M.R.O. 1—82,400—29-11-30.

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 1306 Press Mis.

1263

Dated 7 — 7 — 18 57

Not to be folded or roughly handled

Fort Saint George, Public Works Consultation of 7th July 1857.

No. 62. Read the following Extract from the Proceedings of the Chief Engineer, dated 30th June 1857, No. 1653.

Read the following letter from Lieutenant R. H. SANKEY, Engineers, Superintendent of the E. C. Canal; to Colonel C. E. FABER, Chief Engineer, dated 5th May 1857, No. 15.

SIR,

I have the honor to inform you that in accordance with the orders conveyed in Extract Minutes of Consultation No. 1674 of the 17th September 1856, and received 1st October, I have investigated the subject of connecting the tidal portion of the proposed Coast Canal at Chinnaganjam with the Kistnah High level channel, with a view to submitting an Estimate for the same, but am sorry to say, from circumstances beyond my control, without success.

2. I shall enter into an explanation of the circumstances as much with the object of clearing myself from blame, as of showing the grounds on which the project really rests, so that my successor in undertaking the re-investigation of the subject, may know exactly what is before him which I unfortunately did not.

3. From the Government order on the subject it appears that the submission of the estimate in time for entry in the Budget of 1857-58 was anticipated, but Lieutenant Chambers being at the time of its receipt engaged in making over charge of the Department, and moreover as special surveys of the ground were requisite, it was quite out of that Officers power to satisfy the expectations entertained.

4. For my own part, being unwilling to submit an estimate for such an important work without careful personal examination, I left the subject over till an opportunity was offered after laying out the Kistnapatam line early this season of proceeding to the spot.

5. The Governor in Council having directed that the junction by Inkole should be adopted (para. 5 of the Extract Minutes of Consultation as above) I felt my duty to be simple the determination of the connection of Chinnaganjam with that place by means of a first class Canal, and after making myself well acquainted with the ground, I selected the best line, estimated for it, and prepared the project in full for submission to the Central Office, but feeling not altogether satisfied with the treatment which I had adopted in the disposal of a drainage which crossed the line I pushed on to Bezwarah to consult with Captain Orr.

6. Lieutenant Chambers remarks upon the difficulty which would have to be encountered in regard to this drainage in para. 28 of his letter No. 331 of the 6th December 1855, and in para. 3 letter No. 151 of the 26th June 1856.

7. At Bezwarah, I for the first time learned the real difficulties as regarded this drainage, Captain Orr it appears intends to throw all the surplus water from the Kummamoor (new Toongabudra) channel down it, indeed he is necessitated to do so, and consequently we both came to the conclusion that the line was hampered by a grave technical difficulty which rendered it inadvisable. The difficulties of the direct connection with Inkole were also enhanced by a sandy ridge about a mile wide and varying in height from 9 to 19 feet above the mean level of the Sea which would have to be cut through.

8. Determining however if possible not to return to Madras without a solution of the question, of connecting the great lines of Navigation north and south. I got Captain Orr to let me have one of his Surveyors (my own having been obliged at the time of my starting for Bezwarah, to return to the Kistnapatam line) for the three days which I hoped would suffice for settling the matter. I kept the man four days hard at work but without success and not feeling myself justified in trespassing any further on Captain Orr's kindness the Surveyor being engaged on an important investigation I sent him back to his work and hastened to Madras where my presence was absolutely required.

9. This I hope will sufficiently account for my want of success, which after all need not be much regretted, as in the first place the subject will in future receive a much fuller investigation, and as there is no chance whatever of the work being commenced for the next three or four years no loss of time will be experienced.

10. From Lieutenant Chamber's reports on the extension of the Canal north of Kistnapatam his object appears decidedly to have been the connection of Nizampatam with the former place. Inkole is merely mentioned casually as being the extreme point to which Captain Orr intended to carry the high level channel and as thus likely to be the best place for forming the junction but I have the assurance of that Officer that no necessity whatever exists for Inkole being the terminus, further than the fact that it is the most southerly point of the Guntoor District, and that the high level channel may enter the Nellore District and irrigate the lands as far as the Gundlacumma and even be carried well south of that river so far as concerns the supply of water.

11. The main object in forming the junction Canal being equally well attained at one place as another so long as the length and expense of the whole line between the termini were kept prominently in view, I directed my attention to selecting a line immediately south of the Rampairoo which seemed to fulfil the requisite conditions, and at just sufficient distance to keep clear of the floods of that river.

12. With Captain Ford's report before me and the contour line he had run in 1854 for prolonging the high level channel to the Gundlacumma I selected what appeared a promising line joining Peddaganjam and Eathamoody and forming a junction with the high level at Doodoocoor, but from some radical error which I cannot help thinking must have existed in laying down the contour line no less than 10 feet of difference was made in the height of the point attained above the Sea and thus the whole rendered abortive.

13. Pushing on with a northerly sweep as far as Koneki the proper level was picked up, but as will appear clear from the plan, the length of the junction was thus rendered greater than was necessary or than I felt right to propose.

14. From what I have been able to judge the country between the Rampairoo and Gundlacumma, I should say that were the high level channel contained as far as the latter river, a very short junction line (not longer than 4 or 5 miles) could be selected by connecting either Woomaveram or Amanabroloo with the Coast Canal the former appearing to promise the best results. As regards the extension of the high level channel, the District Engineer of Nellore would naturally be the person most concerned and might be called upon to submit a project.

15. The level of the sole of Captain Orr's channel at Inkole will be 35 feet above high springs or 37 feet above the mean level of the Sea, and if to this be added 5 feet, the depth of water, boats in passing from the Coast Canal to the high level, will have to be passed through 42 feet, which I should imagine would render necessary the building of 5 locks having lifts respectively of 8 feet 4 inches 8 feet being generally considered by good authorities as the most advantageous height this will probably be the best arrangement which can be adopted.

16. The narrow locks proposed by Colonel Cotton 150 + 12 would certainly economise the expenditure of water considerably and meet all the exigencies of a trade carried on by means of boats built on European models.

17. Making every allowance for leakage evaporation and absorption, and supposing 50 tons be passed up or down each opening of the locks, I calculate that the yearly expenditure of water required for a traffic of 500,000 tons in one direction would come about to 15,000,000 cubic yards Captain Orr assures me that this is a supply which can always be calculated on.

Before deciding on the dimensions of locks to be employed it will be well perhaps to take into account the sizes of those used at the Bezwarah and Rajamundry Head sluices.

---

* No. 15, dated 5th May 1857.

Resolved that a copy of the above letter* be forwarded to Government for their information.

2. Also, that a copy of the same, be sent to Lieutenant Mullins, who, will in communication with Captain Orr and Lieutenant Moberly, the Superintendent East Coast Canal, investigate and report upon the best method of effecting the connection of the East Coast Canal with the

High water level Navigation from the Kistnah. The information obtained by Lieutenant Sankey being too vague, owing partly to the error in Captain Ford's levels, to enable the Chief Engineer to form a final opinion on the subject.

(Signed) C. E. FABER, Colonel,
Chief Engineer.

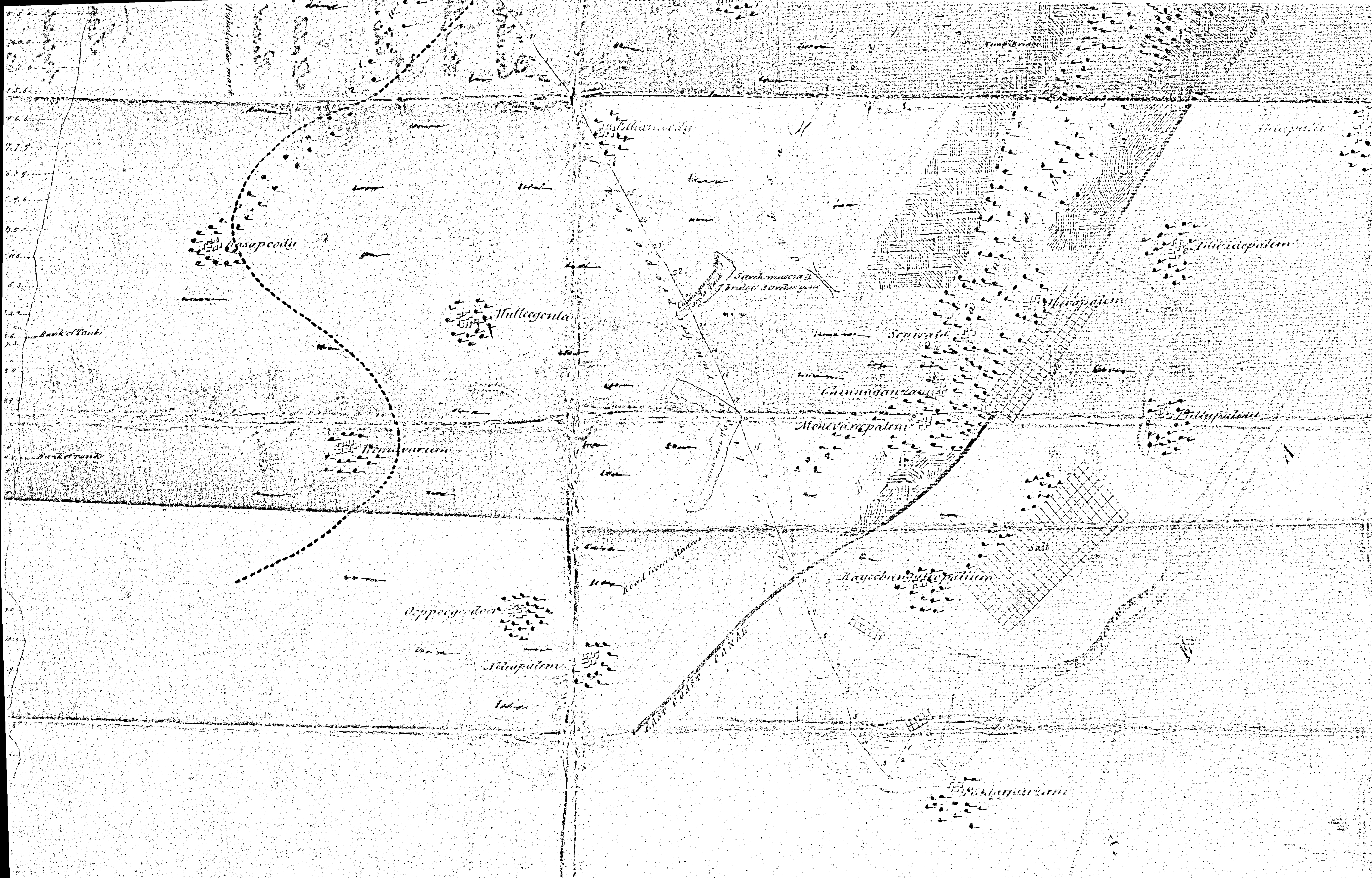
No. 63. ORDER THEREON, No. 1306; dated 7th July 1857.

Ordered that the foregoing Extract be recorded.

(Signed) H. FORBES,
Acting Secretary to Government.

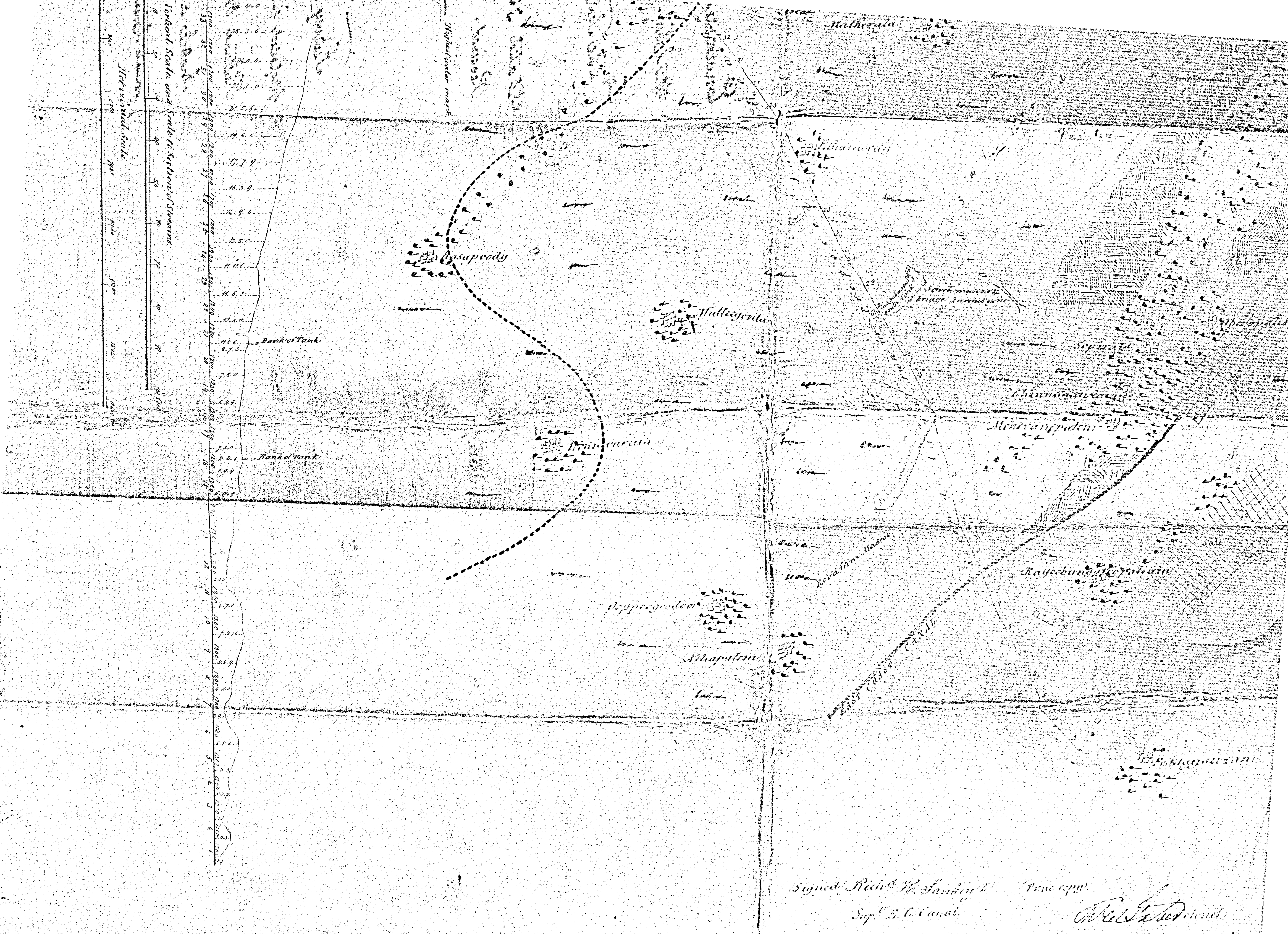
CHANNEL

Scale for Section
Horizontal Distances



(Signed) Richd. H. Sankey Lt.
Supt. E. C. Canal.

True copy
[illegible] Colonel
Chief Engineer D.P.W.



Signed Richd. H. Sankey Lt.
Supt. E. C. Canal

True copy
[illegible] Colonel
Chief Engineer D.P.W.

E. C. Canal
Supt's Office Madras
9th May 1857


Survey
with Levels for a
proposed Junction Canal
between the Kistnah High Level Channel at
INCOLE
and the E. C. Canal near
CHINNAGANZAM
Incole
Bellapalem
HIGH LEVEL CHANNEL
by Captain Ford

Enclosure in a letter from

the Chief Engineer.

To The Secretary to Government

P.W.D.

Dated 30th } June 1857

Received }

No. 1653

P.W. 1322/57

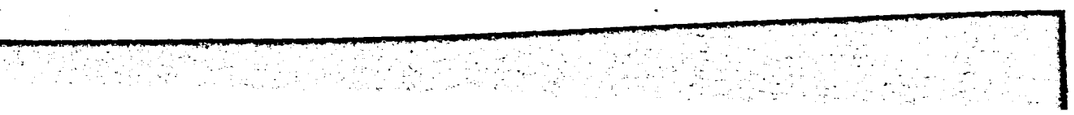
Survey with levels for a

proposed junction Canal between the

Kistnah High level Channel at

Inchole and the E. C. Canal

near Chenna Ganjam.—



No. 62. Read the following Extract from the Proceedings of the Chief Engineer, dated 30th June 1857, No. 1653.

Read the following letter from Lieutenant R. H. SANKEY, Engineers, Superintendent of the E. C. Canal; to Colonel C. E. FABER, Chief Engineer, dated 5th May 1857, No. 15.

SIR,

I have the honor to inform you that in accordance with the orders conveyed in Extract Minutes of Consultation No. 1674 of the 17th September 1856, and received 1st October, I have investigated the subject of connecting the tidal portion of the proposed Coast Canal at Chinnaganjam with the Kistnah High level channel, with a view to submitting an Estimate for the same, but am sorry to say, from circumstances beyond my control, without success.

2. I shall enter into an explanation of the circumstances as much with the object of clearing myself from blame, as of showing the grounds on which the project really rests, so that my successor in undertaking the re-investigation of the subject, may know exactly what is before him which I unfortunately did not.

3. From the Government order on the subject it appears that the submission of the estimate in time for entry in the Budget of 1857-58 was anticipated, but Lieutenant Chambers being at the time of its receipt engaged in making over charge of the Department, and moreover as special surveys of the ground were requisite, it was quite out of that Officers power to satisfy the expectations entertained.

4. For my own part, being unwilling to submit an estimate for such an important work without careful personal examination, I left the subject over till an opportunity was offered after laying out the Kistnapatam line early this season of proceeding to the spot.

5. The Governor in Council having directed that the junction by Inkole should be adopted (para. 5 of the Extract Minutes of Consultation as above) I felt my duty to be simple the determination of the connection of Chinnaganjam with that place by means of a first class Canal, and after making myself well acquainted with the ground, I selected the best line, estimated for it, and prepared the project in full for submission to the Central Office, but feeling not altogether satisfied with the treatment which I had adopted in the disposal of a drainage which crossed the line I pushed on to Bezwarah to consult with Captain Orr.

6. Lieutenant Chambers remarks upon the difficulty which would have to be encountered in regard to this drainage in para. 28 of his letter No. 231 of the 6th December 1855, and in para. 3 letter No. 151 of the 26th June 1856.

7. At Bezwarah, I for the first time learned the real difficulties as regarded this drainage, Captain Orr it appears intends to throw all the surplus water from the Kummamoor (new Toongabudra) channel down it, indeed he is necessitated to do so, and consequently we both came to the conclusion that the line was hampered by a grave technical difficulty which rendered it inadvisable. The difficulties of the direct connection with Inkole were also enhanced by a sandy ridge about a mile wide and varying in height from 9 to 19 feet above the mean level of the Sea which would have to be cut through.

8. Determining however if possible not to return to Madras without a solution of the question, of connecting the great lines of Navigation north and south. I got Captain Orr to let me have one of his Surveyors (my own having been obliged at the time of my starting for Bezwarah, to return to the Kistnapatam line) for the three days which I hoped would suffice for settling the matter. I kept the man four days hard at work but without success and not feeling myself justified in trespassing any further on Captain Orr's kindness the Surveyor being engaged on an important investigation I sent him back to his work and hastened to Madras where my presence was absolutely required.

9. This I hope will sufficiently account for my want of success, which after all need not be much regretted, as in the first place the subject will in future receive a much fuller investigation, and as there is no chance whatever of the work being commenced for the next three or four years no loss of time will be experienced.