

(1) Number of pages _____

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MADRAS RECORD OFFICE.

Government of Madras.

public works DEPARTMENT.

G.O. No. 3668 -

Press
~~Mis~~

467-472

Dated 22-12-1869.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department
22nd December 1861.

Read the following papers:—

No. 467. Endorsement of the Superintending Engineer, 4th Division, dated 3rd December 1861, No. 4,472.

From Mr. Conductor W. G. BEVAN, Sub-Engineer, in charge of No. 1 Range, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Tripassore, 23rd November 1864, No. 169.

SIR,

1. I regret to inform you that the ferry boat on the Cortilliar is reported to be washed away.
2. All bandy traffic will be stopped in consequence.
3. There are two small boats which will cross the tappal and travellers.
4. I have written to the Tahsildar of Ponnary and to Mr. Wakefield to try and supplement them.
5. If they can place two more boats on the ferry I think it will answer every purpose except to cross bandies.

From Mr. Conductor W. G. BEVAN, Sub-Engineer, in charge, No. 1 Range, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Tripassore, 23rd November 1864, No. 169.

SIR,

1. I have just received a report from Mr. Wakefield that the Narnavarum river overflowed its banks and breached Trunk Road No. 6, at the 22nd, 23rd, and 24th miles. He also reports that the north approach to the large bridge has been washed away.
2. I have directed him to make good the approach to the bridge from the maintenance allowance, but only to perform so much work on the three miles of road as will allow the traffic to pass over.
3. My camp is now at Oottucotai, but I cannot get to it, as there is no boat.
4. I request you will be pleased to let me know if the damage done to the Trunk Road is to be charged to the maintenance allowance, or am I to submit estimate for each breach.

* Rivers at Olhapa and Oottucotai on Naglapurum road.

5. I will try and get ferried across* on a raft so soon as the rain discontinues.

From Mr. Conductor W. G. BEVAN, Sub-Engineer, in charge of No. 1 Range, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Perambore, 2nd December 1864.

SIR,

1. I beg to report that the undermentioned irrigation works were injured during the heavy rains which fell on the 26th, 27th, and 28th of last month:—

<i>Trivellore Taluq.</i>	Breaches.	<i>Ponnary Taluq.</i>	Breaches.
Coovacol tank	2	Karikalavaukum tangle	3
Poondy Nagan tangle	1	Vallur tangle	1
Sunta Valur eight upright stones were damaged.	1	Coorooveagarum tank	2
Ecadu Puttary tank	1	Somungary embankment	2
Vengathoor tank	4	Seroo Payavescadoo	2
Do. tangle	1	Tuttamunjee embankment	3
Moodoor tank	1	Eroonacaracherry tank	1
Malevelogum tank	1	Comara Seralapaukum tank	7
Arapaukum tank	1	Goodocanjary	4
Teroovalumbodoor tank	1	<i>Saidapet Taluq.</i>	
Kambaukum tank calingulah damaged.		Pandy tank	6
Kesaverum anicut as per estimate submitted.		Sadayancooppum tangle	6
Naglapurum black tank Corumboo.		Ambathoor tank one sluice damaged.	
Karikalavaukum tank	4	Peraloor tank	4

Sub Engineer, Suchapet Taluq.

Proceedings of the Madras Government, Public Works Department.
22nd December 1864.

2. I also beg to report that about 500 yards of the road (close to the river from Trivellore Oottucottai) was washed away, also that eight breaches were made in the road from Cowrapet to attived.

3. I have already reported the damages done to Trunk Road No 6 and the loss of the boat in the Cortilliar.

From Mr. J. H. STEPHENS, Overseer, Department Public Works, to C. W. MAITLAND, Esq., Sub-Engineer, No. 3 Range, Madras District, dated Streepermattur, 20th October 1864, No. 34.

SIR,

1. I beg to report incessant and heavy falls of rain which occurred between the 17th and 19th instant (both days inclusive), the weather has cleared up to-day, but I am not sure whether it will continue so.

2. The Kambankal channel did not receive a supply from the Palar during these heavy rains, which is most likely due to scanty rain-fall near the source of Palar and above the anicut, but though the channel did not receive a supply of water from the Palar it received a large supply from the drainage of the adjacent lands, for there was a continuous flow of water for 27 miles. The deep basins near 14th, 16th, 20th, and 21st miles are still full.

3. The drainage water was equally divided into the adjacent tanks, which was a great privilege as only the tanks nearest the head of the channel are benefited by the slight freshes from the Palar.

4. A list of the supply of water received by each tank together with a report on the state of the masonry falls and banks of the channel will be forwarded.

No. 193.

Submitted to the Superintending Engineer, 4th Division, for information.

GUDUVANCHERU,
26th October 1864.

(Signed) C. W. MAITLAND,
Sub-Engineer, D.P.W.,
In charge of No. 3 Range, Madras.

From Mr. J. H. STEPHENS, Overseer, to C. W. MAITLAND, Esq., Sub-Engineer, No. 3 Range, Madras District, dated Wallajahbad, 25th October 1864, No. 37.

SIR,

1 List.

A.B. Estimate No. 250, recently sanctioned for the repairs of this reach.

(Initialed) C. W. M.

1. In continuation of my report No. 34 of 24th instant, I beg to inform you that the banks of the Kambankal channel are in general in pretty good order, those between the 12th and 16th miles seem to have suffered most, and are decidedly in bad condition, but this is owing principally to the very bad nature of the soil, and will be soon put to right again.

2. The masonry works too are in a fair order, those near Mambakam and Molasoor are rather leaky, but they can be attended to after the monsoons.

3. A list of some of the Kambankal tanks shewing the capacity of each, and the present supply is enclosed, the information was extracted from the villagers, but it would not be quite safe to trust to it as some are prone to exaggerate and others to lessen the proper supply. Those tanks have been omitted to which water is at present flowing, but the information concerning them will be forwarded as soon as the fresh subsides.

4. The fresh from the Palar, reported in my letter of 22nd instant, is still continuing to flow, but is reduced to a head of only two inches, and expect it will soon entirely cease.

5. I am given to understand that a great supply of water came down the Palar, but by some accident near the anicut at the head a great quantity escaped. This, if true, is a misfortune much to be lamented.

Proceedings of the Madras Government, Public Works Department. 3
22nd December 1864.

List shewing the capacity and quantity of water in each of the tanks under the Kambankal Channel.

Name of the Tank.	Capacity of tanks month's supply.	Present month's supply.
Typak tank	4	4
Mootavakam tank	6	4
Vadgur tank	4	4
Kuram do.	6	4
Pudupakam do.	...	3
Do. Chittary	...	4
Kuram do.	4	2
Areaparambakam tank	6	4
Sembrambakam do.	6	1½
Veshakadikupam do.	4	1½
Eangavakam do.	4	3
Parekarambur do.	4	3
Do. tangle	2	2
Seruvakam large tank	6	2
Do. Soodala tangle	2	2
Kara tank	6	3½
Audisiruber tank	6	2
Do. Chittary	3	2
Podur mel thangle	4	2½
Do. Keel do.	3	1
Do. Vada do.	6	3½
Kutrambakam do.	4	3
Nelvoy do.	...	1½
Karara do.	6	4
Parandur large tank	...	2
Kottavakam do.	3	2
Katooputoor do.	3	2
Boothairy do.	1	1
Alvan tangle tank	6	3
Yekanavaram do.	8	2
Kunakarambakam tank	6	1½
Singlepady do.	4	2½
Do. Chittary	7	3
Marimangalam tank	6	2
Do. Chittary	8	2
Yettikuttimadoo tank	8	1½
Kaunan tangle do.	...	1½
Komman tangle do.	...	3
Do. tangle	8	3½
Kandur tank	8	2½
Keeranellore do.	8	1
Nundunadoo do.	4	2½
Molasoor do.	...	2
Vadamungalam tank	...	3
Do. Chittary	8	4
Pillapakam tank	...	3
Streepermatoor tank	4	1½
Govindavady Malary	...	2½
Do. Kulary	...	...
Damal tank	...	...

WALLAJAHBAD,
25th October 1864.

(Signed) J. H. STEPHENS, Overseer.

(True Copy.)

(Signed) C. W. MAITLAND,
Sub-Engineer, D.P.W.

29th October 1864.

4 *Proceedings of the Madras Government, Public Works Department,*
22nd December 1864.

MADRAS DISTRICT, No. 3 RANGE.

List shewing the capacity and quantity of water in each of the tanks in the Chingleput Taluq.

No.	Names of Tanks.	Quantity could hold.	Quantity received.	Remarks.
		Months.	Months.	
1	Manambadi tank...			
2	Agaram Davadavam tank	8	8	
3	Amurthumpullam do.	4	2	
4	Muleekolatur tangle	4	2	
5	Teruka'ekundram Chittary	6	2	
6	Do. tank...	5	1	
7	Musevakam do.	6	2	
8	Sembakam do.	4	2	
9	Vilagam do.	6	2	
10	Jagunnathumpett and Porvithavakam His: a tank	4	2	
11	Amipakam Chittary	5	2	
12	Kalavepakam tank	4	2	
13	Veerapuram do.	6	2	
14	Marudari do.	6	2	
15	Pulekundram do.	5	3	
16	Eagae do.	5	3	
17	Peria Vippadu do.	6	2	
18	Chinna Vippadu do.	5	2	
19	Kotukalavi do.	5	2	
20	Thanur do.	5	3	
21	Anur do.	4	2	
22	Kulpanthandalam do.	6	1	
23	Andikuppam do.	5	2	
24	Gudalur do.	4	3	
25	Mullecpakam do.	5	2	
26	Kalatur do.	6	2	
27	Atcherwakam do.	8	2	
28	Punjai do.	6	2	
29	Kadumbadi do.	6	2	
30	Mananai do.	6	2	
31	Chingleput do.	6	2	
32	Mambakam do.	8	2	
33	Teranelai do.	6	2	
34	Bummedikuppam do.	5	3	
35	Kunnagapet do.	6	2	
36	Thyur do.	5	2	
37	Teruporur do.	6	2	
38	Navellur do.	5	2	
39	Kilembakam do.	5	1	
40	Orapakam do.	5	1	
41	Nundevaram do.	5	2	
42	Vendalur do.	8	3	
43	Manuvakam do.	5	1	
44	Teruvadeswaram do.	6	2	
45	Karumbur do.	5	2	
46	Korave do.	5	2	
47	Terukachur do.	5	2	
48	Porai do.	6	2	
49	Serudavur do.	4	2	
50	Alatur do.	6	2	
51	Authur do.	5	2	
52	Palur do.	6	3	
53	Melmanapakam do.	6	4	
54	Chittamanur do.	5	3	
55	Narapakam do.	6	3	
56	Oragadam do.	5	2	
57	Arungundram do.	6	2	
58	Meikankampett do.	6	2	
59	Oragadam tangle	5	2	
60	Nullur tank	4	2	
		6	3	

Rain fall between 17th and 20th October 1864.

POONAMALLE,
19th November 1864.

(Signed) C. W. MAITLAND,
Sub-Engineer, D. P. W., in charge of No. 3 Range.

Proceedings of the Madras Government, Public Works Department, 5
22nd December 1864.

No. 125.

Submitted for the information of the Superintending Engineer, 4th Division:

CHINGLEPUT,
29th October 1864.

(Signed) C. W. MAITLAND,
Sub-Engineer.

From Mr. J. H. STEPHENS, Overseer, Department Public Works, to C. W. MAITLAND, Esq., Sub-Engineer, No. 3 Range, Madras District, dated Streepermattur, 22nd November 1864, No. 42.

SIR,

1. I beg to report an incessant and heavy down-pour of rain, accompanied with violent gusts of wind from the morning of the 18th to the 19th instant, after which the rain lessened, and only came down at intervals in short but heavy showers, the wind greatly lulled, and on Sunday the 20th instant both wind and rain entirely ceased.

2. A large quantity of drainage water passed down the Kambankal channel, from the head to the Streepermattur tank, supplying all the tanks in the vicinity, the greater number of which have received a full supply.

3. Though this rain proved highly beneficial to some tanks, I do not doubt it was equally disastrous to others, for the Deputy Tahsildar has just informed me of four breaches in the Alingevakam tank, and I hear several other tanks have been just as unfortunate, but I wish to authenticate the information before separately report on them.

4. I am sorry to inform you of two breaches in the Kambankal, which occurred on the night of the 18th instant, when the wind and rain were most violent. I was then at Navellur, about ten miles from the channel, and received the information about 5 P. M., on Sunday the 20th instant.

5. The largest of these breaches, $24 \times 18 \times 3\frac{1}{2}$ yards, is just below the Pillapakam calingulah. I do not think any villagers could have first cut the bund, for the Pillapakam tank was the only one which would have immediately benefited by it, but it had previously received a full supply and water was flowing from both of its calingulahs, so that the villagers of that place could not have wished for more.

Near Streepermattur. The bund was repaired recently. (Initialed) C. W. M. Soil is bad.

6. The villagers of Streepermattur made an attempt on the morning of the 19th to close this breach, but the velocity of the water defied all their efforts and carried every thing before it, they however did not care much about it for their tank had previously received a full supply, and water was flowing over its calingulah; four large Palmyrah trees growing on the bund were rooted up, and the water in many places seems to have flowed over the bank.

A very high bank.

7. The other breach, $8 \times 4\frac{1}{2} \times 4$ yards, is adjoining the supply sluice to the Nunthemadu tank, which at the time was quite full, and water was flowing over its calingulah so that little suspicion can fall on the villagers of that place, they however in fear of an accident to the bund of their tank helped to place a ring bund in front of the breach, which I think was caused by the fall of the wing-wall of the adjoining sluice.

8. Anticipating your permission, and as the works are of an emergent nature, I have given orders for the closing of the breaches by contractors, the larger one of which I fear will cost a great deal, for the water has not only washed off the bund, but seems to have scooped away the earth under it to a tolerable depth; I have written to the Moonsiff of Alingevakam to hire coolies and get the breaches in his tanks immediately closed, but have not as yet gone to the place to investigate particulars; if the cost of the closing of the breaches exceeds 25 Rupees the money will have to be defrayed by Government, but if within, the same will have to be done by the villagers.

9. The masonry falls below Molasur have in general been injured, and will have to be attended to as soon as the monsoons are over. The apron of the Mambakam fall (which in a previous report I stated to be in bad order) has a head of $3\frac{1}{2}$ feet of water over the retaining wall when this accident occurred. I do not think it is any fault of the workmanship, for the jelly, &c., seem very good, but from the position of the work, water from a pond on a higher level, only a few yards from it keeps continually oozing through, acting like a spring, detrimental to the masonry work.

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4 *Proceedings of the Madras Government, Public Works Department,*
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MADRAS DISTRICT, No. 3 RANGE.

List shewing the capacity and quantity of water in each of the tanks in the Chingleput Taluq.

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		Months.	Months.	
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23	Andikuppam do.	5	2	
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25	Mulleepakam do.	5	2	
26	Kalatur do.	6	2	
27	Atcherwakam do.	8	2	
28	Punjeri do.	6	2	
29	Kadumbadi do.	6	2	
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		6	3	

Rain fall between 17th and 20th October 1864.

Proceedings of the Madras Government, Public Works Department, 5
22nd December 1864.

No. 125.

Submitted for the information of the Superintending Engineer, 4th Division:

CHINGLEPUT,
29th October 1864.

(Signed) C. W. MAITLAND,
Sub-Engineer.

From Mr. J. H. STEPHENS, Overseer, Department Public Works, to C. W. MAITLAND, Esq., Sub-Engineer, No. 3 Range, Madras District, dated Sreepermatpur, 22nd November 1864, No. 42.

SIR,

1. I beg to report an incessant and heavy down-pour of rain, accompanied with violent gusts of wind from the morning of the 18th to the 19th instant, after which the rain lessened, and only came down at intervals in short but heavy showers, the wind greatly lulled, and on Sunday the 20th instant both wind and rain entirely ceased.

2. A large quantity of drainage water passed down the Kambankal channel, from the head to the Sreepermatpur tank, supplying all the tanks in the vicinity, the greater number of which have received a full supply.

3. Though this rain proved highly beneficial to some tanks, I do not doubt it was equally disastrous to others, for the Deputy Tahsildar has just informed me of four breaches in the Alingevakam tank, and I hear several other tanks have been just as unfortunate, but I wish to authenticate the information before separately report on them.

4. I am sorry to inform you of two breaches in the Kambankal, which occurred on the night of the 18th instant, when the wind and rain were most violent. I was then at Navellur, about ten miles from the channel, and received the information about 5 P. M., on Sunday the 20th instant.

5. The largest of these breaches, $24 \times 18 \times 3\frac{1}{2}$ yards, is just below the Pillapakam calingulah. I do not think any villagers could have first cut the bund, for the Pillapakam tank was the only one which would have immediately benefited by it, but it had previously received a full supply and water was flowing from both of its calingulahs, so that the villagers of that place could not have wished for more.

6. The villagers of Sreepermatpur made an attempt on the morning of the 19th to close this breach, but the velocity of the water defied all their efforts and carried every thing before it, they however did not care much about it for their tank had previously received a full supply, and water was flowing over its calingulah; four large Palmyrah trees growing on the bund were rooted up, and the water in many places seems to have flowed over the bank.

A very high bank.

7. The other breach, $8 \times 4\frac{1}{2} \times 4$ yards, is adjoining the supply sluice to the Nunthemadu tank, which at the time was quite full, and water was flowing over its calingulah so that little suspicion can fall on the villagers of that place, they however in fear of an accident to the bund of their tank helped to place a ring bund in front of the breach, which I think was caused by the fall of the wing-wall of the adjoining sluice.

8. Anticipating your permission, and as the works are of an emergent nature, I have given orders for the closing of the breaches by contractors, the larger one of which I fear will cost a great deal, for the water has not only washed off the bund, but seems to have scooped away the earth under it to a tolerable depth; I have written to the Moonsiff of Alingevakam to hire coolies and get the breaches in his tanks immediately closed, but have not as yet gone to the place to investigate particulars; if the cost of the closing of the breaches exceeds 25 Rupees the money will have to be defrayed by Government, but if within, the same will have to be done by the villagers.

9. The masonry falls below Molasur have in general been injured, and will have to be attended to as soon as the monsoons are over. The apron of the Mambakam fall (which in a previous report I stated to be in bad order) has been washed off, for $6 \times 1\frac{1}{2} \times 1\frac{1}{2}$ yards there was a head of $3\frac{1}{2}$ feet of water over the retaining wall when this accident occurred. I do not think it is any fault of the workmanship, for the jelly, &c., seem very good, but from the position of the work, water from a pond on a higher level, only a few yards from it keeps continually oozing through, acting like a spring, detrimental to the masonry work.

POONAMALLE,
19th November 1864.

(Signed) C. W. MAITLAND,
Sub-Engineer, D. P. W., in charge of No. 3 Range.

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10. The wing and retaining walls of Molasur fall are much cracked, and unless attended to soon, I fear they will become irreparable; the other masonry falls lower down in general require slight repairs, much of the pointing having been removed, and in many cases the water percolates between the stones which is very injurious, causing leaks.

11. The western inner wing-wall of the supply sluice to the Nunthemadu tank has entirely fallen down, this I think is owing to the earth in rear of the wing having been thrown in loosely and swelling after becoming saturated with water. After the wing-wall had fallen, the earth not having any support slipped down, and the breach mentioned in paragraph 7 took place.

12. Yesterday evening about 4 o'clock a fresh with a head of one foot came down from the Palar, but I believe it is at present gradually diminishing; all the tanks up to Nelvoy a distance of eleven miles have received a supply.

13. In conclusion, I am sorry to inform you that a great number of tanks in the Taluq were not able to contain much of the abundant rain we have just received, on account of the low, weak state of their bunds, and many are the villagers who even now, though too late, come pressing on me to make estimates for their tanks; but as my hands are tied by the small allowance allotted by Government for expenditure on these works, I am unable to accede to their requests. If these tanks had been put in proper order, many, if not all the villages would be able to raise two crops this year, which would not only enrich the country, but also materially raise the revenue to Government.

14. A list shewing the supply in each tank will be forwarded.

Submitted for the information of the Superintending Engineer, 4th Division. The Sub-Engineer intends proceeding immediately to the Kambankal to inspect and arrange for the execution of necessary repairs. A further report will be submitted.

POONAMALLEE,
23rd November 1864.

No. 214.

(Signed) C. W. MAITLAND,
Sub-Engineer, D. P. W., in charge of No. 3. Range.

From C. W. MAITLAND, Esq., Sub-Engineer, Department Public Works, in charge of No. 3 Range, Madras, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Poonamallee, 25th November 1864, No. 219.

Sir,

1. In advertence to my No. 214, dated 23rd instant, I have the honor to report that I inspected the Kambankal from the Streepermattur tank up to the Podur Sluice (six miles), 18th instant.

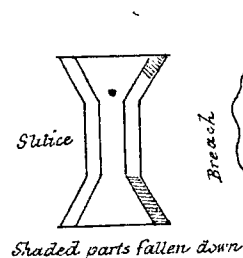
2. The first breach, 24 yards in length, is in the south bank of the Streepermattur supply channel, now a continuation of the Kambankal, about one mile west of the Bungalow, and 25 yards below a calingulah from which the supply to the Pillaypakam tank is led off.

3. This accident occurred after the Streepermattur tank received a full supply, and its calingulah was flowing. It might have been prevented by the vents of the calingulah throwing a supply into the Pillaypakam tank being opened, but this I am told the Streepermattur Merasidars opposed, looking to their interests alone. Such a heavy down-pour could hardly have been anticipated, but still I think the Merasidars should be told that they incur a serious responsibility in preventing works provided for the safety of banks being used.

4. The bank at this place is very stout, and about 3 feet above the late high water level, but the soil of which it is constructed is of that false soapy nature, that never can be trusted. The contractor was just about commencing work, but as it is very likely he will fill in the hole that has been formed with silt, sand, or any loose stuff that may be most easy to excavate, I have stopped him until Mr. Stephens can depute some proper person to superintend the work. I have directed that the earth be well rammed as the earth is being thrown up. No harm will be done by wasting a little.

5. The next breach adjoins the sluice to supply the Nandimadu tank, about $4\frac{1}{2}$ miles higher up. It is two yards wide at bottom and about four at top, and involved the destruction of one of the splay wings of the sluice, and injured another slightly, without however damaging the body of the work.

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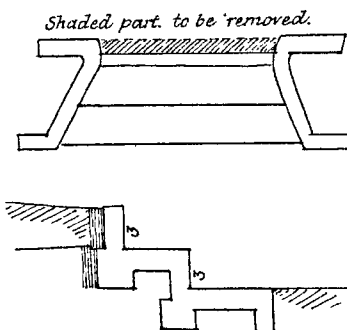
6. The earth adjoining the sluice is perfectly consolidated, but contains a large proportion of sand. The breach must have occurred by the water forcing its way along the side wall. The head of water was about 6 feet.

7. The Nandimadu tank having received a full supply, I have directed that the sluice be closed by a stout bank in front, and that the breach be repaired at once.

8. You may remember that at Malasur, the channel crosses the ridge of the Palar and descends the valley of the Kuam. It falls 79.54 in 2 $\frac{1}{2}$ miles, to counteract the rapidity of which ten masonry falls (five of 6 feet, three of 6 $\frac{1}{2}$, and two of 3 feet each, aggregating 53 $\frac{1}{2}$) had to be constructed.

9. These works, I am sorry to say, have been more or less damaged from the overfall (3 $\frac{1}{2}$ feet) and the influence of springs. A masonry fall of 6 feet under the Mambakam tank, the last of the series, has suffered the most, a part of the upper apron having been destroyed by spring water having completely undermined the body wall above.

10. I have instructed Mr. Stephens to re-pack the stones as closely as possible, and fix them with stakes, as also to ram the bed of the channel well a yard in breadth above every one of the falls so as to form a sort of clay wall adjoining each, and thus prevent the action of spring water as much as possible. Next year the body walls must be underpinned with a brick in chunam wall, as shaded in pencil in the accompanying plan, which I shall feel obliged by your returning.



11. Two of the masonry falls near the Molasur tank (four in all here) have suffered similarly, but not to such an extent. I fear the upper apron of both these works must be taken up and re-laid. The wing-wall of one fall is cracked in three places, but these may be easily repaired. I anticipate no further danger for the present. The aprons of all the falls will want pointing.

12. Estimates for these repairs will be submitted in due course. I have authorized Mr. Stephens to go on at once with the emergent repairs. Calculating roughly I think this will cost about 200 Rupees. I shall endeavour to meet the cost of all these repairs (emergent and ordinary) by deferring payment for some of the works already authorized to next year, and hope the contractors will consent. I hardly know of any work that can be postponed, having already retrenched expenditure. Vide my No. 206, dated 15th instant. It would however be a great relief if you could provide extra funds, but I shall take care on no account to exceed the allotment, Rupees 20,210.

From C. W. MAITLAND, Esq., Sub-Engineer, Department Public Works, in charge of No. 3 Range, Madras, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Poonamallee, 25th November 1864, No. 217.

Sir,

Your No. 4,289, dated 23rd instant.

1. All the tanks under the Kambankal proper have received as much water as they can safely be allowed to hold at present, with the prospect of more rain before us.

2. I have not been informed as to the state of the tanks under the Govindavadi branch, of which the Kuam tank is the last and largest. I have however sent instructions to Mr. Stephens to inform Mr. Booth, by telegraph, immediately no more water may be required from the Palar, as much time will be lost in making me the channel of communication. A copy of the message will of course be transmitted to me for information.

3. I have just returned from inspecting the Kambankal in the reach in which the damages reported by Mr. Stephens (vide my No. 214, dated 23rd instant) occurred, and am happy to say that the Streepermattur tank is perfectly safe. I shall report further on the damages sustained during the late rains in the course of the day, but shall have nothing to add to what has been already reported. I sent Mr. Stephens full instructions for his guidance yesterday, as I did not meet him, he having gone further up the channel.

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From Mr. J. H. STEPHENS, Overseer, to C. W. MAITLAND, Esq., Sub-Engineer, No. 3 Range, Madras District, dated Streepermattur, 29th November 1864, No. 47.

SIR,

1. I beg to report a heavy and incessant down pour of rain during the nights of the 27th and 28th instant. The Kambankal channel received a large supply of water from the drainage of the adjoining lands, so that all the tanks that may have had a little less than their proper supply, must now be quite full.

2. The tanks in the vicinity of the Kambankal channel being in general full, all the water which it received was allowed to flow directly down, which of course greatly increased the supply in it.

3. I am sorry to inform you that the breach below the Pillapakam surplus calingulah, which had been partially closed, was re-opened on the night of the 27th instant, when the rain was very violent; on the morning of the 28th I, with the assistance of the gardeners, tried to close the breach, which was then only about six yards, but failed; I tried to get the assistance of some of the villagers, but could not, as none would move out of their houses during the heavy rain.

4. The rain ceased this morning, but the breach which yesterday was only six yards had increased to its original dimensions,* and a great quantity of water was flowing down the channel, which is due to all the tanks in its vicinity being full. I thought it unnecessary to immediately close the breach, because all the water in the channel would flow direct into the Streepermattur tank, which latter was quite full, and a head of $1\frac{1}{2}$ feet was flowing out from the calingulah at its northern extremity, and $1\frac{1}{2}$ feet from the calingulah at the south, and to add the supply in channel to this great supply would endanger the bund; but again I did not wish to see all the water flowing out by the breach which was becoming quite deep, I therefore with the assistance of some of the villagers got a ring bund constructed from the tank just between the breach and the calingulah to the "Varapoos" in the fields on the opposite side of the channel, by which all the water was turned into the calingulah, this answered very well for a short time, but soon the Varapoos got undermined, and were all washed off; it was very difficult to reconstruct them for there was no turf to be had in the surrounding field, and those in the vicinity in the channel had been previously exhausted, I was therefore obliged to let things take their course, till the water decreases in violence, which I expect will be by to-morrow morning, when I intend commencing to close the breach effectually.

5. In round numbers I think it will take more than 500 Rupees to close the breaches and do other slight repairs to the bund, &c.

P. S.—When just in the act of forwarding the above report I have received information of a fresh from the Palar with a head of 3 feet above the anicut, I have ordered the head of the Kambankal channel proper to be closed, and only to allow water down the Govindavadi channel, opening the calingulahs of the tanks in the course of the channel till the Kuam tank receives a full supply, after which the calingulahs of the other tanks are to be closed in succession from the Kuam.

No. 222.

Submitted to the Superintending Engineer, 4th Division, for information.

MADRAS,
1st December 1864.

(Signed) C. W. MAITLAND,
Sub-Engineer, D. P. W., in charge of No. 3 Range.

Enclosures 11, original reports.

1. Submitted to Government for information.

2. It is feared that many more damages remain to be reported. Every endeavour will be made to re-establish communication on the roads, and to close breaches.

3. The river Cortelliar overtopped its banks. The flood in it was the highest known for twenty years. The Késávaram anicut placed across that river to divert water into the Bungavior channel (that is the head of the Kuam river) breached, so did the north bank of the said channel in eight places. Thus the water passed back into the Cortelliar, which accounts for the very moderate freshes in the Kuam.

4. There are no reports from Nos. 2 and 4 Ranges. The Sub-Engineers of Nos. 1 and 3 ranges have been instructed to act on emergency. Additional repair funds will be shortly applied for. The Superintending Engineer will soon proceed to inspect damages.

(Signed) A. J. M. BOILEAU, Colonel, R. E.,
Superintending Engineer, 4th Division.

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No. 463. Read the following Endorsement of the Superintending Engineer, 4th Division, dated Madras, 3rd December 1864, No. 4,471.

From Mr. A. H. STARR, Supervisor, Executive Agent, 2nd Range, North Arcot, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Camp, Tripputty Station, 29th November 1864, No. 164.

1. I have the honor to report that from the heavy fall (43 inches) of rain, on the night of 18th and 19th instants, the several rivers and streams in this Range ran *very high*, and portions of road-ways as per list enclosed were over-topped and washed away for distances varying from 20 to 400 yards; the greatest damage done was to road No. 7, near the village of Moongulpett, close to the Sootoonamooku river, the road here raised 3 feet above the surrounding fields I am led to believe was *cut by the villagers* to drain *their cultivated* lands, the repairs are being attended to, and the road is now passable; the other roads are being put into order.

2. Nuckalavanka, a jungle stream, to the east of Chendragery, for which an estimate for sundry repairs to bank to the extent of Rupees 240 was sanctioned and carried out to the amount of Rupees 148-6-10, over-topped its bank (breaching in parts not likely to have given away and uninclosed in estimate) and flooded the fields to the west of it, quite filling in the Oppoocalvah, lately cleared to the length of 1,074 yards. I enclose you a sketch and also estimate for the emergent work it is necessary to carry out to save the crops of the Chanambutlah village, as also to secure the bank of the Nuckalavanka on both sides, amounting to Rupees 1,284, and to report that I have, to save further loss, began the repairs in anticipation of sanction, especially as there is every likelihood of our having heavier showers.

3. The Gazalamandiam, Allecupum and Avelala tanks, repaired this year, are so much scoured by the heavy falls of rain, that I have directed they be turfed at once, and enclose you estimates for the two latter; that for the former being submitted with my letter No. 152 of the 12th instant.

4. Oddacussum tank breached yards $15 \times 8\frac{1}{2} \times 4$ is now being closed on emergency, and I enclose an estimate for Rupees 40 for sanction.

5. The Tahsildar has brought to my notice the urgency of repairing the Koondrapakam, Thegavacheruvoo and Yegavacheruvoo tanks, I have directed the Overseer to prepare estimates, and will direct the necessary repairs to be carried out pending sanction.

List of breaches and damages to roads in the 2nd Range, North Arcot, from heavy rains of the 18th and 19th November 1864.

Road No. 7.

1. Washed away to the extent of 400 yards in the limits of Moongulpett, 27th mile; miles 31 and 32 have been over-topped, side channels gutted, one sluice and two road dams completely destroyed; throughout its length has ruts, and the slopes at the larger Vanka washed away are from $20 \times 10\frac{1}{2} \times 1\frac{1}{2}$ yards and being repaired.

Road No. 11.

2. Twenty-fourth mile over Ghât near the Vanka has been washed away for a length of 300 yards; repairs are being carried out, so that the heavy traffic may not be interrupted, other portions of road with the exception of ruts and slopes washed down are in fair order.

Road from Damulcheroo to Gadungy.

3. In good order; with the exception of the 1st mile, which although sanded and lately re-sectioned is muddy and heavy for carts to pass over, but in every other respect in good order.

Road No. 13.

4. Over-topped road-way from Kurkumbady to Railway station quite cut up, repairs being attended to, traffic not interrupted. From 18th to 24th miles road much cut up, no repairs were done to this portion for some time; will have now to be attended to.

Road of Calastry from Tripputty to Tripputty station.

5. Three miles of road-way has been repaired, sectioned, and side channels opened, is in very fair order, remaining portion being repaired. The undermentioned tanks in the 2nd and 3rd miles, viz, Poonneyacotty Chetty tank and Opparapully tank are in extremely bad order, the calingulah of the latter is destroyed, and the bank is so corroded that in all probability it will breach and destroy the 3rd mile of road-way if not repaired. I have written to the Tahsildar to call upon the owners to put them in order.

Road from Poottoor to Nagalapuram.

6. Water over-topped several portions of the road and formed ruts and gullies which are being attended to, but in the 13th mile for 220 yards the road is under water; the water over road dam, being $1\frac{1}{2}$ feet deep from the Gangalam tank having received a supply, when it fills; the road will be still further submerged for a length of 500 yards, I shall go down to see what arrangements can be made for removing this evil.

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Road from Pootoor to Pullipet.

7. Has been over-topped by the freshes in Vankas, much injured from the 36th to the 30th miles, four road dams are destroyed, and in many portions, metalling on road-way completely washed away; the remaining length of road has kept well, especially that portion of Ghát lately repaired and side channels opened.

Road from Pullipet to Cottarlappully.

8. Road slightly cut up, numerous ruts and gullies being filled in.

(Signed) A. H. STARR, *Supervisor.*

From Mr. D. BOOTH, Supervisor, in charge of Wallajah Range, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Wallajah Range, Poiney Southern Channel, 20th November 1864, No. 288.

SIR,

Report on the weather and freshes.

I most respectfully beg to inform you that during the 16th and 17th instant, light showers, but on the 18th I did see heavy rain east of Oocherry, and that it was coming up westward, and by noon it was heavy showers all over the Range, which continued until evening; but from then until 4 o'clock the following morning it was a continual down pour, and at day-light on the 19th it was a very heavy north wind which threatened destruction to three-fourths of the tanks in the Range. Water was tossed about so furiously, people became alarmed, ran for assistance where I found no danger, but before noon the wind shifted southward, and left all as it found it, to our great delight. The small fresh which began in the Poiney southern channel on the 16th November 1864 was then four feet deep, flowing down into Caveripak tank, and now continuing nearly the same depth of water. Water came down the Palar at 2 o'clock on the morning of the 19th and at 2 o'clock P. M., was only 3½ feet deep, when all at once the body of the Palar Anicut, and proposed bridge piers were covered, I was then at Poondi lamenting the worthless Palar, when of a sudden Mahindravady channel became full, I was soon at the anicut, and found 3½ feet of water in the river. so sudden was the rise that only three of the anicut body vents could be got opened; however the water is 6 inches lower now and I am thankful I know of no damages anywhere although I have been out since 4 o'clock on Saturday morning. No doubt you will be glad to hear that the new channel you personally inspected on the 8th instant at Poondi is now open and water rushing down it when I left yesterday.

From Mr. D. BOOTH, Supervisor, in charge of Wallajah Range, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Raneepett, 23rd November 1864, No. 293.

SIR,

A further report of the effect of the late heavy fresh on the Palar Anicut and Channels.

1. In continuation of my letter No. 288, dated 20th November 1864, I further beg to state that on the 21st instant when the river water subsided, the Palar anicut was a wonderful spectacle indeed; not a pier, large or small, or vent shutter, but was loaded on the up-stream, with every imaginable rubbish, during last Saturday night. One of Mahindravady head sluice vent shutter was knocked out by a tree, the iron spindle on which the shutter revolves being broken in two places, and the wood shattered a little, the tree swung round and sunk in front of the vents, breaking one of the other shutter-fixings. However this is all the anicut damages. The body rear apron did stand well, only trifling displacement of stone and chunam had commenced in a few places, which clearly shews the need of the proposed step. Under all the circumstances I am indeed thankful I have only such trifles to report.

2. Govindavady channel was put to trial, by allowing 10 vents of its head sluice open in such a flood; between Uttuputt and Avaloor falls the channel was in the utmost danger on Saturday night, and Sunday last, many trifling cuts in its banks, which is being filled, and as the water is now low I go again to inspect it and will report any thing worth notice.

3. The Tálug Overseer has been ordered to go round the east portion of the Tálug, and inspect and report.

4. Over seven months' water in Caveripak tank, but I am anxious to have it full.

5. Ten months' water in Mahinderavady tank which is all but full, south calingulah shutter in as no way for the surplus water, nor order for that work yet.

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From Mr. D. BOOTH, Supervisor, in charge of Wallajah Range, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Wallajah Range, Palar Anicut, 30th November 1864, No. 309.

SIR,

Report of the storm in North Arcot on the 28th instant.

1. We have had a storm at Raneepett which commenced at 5 A. M. on the 28th, and continued until 3 A. M. on the 29th, i. e., 22 hours, the first ten heavy squalls, and the last twelve a perfect deluge of rain, flooding the lower parts of the country with great damages I fear. The upside stream at the Palar anicut water ten feet deep, all day yesterday and eight now, I go at once to Caveripak tank, from channel to channel, and tank to anicut, I do not know of much damages up to this, all large tanks correct, Poondi saved with great trouble, such a flood has seldom been seen in South Arcot.

2. I will write soon, I hope the storm and flood is over.

From Mr. D. BOOTH, Supervisor, in charge of Wallajah Range, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Raneepett, 2nd December 1864, No. 311.

SIR,

Further report on the storm of the 28th and part of 29th November 1864.

I hope it will be long before I see another morning like the 29th ultimo, when nothing could be seen but water. Amoor tank calingulah water seven feet deep; water rushing down Mahinderavudi and Caveripak tanks, channels as little could be seen at the head sluices but the bridges, so vents closed, or open was little consequence. I need say no more than the very thought of all that water going into Caveripak tank, and Poondi large tank in the utmost jeopardy. All that could be done, Poiney Anicut head sluice of Parmeanyee closed, the six vent sluice at Surpentangle also closed, but no closing against the dreadful torrents from the mountains, and had the Poiney southern channel, *old bank* near Lalpett not given way, i. e., breached, every tank about Raneepett would have been destroyed, and probably Caveripak tank also. After such a most untoward blast and deluge of rain, I fear great damages in such a Tálug as Wallajah, and it is most important that tank breaches should be filled at once, so I most respectfully beg to state I will do whatever is needful, without delay submitting estimates as soon as possible, pending your orders. Palar Anicut and division head sluices vents *shutters* has been roughly used in such a flood, but otherwise I can see little damages, but too much water yet for a correct report. The weather has been so threatening ever since Monday last, that I am doing all possible for the protection of Caveripak tank now quite full, all other tanks large and small in the Range are full also.

Enclosures 6.—Original papers.

1. Submitted to Government for information.

2. Further reports will be forwarded as received. It is feared that extensive damages must have occurred throughout the North Arcot District.

3. The Executive Engineer, Chittoor Range, reports (demi-officially) writing on the 2nd instant "heavy rain all over the District for 20 hours, with heavy gale for four hours. Water 2½ feet over Poiney Anicut with all surplus sluices open. Western channel breached in three places from drainage water alone, head having been kept shut from commencement. Flood in Palar considerably higher than great flood of 1843."

4. The Sub-Engineer, Vellore Range, reports (also demi-officially) the breaching of two important tanks, and the consequent destruction of a part of a village. He promises particulars at an early date.

5. There is no report from the Polur Range, which has, most unfortunately, been long deprived of its Officer, with apparently no immediate prospect of the want of a head to the Range being supplied.

6. The Superintending Engineer purposes to pass the most of the current month in inspecting damages which have been reported in both Districts. The reports from the Madras Range Officers will be submitted in a separate Endorsement.

(Signed) A. J. M. BOILEAU, Colonel, R. E.

Superintending Engineer, 4th Division.

No. 469. Endorsement of the Superintending Engineer, 4th Division, dated Madras, 7th December 1864, No. 4,516.

From M. HOWARD, Esq., Executive Agent, incharge of Vellore Range, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Vellore, 6th December 1864, No. 513.

SIR,

1 Mazanamah.

1. I beg leave respectfully to report for your information, the breaching or otherwise damaging of the undermentioned irrigation works in the Vellore Taluq, caused by the heavy storm and flood of the 28th November 1864, viz. :—

1. Pullycondah tank.
2. Thorapanedy tank.
3. Boothoor tank.
4. Vasunthanaday tank.
5. Allapoorum tank.
6. Ellavumbaudy tank.
7. Sathapary supplying channel.
8. Nattamungalum tank.
9. Sathiamungalum tank.
10. Vaniembady tank, supplying channel, and anicut.
11. Tippiasamoodrum anicut.
12. Woodiattoor supplying channel, and anicut.
13. Commala Cootay irrigation channel and dam.
14. Gungavulloor tank.

2. The above list includes works of irrigation in the Vellore Taluq, breached or otherwise damaged by the late flood, but not reported as yet by the Tahsildar of Vellore Taluq. On the 1st instant I proceeded to inspect, personally, some of the most important of these tanks.

No. 1. Pullycondah tank, is the principal and most important of all. This tank bund was breached to the extent of about 40 yards in length, and 8 yards in depth, also the rear apron and retaining wall of the large calingulah were destroyed, and the apron of the east end calingulah was carried, causing a scour in front of the same of 6 feet in depth, the water passed also slightly over the bund, at the extreme west end of this tank, previous to the breach taking place; fortunate it would have been, had the breach occurred at this place. The breach took place between the two calingulahs, at the site of a former old calingulah. On the restoration of the tank in 1854, the body of this old calingulah was raised with brick in chunam to the height of its wing walls, which was backed with an earthen bund resting on the apron. No part of the old calingulah was removed. The consequence of this was, that this part of the bund was always weak and leaky. Perhaps it is not generally known, that the Pullycondah tank bund is built across the "Coomyaur" or "Peeaur" river. I have walked along the banks of this river on the 2nd instant for a distance of about 8 miles from the Pullycondah tank calingulah, or, to the head of the channel leading from this river to Oonavaniembady tank, between the latter place and the Pullycondah tank calingulah, there are three large masonry "wiers" built across the river, viz., 1st, at Oonavaniembady tank supplying channel head 160 feet in length; 2nd, at Tippiasamoodrum tank supplying channel head 212 feet in length; 3rd, at Woodiattoor tank supplying channel head 300 feet in length, or water-way, and another dam for "Commala Cootay" irrigating channel, the whole of these four channels have been breached in many places, or else blocked up at the head with sand, and consequently the whole of the water that should have gone to their respective tanks was thrown back again into the river. The masonry works themselves are all being more or less breached, or damaged by the late very extraordinary high flood. These very fine masonry works were, I believe, originally built in the time of the *Nabob*, but fell into ruin many years ago; they were subsequently together with the Pullycondah tank restored by Colonel Collyer, when that gentleman was Civil Engineer of the 4th Division; since the restoration of these works up to the present year, being now about 12 years since, no great flood came into this river. From the above statement, it will be seen that the whole of the water of the "Coomyaur" river came into the Pullycondah tank; fancy the whole of the water of the Cawvarypauk and Mehindravady channels united going into one tank, not more than one-fourth the capacity of the Mehindravady tank. Well supposing such to have been the case, it would not, in my opinion, equal the body of water that came down the Coomyaur river on the 28th ultimo, and this river runs right into the Pullycondah tank; under the above circumstances, I am decidedly of opinion that nothing could have saved that tank from breaching during the late storm except a surplus channel at each end. I took a cross section of the river near the village of Woodiattoor where it has any steep banks, it measured thus 100 feet broad by 12 feet deep, or 1,200 feet section area, with at least a velocity of 8 miles per hour. A portion of the Trunk Road has received considerable damage from the breaching of this tank, and a portion of the Pullycondah village has also been destroyed, the latter has been chiefly caused owing to the villagers encroaching their cultivation on the surplus channel, and consequently diminishing the water-way of the same by about three-fourths

its original breadth. The Agarum river also flooded its bank and carried away the Trunk Road in large patches for about half a mile, or very nearly up to the west end of the Pullycondah tank. The whole of the Brahmins residing in the village of Pullycondah, &c., object to the tank being again restored, on the grounds that it will not stand a heavy flood; I am certainly of their opinion; unless the tank has a surplus channel at both ends, a similar flood to that which came into the Coomyaur river on the 28th ultimo would, in my opinion, be capable of swamping the Pullycondah tank in three hours, and had not the breach taken place when it did in the recent flood, the tank calingulah would not have stood one hour; had the calingulahs been breached, the damage to the village would have been much more considerable than it had been. The breach occurring between the two calingulahs, the whole force of the water was diverted against the Trunk Road embankment, which of course checked the first impulse of the torrent, and threw it back into the surplus channels. I beg to forward herewith a Petition from certain Brahmins, inhabitants of the village of Pullycondah, &c., and to solicit your early orders on the subject thereof. I have at the same time ordered the repairs to be proceeded with as quick as possible; and emergent estimate for the same will be submitted at once.

No. 2, this tank is not breached but in danger of being so; an estimate for its proper repair has been already submitted for sanction.

No. 3, this tank is being breached slightly owing no doubt to the worn out state of its bund. I have given orders for the breach to be closed, and an estimate for the general repairs of these tanks will be forwarded for sanction in a few days.

No. 4, this tank appears to have been swamped in the flood of the 23rd ultimo; it has six breaches, three in its supplying channel, and three in the tank bund. The remainder of the bund appears to be in good order. It has a very fine calingulah; one of its sluices had been completely washed away; repairs ordered to be executed on emergency, estimate in course of preparation.

Nos. 5, 6, 8, 9, and 14, the breaches in these tanks are of not much consequence; repairs of the same have been ordered on emergency, proper estimates will be submitted for sanction without delay.

No. 7, I think that it was a good thing that a breach had occurred in this channel as the Sathapary tank is very full, and its bund not in the best of order; an estimate for execution in next year is sanctioned for the repairs of the tank, and an estimate for the repairs of the channel is under preparation. I have ordered the breach to be repaired on emergency.

Nos. 10, 11, 12, and 13, refers to the channels from the Coomyaur river, noticed in the first part of this letter in connection with Pullycondah tank, and for which repairs estimates will be submitted as soon as possible. It is very difficult to move about the Taluq just now, owing to the whole country being almost under water. The weather still looks gloomy and unsettled. If we have another flood this year, the consequence I believe will be most disastrous to the District. I fear that the Arcot Taluq has fared very badly during the late floods, as the sluices could not be closed up to yesterday.

Submitted to Government for information in continuation of the Endorsement from this Office, No. 4,471, dated 3rd December 1864.

(Signed) A. J. M. BOILEAU, Colonel, R. E.,
Superintending Engineer, 4th Division.

No. 470. Memorandum from the Superintending Engineer, 4th Division, dated Madras, 8th December 1864, No. 4,573.

From Captain W. CHRYSTIE, R. E., Executive Engineer, North Arcot, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Cuittoor, 5th December 1864, No. 892.

SIR,

I have the honor to inform you that Overseer Arunachellem reports that the road between the Gudiyattum Railway station and Trunk Road No. 1, has been washed away in several places by the water from a breach in the Policondah tank, by which more than 100 houses in the village were also destroyed. The approximate cost of repairing the damage is said to be Rupees 500. I have called for a detailed estimate, but request permission to commence the work at once.

2. The Overseer also reports that he has received information that six tanks and six channels in the Gudiyattum Taluq have breached, but I believe that in almost every case the damage is very slight, and will have to be repaired by the Ryots. I have called for full information and will report again as soon as I receive it.

3. My reason for believing the damage slight is that four of the tanks reported to be breached were put into thorough order last year, and being well provided with surplus escapes are unlikely to have suffered any greater damage than the settlement of the new earth.

14 *Proceedings of the Madras Government, Public Works Department,*
22nd December 1864.

From M. HOWARD, Esq., Executive Agent, in charge of Vellore Range, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Vellore, 6th December 1864, No. 516.

SIR,

I beg to append herewith a list of irrigation works in the Arcot Taluq more or less breached during the late storm and flood, as per reports received from Overseer Moottoosawmy Pillay, and Tahsildar of Arcot Taluq. I hope to find that many of the breaches now reported, are of a slight nature. A few of the tanks to my own knowledge were in first rate order, and repaired recently, but I think that for the most part, that they are small breaches. Emergent estimates for the repairs of the damages now reported will be submitted to your Office for sanction in a few days; in the meantime I have directed the repairs to be proceeded with at once.

I proceed to Arcot Taluq to-morrow.

List.

Manyadood tank.	Vummyantangul tank.
Surumtangul do.	Aryemtangul do.
Cuthavadee do.	Ayalum spring channel.
Thasypoorum do.	Panamoogay tank.
Coorambaudy do.	Malayoor large and small tank.
Palavanoor do.	Ayramungalum tank.
Coottiem do.	Keerumbaudy do.
Pinnatangul do.	Masynaikentangul.
Numbytangul do.	Cadapentangul tank.
Paupay do.	Cooroomuntangul do.
Calambaudy do.	Cookoondy do.
Paryacovil do.	Vamely do.
Poothoopaukum do.	Nagalay do.
Ladavarum do.	Culpathoor do.

1 Letter No. 892, dated 5th December 1864, from Executive Engineer, Chittoor.
Do. No. 516, dated 6th December 1864, from Sub-Engineer, Vellore Range.

Submitted to Government for information in continuation of the Endorsement from this Office No. 4,516, dated 7th December 1864.

(Signed) A. J. M. BOILEAU, Colonel, R. E.,
Superintending Engineer, 4th Division.

No. 471. Endorsement of the Superintending Engineer, 4th Division, dated Madras, 10th December 1864, No. 4,610.

From Conductor W. G. BEVAN, Sub-Engineer, in charge of No. 1 Range, to Colonel A. J. M. BOILEAU, R. E., Superintending Engineer, 4th Division, dated Red Hills, 8th December 1864, No. 181.

SIR,

1. In continuation of my letter No. 177, dated 2nd December 1864, I beg to report that the undermentioned irrigation works have been breached during the late rains:—

	Breaches.
Madoovoil tank	9
Thotacadoo do.	2
Yeroonacaracherry dam	6
Nair Jamboday tangle	12
Vullur dam	2
Cautoor supply channel	5
Do. tangle...	8
Vadaca Nettoo tangle	3
Vayalanur tank	1
Culpaukum tank	4
Seravanumbadoo do. in danger	
Vinyavaukum tank	18
Vayaloor, two tanks	3

2. I have only this moment received the report.

1 Letter No. 181 of 8th December 1864.

1. Submitted to Government for information in continuation of the Endorsement No. 4,472, dated 3rd December 1864.

Proceedings of the Madras Government, Public Works Department, 15
22nd December 1864.

2. In this and all similar cases the information required by Government in their Proceedings No. 2,265, dated 6th August 1864, will be called for, and enquiries will be instituted to ascertain if (as is too common) there is reason to suppose the banks have been in any case wilfully cut open.

(Signed) A. J. M. BOILEAU, Colonel, R. E.,
Superintending Engineer, 4th Division.

No. 472.

ORDER THEREON, 22nd December 1864, No. 3,665.

Ordered to be recorded.

(True Extract,)

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

Exd. S. T. Augustin.

No 1 Range Office
Singapore - 28 November 1864.
Conductor H. G. Brown.

17th No 1 Range Office
Singapore 28th November 1864
From Conductor H. G. Brown
To Sub Engineer, In Charge No 1 Range
Colonel A. J. M. Pileau R.E.
Sub Engineer, 4th Division

Sir,
I regret to inform you that the Ferry
boat on the Cartillon is reported to be washed away.
2. All landy traffic will be stopped in consequence.
3. There are two small boats will cross the Tappah & Travels.
4. I have written to the Escheldor of Ponnary and to
Mr. Watfield to try and supplement them.
5. If they can place 10 more boats on the ferry I think
it will answer every purpose except to cross families.

I beg to remain
Your Most Obedient Servant

H. G. Brown
Sub Engineer, In Charge No 1 Range

be charged to the maintenance allowance is
I to Submit Estimate for each breach.

I will try & get ferried across in a rough
even as the rain discontinued.

I beg to remain

H. G. Brown
Sub Engineer, In Charge No 1 Range

From

No 1 Range Office
Cesambore. 2^d December 1864.

To

Conductor H. G. Bwan.

Sub Engineer in Charge No 1 Range

C. S. J. M. Boidau R. E.

Sup Engineer in Division

Sir

I beg to report that the undermentioned
Irrigation works were injured during the heavy rains which
fell on the 26th 27th & 28th of last month.

Excellent Talag	Branches.	Kari Kalavankum Tank.	Beach
Boovacoly Tank	2	D. Tangle	3
Poondy Nagan Tangle	1	Pomary Talag	
Santa Valur 8 1/2 high		Vallur Tangle	1
Stones were damaged		Boovooie agamun Tank	2
Ecadu Puttany Tank	1	Sommaray embankment	2
Vengathoor Tank	1	Seroo Payamscadoo	2
D. Tangle	1	Tuttamunjee embankment	3
Woodoor Tank	1	Eroomacasacherry Tank	1
Mialerlogum Tank	1	Comara Seralapankum Tank	7
Arasankum Tank	1	Goodowanjay	4
Serovolum bodoor Tank	1	Saidapet Talag	
Thambankum Tank		Paudy Tank	6
Kalugulab damaged		Sadayam crop/um Tangle	6
Repairs Annicut		Ambarthoor Tank One Stone	
as per Estimate Submitted		damaged	
Naglapurum Black		Peraloor Tank	4
Tank & erumboo			

I also beg to report that about 500 yards
of the road (close to the river from Excellent to Cottucottai)
washed

91-14957.

From

[Handwritten signature]

The Sub Engineer

Dated 28th Dec 1864

CCO 1 day

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

W. E. Officer & Mulligan
Range No. 38960/32
Nov. 1/04.

4 No 195
Kann 1227
Der Publikation
des 3. Hange
Mandats

To the Sup^r Judge
4 New

Dated 29/11/77
 Acc? PTHW
 I

Forwarded and
replied to by
Mr. Stearns
the President
Nathan Brown
with a letter
Jan 11 1891
He is a
Curtis
Sept 11
1891

washed away also that eight breaches were made

252

From 11/1/32
The Sub Engineer S.P.W.
In charge No 3 Range
Madras District
To 7378228/64
The Sub Engineer
H. S. S.

Dated 19th
Re: 113
November 1864

Madras District
No 3 Range
Capacity and quantity
of water in each of the
Tanks
July
acc. from
each tank

No 34. 20 October
20 October 1864.
Recd. 26

To
C. W. Maitland Esq
Sub Engineer No 3 Range
Madras District

Sir
I beg to report incessant and heavy falls of rain which occurred between the 17th and 19th Inst (both days inclusive) the weather has cleared up to day but I am not sure whether it will continue so.

2. The Ramhaikal Channel did not receive a supply from the Palat during these heavy rains which is most likely due to scanty rainfall near the source of Palat and above the ancient hut. though the channel did not receive a supply of water from the Palat it received a large supply from the drainage of the adjacent lands for there was a continuous flow of water for 27 miles. The deep basin near 14-16-20 and 21 miles are still full.

3. The drainage water was equally divided into the Adjacent Tanks which was a great privilege as only the Tanks nearest the head of the Channel are benefited by the slight freshes from the Palat.

4. A list of the supply of water received by each Tank together with a report on the state of the masonry falls and banks of the Channel will be forwarded.

I beg to remain
Yours faithfully
J. M. Stephens
Overseer S.P.W.
(True Copy)

No 193
Submitted to the Superintending Engineer
for information

Guidivancheri
26 October 1864

Sub Engineer S.P.W.
No 3 Range Madras

Answered

Nadgaon District No. 3 Range
 List showing the Capacity and quantity of
 water in each of the Tanks in the Chingleput Taluk

Sl. No.	Names of Tanks	Quantity of water in the tank	Quantity of water in the tank
		Monthly	Monthly
1	Mauvabadi Tank	8	8
2	P. Agarau Davaudam Do	4	2
3	P. Amirthampullam Do	4	2
4	P. Uilukolatur Donger	6	2
5	Veru Kalkundram Chittori	5	1
6	Do Tank	6	2
7	P. Musuvakam Do	4	2
8	P. Embakam Do	6	2
9	Velagani Do	4	2
10	Jagunathampett and Porutha = vakkam Vija Tank	5	2
11	P. Amipakam Chittori	4	2
12	P. Kalanepakam Tank	6	2
13	Verapuram Do	6	3
14	P. Marudani Do	5	3
15	P. Pulkundram Do	5	2
16	P. Agau Do	5	2
17	P. Vairatippadi Do	5	2
18	P. Chinatippadi Do	5	3
19	P. Katukalau Do	5	2
20	P. Anur Do	4	1
21	P. Anur Do	6	2
22	P. Kulpanthandalam Do	5	3
23	P. Andikuppam Do	4	2
24	P. Gudalur Do	5	2
25	P. Kallipakam Do	6	2
26	P. Kalatur Do	8	2
27	P. Acheruvakam Do	6	2
28	P. Panjeri Do	6	2
29	P. Kadambadi Do	6	2
30	P. Mauvadi Do	6	2
31	Chingleput Do	8	2

between 17 and 20
 Rain falls between 17 and 20
 October 1864

No. 3 Range No. 3 & 52
 27.31 October 1864

From 10.11.1864

The Asst Engineer
 for the N. W. Range
 Chingleput District
 The Asst Engineer
 for the N. W. Range
 Chingleput District

Noted 26. October 1864
 B. W. 3

about copy of letter
 from District Mr. J. H.
 Stephens No. 34 of 20
 October 1864 regarding
 the freckle on the N. W. Range
 Chingleput

There is also another
 tank in the same district
 called 'P. Panthandalam'

The water of the Panthandalam
 is used by the N. W. Range
 for the purpose of
 drinking water
 and for the purpose
 of irrigation
 The water of the Panthandalam
 is used by the N. W. Range
 for the purpose of
 drinking water
 and for the purpose
 of irrigation
 The water of the Panthandalam
 is used by the N. W. Range
 for the purpose of
 drinking water
 and for the purpose
 of irrigation

Names of Towns	Quantity Cattle Held	Quantity Cattle Released	Remarks
32 Maambakau Town	6	2	
33 Terianelau	5	3	
34 Pamquedi Kuppan	6	2	
35 Kunnagapet	5	2	
36 Thyr	6	6	
37 Tempurur	5	2	
38 Navellur	5	1	
39 K'elembakau	5	1	
40 Orapakau	5	2	
41 Nuvavarau	8	3	
42 Vandalur	5	1	
43 Nannivakau	6	2	
44 Peruvadeswarau	5	2	
45 Karimbur	5	2	
46 Karau	5	2	
47 Perukachur	6	2	
48 Parari	4	2	
49 Perudavur	6	2	
50 Alatur	5	2	
51 Palur	6	2	
52 Melmaupakau	5	2	
53 Chittamanur	6	2	
54 Varapakau	5	2	
56 Oragadam	6	2	
57 Thirupindram	6	2	
58 Melkankampett	5	2	
59 Oragadam Temple	4	2	
60 Mullur Town	6	3	

Rainy season 17th & 20th Nov 1864

No. 3 Range Officer
 Poona Waller
 19th November 1864

[Signature]

Sub-Engineer S.P.W.
 in Charge No. 3 Range

3/2

P.W. 1864 Dept
41 NO 5228
Trans. of Gov. for Dur
The Sup. Engineer
4. 5th
The Secy to Gov.
P. W. D.

Enc 11.
Dated 3rd Dec 64
And 5th Dec 64
No 4472

Submits Original
Reports from
certain Range
Officers in the
Madras District
reporting on the
damages which
had been effected
during the late
rains.

No 447

c. 10th Dec 1864

no 3665-22nd Dec 1864

19th November 1864

33/

Trans 1-4910
The Sub Engineer
In Charge of Range
Madras District
To the Sup. Engineer
P. W. D.
Dated 1st Dec 1864
Recd N }
168
No 222

Submits Copy of Mr.
Quaker Stephens letter
No 47 of 29th Nov 64 regard-
ing the freshes in the Ch.
the heavy fall of rain on the
27th & 28th Inst. Caused
certain damages to the
closing of the late breach
adjacent to the Pillapaikam
Surplus Calingulah.

For the Sup. Engr. P. W. D.
J. B. O'Brien (P. W. D.)
Sub. Engr.

c. 10th Decr 1864

c. 3665-22nd Dec

19th November 1864

N^o 4492.

Submitted to Govt. for information.

It is feared that many more damages remain to be reported. Every endeavour will be made to re-establish communication on the Roads, and to close Breaches.

The River Cutteliar overtopped its banks. The flood in it was the highest known for 20 years. The Kesavaram Annicut placed across that River to divert water into the Bungavio Channel (that is the Head of the Coorum River) breached, so did the North Bank of the said Channel in 2 places. Thus the water poured back into the Cutteliar, which accounts for the very moderate freshes in the Coorum.

There are no reports from N^o 2 & 4 Ranges. The Sub Engineers of N^o 1 & 3 Ranges have been instructed to act in emergency. Additional repair funds will be shortly applied for. The Sub Eng. was soon ordered to inspect damages. A. R. Sub Eng.

Enclosed Please
Report on the
Weather & frosts

Wallahe Range being Southern March 25th November 1864
From
Superior Weather
J. J. Charge Wallahe Range
The Superintendent Engineer
for Division

Sir
I most respectfully beg to inform you
that during the 16th and 17th Instant, light showers, but
on the 18th I did see heavy rain East of Cochrane, and that
it was coming up Westward, and by noon it was heavy
showers all over the Range, which continued untill evening,
but from then untill 12 o'clock the following morning it
was a continuous downpour, and at daylight on the 19th
it was a very heavy North Wind which threatened dis-
truction to 3/4 of the Banks in the Range. Water was
before about 10 feet high, people began alarm, run
for shelter where I found no danger, but before long
the wind shifted Southward, and left all as it found
it, to our great delight. The small fresh which began
in the Fairing Southern Channel on the 16th November 1864
was then 1/2 foot deep flowing down into Lawrence's Lake,
and now containing nearly the same depth of water. Water
came down the Tides at 2 o'clock on the morning of the
19th and at 2 o'clock P.M. was only 3/4 foot deep, when
all at once the body of the Tides raised, and fresh and large
Tides were caused, I was then at Point Lemaitre, then
at the Tides, when of a sudden the channel
became full, I was soon at the Ancient, and found 3/4 foot of
water in the River, so sudden was the rise that only 1/4
of the Ancient body could be got off water, however
the water is 6 inches lower now. And I am thankful
I know of no danger any where, although I have been
out since 12 o'clock on Saturday morning. No doubt
you will be glad to hear that the new Channel from
personally

c. 10th Dec 1864

39

North West District
Wallyah Range

From
Superior J. Weston
In Charge Wallyah Range

The Superintendent
L. J. Weston
Tel. 257
Nov. 21st 1864

N: 288.

Enclosure Same

Report of the high floods
in the Talar and Taring Rivers
but know of no damages
up to this.

W 3229/64

[Faint, illegible handwritten notes at the bottom left of the page.]

3

Wallyah Range Office Newcastle 23rd November 1864
From
Superior J. Weston
In Charge Wallyah Range
The Superintendent
L. J. Weston

Enclosure Same
A further report of
the effect of the late
floods on the
Talar River & Channel.

Sir In continuation of my letter of 23rd November
1864 I further beg to state that on the 21st instant when the
River water subsided, the Talar River was a wonderful sight
indeed, that a few large or small or both matters but was loaded
on the up stream with very imaginable rubbish & debris but
Saturday night one of Mahurawandi Head Plain South of the
knocked out by a tree, the tree sprang on which the
shutter guard being broken in two places and the wood shattered
a little, the tree being round and broke in front of the
shutter, breaking one of the other shutter frames. However this
is all the damage done. The big tree which did stand
well, only trifling displacement of stone and Chinese houses
(as mentioned in my letter) which clearly shows the need of
the proposed work. Under all the circumstances I am indeed
thankful I have only such trifles to report.
Mahurawandi Channel was put to trial by allowing it to
of its Head Plain stone in such a flood. Between the
and Avaleor Falls the channel was in the utmost danger on
Saturday night, and Sunday last. Many trees fell in its
banks, which is being filled, and as the water is now lower
I go again to inspect it, and will report any thing worth
notice.

The Talar course has been ordered to go round
the East portion of the Island and inspect and report
over some months, water in (as reported) such
but I am anxious to have it full.

The water in Mahurawandi Lake which is all
but full, Talar (as reported) shutter in as no way for the
Talar water. Not order for that. Work yet.

Slip to pension with C.W.
J. Weston
Superior J. Weston
In Charge Wallyah Range

We had better
do the surplus
in anticipation
of action.

N. 304

Wallyah Range taken August 30th November 1864
 To the
 Superior
 The Charge Wallyah Range
 25.
 The Provincial Engineer
 & Division

Endorsement
 Report of the Storm
 in North Ararat was
 to 28th 1864

We have had a storm at Rangoon which
 commenced at 5 P.M. on the 28th and continued until
 5 A.M. on the 29th i.e. 22 hours the first 11 hours
 clouds and the last 11 2 perfect blizzards of rain. flooding
 the lower parts of the country with great danger. The
 the up side streams at the Poles Ararat River is full deep.
 all day yesterday and 3 more days at same to Caspian
 Sea. From Caspian to Caspian and back to Ararat. I do
 not know of much damage up to this all large fields
 covered, Poles Ararat with great trouble. Such a flood
 has never been seen in North Ararat.
 I will write soon I hope the storm
 and flood is over.

Yours to service
 Yours Most Obedt Servt
 The Master, Superior
 Sir Charge Wallyah Range

Handwritten notes and signatures in the left margin, including "Note sent to..." and various illegible signatures.

Wallyjah Range Office Receipt 22 December 1884.
From Superior It's worth
San Diego Wallyjah Range

2^d The Superseding by one
4th Division.

I hope it will be long before I see another
 morning like the 29th ult. when nothing could be seen but
 steam, Amers Fork (polydeltic water) 7 feet deep. Water
 rushing down Buckhorn and (some) Forks Channels
 as little could be seen at the Head Steins but the Bridges.
 No State Cloud, or open was little seen. I said say

7. Wednesday Flood Stine no more than the very thought of all that water
13. Stine Cloud on the 27th as per order received on the night of the 28th Nov/64.
Flood Stine no more than the very thought of all that water
going into Carrispaik Jack, and Poodi Large Jack in
the utmost jeopardy all that could be done, Tolson Agent
Flood Stine of Pomougie Cloud, the Stine Stine at
Surpung also Cloud, but no Cloud against the
awful torrents from the Mountains and had the Ping
Southern Cloud, Cloud Cloud near Salpitt not given way
is broken, Cloud Cloud, about Pomougie would have
been destroyed. Cloud probably Carrispaik Jack Cloud
After Stine a most untoward Cloud, and Cloud of
rain & great damage in Stine & Cloud as
Wolpelt, and it is most important that Stine Cloud
should be filled at once. So I most respectfully beg
to Stine I will do whatever is useful, without delay
submitting Estimate as soon as possible & Cloud your
orders. Tolson Agent and Division Flood Stine Stine
Shutter has been roughly used in Stine & Cloud, but
otherwise I see so little damage, but too much water
yet for a correct report. The weather has been
so threatening since Monday last, that I am doing
all possible for the protection of Carrispaik Jack

1104946

South Street, Boston.

Walter B. Jones

2/2/11

10

10

支

23

2

22

張

13 June

100

1300

Y

10

adams J

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10

2. Septoria var.

18th Jan 1880

10

10

Age Group	1970	1980	1990	2000	2010	2020
0-14	20	18	15	12	10	10
15-24	15	14	13	12	11	10
25-34	12	11	10	9	8	7
35-44	10	9	8	7	6	5
45-54	8	7	6	5	4	3
55-64	6	5	4	3	2	1
65-74	4	3	2	1	1	2
75+	5	6	7	8	10	20

12

1

now quite full. all other tanks large and small in
the Range are full also.

I beg to remain

Sir

Your Most obed^t Serv^t

Wm. A. S. S. S.

In Charge Wallgate Range

No.

No 4491.

Submitted to Government for

information.

Further reports will be forwarded as

received.

It is feared that extensive

damages of water have occurred throughout the

the Executive Engineer, Wallgate Range

reports (semi-officially) in the 2nd instant

reports (semi-officially) in the 2nd instant

reports (semi-officially) in the 2nd instant

reports (semi-officially) in the 2nd instant

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reports (semi-officially) in the 2nd instant

North Street District -
Wallpaper Range -

From Supervisor North
Wallpaper Range

To the Superintendent of
the Division

Dated 2 December 1864
and

N. 311 -

Belmont House

A further report on the
status of the 28th and passing
of the 29th November 1864

NY 5229/64

Dec 1864
No. 3229

The Superintending
Engineer
to the Secy to Govt
P. M. D.

Dated 3rd Dec 64
Recd 5th Dec 64

164 Enc 6.
N^o 4471

Submits original
Report from
certain Ranges
officers in the
North Arcot District
reporting on the
damages which
had been effected
during the late
rains.

173665-2222 Dec 1864

N^o 468

210 Dec 1864

A. 572

Yellow Range Office
Yellow 6th Dec 1864.

From

The Executive Agent
in charge of Yellow Range

To

The Superintending Engineer
1st Division

Enclosure 1st

1. Measurements

They leave respectfully to report
for your information, the breaching or otherwise damage
of the undermentioned irrigation works in the Yellow Range
caused by the heavy storm and flood of the 28th November
1864 - vizt.

1. Pullycondah Tante.
2. Thorapandy Tante
3. Doorthor Tante
4. Vasmthanaday Tante
5. Allaporum Tante
6. Ellavumbandy Tante
7. Lathapay, supplying Channel
8. Nattamungalam Tante
9. Lathiamungalam Tante
10. Vamembandy Tante supplying Channel, and Arment.
11. Lippasamoodrum Arment.
12. Wordiction supplying Channel, and Arment.
13. Commala Gortay irrigation Channel and Dam
14. Gungavullor Tante.

The above list includes works of irrigation
in the Yellow Range, breached or otherwise damaged by the
late flood, but not reported as yet by the Esaildar of
Yellow Range. On the 1st instant I proceeded to inspect
personally some of the most important of these Tante
N^o 1. Pullycondah Tante is the principal and most

important of all - This tante bund was breached to the extent of about 407 yards in length, and 8 yards in depth, also the rear Apron and Retaining Wall of the large Calingulah were destroyed, and the Apron of the east end Calingulah was Carried, causing a scour in front of the same of 6 feet in depth, the water passed also slightly over the bund, at the extreme west end of this tante, previous to the breach taking place: fortunate it would have been, had the breach occurred at this place - The breach took place between the two Calingulahs, at the site of a former old Calingulah. On the restoration of the tante in 1854, the body of this old Calingulah was raised with bricks in Chinnam to the height of its wing walls, which was backed with an earthen bund resting on the Apron. No part of the old Calingulah was removed, the consequence of this was, that this part of the bund was always weak and leaky. Perhaps it is not generally known, that the Pullygondah tante bund is built across the "Coomy aur" or "Paur" river. I have walked along the banks of this river on the 2^d Instant for a distance of about 8 miles from the Pullygondah tante Calingulah, or to the head of the Channel leading from this river to Coravaimbandy tante, between the latter place, and the Pullygondah tante Calingulah, there are three large masonry "Weirs" built across the river, vizt, 1st at Coravaimbandy tante supplying Channel head 160 feet in length, 2^d at Eppasamoodrum tante supplying Channel head 212 feet in length, 3^d at Woodietton tante supplying Channel head 300 feet in length, or waterway - and another dam for "Comincla Coorthe" irrigating Channel, the whole of these 4 Channels have been breached in many places, or else blocked up at the head with land, and consequently the whole of the water that should have gone to their respective tantes was thrown back again into the river. The masonry works themselves

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themselves are all being more or less breached, or damaged by the late very extraordinary high flood. These very fine masonry works were I believe originally built in the time of the Nabob but fell into ruin many years ago, they were subsequently together with the Pullygondah tante bund restored by Colonel Collyer when that gentleman was Civil Engineer of the 4th Division, since the restoration of these works up to the present year, being now about 12 years since, no great flood came into this river. From the above statement it will be seen that the whole of the water of the Comy aur river came into the Pullygondah tante, if any the whole of the water of the Comy aur river and the Chindravandy Channels united going into one tante, not more than $\frac{1}{4}$ the Capacity of the Chindravandy tante. Well supposing such to have been the case, it would not in my opinion equal the body of water that came down the Comy aur river on the 28th Ultimo, and this river runs right into the Pullygondah tante - under the above circumstances; I am decidedly of opinion, that nothing could have saved that tante from breaching during the late storm except a surplus Channel at each end. I took a Cross Section of the river near the Village of Woodietton where it has any steep banks, it measured thus 100 feet broad by 12 feet deep, or 1200 feet Section Area, with at least a Velocity of 8 miles per hour. A portion of the Embankment has received considerable damage from the breaching of this tante, and a portion of the Pullygondah Village has also been destroyed, the latter has been chiefly caused owing to the Villagers encroaching their Cultivation on the surplus Channel, and consequently

diminishing the water way of the same by about $\frac{3}{4}$ its original breadth - The Agaram river also flooded its banks and carried away the Embank Road in large patches for about $\frac{1}{2}$ mile, or very nearly up to the west end of the Pullycondah tants. The whole of the Brahmins residing in the Village of Pullycondah object to the tants being again restored, on the ground that it will not stand a heavy flood, I am certainly of their opinion, unless the tants has a surplus Channel at both ends, a similar flood to that which came into the Connyam river on the 28th Ultimo would in my opinion be capable ofumping the Pullycondah tants in 3 hours, and had not the breach taken place when it did in the recent flood, the tants Calingulak would not have stood one hour, had the Calingulaks been breached, the damage to the Village would have been much more considerable than it had been. The breach occurring between the two Calingulaks, the whole force of the water was directed against the tants Road embankment, which of course checked the first impulses of the torrent, and throw it back into the surplus Channels. I left forward herewith a Petition from Certain Brahmins inhabitants of the Village of Pullycondah, and to solicit your early Orders on the subject thereof, I have at the same time ordered the repairs to be proceeded with as quick as possible, an Emergency Estimate for the same will be submitted at once - A. 2 This tants is not breached but in danger of being so, an Estimate for its proper repair has been already submitted for sanction. A. 3. This tants is being breached slightly owing no doubt to the worn out state of its bund, I have given orders for the breach to be closed, and an Estimate for the general repairs of these tants will be forwarded for sanction in a few days. A. 4. This tants appears to have been swamped in the flood of the 28th Ultimo it has 6 breaches 3 in its supplying Channel and, 3 in the tants bund. The remainder of the bund appears to be in good order. It has a very fine Calingulak; one of its sluices.

Sluice had been completely washed away, repairs ordered to be executed on emergency. Estimate in course of preparation A. 5-6-8-9-and 14. The breaches in these tants are of not much consequence, repairs of the same have been ordered on emergency, further Estimates will be submitted for sanction without delay. A. 7 I think that it was a good thing that a breach had occurred in this Channel as the Lathapay tants is very full, and its bund not in the best of order. An Estimate for expenditure in next year is sanctioned for the repairs of the tants, and an Estimate for the repairs of the Channel is under preparation. I have ordered the breach to be repaired on emergency. A. 10, 11, 12, and 13 refers to the Channels from the Connyam river noticed in the 1st part of this letter in connection with the Pullycondah tants, and for which repairs, Estimates will be submitted as soon as possible. It is very difficult to move about the Salap just now, owing to the whole Country being almost under water. The weather still looks gloomy and unsettled. If we have another flood this year, the consequences I believe will be most disastrous to the District. I fear that the great Salap has fared very badly during the late flood, as the sluice could not be closed up yesterday.

I beg to remain

Yours most Obedt. Servant

M. R. Roberts

Superintendent of the
Vellore Range

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Dec 1864 Dept
Pho of Govt for Dec
No 3258.
From
The Supg Engineer
of 4th Div
To The Secy to Govt
P. M. D.

Dated 7th Dec 1864.
Recd 8th Dec 1864.
No 4516.
Enc 2.

Submits original
letter from the Ex.
Agent Vellore Range
reporting the damages
done to Irrigation
Works &c in the
Vellore Taluk by
the rains in the
28th Nov 1864.

No 469

210th Dec 1864.

3665-22nd Dec 1864

No 892

From Captain Chryse R.R.
As Secy to Engineer & Asst
To The Superintending Lt.
4th Division

Sir I have the honor to inform you that
over see Ammalaham reports that the con-
between the Lyding attun Railway Station
and trunk road No 1 has been washed away
in several places by the water from a breach
in the Policondah Tank by which more than
100 houses in the village were also destroyed
The approximate cost of repairing the damage
is said to be Rs 500. I have called for a detail
ask intimate but request permission to com-
mence the work at once

2. The over see also reports that he has recd
information that 6 Tanks and 6 Channels
in the Lyding attun Taluk have breached
but I believe that in almost every case
the damage is very slight and will have
to be repaired by the ryots. I have called
for full information and will report on
again as soon as I have received it.

3. My reason for believing the damage
slight is that 4 of the tanks reported to
be breached were put into thorough order
last year and being well provided with
surplus crops are unlikely to have suf-
fered any greater damage than the de-
tachment of the new earth - I have the
honor to be Sir

Chatter
Dec 5th 1864

Yours most obedt Servt
W. H. Chryse Capt. R.R.

Price

The Superintendent Engineer
1st Division

I beg to append herewith a List of
irrigation works in the West Valley where or left breached
during the late ~~flood~~ ^{flood}, and flood, as per reports received from
Quebec, Montreal, Pileas, and L'Anse-au-Loup.
I hope to find that many of the breaches now
reported are of slight nature, a few of the tanks to my
own knowledge were in first rate Order, and repaired
recently, but I think that for the most part, that ^{the} are
small breaches. Enclosed Estimates for the repairs of the
damages now reported will be submitted to your Office
for sanction in a few days; in the mean time I have
directed the repairs to be proceeded with at Que -

I proceed to West Valley tomorrow.

Gayandoo tante.
 Eumintangul tante
 Eutharadee tante
 Thasyproom tante
 Eorumbandy tante
 Palavanoor tante
 Eoothum tante
 Eimaterugul tante
 Mumbiz tamput tante
 Panpay tante
 Eulambandy tante
 Paryacoul tante
 Eothoofanum tante
 Labavarum tante

Vinnuyentantpe tante
 Aryentantpe tante
 Agalum Spring Channel
 Pama moogay tante
 Mealayoor Large and small tante
 Idyanungalum tante.
 Keerumbandy tante
 Marynaiten tantpe
 Kadapentantpe tante
 Eoroonuntantpe tante
 Cookoondy tante
 Kamely tante
 Kagalay tante
 Kulpathoor tante.

Order to Bernards

Yours most obed^t servant

Innowald
See Tent mch 8 1876

5700
 From J. B. Rogers
 Civil Engineer
 Detroit and
 St. Louis - Engineer
 & Chicago
 Dec 29/98
 Recd by [unclear]
 H. A. Rogers
 Endorsement
 Jan 1st 99
 Detroit January 5th
 between Placard and
 the building at
 station.

No 4593.

Memorandum

Enclosure

Submitted to Government
for information in continuation
of the Endorsement from this
Office No 4516, dated 7th
December 1864..

Supg Engr Office & Bureau Col: R. C.
Madras
8th December 1864 } Supg Engr 4th Dec

L.
Colonel C. A. Carr, R. C.
Secretary to Government
P. W. D.

From

The Engineer-in-Chief
in Charge of W. B. Camp

The Superintendent Engineer
J. C. D. D. D.

Recd
Dec 26th 3 27 9/4
J. C. D. D. D.

Enclosure
The Engineer-in-Chief
in Charge of W. B. Camp

Recd
Dec 26th 3 27 9/4
J. C. D. D. D.

Enclosure
The Engineer-in-Chief
in Charge of W. B. Camp

11/10/10

Also to report that the aforementioned irrigation works have been washed during the late rains. Proctor

[illegible]

Pub. Bureau des Champs-Élysées

John

The Duty Engineer & Co

To the Secretary of the

24th 8th 3 December 1872
 1872.

Ms. A. 59.3. 89/11/1

Or towards a better future

Executive Agents Stationary
with a lot of machinery

Veri Ho waad Stany

in the ~~Eastern~~ Great East

During Kate Brown and
0000

Good.

219 2665-22 under 164

Receives

For 155198.

The Sub Commission
La Croye No 11/11/1872
The Sub Commission
Lt. Division

Subd 85
Subd 10-3
December 1872

Report that the original
three men were in a room that
the commission were dead.
have been searched during
the last review.

154610.

Submitted to for for
information in continuation
of the Indorsement of 154472.
Subd 33 December 1872.

And all similar
cases the information requires
by Subd in these Proceedings.
152265 dated 16 August 1864, with the
called for, and arguments will
be initiated to ascertain if he is to
commence there is reason to suppose the
banks have been in any case actually
out of order.
154610.

3665

From the City Engineer

From No. — D. — 4. D.

Do. North Arch St. (Entered 8th December 1847)

From D. D. — 4.20

Submits original letter from the
 Dy. Insp. Agent Bellare Range reporting
 the damages done to Irrigation works
 by the Bellare Taluk on the 28. Nov.
 1864

Store entries 7 — — — Rs 516
 " — 8 — — — Rs 4373
 " — 10 — — — Rs 46110

From Do Do — 4 L Gu / Ordered to be
From Do Do — 4 L Gu / Recorded —



no.

No 471.

[illegible]

10/10/10

Dated 10th Decr 1864
 Recd 12

Submitted an original
retail from the said
Box No. 1 Received
- Wadsworth, reporting
the forwarding of
Books during the
late rains.

Revised

210 3665-22nd Ave / 64

67

99/1864 Dept
Wm. of Govt for Dues

No 3665

Proc of the M^{rs} Govt
22 Dec 64

Correspondence
regarding the walls
in the P^{er} in which
were injured by the
heavy rains of the
26th 27th & 28th Oct
last recorded.

No 467 @ 472