M.R.O. 1—77,006—8-6-37.

(1) Number of pages_____

(2) Date of repair_____

(3) Initials of the Referencer_____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT. ✓

G.O. No. 3197 Press Mis.,
174-175
Dated 8 — 10 — 1866.

Not to be folded or roughly handled

No. 174. Read the following letter from the Acting Superintending Engineer, 1st Division, to the Secretary to Government, Department Public Works, dated Camp, Toonee, 14th September 1866, No. 114 :—

1. Referring to G. O. No. 1,120 of 12th April, I have the honor to enclose copies of two letters from Captain Darrah. I would remark that, in my opinion, they do not show that these accidents would have been prevented if the Revenue officers had had charge of the irrigation repairs, but rather the want of fore-thought of the officer in charge.

Three Enclosures.

2. The arrangements of the Korakory bridge, Captain Darrah shows, were faulty; the plan furnished was adhered to by the Overseer, and appears to me to exhibit want of skill, not want of leisure in the officer who prepared it.

3. The Jeyamungalum anicut stood for four years, but if an officer plans to raise the body of such a work and omits also to raise the wing-walls, so that they are submerged by a flood higher than usual, it seems to me again that the officer's engineering skill, not his occupation, is in question.

4. I would point out that now that the irrigation repairs are increased by the late heavy freshes, the Collector has called on this Department to execute the repairs. The Ryots have their cultivation to attend to, and although theoretically their interests should induce them to do the work better and quicker than others, practically it is very much the reverse.

From the Executive Engineer, Ganjam, to the Superintending Engineer, 1st Division, dated Berhampore, 29th May 1866, No. 40.

1. With reference to your letter No. 3,202, dated 19th April 1866, I have the honor to report that the Jeyamungalum anicut was built in 1861, when it was three times visited by Overseer Camarauze, twice by Conductor J. E. Hopkins, once by the District Engineer Captain Harrington. It wa safterwards found that the height of the body wall was insufficient, and that the five sluices it contained allowed the escape of too much water, accordingly an estimate was framed by Captain Philipps, for 100 Rupees, to close four of the openings, and raise the body wall and apron one foot six inches. This was done in 1865. The work was inspected during the alterations by Overseer Camarauze, and also by Captain Philipps. Goomashta Memberoomalloo had immediate charge of the work during its first construction, and Maistry Adinaraidu during the alterations.

Jeyamungalum Anicut.

2. It appears that in 1865, when the floods came, the Ryots neglected to open the shutter, and that the fall of the wing-wall is partly owing to this; still, however, there can be no doubt that the work performed was very bad; the broken end shows it to consist of very little else than dry rubble covered with a coating of chunam. The wing-wall and body wall were not bonded together, and the stones used were very small; I have the honor to submit a plan, giving the sections and details called for. The work was never breached between 1861 and 1865.

The cost of its first construction was ... ... Rupees 348 11 7
That of the alterations ... ... ,, 99 12 10

It would appear that Overseer Camarauze is responsible for the bad work performed.

From the Executive Engineer, Ganjam, to the Superintending Engineer, 1st Division, dated Berhampore, 29th May 1866, No. 42.

1. With reference to your letter No. 3,202, dated 19th April 1866, I have the honor to submit a sketch showing the construction of the Korakory bridge. This bridge originally con-

Korakory Bridge.

sisted of nine bays of 15 feet span each, but after the abutments tumbled in (during the floods of last year, Captain Philipps ordered the bridge to be lengthened, and it now consists of eleven bays of 15 feet span. The abutments have also been re-built. The total cost of this bridge amounts to about 2,966 Rupees, 1,736 Rupees having been spent, according to the Station books, and 1,230 Rupees being about the value of the timber contained in it. The reason why I cannot state the actual cost of timber in the bridge is because no separate timber accounts have been kept for each bridge, the cost of all the timber for the Aska and Ganjam road having been lumped together. During the progress of the work it was visited several times by the late Executive Engineer, and also by Táluq Overseer Camarauze. The Goomashta in immediate charge was a man named Anuntaramiah.

The principal defects of the bridge may be stated as follows :—

(1.) A great deal of strength is lost by notching the timbers fully half through, when one inch or one and a half inch would have been sufficient to prevent displacement. I would particularly call your attention to figure 1, and to the way the scarfing of the longitudinal beams has been done. the vertical cuts in, I believe, every case falling outside the pile heads by about one inch ; sections on A. B. and C. D. also show that the transverse beams and centre longitudinal one are virtually cut in two by being notched for five inches in depth from above and again five inches from below.

(2.) A great deal of wood is wasted in the loose packing laid to support the planking, and which in no way contributes to the strength of the bridge. The packing contains no less than 190 cubic feet.

3. The undulation of the bridge, level readings taken on the planking over each set of piles and at the abutments are as follow :—

5·05	5·21	5·55	5·53	5·53	5·45	5·52
5·90	6·02	5·85	5·53	5·44		

The difference between the highest and lowest points of the bridge being about one foot. The Overseer tells me that several of the piles have sunk since the bridge was first constructed, and that they were not driven with a pile driving machine.

4. The centre line of bridge is askew with the centre line of road instead of coinciding with it. The deviation amounts to one foot in 100 feet run, or tangent of angle of inclination = 1/100.

The sum taken up in the estimate for the construction of the bridge is 3,180 Rupees. The Overseer states that he has worked as closely as possible to the plan, and I requests me to forward it to you for information, it is therefore enclosed, I request that it may be returned when done with

No. 175. ORDER THEREON, 8th October 1866, No. 3,197.

CIVIL WORKS, No. 36. Ordered to be recorded.

(True Extract.)

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

Exd. S. T. Augustin.

No. 40

Executive Engineer's Office
Berhampore, 29th May 66.

From

Captain C. J. Darrah R.E.
Executive Engineer, Ganjam.

To

Captain J. G. Ryves R.E.
Superintending Engineer, S. Bn.

Sir,

Sayanmungalum Anicut.

With reference to your letter No. 3202 dated 19th April 1866 I have the honor to report that the Sayanmungalum Anicut was built in 1861 when it was 3 times visited by Overseer Camaraze, twice by Conductor J. E. Hopkins once by the District Engineer Captain Harrington. It was afterwards found that the height of the body wall was insufficient and that the 5 sluices it contained allowed the Escape of too much water accordingly an Estimate was framed by Captain Philipps for 100 Rs. to close ½ of the openings and raise the body wall and apron 1-6". This was done in 1865. The work was inspected during the alterations by Overseer Camaraze and also by Captain Philipps. Goomashta Meenberoomalloo had immediate charge of the work during its first construction and Maistry Adinaraiya

during

during the alterations.

It appears that in 1865 when the floods came the Ryots neglected to open the shutter and that the fall of the wing wall is partly owing to this. still however there can be no doubt that the work performed was very bad, the broken end shews it to consist of very little else than dry rubble covered with a coating of Chunam. The wing wall and body wall were not bonded together; and the stones used were very small. I have the honor to submit a plan giving the sections and details called for. The work was never breached between 1861 & 1865.

The cost of its first construction was. Rs a. p.
348 — 11 — 7
That of the alterations ——— 99. 12 — 10.

It would appear that Overseer Canniaraze is responsible for the bad work performed.

I have the honor &c &c

Signed/ C.J. Darrah Capt. R.E.
Exe: Engineer Guntoor.

/True copy/
F. Hudson
Lt Col. R.E.
Actg Chief Engr for Irrigation &c

Enclosure in a letter
from the Supdg. Engr.
N.E. Division to the
Secretary to Govt. P.W.D.
No. 114 dated 14 Sept. 66

P Bopp 19/9/66

Executive Engineer's Office,
Berhampore, 29th May 1866.

No 42.

From Captain C. A. Darrah R.E.
Executive Engineer Ganjam.

To Captain J. G. Sykes R.E.
Supdg. Engineer 1st Div.

Sir,

With reference to your letter No 3202
dated 19th April 66, I have the honor to submit
a sketch shewing the construction of the
Korakory Bridge. This Bridge originally consisted
of 9 Bays of 15 ft span each but after the
abutments tumbled in (during the floods
of last year) Captain Phillipps ordered the
Bridge to be lengthened and it now consists
of 11 Bays of 15 feet span. The abutments
have also been rebuilt. The total cost
of this bridge amounts to about 2966 Rs.
1736 Rupees having been spent according
to the Station Books & 1230 Rs being about
the value of the timber contained in it.
The reason why I cannot state the
actual cost of timber in the Bridge is
because no separate timber accounts have
been kept for each bridge. The cost of all
the timber for the Aska and Ganjam Road
having been lumped together. During the

progress

Korakory
Bridge.

progress of the work it was visited several times by the late Executive Engineer and also by Taluq Overseer Camaraze. The Gomastha in immediate charge was a man named Annutaramiah.

The principal defects of the Bridge may be stated as follows.

1. A great deal of strength is lost by notching the timbers fully ½ through when 1" or 1½" would have been sufficient to prevent displacement I would particularly call your attention to Fig 1 and to the way the scarfing of the longitudinal beams has been done. the vertical cuts in, I believe every case, falling outside the pile heads by about ¼ inch sections on A.B. & C.D. also shew that the transverse beams and centre longitudinal one are virtually cut in two by being notched for 5" in depth from above and again 5" from below.

2. A great deal of wood is wasted in the loose packing laid to support the planking and which in no way contributes to the strength of the Bridge. The packing contains no less than 190 cubic feet.

3. The undulation of the Bridge, Level readings taken on the planking over each set of piles and at the abutments are as follows.

5.05	5.21	5.55	5.53	5.53	5.45	5.52
5.90	6.02	5.86	5.53	5.44		

The difference between the highest and lowest points of the Bridge being about 1 foot. The Overseer tells me that several of the piles have sunk since the Bridge was first constructed and that they were not driven with a pile driving machine.

4. The centre line of Bridge is askew with the centre line of road instead of coinciding with it. The deviation amounts to 1 in 100 feet nearly or tang ± of angle of inclination = 1/100

The sum taken up in the Estimate for the construction of the Bridge is $3,180 Rs. The Overseer states that he has worked as closely as possible to the plan and requests me to forward it to you for information, it is therefore enclosed I request that it may be returned when done with.

I have the honor &c &c

(Signed) C. J. Darrah Capt R.E.
Exc: Engineer Ganjam

(True Copy)

J. Hendley Lt Col R.E.
Actg Supt Engineer 3rd Div

Superintending Engineer's Office
for D.W., Camp Toowoomba,
14th September 166.

No 114

From

Lieut & Cb. F. J. Moberly R.E.
Ag. Supg. Engr. for D.W.

To

Colonel C. A. Orr R.E.
Secretary to Govt. D.P.W.
Brisbane

Encls 3

Sir,

Referring to G.O. No 1120 of 12th April,
I have the honor to enclose copies of 2 letters
from Captain Darrah - I would remark
that, in my opinion, they do not shew
that these accidents would have been
prevented if the Revenue Officers had
had charge of the Irrigation repairs: but
rather the want of fore-thought of the
Officer in charge.

2. The arrangements of the Roadway
bridge, Captain Darrah shews, were
faulty; the plan furnished was adhered
to, by the Overseer: & appears to me to
exhibit want of skill, not want of
leisure in the Officer who prepared it.

The

Enclosures in a letter
from the Asst Engr
for Dn to the Colonial
Govt D.P.W. No 1114
dated 14 Sept 166.

Brisbane

3. The Seyamangalam Anicut stood for 4 years, but if an Officer plans to raise the body of such a work & omits also to raise the wing walls so that they are submerged by a flood higher than usual, it seems to me again that the Officer's engineering skill not his occupation is in question.

4. I would point out that now that the irrigation repairs are increased by the late heavy freshes: the Collector has called on this Department to execute the repairs. The ryots have their cultivation to attend to & although theoretically their interests should induce them to do the work better & quicker than others, practically it is very much the reverse.

I have the honor to be
Sir
Your Most Obed't Sv't.

F. J. Lucksby

A.M.C. I.R.C.
Ag Superintending Engineer

Pro. 12 April 66 Pp 191-192

P W 1866 Dec 5th
Pro. of Govt for Retention
Town No 3909.

The Actg Supt Inquire
St Louis

& The Secretary D Govt
Wash

dated 14 Sept 66
rec'd 19 "
No 26

Ca: 3. No 11641
1 Sec'y Refers to G.O. No 1125 of
12 Apl 66 and Encloses 2
letters from Capt Sarrah
and remarks that they do not
show that the accidents
would have been prevented
if Naval Officers had had
Charge of Irregular Repairs.

Recorded

Sent St Louis
8th Oct 66

Recd 1914

Ca 174-175

Rec'd 3197 - 8th Octr 1866