

UNITED STATES PATENT OFFICE.

EDWIN L. YANCEY, OF BATAVIA, NEW YORK.

IMPROVEMENT IN LIGHTNING-RODS.

Specification forming part of Letters Patent No. **132,615**, dated October 29, 1872; antedated October 24, 1872.

To all whom it may concern:

Be it known that I, EDWIN L. YANCEY, of Batavia, in the county of Genesee and State of New York, have invented a certain Improvement in Lightning-Rods, of which the following is a specification:

My invention consists, as an improved article of manufacture, of an iron lightning-rod coated with copper, substantially as hereinafter described.

The iron rod may be of any desired size or form, and either hollow or solid. This rod is covered with one or more coats of copper by dipping the same in the melted metal or by any other desired process, whereby the exterior becomes covered to produce the conducting-surface. If desired, several coats may be given to produce any desired thickness of the copper.

Lightning-rods have before been formed of an interior iron core and an exterior sheathing or case of sheet-copper properly prepared; but in such cases the two metals have been distinct and separate from each other and not in one integral body. There are many objections to such an arrangement. Such rods are very expensive and difficult to make; are loose and irregular in action; the sections cannot be easily joined; the continuity of the copper covering is frequently broken; water gets between the parts and rusts the iron; and the rod has to be made of large size to gain the proper stiffness and strength.

My invention obviates all these difficulties. The whole rod is in one integral body, as the copper coating adheres closely to the iron. The rod is very cheap, as a smaller quantity of copper is required to form the conducting-surface, and much labor is saved in making. There is no loose action of the parts. The iron is perfectly insulated and preserved from rust. There is no break in the continuity of the conducting-surface; hence it is more perfect in action than a copper sheathing. The rod can be made small and light, with the same or a greater amount of conducting-surface than the old form. The conducting-power is as great as a solid copper rod, while the rod is much stronger and stiffer.

I do not claim an iron lightning-rod sheathed with sheet-copper, as I am aware such is old; but

What I claim, and desire to secure by Letters Patent, as an improved article of manufacture, is—

An iron lightning-rod coated with copper so as to form a solid or integral body, as and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

EDWIN L. YANCEY.

Witnesses:

ANDREW S. HART,
C. W. TALLMAN.