

- (1) பக்கங்களின் எண்ணிக்கை 8
- (2) புதுக்கித் திருப்பிய நாள் 6/85
- (3) ஆதாரங்குறிப்பவர் கருக்கொப்பம் 6/85

## தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

P.W துறை

|                        |           |         |
|------------------------|-----------|---------|
| அரசாணை எண்.            | 594 W     | அச்சகம் |
| மு. கோப்புத் தாள் எண். |           | பலவகை   |
| நாள் :                 | 25.2.1890 | 198.    |

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

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No. 37Mne., dated Calcutta, the 10th February 1890.

The following report of the 11th quarterly inspection of the Dock Works at Kidderpore, which are being carried out by the Commissioners for making Improvements in the Port of Calcutta, is published for general information.

By order of the Lieutenant-Governor of Bengal,

W. B. BESTIC,

Under-Secy. to the Govt. of Bengal, P. W. Dept.

QUARTERLY INSPECTION OF THE KIDDERPORE DOCK WORKS.

No. 963, dated Calcutta, the 6th-7th February 1890.

From—H. JOLL, Esq., and W. CONNAN, Esq.,

To—The Secretary to the Government of Bengal, Public Works Dept.

In accordance with the order of the Government of Bengal, memorandum No. 180 (Marine) of the 27th ultimo, we have the honour to report that the 11th quarterly inspection of the Kidderpore Dock Works was made on the 5th instant.

2. The usual tabular statement and the index plan showing the work done during the quarter ending 31st December 1889, and the total amount executed from the commencement, which have been prepared by the Superintending Engineer of the Dock Works, are already with Government.

3. The progress during the quarter is under-noted.

PERMANENT WORKS.

*Sixty-foot Lock.*—The work is nearly completed, and only 6·8 per cent. of the masonry now remains to be done, 195,000 cubic feet of masonry having been built during the quarter.

*Eighty-foot Entrance.*—Completed nearly up to coping level. 7,792 cubic feet of masonry was built during the quarter, 10·7 per cent. only remaining to be done.

*Double Entrances to Dock No. 1.*—The erection of the gates was commenced and 233,800 cubic feet masonry built during the quarter, only 13 per cent. remaining to be done.

*Tidal Basin.*—The graving dock entrance being ready, work was partially resumed during the quarter, and 12,000 cubic feet of masonry was built and 330,000 cubic feet excavation dug. About 22·5 per cent. of quay wall foundation and 18·7 per cent. of masonry remain to be done.

*Graving Dock.*—70,000 cubic feet of masonry and 85,000 cubic feet of earthwork were done during the quarter. 23·5 per cent. of the brickwork and 10·8 of foundation remain to be done.

*Government Graving Dock.*—Work on this dock was begun during the last quarter. 1,020,000 cubic feet of excavation were done during the quarter, and the timber trenching for the foundation is now in hand.

*Dock No. 1.*—363,385 cubic feet of the quay wall masonry and 3,528,992 cubic feet of excavation were done during the quarter. About 9·2 per cent. of brickwork and 24·3 of excavation remain to be done. During the quarter, 129 running feet of foundation was done, only 4·9 per cent. remaining to be done.

*Boat Canal.*—During the quarter, 774,093 cubic feet of excavation and 113,056 cubic feet of masonry were done, making in all about 70 per cent. of the total estimated amount. The erection of the main girders of the Diamond Harbour road bridge was nearly finished, and the rail arches for both this and the Tallygunge road bridge were completed. The erection of the gates of the lift lock is now in hand, and special measures are being taken for the excavation required in the Chetla Hât lock.

*Subsidiary Works.*—The hydraulic engine-house has been almost completed with the exception of the chimney shaft and the accumulator tower, and the engines and boilers have been erected in it. The foundations of the main pumping station are completed and ready for the erection of the machinery on its arrival from England.

*Expenditure.*—The total expenditure up to the end of the quarter under review is reported to be Rs. 1,62,15,553, of which Rs. 1,35,56,930 represents outlay on works and Rs. 26,58,623 outlay on account of land.

*Sanitary.*—A fever epidemic prevailed among the workpeople during the quarter which caused a considerable mortality and raised the death-rate to 48·61 per 1,000 per annum, against 12·56 in the previous quarter; the death-rate for the same quarter last year being 35·82. The average number of work-people employed during the quarter was 6,537, amongst whom there were 26·3 deaths.

GENERAL REMARKS.

We are of opinion that fair progress has been made with the works, and that, so far as we have been able to judge from a quarterly inspection, the quality of the work done is all that could be desired.

## KIDDERPORE DOCK WORKS.

*Progress Report for the quarter ending 31st December 1889.*

THE tabular statement annexed shows the progress made on each of the works. During the quarter under review, 1,060,033 cubic feet of brickwork were executed, making the total done up to 31st December 1889 12,802,509 cubic feet, the balance remaining being only 2,603,363 cubic feet. The progress made towards completion of each of the works is as follows:—

*The Sixty-feet Lock*—Is completed to coping level with the exception of a small gap at the river end, where the brickwork and gate quoins are about ten feet below coping. This gap will shortly be built up, and the erection of the gates taken in hand. The inner gates have been long since completed.

*The Eighty-feet Entrance*—Is nearly up to coping level, and the erection of the gates will soon be begun.

*Tidal Basin*—The founding of the gap left in north-east corner for the graving dock entrances is now ready for the foundations, the timbered trenching for which has been begun. The gap at the north-west corner will be taken in hand on completion of the Eighty-feet Entrance.

*The Double entrance to Dock No. I*—Is up to coping level, and the erection of the gates has been commenced.

*Graving Dock*—Only 23.5 per cent. of the brickwork remains to be done.

*Graving Dock for Government*—The open cutting has been completed and the timbered trenching for the foundation is just about to be taken in hand.

*Dock No. I*—Only 5 per cent. of the total length of the walls remains to be founded, the remainder, including the passage to Dock No. II, being up to sub-way level. Less than 5½ lakhs of brickwork will complete it.

*Boat Canal*—The erection of the main girders of the Diamond Harbour road bridge is nearly finished, and the rail arches for both this and the Tollygunge road bridge have been completed. The erection of the gates of the Lift Lock will shortly be commenced, and the excavation for the Chetla Hât Lock has been carried as deep as the extremely bad soil will allow of. Block sinking for the foundations has been begun.

*Subsidiary works*—The hydraulic engine-house has been almost completed, with the exception of the chimney shaft and the accumulator tower, and the engines and boilers have been erected in it. The foundations of the main pumping station are completed and ready for the erection of the machinery on its arrival from England. The foundations for the cargo sheds of Dock No. 1 will shortly be begun.

✓ The fever epidemic which has prevailed for some months has retarded work, especially on the Boat Canal section, but it is now somewhat abating. A shortness of supply of blue facing bricks from Raneegunge towards the end of the year hindered the completion of the Sixty-feet Lock, Eighty-feet and Double Entrances, but it is not anticipated that there will be any further difficulty on this score.

The prevailing fever, though not of a particularly deadly type, has still caused a considerable mortality, and has raised the death-rate for the quarter to 48.61 per 1,000 per annum against 12.56 in the previous quarter.

The usual tabular statements are appended showing the work done, the money expended, and the number of men employed and their sanitary condition.

J. H. APJOHN,

*Engineer, Port Trust.*

*The 18th January 1890.*

Health Return compiled from the Monthly Report of the Medical Officer for the months of October, November, and December 1889.

| MONTH, 1880.                                 | Daily average number of workmen. | DAILY AVERAGE NUMBER OF CASES UNDER MEDICAL TREATMENT. |                 |        | DEATHS—      |                 |        |                  |                 |        | Mortality per 1,000 of population per annum. |
|----------------------------------------------|----------------------------------|--------------------------------------------------------|-----------------|--------|--------------|-----------------|--------|------------------|-----------------|--------|----------------------------------------------|
|                                              |                                  | Cholera.                                               | Other diseases. | Total. | IN HOSPITAL. |                 |        | OUT OF HOSPITAL. |                 |        |                                              |
|                                              |                                  |                                                        |                 |        | Cholera.     | Other diseases. | Total. | Cholera.         | Other diseases. | Total. |                                              |
| October ... ..                               | 5,325                            | 2                                                      | 128             | 130    | 9            | 4               | 13     | 5                | 10              | 15     | 57.6                                         |
| November ... ..                              | 6,094                            | 5                                                      | 178             | 173.5  | 1            | 7               | 8      | 5                | 9               | 13     | 33.8                                         |
| December ... ..                              | 7,092                            | 5                                                      | 235             | 229.5  | ....         | 8               | 8      | 1                | 22              | 23     | 33.45                                        |
| Average total divided by three months ... .. | 6,537                            | 1                                                      | 180             | 181    | 3.3          | 6.3             | 5.6    | 3                | 13.7            | 16.7   | 43.01                                        |

MOHENDRO NATH BISWAS,  
Medical Officer.

O'C. RAYE, M.D.,  
Surgeon.

J. H. APJOHN,  
Engineer, Port Trust.

Statement detailing the expenditure incurred on the Dock works to the end of December 1889.

| PARTICULARS. |     |     | Amount.         | Total.          | REMARKS. |
|--------------|-----|-----|-----------------|-----------------|----------|
| Works        | ... | ... | Rs. A. P.       | Rs. A. P.       |          |
| Land         | ... | ... | 1,35,56,930 3 1 | 1,62,15,553 2 6 |          |
|              | ... | ... | 26,58,622 15 5  |                 |          |
| Total        | ... | ... | .....           | 1,62,15,553 2 6 |          |

The 18th January 1890.

J. H. APJOHN,  
Engineer, Port Trust.

#### KIDDERPORE DOCKS.

Progress Report for the quarter ending 31st December 1889.

| ESTIMATE.                      | Sub-head.                     | Estimated quantity. | Executed to end of previous quarter. | Executed during the quarter. | Total executed up to end of quarter. | PERCENTAGE OF WHOLE ESTIMATED QUANTITY |                            |                        |
|--------------------------------|-------------------------------|---------------------|--------------------------------------|------------------------------|--------------------------------------|----------------------------------------|----------------------------|------------------------|
|                                |                               |                     |                                      |                              |                                      | Done during the quarter.               | Done up to end of quarter. | Re-maining to be done. |
| Sixty-foot Lock                | Excavation ... .. c. ft.      | 7,306,077           | 6,284,376                            | 20,000                       | 6,304,376                            | 0.3                                    | 36.3                       | 13.7                   |
|                                | Masonry ... .. s. ft.         | 2,329,490           | 1,833,367                            | 105,000                      | 1,938,367                            | 8.5                                    | 33.3                       | 6.8                    |
|                                | Square feet of foundation ... | 73,000              | 78,983                               | Nil                          | 78,983                               | ...                                    | Completed.                 | ...                    |
| Eighty-foot Entrance           | Excavation ... .. c. ft.      | 2,697,168           | 2,705,815                            | Nil                          | 2,705,815                            | Nil                                    | 77.3                       | 22.1                   |
|                                | Masonry ... .. s. ft.         | 711,024             | 694,228                              | 75,798                       | 769,026                              | 10.3                                   | 80.3                       | 19.7                   |
|                                | Square feet of foundation ... | 27,000              | 28,045                               | Nil                          | 28,045                               | ...                                    | Completed.                 | ...                    |
| Double Entrance to Dock No. 1. | Excavation ... .. c. ft.      | 4,101,758           | 4,095,455                            | Nil                          | 4,095,455                            | ...                                    | Completed.                 | ...                    |
|                                | Masonry ... .. s. ft.         | 1,706,471           | 1,235,890                            | 235,893                      | 1,471,783                            | 13.6                                   | 67.0                       | 13.0                   |
|                                | Square feet of foundation ... | 70,000              | 62,213                               | Nil                          | 62,213                               | ...                                    | Completed.                 | ...                    |
| Tidal Basin                    | Excavation ... .. c. ft.      | 2,012,300           | 1,925,292                            | 12,000                       | 1,937,292                            | Nil                                    | 77.3                       | 22.5                   |
|                                | Masonry ... .. s. ft.         | 2,012,300           | 1,925,292                            | 12,000                       | 1,937,292                            | 0.7                                    | 81.3                       | 18.7                   |
|                                | Square feet of foundation ... | 23,001,332          | 11,423,133                           | 350,000                      | 11,773,133                           | 1.4                                    | 40.3                       | 59.2                   |
| Graving Dock                   | Excavation ... .. c. ft.      | 5,839,729           | 5,278,383                            | 85,000                       | 5,363,383                            | 1.5                                    | 57.7                       | 42.3                   |
|                                | Masonry ... .. s. ft.         | 1,225,160           | 870,000                              | 70,000                       | 940,000                              | 5.7                                    | 76.5                       | 23.5                   |
|                                | Square feet of foundation ... | 20,000              | 63,521                               | Nil                          | 63,521                               | Nil                                    | 89.2                       | 10.8                   |
| Government Graving Dock.       | Excavation ... .. c. ft.      | 2,404,500           | 80,000                               | 1,020,000                    | 1,100,000                            | 42.4                                   | 45.7                       | 54.3                   |
|                                | Masonry ... .. s. ft.         | 6,435               | 5,000                                | 120                          | 5,120                                | 2.6                                    | 53.1                       | 46.9                   |
|                                | Square feet of foundation ... | 5,820,110           | 4,922,590                            | 963,363                      | 5,885,953                            | 8.3                                    | 99.3                       | 0.7                    |
| Dock No. 1                     | Excavation ... .. c. ft.      | 72,000,110          | 61,907,707                           | 5,525,993                    | 67,433,700                           | 4.0                                    | 75.7                       | 24.3                   |
|                                | Masonry ... .. s. ft.         | 41,977,290          | 25,840,120                           | 774,008                      | 26,614,128                           | 1.8                                    | 70.0                       | 30.0                   |
|                                | Square feet of foundation ... | 1,025,943           | 629,613                              | 110,000                      | 739,613                              | 10.6                                   | 60.5                       | 39.5                   |

The 18th January 1890.

J. H. APJOHN,  
Engineer, Port Trust.

5/9/89

Chut

No spare copy of the diagram is available. The one copy was sent to the Chairman H. J. H. & another is with the origl -

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AC

The one with the origl can be sent. We don't want it - Ch

No. 387

Government of Bengal.

PUBLIC WORKS DEPARTMENT.

All communications should be addressed to the

P. W. DEPT.

To

THE

Secretary to the Govt of Madras

Dated Calcutta,

10<sup>th</sup> July 188

Monday 13<sup>th</sup>

I am directed by the Lieutenant Governor to forward for the information of the Govt of Madras the accompanying copy of the report (with plan and statement) of the 11<sup>th</sup> quarterly inspection of the Dock works at Poddere which are being carried out by the Commissioners for making improvements in the Port of Calcutta.

I have the honor to be, Sir, Your most obedt Servt

W. V. Dutt

Accompanyment  
Copy of the report with  
plan and statement referred

Under Secretary

HC

a copy of the diagram sent to the Govt of Madras for their information and to be forwarded to the Govt of Madras with this memo.

By S. G. Chatterjee

594 W. 1887

P.W.C. No. 1808

Recd. 24-2-90.

Enc. 3. (on 307 and 100)

Note. One copy of diagram

sent with enclosure.

with CN<sup>o</sup> 1836 of 189

note slip attached

to 591 to 595. Sub

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Copy forwarded to  
the Chairman Mr. H. T. B. B.  
for information in con-  
tinuation of No. 3596 of  
27 18. Dec. 1889.

WCB  
24.2.90

Recd  
24.2.90

Chairman Mr. H. T. B. B.  
with one enclosure

WCB  
24.2.90