(1) பக்கங்களின் எண்ணிக்கை 82

(2) புதுக்கித் திருப்பிய நாள் 11/88

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

வருவாய் துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	2249 2250	அச்சகம் பலவகை
நாள் :	8-9-1886	~~198~~.

கவோ கண்டபடி கையாளவோ கூடாது

8th September 1886, No. 2250 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers:—

Despatch from the Right Honorable the EARL OF KIMBERLEY, Her Majesty's Secretary of State for India, to His Excellency the Right Honorable the Governor in Council, Fort St. George, dated India Office, London, 24th June 1886, No. 3, Public Works.

Dated 8th May 1886.

In forwarding, for your Excellency's information, the report of the progress made in the restoration of the Madras Harbour for the quarter ending 31st March 1886, I desire to call your attention to the remarks made by Mr. Parkes in paragraphs 14—17; first, as to the difficulty in comparing the cost of the work with the estimate in detail and, secondly, on the increased charge which the South Indian Railway Company have been allowed to make for the conveyance of stone from the quarries at Pallávaram.

2. In connection with the second point it appears that there is likely to be an increase in the estimate of from 3 to $3\frac{1}{4}$ lakhs, and I shall be glad to receive an explanation of the large increase in the rate of carriage compared with the charge formerly made by the Madras Railway Company.

Enclosure.

Report by W. Parkes, Esq., of Progress, Madras Harbour, for the quarter ending 31*st March* 1886, *dated* 23 *Abingdon Street*, 8*th May* 1886.

Appended to this report is a plan showing the present state of the above works and the progress made in the quarter. I also beg to submit three photographs of the works at the north pier.

2. By some accident the usual monthly return for March has not yet reached me, so that I am unable to give the actual quantities of work done; but the plan shows the results attained. The rubble base, as will be seen, is well forward at both piers, and there is the means of making new concrete blocks as fast as the block ground is cleared of old ones. In the meantime there is an ample stock for immediate work.

3. The photograph No. 1, taken from the beach north of the harbour, shows the whole of the work which has been done on the outer side of the north pier, including the little which was done without block setting machinery in 1884. This last, which is immediately under the stern of the steamer, consisted of a rubble mound outside the pier, on which 16 concrete blocks were made. The rubble has since been partially washed away, and the blocks have fallen. Only three now appear standing in their original position; the remainder form a random mound protecting the foundation of the built portion of the pier. The remains of a similar protective work is seen to the right. This was made in the same way in 1877.

4. The Titan, which is shown at the extreme left of the view, was completed in December and set 15 blocks in that month. When first put to work its projecting nose pointed in the other direction from that shown, and the 15 blocks were dropped by it under water in the blank space which appears under the steamer. They serve to protect the rubble foreshore from the scour of the waves which had acted upon it to an extent that required prevention for the future.

5. Early in the month of February the Titan was travelled out to the extreme end of the standing portion of the pier, where it is shown on the photograph, but in the first instance with its nose pointing the other way. In that position it deposited 198 blocks in a random mound outside the pier forming a length of 190 feet of wavebreaker as shown on the plan and in photographs Nos. 1 and 2.

6. When this was completed it was turned round so as to overhang in the other direction, and began to set the built work of the new line of pier, in accordance with the sanctioned design. By the end of the month of March 35 blocks were set, being a length of 53 feet at the foundation and 32 feet at the top. This work is now going forward. When it is sufficiently advanced, the Titan will be turned again so as to project forward, and in that position it will work exactly as the old Titans did, except that it will be turned round, at the close of each working season, to seaward, to complete so much of the wavebreaker as is abreast of its own length, and so cannot be reached by the wavebreaker crane.

7. The wavebreaker crane (shown in photograph No. 3), which was completed on the 28th of January, was subjected to a series of experiments on shore to test its stability under varying conditions, and to accustom the staff to the working of the machinery. On the 24th of February it was travelled out 1,000 feet on to the pier, being for the greater part of the distance drawn by a locomotive engine, since which it had deposited a length of 350 feet of complete wavebreaker up to the 31st March, and is continuing the same work.

8. At the south pier the Titan was travelled out on the 18th January, but there was some delay in getting it to work on the wavebreaker owing to certain special appliances, which are required at the commencement of the work, but will not be required afterwards, not being in duplicate. A fair beginning, however, had been made by the 31st March, as is shown on the plan. It will be remembered there is no wavebreaker crane provided for the south pier. The work to be done is much less than at the north pier, and the Titan will deposit the wavebreaker to a certain width after the completion of the portion built each season, and when the north pier is finished the wavebreaker crane will be transferred to the south pier so as to complete the additional width of wavebreaker.

9. It will thus be seen that the work is now fairly started at all points. The progress so far made is no measure of what may be expected. All the work hitherto done has been of a kind to which the staff have not been accustomed, and though there have been no serious accidents there have been little difficulties and drawbacks of a kind which must be expected in the first working of new and somewhat complicated machinery. By the last accounts, however, everything was working fairly well, though it had not yet attained the facility which was exhibited in the makers' yards, and which will no doubt be reached and probably surpassed before long in actual work.

10. It may not be uninteresting to mention some of these new conditions and requirements. The former Titans were only adapted for forward work. These are adapted also for working over the side of the breakwater, as I have before explained, but to do this the Titan must be turned round. This operation of turning a structure of upwards of 100 tons weight, not on a fixed turntable, but at any required spot on a breakwater only 24 feet wide, is one of some complexity, and requires a considerable amount of preparation and precaution, the time and labor of which will of course be reduced as the staff become familiar with the operation.

11. Again, it will be observed in the photograph of the Titan No. 2, that the crab from which the block is suspended will not come vertically over the central railway. The block while on the truck has therefore to be transferred laterally to a point at which the crab can command it. For this purpose a "traverser" is provided, and this is an apparatus which, while substantial enough to carry a weight of 30 tons, has not only to be worked with this load upon it, but to be easily transported from one position of the Titan to another. These are new operations, but they appear now to be carried on with considerable facility. I should mention that the traverser is required only when the Titan is working sideways, which is only its secondary duty. The Titan working forwards and the wavebreaker crane working sideways require no traverser.

12. Another new operation is the mode of detaching the blocks from the suspending apparatus. The mode of suspension of blocks intended for built work is shown in the photograph of the Titan (No. 2). This is the same as has been in use from the first, consisting of two "lewis bars" passing through the block, which can be easily withdrawn when the block is laid on a level bed. But in the wavebreaker work the block never reaches a level bed, and a different mode of release is required. This is shewn in the photograph of the wavebreaker crane (No. 3). It consists of a pair of claws which, when suspended from the double chain in the centre, grip the sides of the block firmly, but which, when suspended from the two separate chains at the ends, are lifted away from the block. Thus a block can be detached at any stage of its descent simply by putting the brake on the end chains, and preventing their further descent. The main central chains continuing to descend, the grip is slackened, and the block falls. This releasing operation is one requiring a familiarity with the machinery which is only attained by some practice.

13. On the whole, I think, the degree of success attained at this early stage of the work is satisfactory, but the work is in many respects more complicated than it was originally; there are still some operations that have not yet been tried, and it is possible that some further modifications of the *modus operandi* may be required.

14. *Cost of the works.*—With respect to the cost of the work as compared with the estimate, I am still unable to give it in detail as Mr. Thorowgood has not as yet been able to obtain sanction for submitting the accounts in a form comparable with the sanctioned estimate. As the accounts stand at present, works which were provided for under one head in the estimate are debited to other heads in the official statements, and appear as compared with the estimate for the original works to which the works now in progress have no reference whatever. The continuance of this state of confusion is much to be regretted.

15. I am, however, able now to inform you that the long pending question of the charge to be made by the South Indian Railway Company for the conveyance of stone from the quarries at Pallávaram has been settled by the Government of Madras giving sanction to the charge of one anna per ton per mile instead of ½ an anna as estimated. This will apply to all stone conveyed since the 30th June 1885, and will involve an increase to the estimate of from 3 to 3¼ lakhs of rupees. But I think it is unnecessary to ask for this amendment of the estimate until we have the means of determining what the actual cost of stone at present is independent of transport. Any saving that may have been effected upon the estimated cost may fairly be taken into account to the diminution of the amount of increased sanction to be asked for.

16. I think it only right to say that I am not in any way responsible for this increase, whether it be caused by the former price being too low or the present one too high. The original rate of ½ an anna per ton per mile was suggested in 1873 by the then Agent of the Madras Railway, and the greater portion of the work was done at that rate previous to 1881 by that Company. In 1881, however, the Government sanctioned a further payment of Rs. 74,774 to the Company for the depreciation of their rolling stock caused by their carriage of stone for the harbour works. This was equivalent to an increase of 2 pies per ton per mile on the whole quantity conveyed.

17. The extra allowance now made to the South Indian Railway Company is at a much higher rate than that given to the Madras Railway Company, being 6 pies per ton per mile instead of 2, but no reason is given in any of the officially communicated papers for this increased rate. It would be satisfactory to know what is the fair cost of transport for this class of material on an established line of railway in India, whether the 6 pies which were considered ample in 1873, the 8 pies which satisfied the Madras Railway Company in 1881, or the 12 pies now awarded in 1886.

18. *Movement of sand.*—I have laid down on the plan the position of the high water line south of the harbour in March last, which shows the usual annual increment. The last increment is indeed rather greater than those of the few preceding years, which is probably due to a temporary general on shore accumulation coincident with the ordinary along shore movement. A similar result is to be observed inside the harbour, where the line of March 1886 is a little in advance of that of March 1885, though nearly parallel to it, notwithstanding the different position of the line in September 1885.

19. Again, at Cassimode, a mile north of the harbour, where I have latterly reported on an annual *waste* in successive years, of which the progress is best shown by a comparison of the September lines, a comparison of March 1886 with March 1885 shows a small gain instead of a loss, which is no doubt due to the same temporary cause.

20. As the area of the reclaimed land south of the harbour continues to grow, the importance of the site becomes more obvious. In 1884 I suggested that it might be utilised by the excavation of a boat harbour, and further suggested that its future growth might bring its adaptation to the purpose of a deep water inner harbour or ship dock within the range of possibility. I think the progress in the last two years certainly encourages the idea that this last anticipation may be realised at no distant date. If, as I understand is the case, the mercantile interest of Madras is in favor of the establishment of ship wharves and believes that they would be remunerative (in which opinion I should concur) I think their attention may well be directed to this mode of obtaining them.

Office note from the Examiner of Public Works Accounts, dated Madras, 7th August 1886, No. 331.

Your office note, dated 4th August 1886, No. 484 D.

Please see paragraph 3 of my letter, No. 139 W., dated 26th March 1885, printed with G.O., No. 776 W., dated 30th March 1885. Until the Secretary of State's sanction is received to the revised estimate, the outlay on the harbour works will continue to be compared with the original estimate, but the Superintendent might perhaps be able to prepare statements which would satisfy Mr. Parkes' requirements, showing expenditure distributed between old and new estimates conforming to the division proposed in the statements with the Government order above quoted.

ORDER—dated 8th September 1886, No. 2249 W., Public Works.

The foregoing papers will be communicated to the Chairman, Madras Harbour Trust Board.

2. With respect to Mr. Parkes' remarks as to the difficulty in comparing the cost of the work with the estimate in detail, the Secretary of State will be informed that that difficulty has been due solely to the delay which has occurred in communicating His Lordship's sanction to the restoration estimate. The Secretary of State's sanction has now been communicated in letter from the Government of India, No. 325 M., dated 10th August 1886, disposed of in separate proceedings, and the difficulty complained of will no longer exist.

3. With reference to the explanation asked for as to the large increase in the charge made by the South Indian Railway for carriage of stone for the harbour works, the Secretary of State will be furnished with copies of the correspondence marginally noted. The circumstances are clearly set forth in the Consulting Engineer's note printed at page 6 of proceedings, dated 19th January 1885, No. 66 R., and it will be seen that the increased rate of one anna per ton per mile was sanctioned in order not only to give the Railway Company a fair return on the additional rolling stock and haulage power provided by them to meet the requirements of the harbour works, but also to compensate them for past and prospective depreciation of rolling stock. It was calculated that an average rate of nine pies per ton per mile on the whole quantity of stone hauled for the harbour works would yield the Company a fair profit; but, to prevent disturbance of old accounts, it was decided to pay one anna per ton per mile from 1st July 1885. The average rate paid to the South Indian Railway is but very little in excess of the average rate finally granted to the Madras Railway.

No. 671 R., dated 27th June 1884.
„ 802 „ „ 4th Aug. „
„ 833 „ „ 11th „ „
„ 887 „ „ 8th Sept. „
„ 935 „ „ 22nd „ „
„ 66 „ „ 19th Jan. 1885.
„ 122 „ „ 6th Feb. 1886.

4. A copy of these proceedings will be forwarded to the Government of India for information.

(Here enter No. 2250 W., dated 8th September 1886.)

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Chairman, Madras Harbour Trust Board.
„ Examiner, Public Works Accounts.
„ Marine Department.

ENDORSEMENT—dated 8th September 1886, No. 2250 W., Public Works.

Forwarded.

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

Exd. E. Fernandez.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1886) Madras.

PUBLIC WORKS.

Dated September, 8th.

Recd. Encl.

G.O., 8th Sept. 1886, No. 2250 W.

SEPTEMBER.

Madras Harbour

Copy of orders on despatch from the Secretary of State forwarding report by Mr. Parkes of the progress made in the restoration of the — for the first quarter of 1886, forwarded to the Government of India.

1003.

India Office.
London, 24th June 1886.

Public Works.

No. 3.

Dated 8th May 1886.

Mr Parkes report should be communicated to the Harbour Board

Sir,

1. In forwarding for Your Excellency's information the report of the progress made in the restoration of the Madras Harbour for the quarter ending 31st March 1886, I desire to call your attention to the remarks made by Mr. Parkes in paras 14-17, first, as to the difficulty in comparing the cost of the work with the estimate in detail, and secondly, on the increased charge which the South Indian Railway Company have been allowed to make for the conveyance of stone from the quarries at Pallavaram.

2. In connection with the second point it appears that there is likely to be an

His Excellency,
The Right Honorable,
The Governor in Council,
Fort St. George.

an increase in the estimate of from 3 to 3¼ lakhs, and I shall be glad to receive an explanation of the large increase in the rate of carriage compared with the charge formerly made by the Madras Railway Company.

I have the honor to be,
Sir,
Your most obedient,
humble Servant,
Kimberley

G. 6. 1076 W. 8. 5. 85
" 777 W. 30. 3. 85
" 3128 W. 19. 12. 84
" 122 R. 6. 2. 86
" 59 W. 7. 1. 86
" 66 R. 19. 1. 85
" 935 R. 22. 9. 84
" 887 R. 8. 9. 84
B. Ir. 2064 W. 22. 8. 84
G. 6. 883 ~~884~~ R. 11. 8. 84
" 802 R. 4. 8. 84
" 671 R. 27. 6. 84
" 2475 W. 8. 10. 81
" 2337 W. 22. 9. 81
" 2154 W. 31. 8. 81
" 2103 W. 26. 8. 81
" 2103 W. 25. 8. 81
" 1747 W. 15. 7. 81
" 1499 W. 15. 6. 81
" 1011 & 1012 W. 20. 4. 81
" 674 R. 20. 11. 80
" 538 R. 11. 9. 80
" 527 R. 11. 9. 80
" 11 R. 7. 1. 79
" 2475 W. 8. 10. 81
" 2337 W. 22. 9. 81
" 2154 W. 31. 8. 81
" 1747 W. 15. 7. 81
" 986 & 987 R. 8. 10. 78
" 830 R. 30. 8. 78
" 1011 & 1012 W. 20. 4. 81
" 3575. 20. 12. 75
" 3325 22. 11. 75
" 3324. 22. 11. 75
" 2796. 29. 9. 75
" 2506. 2. 9. 75
" 2401 20. 8. 75
" 2112 & 2113. 24. 7. 75
" 2037. 17. 7. 75
" 2036. 17. 7. 75
" 1642. 10. 6. 75

P.W.C. No. 5705
No. 3

Public Works
24th June 1886.

The
~~Secy~~ to Fort St George
No. 3

Encls 1

Recd: 23. 7. 86.

Recd 16 July

Resubmitted to C. 30.7.86 R. 27.8.86

2/1

Bft. 1003

Enclosure

Madras Harbour

Report of Progress for the Quarter
ending 31st March 1886.

23 Abingdon Street
8th May 1886.

Sir,

Appended to this report is a plan shewing the present state of the above works and the progress made in the quarter. I also beg to submit three photographs of the works at the North Pier.

2 By some accident the usual monthly return for March has not yet reached me so that I am unable to give the actual quantities of work done, but the plan shews the results attained. The rubble base, as will be seen, is well forward at both piers, and there is the means of making new concrete blocks as fast as the block ground is cleared of old ones. In the meantime there is an ample stock for immediate work.

3 The photograph No 1, taken from the beach North of the Harbour, shews the whole of the work which has been done on the outer side of the North Pier, including the little which which was done without block setting machinery in 1884. This last, which is immediately under the stern of the steamer, consisted of a rubble mound outside the pier, on which 16 concrete blocks were made. The rubble has since been partially washed away, and the blocks have fallen. Only three now

The Under Secretary of State
for India

appear standing in their original position, the remainder form a random mound protecting the foundation of the built portion of the pier. The remains of a similar protective work is seen to the right. This was made in the same way in 1877.

4 The Titan which is shewn at the extreme left of the view was completed in December and set 15 blocks in that month. When first put to work its projecting nose pointed in the other direction from that shewn, and the 15 blocks were dropped by it under water in the blank space which appears under the steamer. They serve to protect the rubble foreshore from the scour of the waves which had acted upon it to an extent that required prevention for the future.

5 Early in the month of February the Titan was travelled out to the extreme end of the standing portion of the Pier, where it is shewn on the photograph, but in the first instance with its nose pointing the other way. In that position it deposited 198 blocks in a random mound outside the pier forming a length of 190 feet of wavebreaker as shewn on the plan and in photographs No 1 and 2.

6 When this was completed it was turned round so as to overhang in the other direction and began to set the built work of the new line of pier, in accordance with the sanctioned design. By the end of the month of March 35 blocks were set, being a length of 53 feet at the foundation and 32 feet at the top.

This work is now going forward. When it is sufficiently advanced the Titan will be turned again so as to project forward, and in that position it will work exactly as the old Titans did, except that it will be turned round, at the close of each working season, to seaward, to complete so much of the wavebreaker as is abreast of its own length, and so cannot be reached by the wave-breaker Crane.

7 The wavebreaker Crane (shewn in Photograph No 3) which was completed on the 28th of January, was subjected to a series of experiments on shore to test its stability under varying conditions, and to accustom the staff to the working of the machinery. On the 24th of February it was travelled out 1000 feet on to the Pier, being for the greater part of the distance drawn by a locomotive engine, since which it had deposited a length of 350 feet of complete wavebreaker up to the 31st March, and is continuing the same work.

8 At the South Pier the Titan was travelled out on the 18th January but there was some delay in getting it to work on the wavebreaker owing to certain special appliances which are required at the commencement of the work, but will not be required afterwards, not being in duplicate. A fair beginning however had been made by the 31st March as is shewn on the plan. It will be remembered there is no wavebreaker Crane provided for the South Pier. The work to be done is much less than at the North Pier,

and the Titan will deposit the wavebreaker to a certain width after the completion of the portion built each season, and when the North Pier is finished the wavebreaker crane will be transferred to the South Pier so as to complete the additional width of wavebreaker.

9 It will thus be seen that the work is now fairly started at all points The progress so far made is no measure of what may be expected. All the work hitherto done has been of a kind to which the staff have not been accustomed, and though there have been no serious accidents there have been little difficulties and drawbacks of a kind which must be expected in the first working of new and somewhat complicated machinery. By the last accounts however everything was working fairly well, though it had not yet attained the facility which was exhibited in the makers' yards, and which will no doubt be reached and probably surpassed before long in actual work.

10 It may not be uninteresting to mention some of these new conditions and requirements. The former Titans were only adapted for forward work. These are adapted also for working over the side of the Breakwater, as I have before explained, but to do this the Titans must be turned round. This operation of turning a structure of upwards of 100 tons weight, not on a fixed turntable, but at any required spot on a breakwater only 24 feet wide, is one of some complexity, and requires a considerable amount of preparation and

precaution, the time and labour of which will of course be reduced as the staff become familiar with the operation.

11 Again it will be observed in the photograph of the Titan No 2, that the crab from which the block is suspended will not come vertically over the central railway. The block while on the truck has therefore to be transferred laterally to a point at which the crab can command it. For this purpose a "traverser" is provided, and this is an apparatus which, while substantial enough to carry a weight of 30 tons, has not only to be worked with this load upon it, but to be easily transported from one position of the Titan to another. These are new operations, but they appear now to be carried on with considerable facility. I should mention that the traverser is required only when the Titan is working sideways, which is only its secondary duty. The Titan working forwards and the Wavebreaker Crane working sideways require no traverser.

12 Another new operation is the mode of detaching the blocks from the suspending apparatus. The mode of suspension of blocks intended for built work is shewn in the Photograph of the Titan (No 2). This is the same as has been in use from the first, consisting of two "lewis bars" passing through the block, which can be easily withdrawn when the block is laid on a level bed. But in the wavebreaker work the block never reaches a level bed, and a different mode of release is required. This is shewn in the photograph of the Wavebreaker Crane (No 3). It consists of a pair of claws which, when

suspended from the double chain in the centre, grip the sides of the block firmly, but which, when suspended from the two separate chains at the ends, are lifted away from the block. Thus a block can be detached at any stage of its descent simply by putting the brake on the end chains, and preventing their further descent. The main central chains continuing to descend, the grip is slackened, and the block falls. This releasing operation is one requiring a familiarity with the machinery which is only attained by some practice.

13. On the whole I think the degree of success attained at this early stage of the work is satisfactory, but the work is in many respects more complicated than it was originally; there are still some operations that have not yet been tried, and it is possible that some further modifications of the modus operandi may be required.

Cost of the Works.

14 With respect to the cost of the work as compared with the Estimate, I am still unable to give it in detail as Mr Thorowgood has not as yet been able to obtain sanction for submitting the accounts in a form comparable with the sanctioned Estimate. As the accounts stand at present, works which were provided for under one head in the Estimate are debited to other heads in the official statements, and appear as compared with the Estimate for the original works to which the works now in

progress have no reference whatever. The continuance of this state of confusion is much to be regretted.

15 I am, however, able now to inform you that the long pending question of the charge to be made by the South Indian Railway Company for the conveyance of Stone from the quarries at Pallaveram has been settled by the Government of Madras giving sanction to the charge of one anna per ton per mile instead of ½ an anna as estimated. This will apply to all stone conveyed since the 30th June 1885, and will involve an increase to the Estimate of from 3 to 3¼ lakhs of rupees. But I think it is unnecessary to ask for this amendment of the Estimate until we have the means of determining what the actual cost of stone at present is independent of transport. Any saving that may have been effected upon the estimated cost may fairly be taken into account to the diminution of the amount of increased sanction to be asked for.

16 I think it only right to say that I am not in any way responsible for this increase, whether it be caused by the former price being too low or the present one too high. The original rate of ½ an anna per ton per mile was suggested in 1873 by the then agent of the Madras Railway, and the greater portion of the work was done at that rate previous to 1880 by that Company. In 1881, however, the Government sanctioned a further payment of Rs. 74,774 to the Company for the depreciation of their

rolling stock caused by their carriage of stone for the Harbour works. This was equivalent to an increase of 2 pies per ton per mile on the whole quantity conveyed.

17 The extra allowance now made to the South Indian Railway Company is at a much higher rate than that given to the Madras Railway company, being 6 pies per ton per mile instead of 2, but no reason is given in any of the officially communicated papers for this increased rate. It would be satisfactory to know what is the fair cost of transport for this class of material on an established line of Railway in India; whether the 6 pies which were considered ample in 1873, the 8 pies which satisfied the Madras Railway Company in 1881, or the 12 pies now awarded in 1886.

Movement of Sand

18 I have laid down on the plan the position of the High Water line South of the Harbour in March last, which shews the usual annual increment. The last increment is indeed rather greater than those of the few preceding years, which is probably due to a temporary general on shore accumulation coincident with the ordinary along shore movement. A similar result is to be observed inside the Harbour, where the line of March 1886 is a little in advance of that of March 1885 though nearly parallel to it, notwithstanding

the different position of the line in Sept. 1885.

19 Again at Cassimode a mile North of the Harbour, where I have latterly reported on an annual waste in successive years, of which the progress is best shewn by a comparison of the September lines, a comparison of March 188 with March 1885 shews a small gain instead of a loss which is no doubt due to the same temporary cause.

20 As the area of the reclaimed land South of the Harbour continues to grow, the importance of the site becomes more obvious. In 1884 I suggested that it might be utilized by the excavation of a boat harbour, and further suggested that its future growth might bring its adaptation to the purpose of a deep water inner harbour or ship dock within the range of possibility. I think the progress in the last two years certainly encourages the idea that this last anticipation may be realized at no distant date. If, as I understand is the case, the mercantile interests of Madras is in favour of the establishment of ship wharves and believes that they would be remunerative (in which opinion I should concur) I think their attention may well be directed to this mode of obtaining them.

I have &c,

(Sd) W. Parkes.

To the Under Secy of State for India

E[illegible]NE[illegible]
No.
6 AUG 1886
P. W. ACCOUNTS.

No. 4.

Madras Harbour.
Progress Report for Quarter ending 31st March 1886.

3
Enclo 1
6134-86

Referred to in Public Works Letter Madras, No. 3, dated 24th Jun 1886 Para. 1.

[C. No. 8.]

GOVT. OF MADRAS. 1886. P. W. DEPT.
EXAMINER, P. W. ACCOUNTS.

Madras, 7 August 1886.

Office Note No. 331

Enclo: 3.

To

W.

Your O. N. No. 484 D. dated 4th August 1886.

Please see para 3 of my letter No. 139 W. dated 26th. March 1885 printed with G. O. No. 776 W. dated 30th. March 1885. Until the Secretary of States sanction is received to the revised Estimate, the outlay on the Harbor Works will continue to be compared with the original Estimate, but the Superintendent might perhaps be able to prepare statements which would satisfy Mr. Parsess requirements, shewing expenditure distributed between old and new Estimates conforming to the division proposed in the statements with the G. O. above quoted.

C.

Keep-with Genl. No.
dated 188 .

Q.G. 777 W. 30.3.85
" 776 W. 30.3.85
66 W. 9.1.85
" 3128 W. 19.12.84
~~2249 w 8.9.86.~~
66 R. 19.1.85
887 R. 8.9.84
833-4 R. 11.8.84
802 R. 4.8.84
671 R. 27.6.84
935 R. 22.9.84
59 w 7.1.86.
122 R. 6.2.86
484 D 4.8.86
1076 w 8.5.85
2475 w 8.10.81
2337 w 22.4.81
2154 w 31.8.81
2103-A w 25.8.81
2103 w 25.8.81
1747 w 15.7.81
1499 w 15.6.81
1012 w 20.4.81
1011 w 20.4.81
674 }
520 } R. 20.11.80.
527 } R. 11.9.80.
14 R. 7.1.79.
980-7 R. 8.10.78.
830 R. 30.10.78
~~[illegible] 20.4~~
3575. 20.12.75
3325 }
3324 } 22.11.75
2796. 24.9.75
2506. 2.9.75
2401. 20.8.75
2113 }
2112 } 24.7.75
2037 }
2036 } 17.7.75
1642. 10.6.75

Ref. 38/8
O. 9-8-86 [illegible]

P.W.C. No. 6134

(5)

Enclos 3

Recd. 9.8.86

No. 484 D.

Government of Madras.

PUBLIC WORKS DEPARTMENT,

Ootacamund, Augt 4th 1886.

OFFICE NOTE.

From

W R. No. 302 / 6-8-86.

To

C Encl-2

Please see para 14 of Mr Parkes' report enclosed in the Secy. of States' despatch No 3 d/ 24.6.86.

Am I right in supposing that the difficulty in comparing the Cost of the Harbour Works with the estimate in detail, arises from the fact that the Secy. of States' sanction has not yet been

received to the estimate
for reconstruction -

If not, kindly
explain the nature
of the difficulty

A very early
reply is requested.

4.8.86
W

5713.
Enclos
P.W. 6134/88

27/8/88

Co. 9.8.86 / [illegible]

DW

With reference
to this letter
please see note
from C.A.W. put
up - no reply has
yet been recd
from C

FB

17.7.6

Was the reply
received from C
C.A.W.

C wrote to C.A. on the
subject of 27/6 - 3 & 20.6.6
on the 10th July 1888.
He asked at the same
time whether the
[illegible] control of the
[illegible] was
to continue in his
hands

FB

S.A.W.

I have just communicated to Supdt. M. H. Works the G.O. sent forward today relative to procedure to be adopted in applying for ~~the~~ sanction to purchase English stores in the local market.

Hardware furnishing being now arranged for by the Ordnance "Dept" will apparently fall under the head "Indents Local", & if so the rules for the supply of Europe Stores, will not be applicable to [illegible] to works. We have asked G., in memo No 299 dated 28-6-16 to consult the Accts [illegible] on this point. If the decision be

that the rules are
applicable to the Wada
we shall have to
communicate to the
Supt. the E.P. board
today – Kindly
keep this in view

Cu
30-6-16

It would be desirable
to have K's [illegible] to
the draft.

Colonel Smith is
on tour – but is
expected in Ooty
early next week –
the papers might
be kept till back

W
11-4-16

Submitted to R.

Cu
26-8-16

This will affect a draft awaiting R's initials.

17.5.96

10W

Revised draft submitted which, if approved, will be kept for R's counter-initials.

Separate draft on the G.O.I. letter received to day, submitted.

Both papers will be sent in circulation together.

Cy 17.5.96

Today

To Cairo

By letter mail -

30.7.6

SAS

S. of S. despatch
No 3 of 24.6.86

Kindly have all papers put up requisite to reply to the question relative to increased charges which have fallen on the Harbour grant through higher rate for haulage of stone &c.

I believe there are papers on the subject in R Office at Madras.

I shall then draft disposal.

Also any papers from C &c about difficulty of comparing expenditure with the estimate in detail

Cs
21.7.86

File put up.

File put up

PU
Soon

A/cure

2241-50/27

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

Print with Mr Parkes' report

Despatch from the Right Hon'ble the Secretary of State for India No. 3 P.W. d/ 24th June 1886, forwarding report by Mr. Parkes of the progress made in the restoration of the Madras Harbour Works for the quarter ending 31st March 1886.

Office note from the Examiner P.W. Accounts No. 331 dated 7th Aug: 1886. —

The foregoing papers will be communicated to the Chairman, Madras Harbour Trust Board.

2. With respect to —

receiv
for r
en
of
re

Mr Parkes' remarks as to the difficulty in comparing the cost of the work with the estimate in detail, the Secretary of State will be informed that that difficulty arises solely [from the fact that] His Lordship's sanction to the revised estimate has not yet been received. [In letter from the Govt of India dated 23d April 1885, No 191 M, recorded in Proceedings of Govt dated 8th May 1885, No 1076 W, it was stated that the Secretary of State's sanction was expected very shortly.]

The Secy of State's sanction has now been communicated in letter from the Govt of India No 325 dd 16th August 1886, & is placed [illegible] proceedings, & the difficulty complained of will no longer exist

c. 9.5.86 12.22.5.86

[and this Govt are not aware of the cause of the delay which has occurred in the matter. Meanwhile the Chairman will draw the attention of the Superintendent Harbour Works to the suggestion made by the Examiner P.W. Accounts in his office note above recorded.]

3. With reference to the explanation asked for as to the large increase in the charge made by the South Indian Railway for carriage of stone for the Harbour Works, the

Secretary of State will be furnished with copies of the correspondence marginally noted. The circumstances are clearly set forth in the Consulting Engineer's note printed at page 6 of Proceedings dated 19th January 1885, No. 66 R, and it will be seen that the increased rate of one anna per ton per mile was sanctioned in order not only to give the Railway Company a fair return on the additional rolling stock and haulage power provided by them

No. 671 R dated 27. 6. 84.
" 802 R dated 4. 8. 84.
" 833 R dated 11. 8. 84
" 887 R dated 8. 9. 84
" 935 R dated 22. 9. 84.
" 66 R dated 19. 1. 85.
" 122 R dated 6. 2. 86.

C. 9.5.86 R. 27.5.86

to meet the requirements of the Harbour Works, but also to compensate them for past and prospective depreciation of rolling stock. It was calculated that an average rate of nine pies per ton per mile on the whole quantity of stone hauled for the Harbour Works would yield the Company a fair profit; but, to prevent disturbance of old accounts, it was decided to pay one anna per ton per mile from 1st July 1885. The average

res rate paid to the South
fo Indian Railway is therefore
not in excess of the average
rate finally granted to the
Madras Railway.

4. A copy of these Proceedings will be forwarded to the Govt. of India for information.

(Pr. No. W d/ 1886)

Copy of the above forwarded to the Govt. of India, with special reference to para 2.

16-8-86

To,
The Chairman, Madras Harbour Trust Board
" Examiner PW Accts
" Marine Dept

To,
The Right Hon'ble
The Secy. of State for India

My Lord,

In reply to para 2 of your Lordship's despatch No. 3 P.W. dated 24th June 1886, we have the honour to forward copies of our Proceedings No. W d/ 1886, and of the papers therein quoted, which set forth the circumstances in which the South Indian Railway have been allowed an increased rate of one anna per ton per mile, with effect from 1st July 1885, for carriage of stone for the Madras Harbour Works. It will be seen that the average rate calculated on the entire quantity of stone already hauled, and still required, for the works, is not in excess of the charge formerly made by the Madras Railway.

2. With advertence to the alleged difficulty in comparing the cost of the Harbour Works with the estimate in detail, we beg to invite your Lordship's attention to para 2 of our

proceedings herewith forwarded, and to state
the difficulty has been
that we are not aware
due to the delay which has
of the cause of the delay
occurred
in communicating to us your Lordship's sanction to Mr Parkes' revised estimate for the restoration of the Harbour.

11.8.86

Cu

No. 7/2249 W of 8 September/18

To

The Right Hon'ble
The Secretary of State for India

My Lord,

In reply to para 2 of your Lordship's despatch No. 3 P.W. dated 24th June 1886, we have the honor to forward copies of our Proceedings No. 2249 W of 8 Septr. 1886, and of the papers therein quoted, which set forth the circumstances in which the South Indian Railway have been allowed an increased rate of one anna per ton per mile, with effect from 1st July 1885, for carriage of stone for the Madras Harbour Works. It will be seen that the average rate calculated on the entire quantity of stone already hauled, and still required for the works, is but very little in excess of the charge formerly made by the Madras Railway.

2 With adverterce to the alleged difficulty in comparing the cost of the Harbour Works with the estimate in detail, we beg to invite your Lordships attention to para 9 of our Proceedings herewith forwarded, and to state that the difficulty has been due to the delay which has occurred in communicating to us your Lordships' sanction to Mr Parkes' revised estimate for the restoration of the Harbour.

Dev 11/8/86

17-8-86

23.8.6

B & R
c l works

W. 2249 W

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 8th September/86.

READ the following

Despatch from the Right Hon'ble the Secretary of State for India No 3 P.W. of 24th June 1886, forwarding report by Mr Parkes of the progress made in the restoration of the Madras Harbour Works for the quarter ending 31st March 1886.

Office Note from the Examiner, P.W. Accounts No 331 dated 7th August 1886.

The foregoing papers will be communicated to the Chairman, Madras Harbour Trust Board.

2 With respect to Mr Parkes' remarks as to the difficulty in comparing the cost of the work with the estimate in detail, the Secretary of State

will be informed that that difficulty has been due solely to the delay which has occurred in communicating His Lordship's sanction to the restoration estimate. The Secretary of State's sanction has now been communicated in letter from the Government of India No. 325 M dated 16th August 1886, disposed of in separate Proceedings, and the difficulty complained of will no longer exist.

3 With reference to the explanation asked for as to the large increase in the charge made by the South Indian Railway for carriage of stone for the Harbour Works, the Secretary of State will be furnished with copies

of

No. 671 R. of 27. 6. 84
" 802 R of 4. 8. 84
" 833 R of 11. 8. 84
" 887 R of 8. 9. 84
" 935 R of 22. 9. 84
" 66 R of 19. 1. 85
" 122 R of 6. 2. 86.

of the correspondence marginally noted. The circumstances are clearly set forth in the Consulting Engineers' note printed at page 6 of Proceedings dated 19th January 1885, No. 66 R.; and it will be seen that the increased rate of one anna per ton per mile was sanctioned in order not only to give the Railway Company a fair return on the additional rolling stock and haulage power provided by them to meet the requirements of the Harbour Works, but also to compensate them for past and prospective depreciation of rolling stock. It was calculated that an average rate of nine pies per ton per mile on the whole quantity of stone hauled for the Harbour Works would yield the Company a fair profit; but, to prevent disturbance of old accounts, it was decided to pay one anna per ton per mile from 1st July 1885. The average rate paid to the South Indian Railway is ~~the five cent~~ but very little in excess of the average rate finally granted to the Madras Railway.

4. A copy of these Proceedings will be forwarded to the Govt. of India for information.

H. E. No. 2250 W of 8d Septr. 1886.

Forwarded

23.9.6

exd 11/9/86

17-8-86

Despd 11/9/86

3.

The Chairman, Madras Harbour Trust Board.

" Examiner P.W. Accts.

" Marine Dept.

5703
6134

Govt. of (1886) Madras.

PUBLIC WORKS.

2/9/86

Dated

Recd.

Encl.

G.O., 8th Sept 1886, No. 2249W
1/2249W
2250W

Madras Harbour

Orders on despatch from the Secy of State forwarding report by Mr Parkes of the progress made in the restoration of the — for the 1st quarter of 1886.

Madras Harbour

Copy of orders ~~passed~~ on despatch from the Secy of State forwarding report by Mr Parkes of the progress made in the restoration of the — for the 1st quarter of 1886 forwarded to the post of Cochin.

Reporting on the increased charge which the South Indian Ry Company have been allowed to make for the conveyance of stone for the Madras Harbour works & on the alleged difficulty in comparing the cost of the works with the estimate in detail.

11/9