***Public Works* **DEPARTMENT.**G.O. No. 425 (W) 

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Dated 14-7-1877

**Not to be folded or roughly handled**

GOVERNMENT OF MADRAS  
PUBLIC WORKS DEPARTMENT.

14th July 1877, No. 425 W.

Buildings and Roads  
Civil Works

Read the following paper —

No 185 From F. N. THOROWGOOD, Esq., Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department, Buildings and Roads, dated Madras, 6th July 1877, No. 32 W.

I HAVE the honor to forward to you for the Government of India a *replica* of my Progress Report of these works for the month of June with plan and sections.

From the same Officer, dated Madras, 30th June 1877, No. 30 W.

I HAVE the honor to report as follows on the progress of the Madras Harbour Works during the month of June 1877.

2 NORTH PIER —The swell and surf have been somewhat heavy during the past month, but at short periods of a more quiet sea a small amount of work has been done. Some of the end blocks which were displaced and damaged during the cyclone in May have been lifted and set on a level bed. Nineteen blocks have been set and a progress of  $14\frac{1}{2}$  feet made, giving a total length on 30th June from point B of 321 $\frac{1}{2}$  feet. One of these blocks was made with General Morgan's cement and was the first block made with steam machinery.

3. On the 12th June laterite stone was obtained from Ambathoor quarries and, up to the 30th, 1,887 tons have been received and deposited along the north side of the breakwater, where it had settled and where the foundations had been undermined during the recent storm. Among this laterite stone and previous to the deposit of it 44 small 7-ton concrete blocks have been thrown as *pierres per dues* which will give more substance to the foreshore.

4 CONCRETE BLOCKS —The total number of large concrete blocks now made is 874, of which 11 have been made during the past month, and besides this number 92 small 7-ton blocks were made in June.

5 The total quantity of shingle concrete stone received from Chinnamapett has been 336 tons, and this small quantity is owing to the supply having been stopped since the 8th June, in order to allow the Railway Company to have the trucks to bring laterite stone from Ambathoor, which stone has been used as above described.

6 CONCRETE BLOCK PLATFORMS —The south block ground has been extended 60 feet, as shown on the accompanying plan. One of the P. and O. godowns having been removed in order to make way for the block platforms.

7. BUILDINGS —The new carpenter's shop and stables have been completed, and a large leaf pandal has been erected in order to store fresh arrivals of cement.

8 The mechanics have been employed in examining the valves and bearings of the engines, in repairing the stone breakers, in slightly altering some of the travelling cranes, and in erecting No 2 locomotive engine, which is now completely fitted up and has been under steam on several occasions

9 HARBOUR COMMITTEE —The Harbour Committee met twice during the month. The only alteration in existing contracts made at these meetings was in the case of Mr Woolley, who asked permission to withdraw from his contract of unloading stone at the south pier. The reason of his withdrawal as he stated was that an insufficient supply of stone was brought down, while I contend that he did not unload sufficiently quickly the stone which was brought. The whole facts of the case were laid before the Harbour Committee, and they consented in permitting him to withdraw.

10. STORES.—The following ships have been unloading stores for these works during the month, *Her Majesty*, *Mofussilite*, *Vimeira*, *Deccan*, and *Sea Gull*. They have brought 8,298 casks of cement, a locomotive engine with all fittings complete, 6 tons of iron chains of different sizes, a Titan crane, and a Goliath travelling crane. These two latter machines have arrived in the *Sea Gull*, and have not yet been completely unloaded.

11 SOUTH PIER SURF BANK —A quantity of 3,606 tons of stone from the quarry at the 15th mile on the South Indian Railway has been deposited in this bank, increasing the length of it by 150 feet, making a total length of 350 feet from point D.

12 BEACH ROAD RAILWAY —The Beach Road Railway has been extended a further length of 1,800 feet, leaving a space of only 800 feet across the neighbourhood of the iron pier to be connected in order to complete the whole line, but since the 25th instant the works have been stopped for the reason stated in my communication to you No 28 W of 26th June.

13 ENGINEERS OF THE HOPPER BARGES —The four Engineers of the steam hopper barges have left Madras, passages having been secured for them by the Master Attendant in the steamship *Navarino*. The fact of their departure and the fact that free passages had to be secured to them according to their agreements have been reported to the Examiner of Public Works Accounts.

14 GENERAL OBSERVATIONS —The accompanying plan shows the accumulation of sand which has taken place at the south of the north and south piers. It also shows a cutting away of sand to the north of the south Pier. This sand has no doubt moved to the north within the harbour limits and has caused much of the accumulation of sand on the south side of the north pier.

15 Cross sections of the beach north and south of the harbour as well as within its limits are being repeated this month.

16 The state of the sea and the position of the shipping has been such that no further examination has been made of the crates deposited on the sea bottom since those reported by me on June 16th, 1877.

17 An accurately cut cube of laterite stone has been suspended in the sea as an experiment, its weight having been previously ascertained. This cube will be reweighed after being suspended in the sea for a period of a month and the result reported to Government.

No 186 Telegram from the Secretary to the Government of India, Public Works Department, Simla, to the Secretary to the Government of Madras, Public Works Department, dated 7th July 1877.

PLEASE send early report and progress of Madras Harbour Works to 30th June, especially showing highwater line at that date.

No 187.

ORDER THEREON, 14th July 1877, No. 425 W.

ORDERED that the following reply be sent

(Here enter No 426 W, dated 14th July 1877)

(True Extract)

Colonel, R E,  
Secretary to Government, P W D

Exd S T Austin

Spare Copies

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.  
Civil Works.

No. 426 W.

No 188

FROM

THE SECRETARY TO THE GOVERNMENT OF MADRAS,  
Public Works Department,

TO

THE SECRETARY TO THE GOVERNMENT OF INDIA,  
Public Works Department.

SIR,—Adverting to your telegram of the 7th July regarding the Madras Harbour Works, I am directed to forward a copy of the Harbour Superintendent's report for the month of June, with plans illustrating the progress which has been made on the works, and the highwater line on the last day of that month

I have the honor to be,

Sir,

Your most obedient servant,

Colonel, R E,  
Secretary to Government, P.W.D.

FORT ST. GEORGE,  
14th July 1877.

Exd S T Austin.  
Spare Copies

No. 301r.

From

THE SUPERINTENDENT,  
MADRAS HARBOUR WORKS,

To

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.

No. 456

SERVICE MESSAGE DESPATCHED BY ELECTRIC TELEGRAPH.

FROM

Simla

To

Madras

FROM

Works

To

Works.-

Please send early report and progress of Madras Harbour Works to Thirtieth June, especially of the showing high water line at that date..

No. 456

Copy forwarded by Post for information.

The

7<sup>th</sup> July. 1877.

for Under Secy. to the Govt. of India.

Simla  
The 7<sup>th</sup> July. 1877. }  
for Under Secy. to the Govt. of India.  
cement and was the first block made with steam machinery. -

3. On the 12<sup>th</sup> June laterite stone was

as follows  
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2<sup>nd</sup> June  
of the se

Morgan's

From

THE SUPERINTENDENT,  
MADRAS HARBOUR WORKS,

To

Colonel E. A. Ford, R.E.  
Secretary to Government. *W.R.D.*  
for Roads & Buildings  
Fort St George, *MADRAS*, 30<sup>th</sup> June 1877

SIR,

3

I have the honor to report as follows  
on the progress of the Madras Harbour  
Works during the month of June 1877. -

North Pier

2. The swell and surf have been somewhat heavy during the past month, but at short periods of a more quiet sea a small amount of work has been done. Some of the end blocks, which were displaced and damaged during the cyclone in May have been lifted and set on a level bed. Nineteen blocks have been set and a progress of 14<sup>th</sup> feet made, giving a total length on 30<sup>th</sup> June from point B of 325<sup>th</sup> feet. - One of these blocks was made with General Morgan's cement and was the first block made with steam machinery. -

3. On the 12<sup>th</sup> June cuticle stone was

obtained from Ambathoor quarries and up to the 30<sup>th</sup> 1887 tons have been received and deposited along the North side of the Breakwater, where it had settled and where the foundations had been undermined during the recent storm - Among this laterite stone and previous to the deposit of it 44 small 7 ton concrete blocks have been thrown as pierres perdues which will give more substance to the Treshore.

Concrete Blocks

4 The total number of large concrete blocks now made is 871 of which 11 have been made during the past month, and besides this number 92 small 7-ton blocks were made in June. -

5 The total quantity of Shingle concrete stone received from Chinnampatt has been 336 tons and this small quantity is owing to the supply having been stopped since the 8<sup>th</sup> June in order to allow the Railway Company to have the trucks to bring laterite stone from Ambathoor, which stone has been used as above described. -

Concrete Block  
Alforns

6 The South block ground has been extended 60 feet as shown on the accompanying

plan. One of the P. & O. godowns having been removed in order to make way for the block platforms.

Buildings

7. The new Carpenter's shop and Stables have been completed and a large leaf sundial has been erected in order to store fresh arrivals of cement.

8. The mechanics have been employed in examining the valves and bearings of the engines, in repairing the stone breakers, in slightly altering some of the travelling cranes, and in erecting a 1<sup>st</sup> 2 Locomotive Engine which is now completely fitted up and has been under steam on several occasions.

Harbour Committee

9. The Harbour Committee met twice during the month. The only alteration in existing contracts made at these meetings was in the case of Mr. Woolley, who asked permission to withdraw from his contract of unloading stone at the South Pier. The reason of his withdrawal as he stated was that an insufficient supply of stone was brought down, while I content that he did not unload sufficiently quickly the stone which was brought. The whole facts of

of the case were laid before the Harbour Committee and they consented in permitting him to withdraw.

Stores

10. The following ships have been unloading stores for these works during the month, "Her Majesty", "Alfonso", "Vineira", "Deccan" and "Sea Gull". They have brought 8295 casks of cement, a Locomotive Engine with all fittings complete, 6 tons of iron chains of different sizes, a Titan Crane, and a Goliath Travelling Crane. These 2 latter machines have arrived in the "Sea Gull" and have not yet been completely unloaded.

South Pier  
Surf Bank.

11. A quantity of 3606 tons of stone from the quarry at the 15<sup>th</sup> mile on the South Indian Railway has been deposited in this bank increasing the length of it by 150 feet making a total length of 350 feet from point D.

Beach Road  
Railway

12. The Beach Road Railway has been extended, a further length of 1500 feet leaving a space of only 800 feet across the neighbourhood of the iron Pier to be connected in order to complete the whole line, but since the 25<sup>th</sup> instant, the works have been stopped for the

reason stated in my communication to you  
of 25<sup>th</sup> June -

Engineers of the  
Hopper Barges

13. The four Engineers of the Steam Hopper  
Barges have left Madras, passage having been  
secured for them by the Master Attendant in  
the Steam Ship "Navarino". The fact of their  
departure and the fact that free passages had to  
be secured to them according to their agreements,  
have been reported to the Examiner of Public  
Works Accounts. -

General Observa-  
tions

14. The accompanying plan shows the  
accumulation of sand which has taken place  
at the South of the North and South Piers. -  
It also shows a cutting away of sand to the  
North of the South Pier. This sand has no  
doubt moved to the North within the Har-  
bour limits and has caused much of the  
accumulation of sand on the south side of  
the North Pier -

15. Cross sections of the Beach North  
and South of the Harbour as well as within  
its limits are being repeated this month -

16. The state of the sea and the position  
of

of the shipping has been such that no further examination has been made of the crates deposited on the sea bottom since those reported by me on June 16<sup>th</sup> 1877. -

17. An accurately cut cube of laterite stone has been suspended in the sea as an experiment, its weight having been previously ascertained. This cube will be reweighed after being suspended in the sea for a period of a month and the result reported to Government.

I have the honor &c.

F. R. Thorowgood,

Superintendent

Madras Harbour Works

per N. S. B.

W.D.  
7 JUL 77  
NR 6644

No. 321r

23-

From

THE SUPERINTENDENT,  
MADRAS HARBOUR WORKS.

To

Colonel G. A. Ford, R.E.  
Secretary to Government, P.W.D.  
for Roads & Buildings  
Fort St. George  
MADRAS, 6 July 1877

SIR,

I have the honor to forward to  
you for the Government of India a  
replica of my progress report of these  
works for the month of June with  
Plan and Sections. -

I have the honor to be,

Sr

Your most obedient Servant.

F. H. Thoroughgood  
Superintendent  
M. H. Works  
per H. S. B.

185

4th July 77 S.B.R. 185

Roads & Buildings

From the Superintendent  
Madras Harbour Works

No 3212  
Dated 6<sup>th</sup> July 1877

- 1<sup>st</sup> of Enclosures 4

Progress for June 1877  
Forwards Report in replica  
Govt of India

Ld 14<sup>th</sup> July/77 J.B.D. 185

in 12-77 RLB-7-77

Buildings & Roads  
Civil works  
No 4252 Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the

Read the following:—

From the Superintendent  
Madras Harbour Works } (M.E. No. 3212 of 6 July/77)

Telegram from the Govt. of India (H.E. — of 7 July/77)

Ordered that the  
following reply be sent

M.E. No. 42612 of 14 July/77

To

The Secretary to the  
Govt. of India

Sir

Adverting to your  
telegram of the 7 July—  
regarding the Madras Harbour  
Works, I am directed to  
forward

A.P.

forward a copy of the  
Harbour Superintendent's  
report for the month of June,  
<sup>with</sup> ~~and~~ plans illustrating the  
progress which has been made  
on the works, and the high-  
water line on the last day  
of that month.

Ext 9/7

MS dispd with  
1 Report & 3  
Plans —

14-7-77

sc dispd 20-7-77

Copy 57  
16-7-77

Gobt. of 1877 India.  
PUBLIC WORKS.

To

635-  
436 16-7-77

Dated

Issued

Recd

Encl

G O, 14 July - 1877, No 4258486

Nos. 185-187-188

Madras Harbour Works.

Ordered that the report from  
the Super of the progress  
of the — during the month  
of June be forwarded to the  
Govt India

Forwarding copy of the  
Harbour Super's report  
for the month of June with  
plans illustrating the pro-  
gress which has been made  
with the works

Entered in Register  
24-7-77