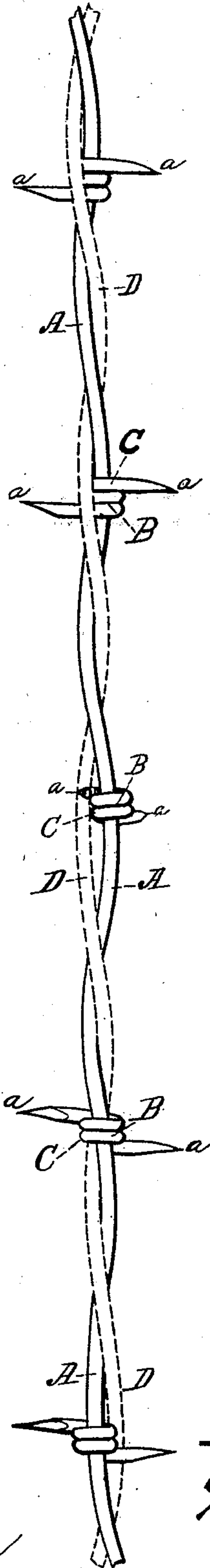


T. H. DODGE.  
LIGHTNING ROD.

No. 282,449.

Patented July 31, 1883.



Witnesses:

Edwin C. Moore  
Albert A. Parkin

Inventor:

Thos. H. Dodge

# UNITED STATES PATENT OFFICE.

THOMAS H. DODGE, OF WORCESTER, MASSACHUSETTS.

## LIGHTNING-ROD.

SPECIFICATION forming part of Letters Patent No. 282,449, dated July 31, 1883. -

Application filed December 15, 1879.

*To all whom it may concern:*

Be it known that I, THOMAS H. DODGE, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented  
5 certain new and useful Improvements in Lightning Rods or Conductors; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being  
10 had to the accompanying drawing, forming a part of this specification, and which drawing represents a section of my improved lightning rod or conductor.

To enable those skilled in the art to which my invention belongs to make and use the  
15 same, I will proceed to describe it more in detail.

In the drawing, the part marked A is a copper wire or rod, having pieces of copper wire or rod B coiled about it, as shown at C,  
20 the ends of said pieces B being cut off sharp, as shown at *a a*, and which pointed ends *a* serve the purpose of equalizing or restoring an equilibrium between the electricity or electric fluid contained or accumulated in the  
25 building and that contained or accumulated in the clouds or atmosphere surrounding the building, thereby protecting the building upon which said lightning rod or conductor is placed from injury or damage from discharges  
30 of electric fluid from the clouds or atmosphere to the building, or from the building to the clouds or atmosphere. The end of the lightning rod or conductor which enters the ground should be inserted to such depth as to be all-  
35 ways surrounded by moist or damp earth, while the upper end may be provided with a forked point in the usual manner of attaching points to lightning rods or conductors. To give additional strength and support to the  
40 copper wire or rod A, it is in this instance

twisted or interlocked with a galvanized wire or rod, D, as represented in dotted and full lines in the drawing. The galvanized wire or rod D not only gives strength and support to the copper wire or rod A and its pointed pieces  
45 B, but also serves as a conductor to the electricity. The pieces of copper wire or rod B may be attached to the wire or rod A at greater or less distances apart, and I prefer to have them quite close together, as indicated in the  
50 drawing.

Those skilled in the art to which my invention belongs will observe the practical advantages of my said invention, since the numerous points *a* act to receive and discharge the  
55 electric fluid so rapidly as to prevent and protect the building upon which my said improved lightning rod or conductor is placed from sudden and great explosions or discharges of electric fluid. Then, again, the numerous sharp  
60 points, *a*, render it very difficult, if not impossible, for burglars to draw themselves up the conductor for the purpose of entering buildings at night.

I do not claim anything shown and described  
65 in the patent granted to Hawley February 6, 1866, nor in the patent granted to Munson July 25, 1872; but

What I claim as my invention, and desire to secure by Letters Patent, is—  
70

A lightning-rod comprising a twisted cable composed of a copper wire or rod and a galvanized iron wire or rod, and cross-pieces of sharp-pointed copper wire projecting from said cable at short intervals.

THOS. H. DODGE.

Witnesses:

EDWIN E. MOORE,  
ALBERT A. BARKER.