

(No Model.)

G. W. DOWNEY.
LIGHTNING ROD.

No. 446,130.

Patented Feb. 10, 1891.

Fig. 1.



Fig. 3.

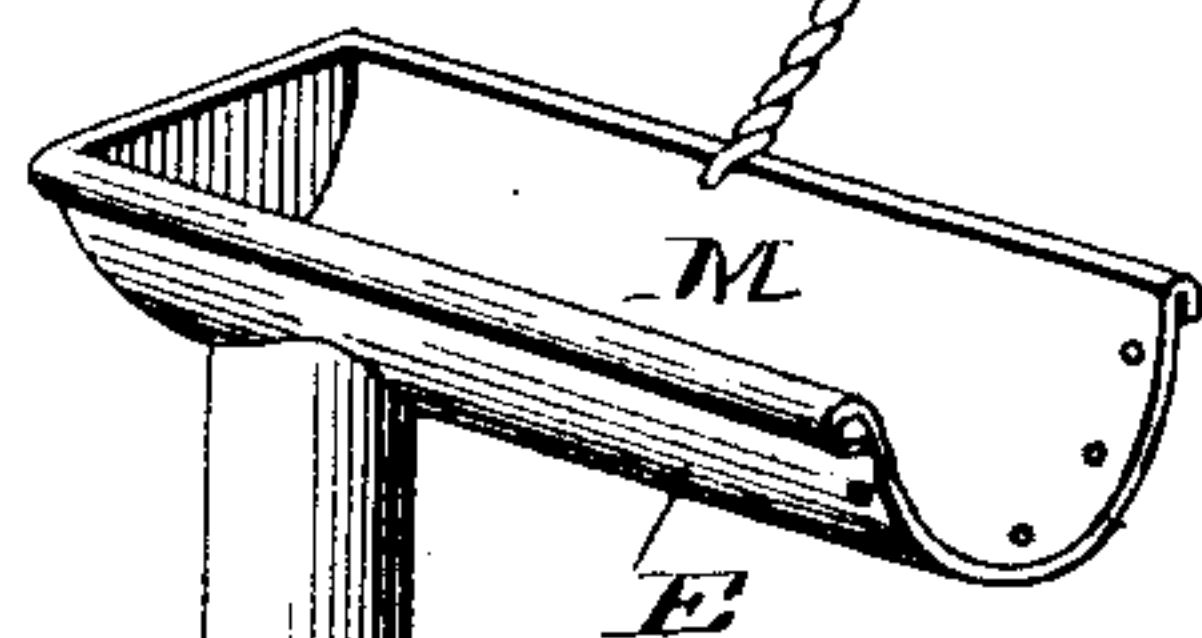
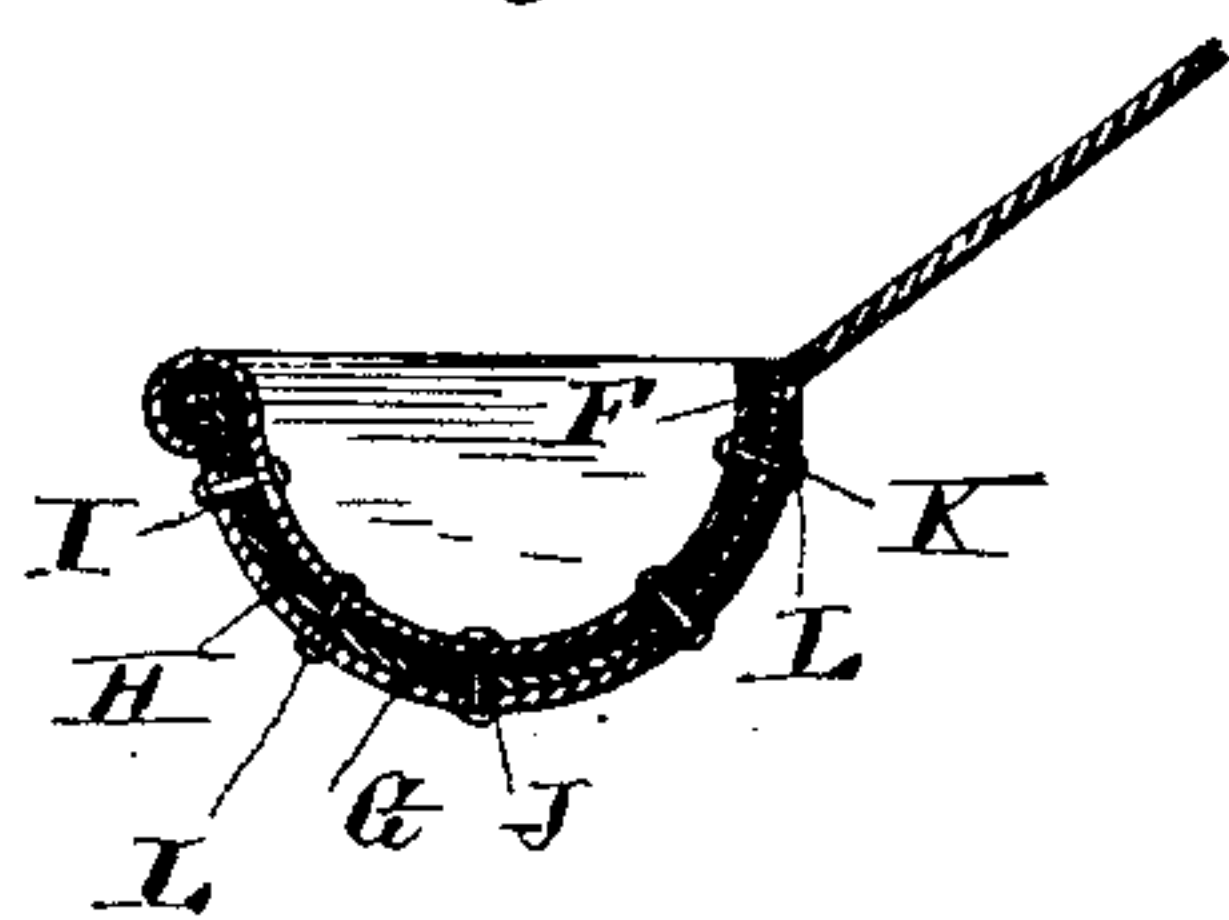


Fig. 2.

Fig. 4.

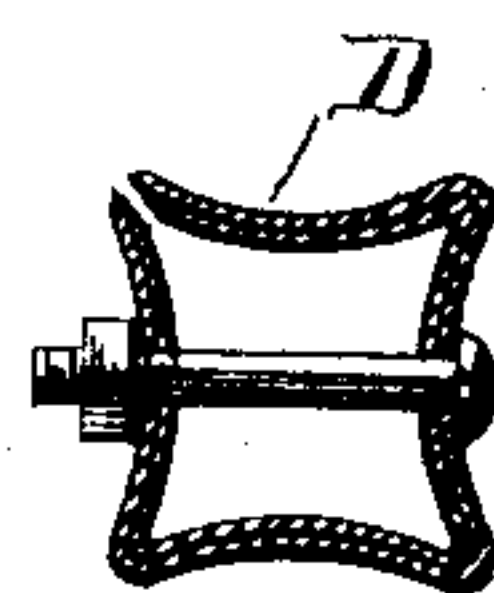
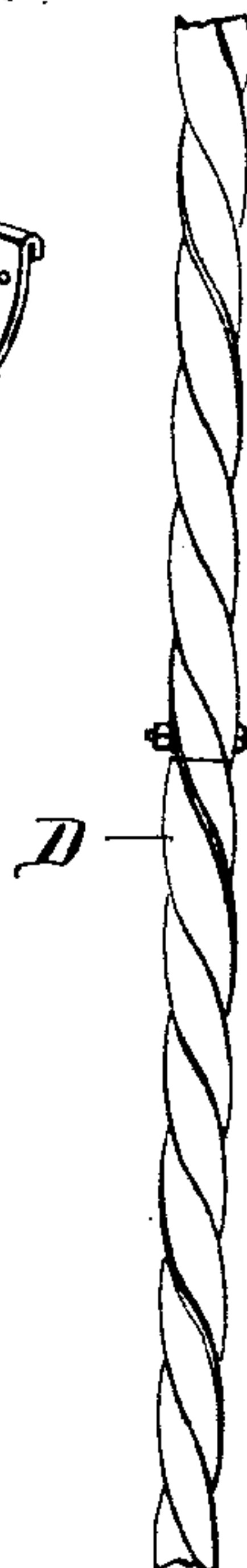


Fig. 5.

WITNESSES
J. L. Ourand.
W. Schneider.

INVENTOR
Geo. W. Downey
by Theo. Munger.
Attorney

UNITED STATES PATENT OFFICE.

GEORGE W. DOWNEY, OF HYATTSVILLE, MARYLAND.

LIGHTNING-ROD.

SPECIFICATION forming part of Letters Patent No. 446,130, dated February 10, 1891.

Application filed October 15, 1890. Serial No. 368,235. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. DOWNEY, a citizen of the United States, residing at Hyattsville, in the county of Prince George's and State of Maryland, have invented certain new and useful Improvements in a Lightning-Rod Section; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to lightning-rods; and it consists in a lightning-rod section, comprising a strip of sheet-copper angularly bent and twisted into spiral form and having corrugations between its angles and a small space between the adjacent edges of the said strip of metal, as hereinafter fully described and claimed.

Figure 1 is a view in perspective of a house provided with my improved combination of devices. Fig. 2 is a detail view of the eaves-trough, downspout, lightning-rod, and ground-rod. Fig. 3 is a transverse section of the eaves-trough, showing the lap-joint, the asbestos packing, and the copper rivets. Fig. 4 is a detail perspective view of a section of copper spirally-fluted rod, showing the open places between the adjacent edges of the sheet or strip of copper from which the rod is formed, and showing, also, the screws used to connect the sections of the rod; and Fig. 5 is a transverse sectional view of the rod, taken just above the joint, at which two sections are connected by the bolt and nut.

Referring by letter to the accompanying drawings, A and B designate portions of a building having an inclined or pitch roof C,

to which the lightning-rod D is secured in any well-known and approved manner.

E is the gutter or eaves-trough, which is of the ordinary shape, and is made in sections for convenience in handling, the curved walls F G of each section being concentric and separated by a filling H of asbestos to make the gutter a conductor of electricity, and held together by rivet-bolts I J K, having nuts L on their external ends, which ends are upset in the ordinary manner to secure the nuts tightly in place after they have been properly turned home. The gutter or eaves-trough E is provided at the proper places with the outlet or discharge sections M, to which the downspout P is jointed, in the usual manner. At its lower end the downspout is provided with a discharge-spout Q, or a pipe may lead therefrom to any convenient cistern or the like. From the lower end of the downspout or the discharge-spout, if need be, a ground rod or wire R leads to the ground to conduct the electric current into the ground.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A lightning-rod section comprising a strip of sheet-copper angularly bent and twisted into spiral form and having corrugations between said angles and a small space between the adjacent edges of the said strip of metal, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

GEO. W. DOWNEY.

Witnesses:

THEO. MUGEN,
JOS. W. DENEANE.