

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 2298

Press
~~Mis.~~

487. 488

Dated

23 - 7 - 1865.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Revenue Department,
23rd September 1865.*

No. 487. Read the following Proceedings of the Madras Government in the
Public Works Department:—

Passing orders on a report submitted by the
Superintending Engineer, 3rd Division, on
the Toongabadra channels in the Bellary Dis- } (Here enter 20th September 1865, No. 2,776.)
trict.

No. 488. ORDER THEREON, 23rd September 1865, No. 2,298.

Miscellaneous.

Ordered to be recorded.

(True Extract.)

(Signed) J. GROSE,
Acting Under Secretary to Government.

Exd. S. T. Augustin.

Proceedings of the Madras Government, Public Works Department,
20th September 1865.

No. 476. Read the following letter from Captain A. S. MOBERLY, R. E.,
Superintending Engineer, 3rd Division, to Colonel C. A. ORR, R. E.,
Secretary to Government, Public Works Department, dated Bellary, 24th
August 1865, No. 118:—

SIR,

1. With reference to G. O. No. 1,269 of the 10th May 1865, desiring me to report on the Toongaboodra Channels, I have the honor to inform you that I inspected, during June, the channels in the Hospett Taluq: my report, I regret to say, is not so complete as I could have wished, on account of my not having been able to examine the anicuts, as the water was running over them.

2. The damage to these anicuts was not brought to my notice until the month of March, and before sanction was received by Lieutenant Pennecfather for carrying out the repairs a fresh had come down the river, and since the middle of last April there has been water; a most unusual occurrence for the time of the year.

3. I learn that reports on the state of these anicuts were sent in by the Overseer in charge, in November and January, but they reached Bellary during the interregnum, when there was no Officer in charge of the Military buildings Range: and Serjeant Mullins, the Overseer in temporary charge of the Office, having at the time a great amount of work on hand, by an over-sight, neglected to bring the matter to my notice, or send copies of the reports for instructions.

4. It was a pity that Lieutenant Pennecfather, as soon as he knew the state of these anicuts, did not at once commence the repairs on emergency, reporting the same to me; but he was quite new to the work, having only assumed charge on the 31st of January, and not acquainted with the rules of the Department he having been chiefly engaged, whilst in the Bombay Presidency, in surveying and levelling.

5. As I have said before, it was a great pity the work was not commenced in February, as, during that month, March and the beginning of April, the river was very low, and the repairs might have been carried out well.

6. WULLABAPOOR ANICUT.—The first anicut on the Toongaboodra river in the Bellary District is the one near the village of Wullabapoor; it is in two branches with an island between. The portion between the right bank of the river and the island is called the Wullabapoor anicut, and that between the island and left bank, the Coragul anicut: the former is 994 feet long, 5½ feet broad at top, perpendicular in rear, and with a slope of about 1 in 2 in front; was built about 18 years ago, and is a beautifully constructed work; it has a body of roughly dressed stone with a coping of cut stone, the slope in front being, I learn, of brick in chunam and plastered; there was an old rough stone native anicut about 50 yards up the river, the stones of which are still there. The only damage to the Wullabapoor anicut, as far as I could see, was that

* 6' x 2' x 1½'

one* of the sluice stones had been lifted

out of its place, thrown right over the anicut, and was lying on the rocks in rear; the Overseer, however, informed me that the front slope was very much cut up by the action of the sand which is brought down by the river.

7. I saw this anicut with about 6 inches of water passing over it, and I observed what I never saw before in cases of water passing over dams; viz., that there was a double curve, the one before the water reached the anicut, and the other as usual on falling over, the upper water being about 6 inches higher than what was passing over the body of the anicut. I don't know if this circumstance has been ever remarked in other anicuts; but, as it never came under my observation, I bring it to notice. I was led to think that the curve as also the sluice stone having been lifted out of its place and thrown over the anicut was in some measure produced by an upward action of the water and that the old rough stone dam in front has something to do with this action.

8. **CORAGUL ANICUT.**—The Coragul anicut extends from the island to the left bank; it is an old rough stone native work, of about 400 yards in length, and is slightly convex towards the stream; I was unable to examine it as the water was passing over it, but I learnt from the Overseer that part of the front is damaged.

9. The Officers of the Madras Irrigation Company have marked out the line for a new anicut, to be, I believe, of the same pattern as the Wullabapoor anicut, in rear of the present rough stone dam, and if that Company do not soon commence work on this project I think that it would be to the advantage of Government to arrange with the Nizam's Government to build a good anicut on the line proposed by the Irrigation Company, instead of constantly spending money in repairing the rough stone dam.

10. **BUSWANA CHANNEL.**—The channel from the Wullabapoor anicut turns out of the river at a distance of about 550 yards above the anicut; at 500 yards from the mouth is a head sluice having five vents, each of 5 feet in breadth and 6 feet in depth, with level of floor $4\frac{1}{2}$ feet below the top of the anicut. At 40 yards above the head sluice a drainage stream of 12 yards in breadth falls into this channel, and brings down a great quantity of sand: a wall with aprons on each side is required across the mouth of this stream to prevent the sand being carried into the channel. The Moocarty nullah also falls into this channel at a short distance to the east of the village of Buswapoor, and causes some damage every year: there is a calingulah of 190 feet in length in the left bank of the Buswana channel, just opposite where the Moocarty nullah falls into the channel, but it has no under-sluices, at about 60 yards lower down the Buswana channel there is an under-sluice of $3' + 5'$ but, as far as I can learn, it has little or no effect in getting rid of the sand or silt.

11. The Buswana channel runs in a north-easterly direction after leaving the head sluice, winding about as it goes along, there are several bends, but the greatest is near the village of Buswapoor, where it makes a great bend, to south-east for about $1\frac{1}{4}$ miles, and after passing where the Moocarty nullah crosses, it bends back to the north-west for about $1\frac{1}{4}$ miles, thus going about $2\frac{1}{2}$ miles round instead of half a mile across, when it turns north-east again and continues, in a winding course to a short distance beyond the village of Amrawutty. Most of the field sluices on this channel are properly constructed, but there are still a few old native sluices.

12. The line of channel marked out by the Officers of the Irrigation Company, leaves the river between the Wullabapoor anicut and the mouth of the Buswana channel, crosses the Buswana channel at about half a mile north-east of the village of Wullabapoor, runs along above it until it reaches the village of Buswapoor where, in consequence of the great bend already referred to, it crosses the Buswana channel twice, and then gradually turns away more east, and passes north of Hospett.

13. **RAMANAGUDDA ANICUT.**—The next anicut on the Toongaboodra is the Ramanagudda anicut, at the upper end of the island of Cooravagudda, which extends across the western branch of the river to turn the water into the eastern branch. It runs out from the southern end of the island in a direction right up-stream for about 150 yards, and then turns at nearly right angles direct over to the left bank. It is an old rough stone anicut, and advantage has been taken of the rocks: the front of the anicut is reported as damaged, but I was unable to inspect it on account of the water which was passing over.

14. **COORAVAGUDDA ANICUT.**—The Cooravagudda anicut is across the eastern branch, referred to in the last paragraph, at about three miles from the Ramanagudda anicut, and near to the village of Hosscotta: it extends from the right bank to the island of Cooravagudda, and is of rough stone, in a concave form, towards the stream: it is injured in the same manner as the other.

15. **ROYA CHANNEL.**—This channel turns out of the river a short distance above the Cooravagudda anicut, and has, at a distance of about 90 yards from its mouth, a head sluice with six vents of 5 feet breadth and 6 feet depth. At about a mile from its mouth it makes a great bend to the south-east in order to get across the Moocarty nullah, already referred to in paragraph 10: the distance between where the Moocarty nullah crosses the Buswana channel, and where it crosses the Roya channel, is a little over one mile. There is a calingulah of 220 feet in length with two small under-sluices in the left bank of this channel for discharging the water of the Moocarty nullah when it is in flood, and for carrying away the silt, but the sluices have little effect. The Moocarty nullah has a fall of 6 feet, between the toe of the apron of the calingulah in the bank of the Buswana channel and the bed of the Roya channel. The next large drainage nullah that falls into the Roya channel is the Tappy Vanka, near the village of Naganhully; there was a rough stone calingulah across this Vanka, where it falls into the Roya channel, to prevent the silt from being taken in, but it has been carried away. At 80 yards lower down is a calingulah 50 feet long, to relieve the channel when these drainage nullahs are in flood, and also an under-sluice 7 feet square for carrying away the silt, but which seems to be of little use.

16. About two miles lower down another drainage nullah falls into the Roya channel, and opposite is a calingulah of 100 feet in length without any under-sluices. Beyond this the channel is very tortuous, being taken on the slope of the hills and winding in and out, and at last ends in the Camalapúr tank; it is 21 miles long, following all the windings, which is about double the distance in a direct line: it is supplied with good sluices for the fields.

17. **BELLA ANICUT.**—The Bella anicut is the next on this river, and is just above the village of Hossoor; it is an old native anicut of rough stone, of a concave shape towards the stream, and only extends from the right bank to an island in the river; at the south end of the island is a ledge of rock from the island to the left bank, which forms a natural anicut. This anicut is damaged in the same manner as the others.

18. **BELLA CHANNEL.**—The channel starts just from the anicut, and has a head-sluice at about 600 yards from the mouth; between the head sluice and the anicut there is a calingulah 110 feet long, having four under-sluices, each 3 feet square. The head sluice has four vents, each 5 feet broad and 6 feet high. The channel is short, being only about $4\frac{1}{2}$ miles in length; after which it divides into a number of small channels, which the Ryots look after. It is supplied with proper sluices.

19. **TOOROOT ANICUT.**—The next is the Tooroot anicut or anicuts, as it is formed of a number of branches connecting islands and rocks; some of the branches are breached, and others damaged in front, but I was unable to examine them on account of the water, and not having a boat. It is taken across the river at about a mile west of the old town of Humpy.

20. **TOOROOT CHANNEL.**—The channel leading off from this anicut has no head-sluice, but requires one; it winds about very much, especially where it passes through the old town of Beejanugger, and varies a good deal in width. In some parts of the channel there are rocks which obstruct the water-way, and where it passes under the old walls of Beejanugger, there are two vents, constructed of large and heavy stones. Part of the wall has fallen down, and the vent stones are also falling in; it will be difficult and troublesome work removing these stones, but it must be done in order to admit of a clear passage for the water. There are several small bridges that the Ryots have constructed to admit of their passing to their fields; they are too low and block up the water-way too much: they should be removed, and one good bridge built instead. About half a mile east of the citadel walls, this channel crosses a large drainage nullah, called the Gundlakerra nullah. This nullah, it will be seen on reference to the Trigonometrical Survey Map, carries off the drainage of the country between Camalapoor and Nellapoor; it used to supply the Gundlakerra tank, which was however breached many years ago. In 1861 an aqueduct was built to convey the water of the Gundlakerra nullah over the Tooroot channel, the course of which was slightly diverted: this

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aqueduct was much damaged in September 1864, the northern wing-wall and a portion of the bank leading to the wing-wall of the aqueduct being breached. The cause of this was, in my opinion, from the aqueduct not having been built at right angles to the nullah, and not directly opposite the set of the stream, which has impinged against the bank and northern wing-wall, and, having undermined the former, which had merely a rough stone revetment without any foundation, carried away the latter; the rest of the aqueduct is in good order. Beyond this there are some small drainages which will require calingulals to prevent the sand and silt being carried into the channel. The sluices on this channel are the old native ones of rough stone, and take a long time to open and close; the waste of water through them is also very great.

21. RAMSAUGUR ANICUT.—This old rough stone dam runs diagonally up the river, and is nearly north of the village of Bookasaugur, it merely connects islands and rocks and is made up of a number of small branches: most of the islands are of sand, and there is a chance of some of these being breached every year. I was unable to examine the amount of damage on account of the quantity of water.

22. RAMSAUGUR CHANNEL.—The channel directly faces the set of the river on the right bank, it is only 12 feet broad at the mouth, and is cut through rock, but widens in a very short distance to 30 feet; it requires slight deepening at the mouth to admit water when the river is low. There is no head sluice to this channel, and great trouble is experienced in consequence of the sand and silt that are brought in. There are a great number of old native sluices in the bank of this channel, and in some places I counted six within ten yards; in fact almost every field has its own sluice: the consequence is that there is great trouble in looking after the opening and closing of the sluices and the waste of water is very considerable. In four places on this channel the villagers have put upright stones into the channel in order to dam up the stream and allow them to take the water to the high lying lands, this should not be allowed, as it is detrimental to the rights of the cultivators lower down the channel, and is a source of constant dispute, beside causing the channel to silt up. The length of this channel is $9\frac{1}{2}$ miles, at first it is tolerably straight, then takes the windings of the hills, and after passing Ramsaugur becomes very tortuous.

23. KUMPLY ANICUT.—This anicut runs diagonally up the stream for some distance, and then crosses over to the left bank at right angles: it, like the two last mentioned, consists of a number of small branches, connecting islands and ledges of rock. I was unable to examine this anicut as there was no boat, and the water was passing over it, but the Overseer stated that parts of the front have slipped forward, and that on the whole there is a good deal of damage.

24. KUMPLY CHANNEL.—The channel from the abovementioned anicut is narrow at its mouth and, at only a short distance down, the flow of the water is much obstructed by a badly constructed aqueduct, which conveys water from the Ramsaugur channel to lands lying between the Kumply channel and the river; there are also several rocks in mid-channel. It is very tortuous, has no proper field sluices, and the remarks that I have made regarding the Ramsaugur channel apply also to this. There are a great number of places where the Ryots have put upright stones and posts in the channel, in order to dam up the water; stringent orders are required to have all these removed, and to punish any person who shall again put them in. Some of the Ryots have also put up small aqueducts to carry water from the Ramsaugur channel across the Kumply channel, without obtaining leave from any one and, as they are not particular about how they build them, have caused obstructions to the free flow of the stream. The Bellagodehall channel is formed of the waste water of the Ramsaugur and Kumply channels; it is very tortuous and has no proper field sluices.

25. On some of the channels, but more especially on the Kumply channel there is great difficulty in inspecting the sluices, in consequence of the Ryots having cultivated close up to the edge of the channel. It is very necessary that there should be a small road of three yards in width along the left bank of all these channels, so that a cart may be taken along in case materials are required for repairs or for building any new works.

26. Again, the villagers, more particularly under the Kumply channel, are in the habit of putting the wood work of their sugar-cane mills into the channels to preserve them: as they make no attempt at fastening them, it is a most dangerous practice, because, when a supply of water comes into the channel, these logs are floated down against the bridges and aqueducts and occasion damage. If the members of this Department remove the logs and hand them over to the village authorities in order that the owners may be discovered, no person will come forward to claim them; and if any attempt is made to sell them by auction there are no bidders except perhaps the owner himself or a friend, as the people in the village know, but won't tell to whom the property belongs. I would suggest that if the owners do not claim the logs within a certain specified time the wood be cut up and sold as firewood by auction; then it would be readily purchased.

27. The accompanying Statement shows the Establishment at present* entertained for looking after these channels, and also† what should be employed; as soon as proper sluices have been built in the channel banks this number might be reduced. The existing system of paying the Neergoonties by grants of land under the channels is, in my opinion, objectionable; they are never to be found when required, and repeated complaints are made against them; instead of attending to their duties they are constantly absent in looking after their fields, and from what I saw I am of opinion that they were perfectly acquainted with the malpractice of putting stones, &c., into the channels, and I believe that, in some cases, they were the people who had put in the upright stones. In one case in the Tooroot channel there was a cut made in the bank, and the cultivator evidently intended to have a private sluice of his own; this could not have been done without the knowledge of the Neergoonties, and yet they made no report. When inspecting the Kumply channel, the Tahsildar of the Hospett Taluq accompanied me, and at one spot observed a sluice that had evidently been built only a short time. What is required is that the Conservancy Establishment shall have present on the channels, and that, in case of any neglect of duty, the person regulating the distribution of water shall have power to punish. As the Neergoonties are in no way under the control of this Department, it is impossible for us to regulate the distribution.

28. The surveys of these channels are, I think, incomplete and inaccurate; sections have been taken across the channels at different points; but, as they are calculated each to its own datum, and no longitudinal section is given, they are not of much use.

29. I would beg to suggest that a complete survey and levels be made of this portion of country, so that we may know the exact amount of land at present under cultivation, and what is possible to be brought under cultivation. I believe that if the Buswana channel, which leads from the Wullabapoor anicut, was straightened and a regular fall of about 9 inches per mile given to it, that a great deal more land might be brought under irrigation from it than is at present: if widened a little I think we might dispense with the Roya channel, at least at the upper end, and make use of it afterwards as a branch.

30. All this however cannot be worked out, except a good survey, &c., is made, and, for this purpose, I consider, that an Officer should be specially deputed; if Government agree with my views on the subject, I would recommend that some Officer who has had practical experience on irrigation works should be sent for this purpose.

N. B.—Since writing the above I have received further reports of the negligence of the Neergoonties: their conduct is brought repeatedly to the notice of the Revenue authorities, but they do not seem to care for the punishments.

*Proceedings of the Madras Government, Public Works Department,
20th September 1865.*

No. 477. ORDER THEREON, 20th September 1865, No. 2,776.

CIVIL WORKS, No. 57.

1. In the Orders of Government of the 10th May 1865, No. 1,269, the Superintending Engineer of the 3rd Division was directed to proceed personally to inspect the Toongaboodra channels in Bellary, and to report upon them.

2. This Captain Moberly has now done, but the information contained in his report is not that which the Government require. They do not care to know the structural peculiarities of the channels as Captain Moberly has detailed them, but they are desirous of obtaining reliable information of the general state of those works as respects their fitness to fulfil the purposes for which they were severally constructed. A comparison of the state of the channels, as he found it, with that shown in the surveys and sections which he possesses, should have enabled Captain Moberly to form a pretty accurate judgment of how far their conservancy has been properly attended to; and the revenue returns, which are always readily obtainable from the Civil authorities, would at once have shown him how far any changes, for better or worse, that he may have discovered in the condition of the channels, had affected the area of land irrigated by them or the revenue derived from them.

3. There is nothing in Captain Moberly's report to show whether the channels have been improved, or have been allowed to deteriorate under the system of management to which they have been entrusted. He mentions certain minor defects* and deficiencies, and makes

* Paragraphs 20, 22, 24.

some vague complaints of the inefficiency of the Neergoonties, and recommends a change in the mode of paying them; but he does not explain how the conservancy of the channels is conducted, what has been the expenditure upon their maintenance, nor whether the annual outlay has been properly laid out or is sufficient.

4. Captain Moberly will now be directed to give especial attention to these Toongaboodra anicuts and channels, and to take timely measures for their effectual repair on the cessation of the freshes. He will also take the earliest opportunity of inspecting the channels again at the most favorable time for their careful examination, and will furnish detailed practical suggestions for the improvement of each separately, accompanied by plans and estimates, and by returns showing the outlay upon maintenance, and the extent of land irrigated in each of the last ten years.

5. These Proceedings will be communicated, through the Board of Revenue, to the Collector of Bellary, whose particular attention will be drawn to paragraphs 24, 26, and 27 of Captain Moberly's letter, in which he complains of the inefficiency of the Neergoonties, and the injury caused to the channels by stones and posts being placed in them.

(True Extract.)

(Signed) J. H. M. SHAW STEWART, Major R. E.,

Under Secretary to Government.

To the Superintending Engineer, 3rd Division.

„ Board of Revenue.

„ Revenue Department.

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Sec. of State
No. 2635.

Proceedings of the
Madras Court in the
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