

(1) Number of pages 164

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	<u>516</u>	Press
		<u>Mr.</u>
Dated	<u>1-8</u>	18 <u>77</u> .

Not to be folded or roughly handled

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

1st August 1877, No. 516 W.

Buildings and Roads.

Civil Works.

No. 5. Read the following paper:—

SPECIFICATION REPORT FOR FIXING LIGHTNING CONDUCTORS
TO MAGAZINES.

On the ridge, eaves, and gables, at the points marked in the plan, insert and firmly secure with best cement wooden bricks, as per plan H J, to receive the conductors.

Prepare copper plates $3'' \times \frac{1}{8}''$ for ridge marked F on plan to fit the curve of the ridge; lap, rivet, and solder to saddle plates C C $12'' \times 6'' \times \frac{1}{8}''$ at the apex of each gable, rivet and solder copper blocks B $3'' \times 3'' \times 3''$ tapped to receive upright copper rods A; lap, rivet, and solder copper plates D E $3'' \times \frac{1}{8}''$ to run down the gables and eaves as shown in plan, lap well all joints, rivet and solder securely, bore screw-holes, and screw the whole to the wooden bricks with copper $2\frac{1}{2}''$ screws.

Fix the two copper rods on the apex of the ridge marked A in plan 5 feet in height by $1''$ diameter, upper end armed with 4 or 5 finer small spread-out points, lower end tapped $2\frac{1}{2}''$ inches, screw home tapped end and solder these rods to the tapped copper blocks B, rivet and solder to upright rods and ridge copper plate $1'' \times \frac{1}{8}''$ stay or strut A'. Lap, rivet, and solder copper ties A' $1'' \times \frac{1}{8}''$ to saddle plates C C at apex of each gable, screw to wooden bricks immediately below apex of each gable, and other wooden bricks on ridge and eaves.

To fix copper earth conducting rod G $1''$ diameter on one side of the centre of the building, split the copper rod for $3''$ at both ends, insert copper eaves plates into upper split end, rivet and solder, connect wire rope to the staple of the door and attach with copper hook and eye to wire running on surface of the ground, and solder to conducting rod; run the copper conducting rod with no break of contact, into well 4 feet deep $\times$ 3 feet diameter, insert in the other split end copper harrow plates, rivet and solder to copper harrow. The harrow should consist of strips of copper $3''$ broad $\times$ $\frac{1}{8}''$ thick, arranged as shown in drawing, $21''$ square, all joints rivetted and soldered with earth points running through centres at their junctions, these should be pins of copper $\frac{1}{4}''$ thick and $6''$ long, the harrow points being well embedded in the earth, the well should be filled in with charcoal or coke (or other carbonic substance) and then covered with gravel or earth.

5/8

new gable, and

10/11/77 5/10/77 5/10/77 5/10/77

No. 6. ORDER THEREON, 1st August 1877, No. 516 W.

ORDERED that the plan and the specification prepared by the Deputy Chief Engineer be lithographed and printed for distribution to District Engineers and to other Departments of Government for future adoption as a standard design.

(True Extract.)

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

To District Engineers.
" Departments of Government.
" the Consulting Architect.

" *Inspector Genl. of Police*

Specification Report for Fixing Lightning Conductors to Magazines.

On the ridge, eaves and gables, at the points marked in the plan, insert and firmly secure with best Cement wooden bricks, as per plan H. J. to receive the Conductors.

Prepare Copper plates 3" x 12" for Ridge marked F on plan to fit the curve of the ridge; lap, rivet and solder to saddle plates C.C. 12" x 6" x $\frac{1}{8}$ " at the Apex of each gable, rivet and solder Copper blocks B. 3" x 3" x 3" to receive upright Copper rods A. lap rivet and solder Copper plates D.E. 3" x $\frac{1}{8}$ " to run down the gables and eaves as shown in plan, lap, well all joints, rivet and solder secure by, bore screw holes and screw the whole to the wooden bricks with Copper 2 $\frac{1}{2}$ " screws.

Fix the two Copper rods on the Apex of the ridge marked A in plan 5ft in height by 1" diameter, upper end armed with 4 or 5 finer small spikes out points, lower end tapered 2 $\frac{1}{2}$ inches, screw home tapered end and solder these rods to the tapered Copper blocks B, rivet and solder to binding rods and ridge Copper plate 1" x $\frac{1}{8}$ " stay or strut "D" lap, rivet, and solder Copper rods A 2" x $\frac{1}{8}$ " to saddle plates C.C. at Apex of each gable, screw to wooden bricks immediately below Apex of each gable, and

and other wooden bricks in
ridge and eaves.

To fix Copper Earth Con-
ducting rod $\frac{1}{2}$ " diameter
on one side of the Centre of
the building, split the Copper
rod for 3" at both ends insert
Copper Eave plates into upper
split end, rivet and solder.
Connect wire rope to the top
of the door and attach with
Copper hook and eye, to
wire running on surface
of the ground, and solder
to Conducting rod; run the
Copper Conducting rod with
no break of contact, into
Well 11 ft deep x 3 ft diameter
insert in the other split end
Copper harrow plates, rivet
and solder to Copper harrow.

The harrow should consist
of strips of Copper 3" broad
x $\frac{1}{8}$ " thick, arranged as shown
in drawing, 21" square; all
joints rivetted and soldered
with Earth points, running
through Centres at their junc-
tions, there should be pins
of Copper $\frac{1}{4}$ " thick and 6" long.

The harrow points being well
embedded in the Earth, the
well should be filled in
with Charcoal or Coke (or
other Carbonic substance)
and then covered with ground
or Earth.

Please examine work
very carefully. *W.H.*

15/8/77.

W.H.

W.H.
15.8.77

Specification Report
for Fixing Lightning
Conductors to Magazines

L. Q. L. Aug 1871 J. B. P. 5

Memorandum.

No standard plan
for the construction of and
attachment of lightning
conductors to buildings at
present exists. The frequent
submission of all descriptions
of plans for the purpose
many of them on wrong prin-
ciples renders the adoption
of a standard plan neces-
sary. That submitted has
been carefully prepared in
accordance with the views
expressed by Electricians
in their latest discussions on
the subject and the Chief
Engineer recommends its
adoption.

Wm. J. P. Police Dist. 8-71

910

The original of the
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 The specification was
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~~CONFIDENTIAL - DISSEM~~

Carlie

G. O. Hickey and Co. No. 51672

Cor 26.7.77 (6.7.77)

N^o 516 W Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

Read the following :—

Specification prepared by the Deputy Chief
Eng. W.D.

Ordered that the Plan be lithographed and the specification prepared by the Deputy Chief Engineer be printed for distribution to District Engineers and to other Departments of Government for future adoption as a standard design for ~~facing lightning conductors.~~

When a certain number of
is given on the other hand
specifically in the spring
especially in the spring
of 1911 I have seen one of the
to in the District of Columbia
District of Columbia
Dept. of Government
The Com. & Architect
of Police - DIST. 8-77

These records are
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Harris and are intended to be
struck -

By 227
17

James Smith

23/7

Public. 6 plans

Rev - 3 - a

Mag - 14 - a

Compt - 2 - a

Police - 25 -

12 copies of 5

Recd 26.7

Ret. 26.7

6.7.77

March 21st 1877



Gobt. of 1877 *India*
PUBLIC WORKS.

To *Nestor Langin*

Dated *2*

Encl. *1*

Recd. Encl.

G. O. *1st* *Dept* 1877. No. *576 W*

No. *5-6*

Standard Design for Right
wing Conductors to Magazine
The plan & specification pre-
-pared by the Dy Ch Insp ordered
to be lithographed & printed
for distribution and future
adoption as the —