

- (1) பக்கங்களின் எண்ணிக்கை - 12 -
 (2) புதுக்கித் திருப்பிய நாள் 21. 10. 90
 (3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம் 10-2

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

PWD துறை

78

அரசாணை எண். <u>3024</u>	அச்சகம் பலவகை
மு. கோப்புத் தாள் எண்.	
நாள் : <u>11-11-1891</u>	198

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

6 Sheets

10TH NOVEMBER 1891, MIS. NO. 5786, REVENUE.

GOVERNMENT OF MADRAS.
REVENUE DEPARTMENT.

3024
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READ—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 2nd November 1891, No. 6310, Mis. :—

MR. CLOGSTOUN.

Read—the following letter from O. WOLFE-MURRAY, Esq., Acting Collector of Cuddapah, dated 27th October 1891, Extra No. 341 :—

I have the honour to inform you I conducted another experiment with dynamite here on the 25th instant.

2. For the few preceding days, except the 24th, there had been drizzling rain fair for dry crops, but of no use for tanks, as the rain took so long in falling that not a drop of water ran anywhere. There are plenty of clouds, however, and I determined to try what explosions would do. The rain on previous days was as follows :—

	Inches.
October 22nd	·40
„ 23rd	·30
„ 24th	Nil.

Each day the rain took several hours to fall; the 24th was similar to the preceding days, only the drizzle fell several miles away; the 25th was going to be a similar day as far as one could judge, as there was the same kind and amount of cloud with sunshine now and then.

3. I had no time to make a balloon and there was no wind to fly a kite. Between 11 A.M. at midday in bright sunshine I exploded 100 lb. of dynamite in ten charges in ten places extending over 450 yards on a high rocky ridge $1\frac{1}{2}$ miles from here. Before 5 P.M., while the sun was still shining, heavy rain began to fall suddenly; in less than half an hour the country was fairly swimming. Channels were running and water came into tanks; the huts in the American Mission compound were all but flooded. Such a thing has not occurred here this year. The rain was unaccompanied by wind or thunder until it had passed onwards to the west when thunder and lightning occurred. The nature of the rain was so different to any that fell on the preceding days and to the similar but diminished drizzle that fell on the day succeeding it, which was of a similar kind, that one can hardly doubt the dynamite produced it. The shower extended over perhaps 20 to 30 square miles; at the Taluk cutcherry 60 inches was gauged; in other parts it was heavier; the Sub-Collector estimated it at one inch at his house.

The explosions were arranged for minute intervals and went off as fairly as uncertain time-fuses allowed, except that one fuse failed to ignite and three explosions took place in the same minute. This experiment and those in America seem to show that if extended and gentle rain is desired, explosions should be carried out at distant intervals over a large area; if heavy and local rain is desired, the explosions should be carried out as they were here on the 25th.

It is no doubt better to explode up aloft as less dynamite seems to be required; but without proper electrical appliances the risk is increased and also the expenses as balloons are required.

The cost of the experiment was Rs. 170 in round number and I judge that for Rs. 1,700 all the tanks in the neighbourhood could be filled if suitable days are selected, and many thousand rupees saved to Government, to say nothing of the advantages to the ryots. I have not enough money left to carry out another similar experiment; moreover I have not the time. Even assisted by an Executive Engineer on the Railway here and by Mr. Auld (now gone away), the whole business occupied me for 4½ hours, and as I saw to every thing myself, even to running round over rough rocks and seeing the fuses duly lighted under a midday sun, I found it extremely hard physical work, to say nothing of its danger, for according to the Executive Engineer nothing is so uncertain as dynamite and the fuses now used. I do not know if Government propose to follow the matter up. I have collected a good deal of information on the subject from Burma and America. I find much interest is taken in the matter all over India and I can put my hand on men who will supply balloons and take the matter in hand. I have also learnt how to make cheap balloons and fill them in this gasless country; they can be used over and over again. It almost seems as if the famine problem were solved and the Famine Code is to become a nonentity, at least in the South of India where, as Sir D. Brandis has observed, the amount of cloud is always far greater than in the North of India. If this should prove to be the case, I shall accept with pleasure any reward the Government may be pleased to offer.

Resolution—dated 2nd November 1891, No. 6310, Mis.

Submitted for the information of Government.

2. The thanks of the Board are due to Mr. Wolfe-Murray for the trouble he has taken in carrying out this interesting experiment.

3. Unless the state of the season renders an early repetition of the experiment very desirable, it will perhaps be well to await the report of the Commissioner appointed by the United States Government on the result of the numerous experiments in rain-making lately carried out in Texas.

(A true Copy and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Secretary to Government, Revenue Department.
Copy to the Collector of Cuddapah.

ORDER—dated 10th November 1891, Mis. No. 5786, Revenue.

The Government considers it of much importance that the investigation should be further prosecuted without delay and resolves to direct that experiments be carried out at once by the Department of Public Works at Bellary. The necessary orders will issue in that department.

2. The Financial Department will be requested to make an allotment of Rs. 2,000 for the purpose.

(True Extract.)

(Signed) C. A. GALTON,
Secretary to Government.

To the Department of Public Works.
„ the Financial Department.
„ the Commissioner of Revenue Settlement, Land Records and Agriculture.

Exd. A. Aubert.

50 Copies.

3024
2

Gobt. of {1891} Madras.
REVENUE.

Issued

Recd.

Encl.

G.O., 10th November 1891,
Mis. No. 5786.

NOVEMBER.

Rain-making experiments by
dynamite.

Considering it of much importance that the investigation of — should be further prosecuted without delay; directing the experiments to be carried out at once by the Public Works Department, Bellary; and requesting the Financial Department to make an allotment of Rs. 200 for the purpose.

REVENUE DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following Proceed

ings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture) dated 2^d November 1891, No. 6310 on the following letter from A. Wolfe Murray Esquire, Ag. Collector of Cuddapah, dated 27 October 1891. Extra No. 341.—

I have the honor to inform you I conducted another experiment with dynamite here on the 25th Instant.

For the few preceding days except the 24th there had been drizzling rain fair for dry crops, but of no use for tanks, as the rain took so long in falling that not a drop of water ran any where. There are plenty of clouds, however, and I determined to try what explosions would do. The rain on previous days was as follows

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Each day the rain took several hours to fall; the 24th was similar.

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It is no doubt better to explode ^{at a} soft as less dynamite ^{sum.} seems to be required but without proper electrical appliances the risk is increased and also the expenses as balloons are required.

The cost of the experiments was

was Rs 170. in round number
and I judge that for Rs 1700 all the
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similar experiment. Moreover,
I have not the time. Even assisted
by an Executive Engineer on the
Railway here and by Mr. Auld
(now gone away) the whole business
occupied me for $4\frac{1}{2}$ hours and
as I saw everything myself
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rocks and seeing the fuses duly
lighted under a mid-day sun I
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cal work to say nothing of its
danger for according to the Execu-
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Resolution

Submitted for the
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Order thereon, 10 November 1891, No. 5786.

The Government considers it of
much

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tion should be further prosecuted
without delay and resolves to direct
that experiments be carried out at
once by the Department of Public
Works at Bellary. The necessary orders
will issue in that Department.

2. The Financial Department
will be requested to make an allotment
of Rs 2000 for the purpose.

(True Extracts) 30²⁴/₆

(J)

W. Brodie
for Secretary to Govt.

To the Dept of Public Works. ✓
Financial Dept.
Comd of Rs. L.R. &c.

urgent

Recd. 11-11-91

By No. 3024 Wd 11th Nov 1891

1. Communicated to the Supdy. Engineer III Circle who will arrange for at once continuing the experiment at Bellamy

(6)

2. Detailed instructions will be issued by the Supdy. Engineer

Wd 11th 91

S 12/11

W. E. III Circle

Rev. Secy

The Chief Eng. is original

Eng. P. B. Account
J 12/11