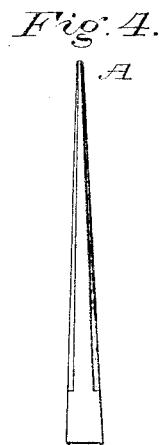
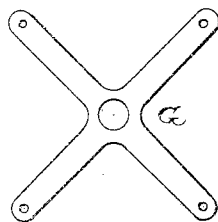
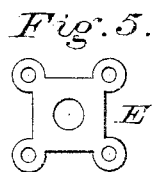
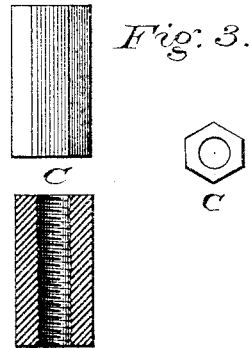
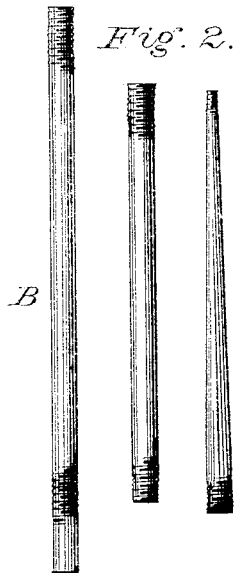
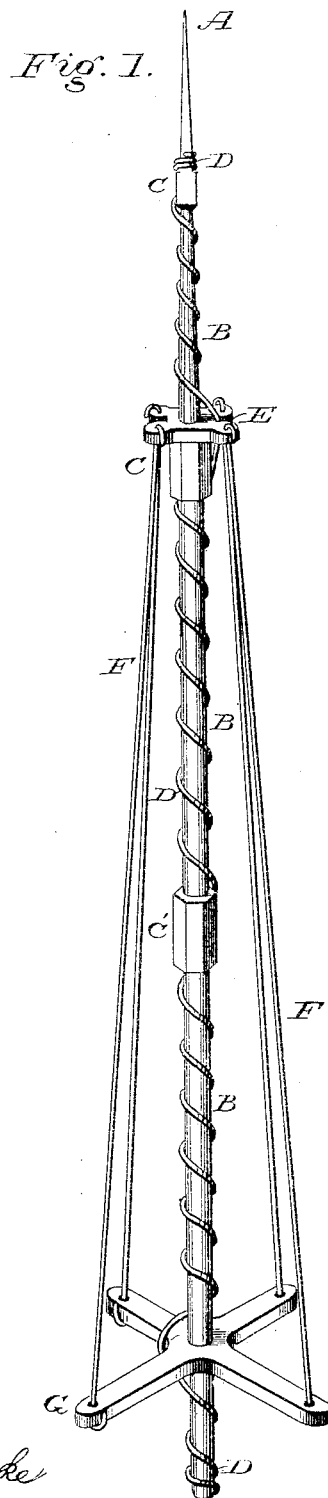


G. W. CAIN.  
Lightning-Conductor.

No. 218,708.

Patented Aug. 19, 1879.



Witnesses:

Mary C. Burke  
Edward Burke

Inventor.

George W. Cain

# UNITED STATES PATENT OFFICE.

GEORGE W. CAIN, OF NEWPORT, NEW HAMPSHIRE.

## IMPROVEMENT IN LIGHTNING-CONDUCTORS.

Specification forming part of Letters Patent No. **218,708**, dated August 19, 1879; application filed November 1, 1878.

*To all whom it may concern:*

Be it known that I, GEORGE W. CAIN, of Newport, in the county of Sullivan and State of New Hampshire, have invented a new and useful Improvement in Lightning-Conductors, of which the following is a full, clear, and concise description, reference being had to the accompanying drawings, making a part of this specification, in which the same letters indicate identical parts in the same figures.

Figure 1 is a perspective view of the conductor when ready for elevation. Fig. 2 is a view of the same in sections. Fig. 3 is a view of the coupling-boxes. Fig. 4 is a view of the point which receives the electricity. Fig. 5 is a view of the top and bottom supports of the braces.

I denominate my invention the "Independent, Isolated, Self-Supporting Lightning-Conductor."

I am aware that lightning-conductors have before been isolated from the buildings which they were designed to protect, being supported by one or more pieces of timber standing apart from said building.

My conductor is so constructed as to stand apart from the building independently of any support from outside structures or erections of timber or other material. By this means the conductor is entirely isolated from the building which it protects, and danger is thereby avoided from imperfect insulation or from moisture produced by rain or other cause; and in this consists the real point of my invention.

My improved conductor is constructed of iron, steel, copper, or other good conducting metal, as follows, viz: A is the point for receiving the electricity, and is connected by a coupling-box, C, with the upper portion or joint of the conductor B. B B', &c., are parts or joints constructed with male screws at each

end and united by the coupling-boxes CC', &c., which are constructed with appropriate female screws, in the usual manner. D is a copper wire wound around the conductor from the point A to the end to be inserted in the ground, the design of which is to increase the conducting power of the rod. E is a collar with projecting arms, which support the upper ends of the braces F F', &c., and G is a collar of the same form, which supports the lower ends of said braces.

The bracing-rods I also construct of copper or other good conducting metal. The base end of the conductor should be overlaid with copper, commencing immediately above the ground.

Thus constructed, the lower end of the conductor should be inserted in the ground at least eight feet deep, and from four to eight feet from the building to be protected, and the upper end or point should project from four to eight feet above the highest portion of the same building, or to a sufficient height above to protect the building.

My independent isolated conductor may be constructed of a single rod of wire or other suitable metal without joints, as above described.

Having above described my improvement in lightning-conductors, what I claim, and desire to secure by Letters Patent, is—

An independent, isolated, self-supporting lightning-conductor constructed with or without joints, as and for the purpose above described.

Witness my hand this 30th day of October, 1878.

GEORGE W. CAIN.

Witnesses:

MARY E. BURKE,  
EDMUND BURKE.