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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 1706	Press
693-624	~~Mis.~~
Dated 29-5-1966.	

Not to be folded or roughly handled

No. 693. Read the following letter from the Superintending Engineer, 6th Division, to the Secretary to Government, Department Public Works, dated Tanjore, 11th May 1866, No. 59:—

1. I have the honor to report upon the Lower Anicut works which I visited on the 4th instant.

2. The front and rear embankments were not in so forward a state as I could have wished, the contract time for the completion of the former was the 15th April, but the Contractors apparently made no effort to complete the work, and have done everything in their power to defraud Government, putting earth instead of clay into the puddle wall, &c., &c., and complaining loudly because I insisted on the earth being removed and clay being supplied from the river bed, according to the contract. This I did in March, and the Contractors have been working badly ever since, though I warned them that everything depended upon the timely and proper completion of the embankment, and that should any accident to the anicut occur through their neglect, I would recommend the whole cost of the work destroyed or injured being recovered from them. We have been obliged to call in the aid of the Tahsildar, Sevagooroo Pillay, to procure coolies for us, and he, as usual, has responded most cheerfully and readily to our call, and ere this report reaches Madras, it is probable that the front embankment will be so far completed as to be able to withstand a fresh of six feet over the anicut.

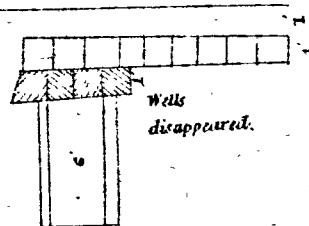
3. The actual work of restoration has not progressed so rapidly as I could have wished, but in so saying I do not impute any blame to Mr. Bateman or the Overseer, who I am sure have been most untiring in their exertions, and have spared themselves neither fatigue or exposure in endeavouring to carry out the work; but its slow progress is attributable to the difficulty in removing the debris of the old work, much of which has sunk far below the depth at which it was originally placed.

4. The state of the work is as follows:—The dam as far as the second pier from the north end is completed, and the foundations up to the fourth pier have been brought up to the basement level, as also the four piers, the flooring under arches 1 and 2 have been laid, and that under 3 and 4 was in rapid progress. Pier 5 and the two sluice piers have yet to be got in, and also the dam and retaining walls to a length of 107 feet. The retaining wall of the apron has not yet been commenced.

5. The old foundations of the retaining walls and the sluice piers have been entirely removed, and, as by boring it has been ascertained that there is no impediment below, the wells for the new foundations will at once be sunk; the top of these wells will be on a level with the bottom of the old wells. The debris below nine feet has to be removed from the site of the fifth pier. It is expected that by the end of May the gap of 107 feet will be closed, and the work carried up to the basement level.

6. The work which has been done has been carried down fifteen feet, viz., six feet on wells and nine feet in the solid above the wells, the depth of the original work was only nine feet in all, viz., six feet on wells with two feet of cubes, and one foot of solid masonry above it.

7. How the old work stands at all is a marvel; to support the last standing arch a heavy buttress has been built on the floor of the neighbouring arch. The up-stream retaining wall has been exposed in carrying down the excavation for the sluice piers, and there is a gap in this retaining wall about 18 feet long; all that remains of the wall is the one foot of solid masonry and one foot of cubes, which are hanging to it as shown in the margin, the second layer of cubes and at least the upper three feet of the wells having disappeared altogether; the lower portions of the walls may still exist.



8. About half of the retaining wall for the extended apron of sluice No. 2 has been carried up to within one foot of the basement level, and about one-sixth foot more to within four and a half feet of the same level. Great difficulty has been found in clearing away the rough stone and cubes round the old extended apron; they have, however, been removed to a depth of $10\frac{1}{2}$ feet below the level of the river bed, and at that depth boxes three and a half feet high filled with solid masonry have been placed, and seven feet of solid masonry will be built above them, making $10\frac{1}{2}$ feet in all, and this rests, it is believed, on rough stone and cubes which have sunk to a great depth. It is very doubtful whether the extended apron of No. 4 sluice can be put in this season. The old apron does not appear to have been affected in any way by last year's floods, and if the new work cannot be carried out the old apron will be protected by throwing a large quantity of rough stone around it, which we shall have to recover next year.

9. I do not think it will be necessary to construct the proposed advanced apron along the front of the work now being carried out, i. e., along the first section of the anicut, but from the state of the existing front retaining wall adjacent to the new work, it is undoubtedly essential that an entirely new retaining wall should be built along the whole of the old work, and I have, therefore, directed that buttress wings shall be thrown out from the sluices now under construction, and in continuation of the retaining wall between their extremities; a retaining wall along the face of the old work must be carried next season.

* Rupees 74,000
" 16,000
" 90,000
No. 1,098, 10th April.

10. On the estimates of Rupees* 90,000, sanctioned in April, in round numbers, Rupees 25,000 have been expended up to 30th April, while in the Budget of 1866-67 only Rupees 30,000 are allotted for the work; the latter sum,

it is anticipated, will be expended before the close of the present working season, leaving nothing for the next working season, and work to the amount of Rupees 35,000 of the original estimates will remain to be completed, while calculating roughly Rupees 20,000 will probably be required for the new front retaining wall along the face of the work; as, however, Rupees 35,000 will probably be as much as we shall be able to expend next season up to the 30th April 1867, I beg that Rupees 35,000 may be allotted for the lower anicut works from the Reserve, and

provision must be made in the Budget of 1867-68 for Rupees 20,000, or whatever sum may prove to be required.

11. As the rivers have not come down in flood it has not been possible to bring down any rough stone from Trichinopoly, and as the sanction accorded in G. O. Nos. 1,901 and 2,252, referred to an appropriation for rough stone from the allotment for repairs in 1865-36, I beg that sanction may now be accorded to an expenditure of Rupees 10,000 in 1866-67, from the allotment for repairs, for bringing stones from Trichinopoly or elsewhere to the Lower Anicut.

Three feet two inches over Cavery dam.

12. On the 26th ultimo there was a slight fresh in the Augundacavery which still continues, the whole of the water has been turned down the Cavery; under any circumstances it would hardly have reached the Lower Anicut.

13. On the afternoon of the 3rd instant two inches of rain fell in about three hours at the anicut, which, it is hoped, will drive away a low fever which has prevailed there of late. The rain did not injure the work further than stopping it for the rest of the day, and about 20,000 raw bricks which had just been moulded were destroyed.

No. 694.

ORDER THEREON, 29th May 1866, No. 1,706.

CIVIL WORKS, No. 97.

1. Although the restoration of the southern branch of the Lower Coleroon Anicut had not made such progress as the Superintending Engineer had hoped to find on his late inspection, owing to the partial failures of certain Contractors to complete their engagements, and to the difficulties experienced in removing the deeply sunken remains of the destroyed work, the Government are pleased to learn that the works are in a sufficiently advanced state to afford every prospect of their being completed as far as it is intended to finish them during this year's working season. The future security of the work is, in their opinion, greatly increased by the unusual depth and solidity of the foundations which have been got in, and the depth to which these have been sunk is very creditable to the Sub-Engineer, Mr. Bateman, and his subordinates. It is trusted that the remaining portions of the work may be made equally solid.

2. The condition in which the Superintending Engineer reports having found the front retaining wall of the old work further confirms the unfavorable opinion which the Government have formed of the original construction of this anicut, and leaves, in their mind, no doubt as to the absolute necessity of the addition of an entirely new front retaining wall on deeper and thoroughly sound foundations. The works will be proceeded with to the fullest extent that the season will allow, and funds will be provided as required.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 6th Division.
" Controller of Public Works Accounts.
Ed. S. T. Augustin.

W^e 59

Sup^r Engr's office b^h D^o
Satur 11. May 1866.

From,

Captain P. F. Baker. R.E.

Superintending Engineer b^h D^o

Col^l Colonel C. A. Orr R.E.

Secretary to Government
D. P. W.

Sir,

I have the honor to report
upon the Lower Munit Works
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putting earth instead of clay into
the puddle wall &c &c, and complain-
ing loudly because I insisted on the
the

the earth being removed & clay being supplied from the River bed according to the Contract. This I did in March & the Contractors have been working hard ever since, though I warned them that everything depended upon the timely & proper completion of the Embankment, and that should any accident to the Amicut occur through their neglect I would recommend the whole cost of the work destroyed or injured being recovered from them.

We have been obliged to call in the aid of the Sahildan Sevagooro Pillay to procure Coolies for us, & he, as usual, has responded most cheerfully and readily to our call, and ere this Report reaches Madras, it is probable that the Front Embankment will be so far completed as to be able

to

to withstand a fresh of 6' over the Amicut -

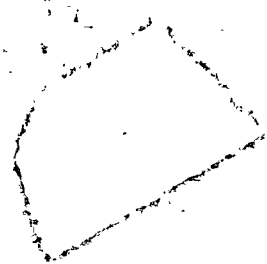
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From
North
End -

4. The state of the Work is as follows. The Dam as far as the 2^d Pier from the North End is completed & the foundations up to the

the 4th Pier have been brought up to the Basement level, as also the 4 Piers, the flooring under arches 1 and 2 have been laid & that under 3 and 4 was in rapid Progress. Pier 5 and the 2 Sluice piers have yet to be got in and also the Dam and retaining Walls to a length of 107 feet. The retaining wall of the Apron has not yet been commenced.

5 - The old foundations of the retaining Walls & the Sluice Piers have been entirely removed and as by boring it has been ascertained that there is no impediment below, the Walls for the new foundations will at once be sunk, the top of these Walls will be on a level with the bottom of the old Walls. The debris below 9' has to be removed from the side of the 5th Pier. It is

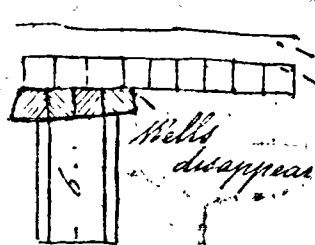


is expected that by the end of May the gap of 107' will be closed & the work carried up to the basement level.

6 - The Work which has been done has been carried down 15 feet, viz. 6' on Walls and 9' in the solid above the Walls, the depth of the original Work was only 9' in all viz 6' on Walls with 2' of cubes, & 1' of solid masonry above it.

7 - How the old Work stands at all is a marvel; to support the last standing Arch a heavy buttress has been built on the floor of the neighbouring Arch. The up stream retaining wall has been exposed in carrying down the excavation for the Sluice Piers, and there is a gap in this retaining wall about 18' long, all that remains of the wall is the 1' of solid masonry and 1' of cubes

Cubes which are hanging to it as shown in the margin, the 2^d layer of Cubes & at least the upper 3' of the wells having disappeared altogether; the lower portions of the Wells may still exist.



8 - About $\frac{1}{2}$ of the retaining wall for the extended apron of Sluice No 2 has been carried up to within 1' of the basement level and about $\frac{1}{6}$ ' more to within $4\frac{1}{2}$ ' of the same level - Great difficulty has been found in clearing away the Rough Stone and Cubes round the old extended Apron, they have, however, been removed to a depth of $10\frac{1}{2}$ ' below the level of the River bed, and at that depth boxes $3\frac{1}{2}$ ' high filled with solid masonry have been placed and 7' of solid masonry will be built above them, making $10\frac{1}{2}$ ' in all and this rests, it is believed,

110.
believed, on rough stone & cubes which have sunk to a great depth. It is very doubtful whether the extended apron of No 4 Sluice can be put in this season. The old apron does not appear to have been affected in any way by last year's floods and if the new work cannot be carried out the old apron will be protected by throwing a large quantity of rough stone around it, which we shall have to recover next year.

9 - I do not think it will be necessary to construct the proposed advanced apron along the front of the Work now being carried out: i.e. along the 1st Section of the Amnicul, but from the state of the existing front retaining wall adjacent to the new Work it is undoubtedly essential that an entirely new retaining wall should be

be built along the whole of the old Work, and I have, therefore, directed that buttress Wings shall be thrown out from the Piers now under Construction, & in continuation of the retaining wall between their extremities, A retaining wall along the face of the old Work, must be carried next Season -

10 - On the Estimate of Rupees 90,000 sanctioned in April in Round numbers, Rs 25,000, have been expended up to 30th April while in the Budget of 66/67 only Rs 3,000 are allotted for the Work, the latter sum, it is anticipated, will be expended before the close of the present working Season, leaving nothing for the next working Season, and work to the amount of Rs 35,000 of the original Estimate will remain to

Rs 74,000
16,000
90,000
Rs 10,98
10 th April.

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to be completed while calculating roughly Rs 20,000 will probably be required for the new front retaining wall along the face of the Works, however, Rs 35,000 will probably be as much as we shall be able to expend next Season up to the 30th April 1867, I beg that Rs 35,000 may be allotted for the Lower Amisank Works from the Reserve & provision must be made in the Budget of 67/68 for Rs 20,000, or whatever sum may prove to be required -

11 - As the Rivers have not come down in flood it has not been possible to bring down any rough Stone from Trichinopoly, & as the sanction accorded in G.O. No 1901, and 2252, referred to an appropriation for rough stone from the allotment for repairs in 65/66, I beg

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3'2"
over
Canary
Dam.

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were destroyed -

I have the honor to be

Sir,
Your most Obedt Servt
W. F. Bates Captain R.E.
Supt Engineer, B. D. S.

2104706 11/10/00 13/10/00

Under date the 29th May 1866.

Read the following

poor, ancient road not made

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work.

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6th Jan

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J. Smith

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New D. } 3

Ms. 59

Deposited on the lower
Municipal Street.

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2659 May 1866-02. 2812-

that the work are in a
sufficiently advanced state
to afford every prospect
of their being completed
as far as it is intended
to finish them during this
year's working season.
The future security of the
work is, in their opinion,
greatly increased by the in-
creased depth and solidity
of the foundations which
have been got in to the
depth to which they have
been sunk is very creditable
to the Sub. Engr. Mr Bateman
and his subordinates.
It is trusted that the re-
maining portions of the
work may be made equally
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The

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The conclusion in which
the Superintending Engr.
reports having found the
front retaining wall of
the old work further con-
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opinion which the Govt.
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and

And further to
provide as required
the necessary persons and

for the purpose of
the said work
and also

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Franklin
1896

to S. S. 6 D
4 a Controller

Sept 2nd June

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A. 893. 697

26 May 1896. A. 287

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21-9-31 1911

J W 1866 Dept
Proc: of Govt for May
No 1706
Proc: of the Madras Govt
Of 29th May 66

Passing orders on the report
of the Supg Engr of the 6th Div on the
progress of the restoration of the
Southern branch of Lower Coleroon
Amicut.

893-894.