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(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	2076	Press
B.P.—No.		Mis. _____
Dated	21-7-	C8 25 —195—

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
21st July 1875.*

No 524 Read the following endorsement of the Officiating Chief Engineer, dated
Ootacamund, 26th June 1875, No 31 —

From A. J DODSON, Esq, Acting Chief Engineer and Manager, Madras Irrigation
and Canal Company, to Major J. O HASTED, R E, Officiating Chief
Engineer for Irrigation, dated Kurnool, 16th June 1875, No. 72 .

I HAVE the honor to forward* copies of the Upper and Lower Divisions, together
with Chief Engineer's Report for the
month of May 1875

* Per Book Post

MADRAS IRRIGATION AND CANAL COMPANY

UPPER DIVISION

Monthly Report for May 1875

During this month the whole work of the staff has been directed to the urgent repairs of
the canal, particularly such as can only be done when the water is out

2 The repairs to the head sluice apron (which were only partially done last year owing
to very early freshes in the river) have been successfully completed

3 The anicut has been pointed, and some slight masonry done The holes below were
baled out, and all will be finished in a day or two

4 The most important work in hand is the removal of silt from the canal

5 It has only been thought advisable to clear the first seven miles this year From the
sections taken under Mr Crawford's direction, the following amounts have to be removed, of
which about two-fifths or more has been completed —

In the 1st mile	..	..	Cubic Yards	7,918
" 2nd "	..	..	"	5,571
" 3rd "	..	..	"	7,587
" 4th "	..	..	"	12,236
" 5th "	..	..	"	23,102
" 6th "	..	..	"	10,837
" 7th "	..	..	"	8,809

Total ... 76,110

6 The increase of this deposit during the last season is remarkable With the exception
of the 6th mile which was cleared last year, no silt has been taken out of these miles since 1869
I attribute the increase to (1) the rapid growth of rushes which gradually narrow the channel,
filling it up to about one-third of the normal width in some places; (2) the weeds which grow in
the current, choking it up and decreasing the velocity, (3) the heavy land floods which poured into
the tanks, carrying with them large quantities of mud from the unusually heavy rains of last
season

7. Mr. Crawford returned from leave on the 3rd May 1875 and took charge of the canal
from Soonkesala to Kurnool, but he is still in charge of the Chief Accountant's Office, &c

8 The Hindry aqueduct wing wall protection works have been completed, with the
exception of a little earthwork

9 Ulloor bridge is built up to one foot over the top water level of canal, i.e., 9 feet
above bed The contrivings will* be sent down
immediately.

* They are already sent

10 The heavy repairs in the 6th section have been taken in hand Between Lockinsala and
Toorcherla much puddle work has to be done All the repairs to cills were done, except the lower
one at No 12, which had been covered with water owing to a fresh in the Caulee This is the
last lock from which boats will have to cross that river Any repairs to the lower cill are,
therefore, very difficult, unless the river is very
low On the 29th I saw the work commenced,
and believe by this time that it must be finished.

*Proceedings of the Madras Government, Public Works Department,
21st July 1875.*

11 There are a number of minor repairs being made, both masonry and earthwork, and the whole of the staff are fully occupied.

12 The settlement of Ramaleotta Taluq took place in the middle of the month Mr. Glenny, the Acting Collector, himself presided. The new rules impose very heavy work on the small staff of Conservancy Writers in the way of preparation for the settlement. Added to this, the Curnums failed miserably in many cases to produce clear and correct accounts. There are a few slight alterations and additions to the rules necessary to render the work easier for all parties. Speaking generally, I may say that scarcely one Curnum complied with the rules. Although some have, no doubt, done their best, some were utterly careless about them. They failed to send applications in many cases till months after water was taken. They failed to report damage to crops. Some few returns were so full of errors in measurement that it was clear no measurement had been taken. One Curnum was so blind that he could not read his own writing.

13 The system of sending Revenue Inspectors to certify as to damage of crop, &c., has worked very well wherever it has been tried, especially if a Company's Officer is also present.

14 On the whole I consider the rules successful in this that Overseers and Amins are no longer left to use their own judgment, or refer constantly to their superiors, exceptional cases only need inquiry or reference.

15 In my last report the Company's water was still being supplied to Kurnool. It ceased on the 21st May, but a heavy storm of rain on the night of the 21st again raised water, so that the supply is still available.

16 Water was never so plentiful in the canal during the hot weather before this year. It was found necessary to open all the available waste sluices, thirteen in number, to reduce the water in Tongadancha Tank. This was done on the 28th April, but on the 7th May water was still running through Jupaud bridge.

17 The health of the staff was fair, the weather at times excessively hot, especially in camp. The payments took place from 5th to the 15th of May 1875.

(Signed) C H WILKS,
Conservancy Engineer

*LOWER DIVISION
Report for the month of May 1875*

The head sluices at Jutoor and Rajoly were all closed on the 1st of the month, and the supply of water for irrigation purposes ceased throughout the 7th, 8th, and 9th sections by the 3rd instant.

2 The repairs to Main Canal were commenced as soon as the water had dried up, and many of the locks are now having their gates tarred and caulked, and injuries done to the masonry repaired. I hope that all will be completed before the end of this month. Rajoly anicut has been pointed afresh, and some of the crest slab-stones replaced by large ones. The accumulations of silt in the 9th section are being removed as far as the money at my disposal will allow, and some large side drains are being cleared out and widened to prevent the formation of tanks above the canal banks.

3 In the 10th section all the repairs of the Pennair anicut are completed, they have cost much more than I expected, owing to the difficulty of clearing the foundations from silt and water and of conveying the heavy slabs and other materials across the river bed, which has never been free from water, but I am sure that the repairs have been done in a solid manner with good materials, so that floods even higher than that of October last will not injure the new work.

4 The accumulation of silt in the first three miles of the 10th section has been removed 6 yards in width down to bed level, so as to leave in all a free passage of 36 feet in width for the water, 15,265 cubic yards have been taken out and thrown over the spoil banks. The gap formed by the floods of October just behind Admapully bungalow has been closed with silt from the canal, well rammed down.

*Proceedings of the Madras Government, Public Works Department,
21st July 1875.*

5 The work of repairs to distribution channels and additional road bridges over them is rapidly going on throughout my division, and I anticipate a very considerable addition to the amount of irrigation under these channels during the coming season.

6 From the 5th to the 15th of May I was at Ayaloor working at the Irrigation Settlement of the taluqs in the Kurnool District, the amount of remissions agreed to were very small, and the ryots on the whole seemed well contented with the returns they have obtained from their wet cultivation.

7 The general health of employes has been much better, but few cases of fever having occurred.

The total amount of rainfall during the month is as follows —

Jutoor	...	...	...	0 70
Ayaloor	...	...	...	1 00
Chintacoonta	...	...	...	2 30
Dhoor	...	...	...	3 37

DHOOR,
6th June 1875

(Signed) A J DODSON,
Conservancy Engineer

Chief Engineer's Report to accompany the Divisional Report for May 1875

The Divisional Reports contain a full account of the repairs in progress during the month.

2 The season has been unfavorable for the spread of irrigation, but, in spite of this, the settlement just over shows an increase of wet cultivation of 50 per cent, i.e., of 3,000 acres. This is to an insignificant extent due to garden crops, which in previous years to some extent took water as dry crops by flooding; but two-thirds of the total increase is in Cuddapah District in rice only on sandy soil.

3 I am glad to say that no cases of neglect of due attention, asking for bribes, nor intentional false entries have been proved against the Company's servants. One case of accusation, as it were by round robin, was vaguely made by the ryots of one village in Cuddapah. The whole of the petitioners, however, on reference being made to them, denied their signatures, or rather denied that they authorized their names being attached, and all knowledge of the petition or of guilt in the Overseer.

4 In reference to an interesting question of the origin of the adoption of the present system of ridge distribution, to which some allusion was made in one of my reports, and which has been apparently misunderstood, I think I should explain the facts. Up to within a fortnight of the termination of the supplemental contract time agreed to between the Company and the Secretary of State, (viz., 31st July 1875) the present ridge system was not only unrecommended by Government Officers, but was opposed to the orders of Government and to the advice of the Government Officers so far as I know. Previous to that date, contours only had been approved by Madras Government, and ridge channels with low inclination (and consequently with frequent masonry falls to overcome the fall of the ground) had been recommended by the Government Officers. This recommendation was impracticable within the limits of the contract money and time (1) on account of the expense of a reticulation of hundreds of branches, each provided with numerous masonry works (sometimes ten or twelve to the mile) led up to with high and broad banks (G O, No 1,617, of 19th June 1871, end), and (2) from the difficulty of accurately levelling out and supervising such scattered masonry works. In their Order, No 1,617, of 19th June 1871, the Madras Government for the first time, so far as I know, withdrew the condition that distributing channels must never have a calculated velocity of over 2,000 yards an hour; and so first rendered it possible for the Company to spend a rupee of either capital or loan on the existing ridge channel system.

5 The usual table of rainfall accompany this report.

KURNOOL,
15th June 1875

(Signed) J H LATHAM,
Chief Engineer

Proceedings of the Madras Government, Public Works Department,
21st July 1875.

Register of Rainfall in inches and decimals of the following stations during the month of
May 1875 at 6 A.M. daily

Month and Date	Sonkesala	Kurnool	Jupaud	Velapanur	Jutour	Ajaloor	Chinta Gounta	Dhoor
1st May 1875	Nil	Nil	Nil	Nil	Nil	0 09	0 63	
2nd do	0 30					Nil	0 06	
3rd do							0 04	
4th do							Nil	
5th do								
6th do								
7th do			0 10					
8th do			Nil					
9th do								
10th do								
11th do								
12th do								
13th do								
14th do	0 70	0 25		0 50	0 70	0 90		
15th do	Nil	Nil		Nil	Nil	Nil		
16th do								
17th do								
18th do							0 16	
19th do							Nil	
20th do	0 30	0 12	1 50	0 20				
21st do	Nil	Nil	Nil	Nil				
22nd do		0 02						
23rd do	0 85	Nil						
24th do	Nil	Nil					0 12	
25th do	1 40	2 28				0 01	0 21	
26th do	Nil	Nil				Nil	Nil	
27th do								
28th do							0 78	
29th do							Nil	
30th do								
31st do	0 80	0 05						
Total	4 35	2 72	1 60	0 70	0 70	1 00	2 30	3 37

KURNOOL,
— June 1875

(Signed) J H LATHAM,
Chief Engineer and Manager

SUBMITTED for the information of Government

The remarks of the Chief Engineer and Manager on the ridge and contour systems of distribution appear to be applicable to a particular case, and the velocity, which was limited in an Order, dated the 31st May 1871, No. 1,477, was left to the discretion of the Company's Officers in G. O. of the 19th June 1871, No. 1,617. This office letter, No. 13,* of the 5th March

* Appended

last, referred to in Mr. Latham's letter, printed in Proceedings Madras Government of the 3rd May 1875, No. 1,243, shows what the views of the Government and Company's Officers respectively were. Paragraph 4 of this latter letter from Mr. Latham appears to be hardly consistent with the present report.

2 As the settlement has been completed, the form E statements, showing the revenue of the past year, will doubtless soon be submitted by the Collectors of Kurnool and Cuddapah

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,
Officiating Chief Engineer

Proceedings of the Madras Government, Public Works Department,
21st July 1875.

From Lieutenant-Colonel J MULLINS, R.E., Chief Engineer for Irrigation, to J H LATHAM, Esq., Chief Engineer and Manager, Madras Irrigation and Canal Company, dated Camp at Kalgherry, 5th March 1875, No. 13

In paragraph 5 of your letter, No. 4, of the 13th January 1874, in speaking of the necessity for substituting ridge for contour channels in certain cases, there occurs the following remark

"and when the Company has, at the suggestion of the Government, already spent on contour channels enough money to provide the whole of the villages with ridge channels, and it has been found that much of this expenditure is lost," &c., and on reading it, there appeared, so far as my recollection went, to be some error in this statement, but I was not at the time able to find the correspondence on the subject which I remembered had taken place many years before

2 If you will refer to my letter, No. 55, of the 23rd June 1866, it will be seen that your original proposition was to distribute water for irrigation by connecting the several sluices of the main canal with the natural drainage lines of the country from which again distributaries were to be taken off as required, and that, in paragraph 6 of that letter, the tract of country (under the 4th section of the canal) was generally described, and the following suggestion was made "It seems to me that it would be preferable to run a main irrigation channel along the watershed of each principal undulation with branches along the watersheds of the minor ridges connected therewith," and in your reply* you stated at length your reasons for preferring contour

* No. 271, of the 19th July 1866
channels. All the correspondence will be found noted in Proceedings of the Madras Government, 10th December 1866, No. 3,894

3 Again, if you will look at the letters from the Chief Engineer and from Mr. Dodson, printed in Proceedings of the Madras Government, 10th September 1868, No. 2,882, you will see that the former says: "Mr. Dodson's reasons for abandoning the system of ridge channels in favor of contour channels discharging into existing vagoes, whence the water is taken up again at convenient points by fresh contour channels, appear conclusive"

4 So far then it would seem that this office was in favor of ridge channels, and that the officers of the Company preferred contoured distributaries; but in 1871 when the late Major Ryves was acting as Chief Engineer for Irrigation, the opinions were reversed, and this officer advocated contours for the minor branches generally as well as for the principal, and two minor branches which, as designed, were to be "carried along a sloping contour across the general fall of the country with a moderate declivity," and he says: "I think it would have been better, with a view to economy of water and to the convenience of the cultivators, to have laid out the channels, as far as possible, on contour lines sloping back from the main canal" The further correspondence appears to be contained in Mr. Browning's

Agent's No. 296, of the 7th July 1871.

No. 311, of the 30th June 1871, and Major Ryves' reply, No. 80, of the 11th July 1871, which appears to leave the matter pretty much to the discretion of the Company's Officers, though he was still disposed to prefer contour channels.

No. 525 ORDER THEREON, 21st July 1875, No. 2,076

IRRIGATION, No. 52.

ORDERED to be recorded.

(True Extract)

(Signed) J. O. HASTED, Major, R.E.,

Offg. Joint Secretary to Government.

To the Chief Engineer and Manager, Madras Irrigation and Canal Company
" Chief Engineer for Irrigation
" Revenue Department

Exd A Grubert
Spare Copies

Contours channels, appear conclusive

4 - So far then it would seem that this

4
Office was in favor of ridge channels

& that the Officers of the Company

preferred Contour distributaries,

but in 1871 when ^{the late} Major Ryves was

acting as Chief Engineer for Irrigation

the opinions were reversed and this

Office advocated contours for the minor

^{Generally} branches, as well as for the principal
two minor

branches which, as designed, were to

be "carried along a sloping contour across

the general fall of the country with a

moderate declivity" and he says "I think

it would have been better, with a view

to economy of water and to the convenience

of the cultivators, to have laid out the

channels as far as possible, on contour

lines sloping back from the main canal"

The further correspondence appears to

be contained in Mr Browning's No 246

dated 30 June 1871 and Major Ryves's reply

No 50 of the 11th July 1871, which appears

to leave the matter pretty much to the

discretion of the Company's officers,

Agents' No 246 of
the 7 July 1871

he was "old Indian" - perhaps another
name -

Campah
Kahsherry.

14 April 1876

To the Chief of the Manager in 1866
In paragraph 5 of your letter No 1 of
13 January 1876 in speaking of the
prohibiting ridge for custom channel
in certain cases there occurs the following
remarks "and when the Government
has, at the suggestion of the Government
already spent on custom channel
enough money to provide the whole of
the villages with ridge channels, and
it has found that much of this
expenditure is lost" etc, and on reading
it there appeared to me as my recollection
went to be some error in this statement
but I was not at the time able to find
the correspondence on the subject which
I remembered had taken place many
years before

2. If you will refer to my letter No 1 of 6 May
the 23 June 1866 it will be seen that
your original proposition was to destitute
water for navigation by connecting the
lower channel of the river with the

one which again distributaries were
 to be taken off as required and that in
 para 6 of that letter the tract of country
 under the 1st Section of the Canal forms
 generally described and the following
 suggestion was made "It seems to me
 that it would be preferable to run a
 main irrigation channel along the
 watershed of each principal undulating
 with branches along the watersheds of the
 minor ridges connected therewith", and
 in your reply you stated at length
 your reasons for preferring contour
 channels - All the correspondence
 will be found noted in Pmly 10 December
 1866 no. 3894.

* No 271 of the 19th July
 1866

2. Again if you will look at the letter
 from the Chief Engineer & from Mr Dodson
 printed in Pmly 10 Sept. 1868 no. 2882
 you will see that the former says
 "Mr Dodson's reasons for abandoning the
 system of ridge channels in favor of
 contour channels discharging into
 a big ravine, whence the water is taken
 up again at convenient points by fresh

Tomahawk & Co. 1875
R. H. 117.

N. 13.

2^o Highest Eng &
Manager
N. 1460

By 5th March 75
D. 13

Papers received

86 R 966. 14 April 71
Subject R 30-11 Aug 71
R 86 R 1477. 31 May 71 R 1168
Tomahawk 7 Aug 71 R 262
86 R 3094. 10 Dec 71
Tomahawk 710 June 66 R 118
R 25 Aug 66 R 215
R 22 Aug 66 R 213.
R 21 April 65 R 495
86 R 800-23 March 65
Subject R 460-5 April 65
R 22 April 65 R 1312
86 R 2092. 10 Sept 65
Subject R 92-12 Aug 66
R 55-23 June 1875

Regarding the
substitution of
under for contour
channels.

N. 4504 / 75.
3

business at convenient points by post

Irregularities.

N. 31

Submitted for the information of
Government.

Enclosures. The remarks of the Chief Engineer
and Manager on the bridge and contour
signs of distribution appear to be
applicable to a particular case and
the velocity which was limited in an
order dated the 31st May 1871. At 1477,
was sent to the direction of the Engineer.
The Engineer in R. O. of the 17th June 1871
of the 1871. This officer's letter of the 13th of the
will not be referred to in either
of the letters printed in New Madras
Government of the 1871. In 1871,
and the views of the Chief
and the Engineer respectively
were given in this letter from
the Engineer's response to the letter of the 7th
incident with the present report.

2. The settlement has been completed.
The form is a statement of the
amount of the first year's contribution

now he submitted by the collectors of
Kurnool and Luddapah.

Offg: Chief Engineer
Lieut Col. R.C.

(Col. Command)
26 June 1875.

To: The Offg. Secretary to Government.
S.H.C.

90319 May 1/78 Rs. 579.520
19 June - 523.523
7 July 75 - 448 449
3 Aug - 54-55
21 - 579.580

P. W. 1875 Defat.
Rs: 4504

From

The Offg. Chief
Engineer

Dated 26 June 1875.
Recd. 10 July 1875.

E. 31/ Rs: 31.

Submitting letter from
the Chief Engr. In. I & C.
forwarding reports on
the works of the In. & C.
Co. for May 1875.

S. 6. 2076. 2-7-75.

Rs 521.

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8. H. 6. 8 -
 Proceedings of the Board
 Read the following

From
 The Chief Engineer
 for Navigation (H. E. No. 31 dated 26 June 1875)

2076
 (Ordered to be
 recorded.)



Tollkeeper's Manager - Sir. H. at 62	3
1st Sup. for Sir	5
Rev. Dept.	20

SC Depd - 29-7-75-

504/10/504 ✓
Board of 1875 Madras.
PUBLIC WORKS.

To

Chief Engineer.
M. S. & C. Co.

Date

From

Re

Incl

1875, No 576
1875, No 576

Nos. 5-11-5-25-

Report on the work of the
S. & C. Co. for the month
May 1875. Endowment
S. & C. Co. Chief Engineer sub-
mitting letter from the Chief
Engineer, M. S. & C. Co.
Accordingly — ordered to be
filed.