

(1) Number of pages _____

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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.**Government of Madras.***public works* **DEPARTMENT.**

G.O. No.	151	Press ~~Mis.~~
306-307		
Dated	15-1-	1866.

Not to be folded or roughly handled

Approving of the Estimate of Rupees 146 for correcting the
Lightning Conductor of the Magazine, at Mangalore, South
Canara District. } (Here enter 9th January 1864, No. 94.)

1. Communicated to the Superintending Engineer, 7th Division.

* Rupees 146.

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

„ Accountant General.

„ Controller and Auditor of Public Works Accounts.

3.

*Pastor Young's Office
South Canara
Pastor 3^d December 1863*

*M. Winkler, Lieut Col. R.F.
Canara*

Abstract Estimate No. of 18/64.

South Canara

Work. Applying the new system of lightning conductor to the
Pondicherry Magazine at Mangalore.

Particulars of Work		Measurements		Total
		Length	Area	
Flat Copper Conductor 1/2" thick		45 3/4	-	13 1/2
Copper Nails	Lbs	-	-	1 3/4
Jungle wood bath		45 3/4	1 1/2	1 3/4
Wastage				1 3/4
Charcoal	Total Cu ft.			20
Chynam	Mostrals			1
Sand	Parahs			3
Excavating		62 1/2		9 3/4

Porter Range Officer
South Canara
Porter 3^d December 1863

Abd. F. G. S. S. S. S. S.
Assistant Engineer South
Canara

Abstract Estimate No. of 18/64.

South Canara

Work. Applying the new system of lightning conductor to the
Pondicherry Magazine at Mangalore.

Quantity	Description of Work	Rate	Amount	Total
13 1/2	Flat of Copper Striking 1/2" thick in square feet			
1	Wickings 1/2" x 10" Lbs	6 40	2 00	
1	Round Copper Nails	1 40	1 40	
50	Flat of Iron Chain	9 62	11 00	
2	Cuttings of Junglewood bath	1 8	3 00	
20	Mostrals of Charcoal	6 07	8 00	
1	Parah of Chynam	8	8 00	
3	Sand		1	
	Applying Large Conductor		10	
	Sanctas and Superintendence		12 50	145 00
Total Estimate Approx.				145 00

Porter Range Officer
South Canara
Porter 3^d December 1863

Abd. F. G. S. S. S. S.
Assistant Engineer South
Canara

Report to be attached to the Estimate for supplying
the new system of Lightning Conductors to the Mangalore
Powder Magazine, as laid down in the War Office Circular

The Mangalore Powder Magazine is of the usual
form, but is covered with tiled shed, which projects
about 3 feet beyond the building.

The present isolated Conductor is situated about 2 1/2 feet
from the walls of the Magazine, but projects through the
roof of the projecting shed, and is led into a dry well left dry.

To protect the building according to the new system,
the present Conductor is to be taken down and a portion
of it, sufficient to project 5 feet above the ridge of the shed,
is to be placed in the Centre and close to the Gable of
the Magazine, and from its foot, a trench is to be dug clearing
away from the Magazine and passing under the door
in the enclosing wall, this trench to be 18" deep 18' long.
And in it a portion of the old Conductor is to be laid,
from the termination of this trench two others are to be dug
25 feet long at right angles to each other and leading away
from the Magazine, along the bottom of which iron chains
are to be laid. These trenches are to be filled up to 1 foot
in depth with Charcoal and then with earth.

There are two Windows one in each gable covered with
perforated sheets of Copper. The main Conductor will pass
close to one into which it is to be connected.

From the other window a strip of Copper 3/4" wide is to be
led upwards to the roof, and over the ridge of the shed, to
the main Conductor, with which it is to be connected.

The Copper sheeting on the door is to be connected by a
strip of Copper with the window above it.

To fasten the flat Conductor to the ridge, single wood
laths 3" wide and 1/2" thick are to be laid along it and imbedded
in Chumam & to this the flat Conductor is to be fastened
by Copper nails and the same method is to be adopted in
applying the Connecting Conductor to the wall.

Director Range Office
South Canara
October 3. Decem 1883

Wm. J. F. L. Smith
Assistant Engineer
South Canara

*Enclosed in a letter from
 the Deputy Engineer to the
 No. 283 of 25 January 1864
 M. D. No. 65 of 1864
 27/1/64
 Estimate of 7/1863/64
 Work of repairing the new
 system of lightning
 conductor to the new
 Magazine at Mangalore
 Estimate No. 116. n. n.*

MILITARY DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following letter:—

On the Superintending Engineer 11th Division, Coonoor, 2nd January 1864, No. 283; to the Secretary to Government, Department Public Works, Madras.

In continuation of my letter, No. 113 of 26th August, I have the honor to submit an Estimate (with Plan) for correcting the Lightning Conductor of the Magazine at Mangalore, at a cost of Rupees 150. The delay which has occurred is accounted for by my having disapproved of the papers originally drawn up, and having sent them back for revision.

Enclosure 2.

I take this opportunity of calling your attention to the Indent which accompanied my letter, No. 239 of 24th November. For want of Copper-wire, the completion of the works of Coonoor Church is delayed.

Referred to the Military Department.

(Signed) C. A. ORR, Colonel, R. E.,
 Secretary to Government, P. W. D.

5th January 1864.

ORDER, No. 94, 9th January 1864.

Approved.
 (True Extract.)

Alamudin
 Deputy Secretary to Government.

To the Public Works Dept., with 2 enclosures.
 „ Quarter Master General.
 „ Insp. Genl. of Ord., for information.

100 spare Copies

Exd. J. E. Cashart

