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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W.D. DEPARTMENT

G.O. No.	<u>910.W.</u>	Press.
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Dated	<u>25.3.1887</u>	<u>198</u>

Not to be folded or roughly handled

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from the Honorable R. W. BARLOW, C.S., Chairman, Harbour Trust Board, to the Secretary to Government, Public Works Department, dated Madras, 21st March 1887, No. 2749 :—

I have the honor to forward, herewith, for the information of Government, copy of a letter from the Superintendent, Madras Harbour Works, No. 706 M., dated March 1887 (received 8th idem), reporting upon the progress made in the Madras Harbour Works during the month of February last.

2. I am desired by the Board to point out, in reference to the concluding portion of paragraph 9, that it is, in their opinion, to be regretted that the Superintendent has considered it necessary to refer to the vexed question of the rival contractors at Pallavaram; but, as he has done so, they desire again to place on record that, but for Mr. Thorowgood's unauthorised action in appointing a new contractor, without any reference to them, there would have been, they believe, little or no interruption to the supply of stone, and certainly nothing commensurate with the saving effected; the difficulties which have subsequently arisen being almost entirely due to the obstacles thrown in the way of the Board's contractor by the Superintendent's nominee.

ENCLOSURE.

From F. N. THOROWGOOD, Esq., M. INST., C.E., Superintendent, Madras Harbour Works, to the Chairman, Harbour Trust Board, Madras, dated March 1887, No. 706 M.

I have the honor to submit, herewith, a plan showing the progress on these works during the past month of February. The rate of advance is nearly 50 per cent. greater than in January, notwithstanding stoppage on three days because of rough sea, and on two days on account of universal holidays.

2. *North pier works.*—Rubble base has been deposited in advance of the north pier superstructure, and also has been used to bring the north foreshore to its full width parallel to the built work. For these purposes 6,572 tons of stone have been used. The work of setting blocks has gone on fairly well although the death of one diver and the sickness of three others retarded work to some extent. There were 117 blocks set during February, advancing the new wall by a length of 73½ lineal feet. The total length of new work now built from point F (on plan) is 358½ lineal feet.

3. All the superstructure built during January and February is as yet unprotected by a wave-breaker, but during the early part of April this will have to be remedied. The crane for depositing the wave-breaker blocks can get through such a lot of work in one day, when it once starts work, that it will quickly use up all the blocks that will be available.

4. *Concrete block-making.*—Concrete block-making was carried on as usual during the month, 195 blocks being added to the stock. The stone crushing machinery underwent some repairs, but not sufficient to cause a stoppage of work. I have been making some experiments, with a view towards getting rid of the very fine stone dust which comes from the stone crushers, and which is to a certain extent injurious to all concrete. If this can be completely got rid of, the blocks will be stronger, and consequently will sooner be available for work. Whether I can manage to wash out all this dust without serious extra expense or delay remains yet to be seen. At present I find that its absence gives more than 10 per cent. additional strength to concrete.

5. *South pier works.*—Boats were at work forming and extending the base of the south pier as well as the limited supply of stone would permit, and 3,784 tons were deposited in February. The blocks fallen over on the top of the rubble base in advance of the new work caused much trouble with the divers, but with care 14 were lifted out and placed on trucks, whence they were taken and dropped in the north pier wave-breaker.

6. In the superstructure of the south pier there were 100 blocks set, advancing the work by a length of 61 feet. The work is even and regular and the curve satisfactory.

7. *Recovery of old Titans.*—One diving boat has been wholly engaged in taking up the remains of the old Titan cranes, which must be removed before the rubble base can be deposited for the pier ends. Nearly the whole of the south Titan has been recovered, in a great state of rust and decay, and more cannot be removed till some blocks are taken away. For this work I am having a special raft prepared, and, in the meantime, am borrowing that of the Marine Department. At present the divers are working at the submerged north Titan, of which the complete crab and one top girder have been recovered.

8. *Wave-breaker crane.*—The wave-breaker crane has been doing very little during February as it has one of its bottom wheels disabled. Spare wheels have arrived from England, and one is now being fitted on. The crane has dropped over 14 old blocks recovered from south pier, and two ordinary wave-breaker blocks.

9. *Pallavaram quarries.*—On 21st February I received, for the second time, the Board's orders to introduce H. M. A. Badsha Sahib as the new contractor at the Pallavaram quarries, and on the 22nd I stopped all quarrying of the temporary contractor and made him confine his operations to loading up stone already quarried. On 24th February I received a telegram saying that all the loading coolies had run away and consequently the stone traffic from Pallavaram has been bad and irregular. On 1st March I had prepared a large portion of the quarry for the new contractor. I am sorry to state that I do not alter my opinion that this sudden change of contractors will be a serious evil to the works, and although I have not yet been informed what rates the Board have accepted for the new work, I do not expect that the financial aspect of affairs during the next two months (as regards Pallavaram quarries) will be satisfactory.

10. During February 13,638 tons of stone have been received from the quarries, of which 3,095 were supplied since all quarrying was stopped to the temporary contractor; my hope is to clear out nearly all the present contractor's stock by 15th March and measure up what remains; in the meanwhile the new contractor is collecting and quarrying a fresh supply. At present he has hinted that he will not be able to load a train before 31st March, but I hope this will be improved upon.

11. *Stores from England received on works.*—The following stores were received during February from England:—

By the S.S. *Mount Tabor*.—28 steel wheel tyres.

Do. S.S. *Goorkha*.—100 tons Portland cement.

Do. S.S. *Navarino*.—do. do. also iron chains, steel rope, 2 special wheels for crane and steel pinions for Titans.

Do. S.S. *Chusan*.—Files, wood screws, copper wire, surveying lines, linseed oil and chocolate paint.

12. There were also purchased locally 200 tons of steam coal and 741 timber sleepers.

13. On the 1st February the works were visited by His Excellency the Governor of Madras, accompanied by the Chairman, Harbour Trust Board. His Excellency witnessed the making of concrete blocks, and the setting of them in the work, as well as the dropping into the sea from the wave-breaker crane.

ORDER—dated 25th March 1887, No. 910 W., Public Works.

Recorded.

(True Extract.)

Captain, R.E.,
Under Secy. to Govt., P.W.D.

To the Chairman, Harbour Trust Board.
" Marine Department.
" Consulting Engineer for Railways.

Exd. E. Fernandez.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of Madras.
PUBLIC WORKS.

Dated March, 25th.

Recd.

Encl.

G.O., 25th March 1887, No. 910 W.

MARCH.

Madras Harbour Works

Report of progress on the — during
February 1887, recorded.

28TH FEBRUARY 1887, No. 591 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from the Honorable R. W. BARLOW, C.S., Chairman,
Harbour Trust Board, Madras, to the Secretary to Government, Public Works
Department, dated Madras, 19th February 1887, No. 2298 :—

I have the honor to forward, for your information, copy of letter No. 622 M.,
dated 8th February 1887, from the Superintendent, Madras Harbour Works, reporting
upon the progress made during the month of January 1887, together with tracing of
harbour, in original, which please return.

ENCLOSURE.

From F. N. THOROWGOOD, Esq., Superintendent, Madras Harbour Works, to the Chairman,
Harbour Trust Board, dated Madras, 8th February 1887, No. 622 M.

I have the honor to submit the following report of the progress on these works during the
past month of January 1887, with a plan showing in red the present terminations of the two
breakwaters.

2. *North Pier Works*.—At the north pier the rubble base was levelled up and extended
considerably, but most of the stone was used in making good places where subsidence had
occurred. There were 10,544 tons of rubble used at this work.

3. On the 9th January the roads being all complete, the titan crane was run out to the end,
and on the 10th and 11th turned round and brought into position for setting blocks. From the
12th to the 31st there were 94 concrete blocks set in the superstructure, advancing it by a length
of 55 lineal feet, and making the total length of new work now completed 285 feet. The
progress during February will be more rapid.

4. *Concrete Block-making*.—Block-making was carried on with fair regularity throughout the
month of January, but was interrupted by the Native festival of Pongal. There were 198 blocks
(representing nearly 5,000 tons of concrete) turned out in the month. Of this number, 161 were
30-ton blocks for the wave breakers, of which a very large number will be required in April and
May to secure the newly-built work.

5. *South Pier Works*.—The rubble base at the south pier was levelled up to a small extent
where subsidence had occurred, and 2,500 tons of stone were used for that purpose.

6. On January 6th the titan crane was run out to the end of the pier, and on the 7th was
turned into its proper position for block-setting. In paragraph 6 of my last progress report I
pointed out that a large number of blocks overturned in May 1886 were heaped up in advance
of the new superstructure. These had to be handled with great care, but by means of dynamite,
claws and sling chains several blocks were recovered and 20 blocks of the new superstructure
were successfully set, advancing the new work by a length of 13 feet. The recovered blocks are
being dropped over the north pier wall to aid in forming the wave breaker. There is now a
length of 185 feet of new superstructure completed.

7. *Pallidaram quarries*.—Work has been carried on at the usual speed at the quarries during
January, although quarrying has been slower than it ought to be at this time of year. The
temporary contractor is not wholly to blame for this, as he has felt very uncertain as to how long
he is to work. The return, however, has been fair, but not so great as I should have wished,
16,696 tons of stone having been delivered during the month. It will be as well to note in this
connection that as the Board accepted the tender of a new contractor from February 1st and
ordered me to assist him in carrying out work under a specification, which I repudiated, I have
been compelled to resign my post as Superintendent of the Madras Harbour Works.

8. Work is going on at this date at the quarry fairly well, but the contractor-elect is working
independently of the other temporary man, and I regret to say is causing a hindrance. But this
could only be expected.

28TH FEBRUARY 1887, No. 591 W., PUBLIC WORKS.

9. *Stores received on Works.*—During January there arrived the S.S. *Waronga* with steel pinions for the titan cranes, and steam pressure gauges for store; also the S.S. *Manora* with 200 tons of Portland cement and a set of diving gear with spare hosepipe, wrist rings, &c.; the latter much needed.

ORDER—dated 28th February 1887, No. 591 W., Public Works.

Recorded.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.
Secretary to Govt., P.W.D.

To the Chairman, Madras Harbour Trust Board, with one plan.
" Marine Department.
" Consulting Engineer for Railways.

Exd. F. R. Bantleman.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of 1887 Madras.
PUBLIC WORKS.

Dated February, 28th.

Recd.

Encl.

G.O., 28th Feb. 1887, No. 591 W.

FEBRUARY.

Madras Harbour Works

Report of progress on the — during
January 1887, recorded.

Harbour Trust Board Office,

MADRAS, 21st March 1887.

No. 2749

FROM

The Honorable R. W. Barlow C. S.

CHAIRMAN, HARBOUR TRUST BOARD,

MADRAS,

TO

Colonel J. O. Hastie R. E.

SECRETARY TO GOVERNMENT,

Public Works ~~Department~~ Department.

SIR,

I have the honor to forward
herewith for the information of Govern-
ment, copy of a letter from the Super-
intendent Madras Harbour Works, No. 706
dated March 1887 (received 8th idem)
reporting upon the progress made in the
Madras Harbour Works during the month
of February last.

I am desired by the Board
to point out, in reference to the concluding
portion of para 9, that it is in their
opinion, to be regretted that the Super-
intendent has considered it necessary

to refer to the vexed question of the
contractors at Pallaveram, but as he has
done so, they desire again to place
on record that. but for Mr. Harwood's
unauthorised action in appointing a
new contractor, without any reference
to them. there would have been, they
believe, little or no interruption to the
supply of stone, and certainly nothing
commensurate with the savings effected,
the difficulties which have subsequently
arisen being almost entirely due
to the obstacles, thrown in the way of
the Board's Contractor, by the Superin-
tendent's nominee.

I have the honor to be

Sir

your most obedient servant

C. Lick

W. H. Harwood

Chairman

Harbour Trust Board.

North Pier 2. Rubble base has been deposited in ad-
vance of the North pier superstructure, and
also has been used to bring the North ^{shore} ~~shore~~

foreshore to its full width parallel to the
built work. For these purposes 6,572 tons
of stone have been used. The work of
setting blocks has gone on fairly well although
the death of one diver, and the sickness of
three others, retarded work to some extent. There
were 117 blocks set during February advancing
the new wall by a length of $73\frac{1}{2}$ lineal
feet. The total length of new work now built
from point F (on plan) is $358\frac{1}{2}$ lineal
feet.

3. All the superstructure built during
January and February is, as yet, unpro-
tected by a wavebreaker, but during the
early part of April this will have to be
remedied. The crane for depositing the wave-
breaker blocks can get through such a lot
of work in one day, when it once starts
work, that it will quickly use up all the
blocks that will be available.

4. Concrete blockmaking was carried on concrete block
making

on as usual during the month, 195 blocks
being added to the stock. The stone crushing
machinery underwent some repairs, but
not sufficient to cause a stoppage of work.
I have been making some experiments, with
a view towards getting rid of the very fine
stone dust which comes from the stone crusher,
and which is to a certain extent injurious
to all concrete. If this can be completely got
rid of the blocks will be stronger, and conse-
quently will sooner be available for work.

Whether I can manage to wash out all this
dust without serious extra expense or delay
remains yet to be seen. At present I find
that its absence gives more than 10 per cent
additional strength to concrete.

South Pier Works

5. Boats were at work forming and extending
the base of the South Pier as well as the limited
supply of stone would permit, and 2784 tons
were deposited in February. The blocks fallen

fallen over on the top of the rubble base in advance of the new work caused much trouble, with the divers, but with care 14 were lifted out and placed on trucks, whence they were taken and dropped in the North pier wavebreaker.

6. In the superstructure of the South pier there were 100 blocks set, advancing the work by a length of 61 feet. The work is even and regular and the curve satisfactory.

7 One diving boat has been wholly engaged in taking up the remains of the old Titan Recovery of old Titan cranes which must be removed before the rubble base can be deposited for the pier ends. Nearly the whole of the South Titan has been recovered, in a great state of rust and decay, and more cannot be removed till some blocks are taken away. For this work I am having a special raft prepared and in the meantime am borrowing that

8 of the Marine Department. At present the divers are working at the submerged North Titan, of which the complete end and one top girder have been recovered.

Wavebreaker 8. The wavebreaker crane has been doing very little during February, as it has one of its bottom wheels disabled. Spare which have arrived from England, and one is now being fitted on. The crane has dropped over 14 old blocks recovered from South pier, and 2 ordinary wavebreaker blocks.

Pallavaram 9. On February 21st I received for the second time the Board's orders to introduce S.M. at Rashtia Sahib, as the new contractor at the Pallavaram quarries, and on the 22nd I stopped all quarrying of the temporary contractor and made him confine his operations to loading up stone already quarried. On February 24th I received a telegram saying that all the loading

loading coolies had run away and consequently the stone traffic from Pallavaram has been bad and irregular. On March 1st I had prepared a large portion of the quarry for the new contractor. I am sorry to state that I do not alter my opinion that this sudden change of contractors will be a serious evil to the works, and although I have not yet been informed what rates the Board have accepted for the new work, I do not expect that the financial aspect of affairs during the next two months (as regards Pallavaram quarries) will be satisfactory.

10. During February 13,638 tons of stone have been received from the quarries of which 3095 were supplied since all quarrying was stopped to the temporary contractor. My hope is to clear out nearly all the present contractor's stock by March 1st and measure up what remains, in the meanwhile the new contractor is collecting
And

4/26
and quarrying a fresh supply. At present he has hinted that he will not be able to load a train before March 31st but I hope this will be improved upon.

Stores From 11. The following stores were received during
England re. February from England
ceived on Works.

By the s.s. "Mount Taber"	28 steel wheel tyres
" — " "Ghorkea"	100 tons Portland Cement
" — " "Navarino"	do - do also
	Iron chains, steel rope
	2 special wheels for crane and steel
	frictions for Pitman's
By the s.s. "Ghosan"	Files, wood screws, copper
	wire, surveying lines,
	Linseed oil and
	Chocolate paint.

12. There were also purchased locally 200 tons of steam coal and 741 timber sleepers.

13. On the 1st February the works were visited.

Visited by His Excellency the Governor
of Madras accompanied by the chairman
Harbour Trust Board. His Excellency wit-
nessed the making of concrete blocks, and
the setting of them in the work, as well as
the dropping into the sea, from the ware-
house crane.

I have the honour to be
sir

Your most obedient servant
(Signed) F. H. Thoroughgood.

Superintendent Madras Harbour
Works.

(True copy)

Pinet

Secretary

Harbour Trust Board.

20/11

101
PW2374

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2591

Govt. of India
PUBLIC WORKS.

Date

10/5/10

Rece

Pay

25 Rupees 9/10

Indians Hasam Work

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Report of progress
on the — during
February 1907,
received.

70/5

See
10/3/10