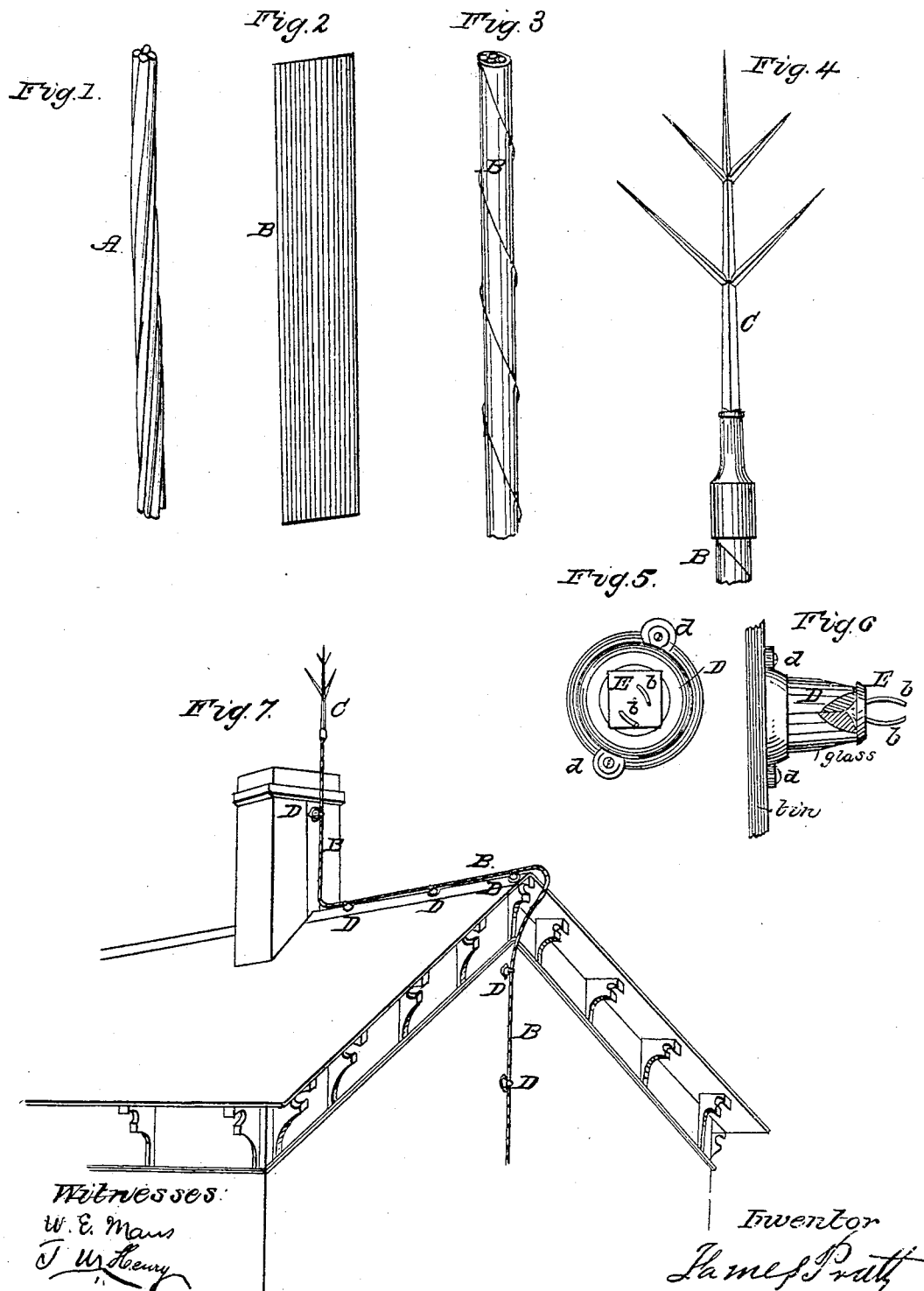


J. PRATT.  
Lightning Rod.

No. 45,632.

Patented Dec. 27, 1864.



# UNITED STATES PATENT OFFICE.

JAMES PRATT, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN LIGHTNING-RODS.

Specification forming part of Letters Patent No. 45,632, dated December 27, 1864.

*To all whom it may concern:*

Be it known that I, JAMES PRATT, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Lightning-Conductors; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and the letters and figures marked thereon, which form part of this specification.

In the said drawings, Figure 1 represents a view of the interior portion of my improved lightning-conductor; Fig. 2, a view of a section or portion of the continuous copper strip wherewith the part shown in Fig. 1 is inclosed; Fig. 3, view of the conductor when completed; Fig. 4, a view of the points affixed to the said rod or conductor at the top. Figs. 5 and 6 are top and side views, respectively, of the insulator which I use in putting up my improved conductors, and Fig. 7 shows my invention as attached to a house and in use.

The nature of my invention consists in novel mode of inclosing the central core of continuous twisted wires (marked A) with a continuous strip of copper, thereby inclosing said core of twisted wires in a copper tube which is continuous and unbroken, which is much cheaper than the ordinary mode of inclosing said core with a rigid tube of copper put together by joints, and is at the same time a much safer conductor, in consequence of the continuous nature of the same, and, besides, can be coiled up like ordinary wire, and hence can be put up at a much less expense of time and labor than the conductor formed by rigid and jointed tubing of copper.

To enable those skilled in the art to make, exercise, and use my invention, I will proceed to describe the same with particularity.

The central portion of my conductor, A, is formed by twisting or winding together several wires (marked *a*) of suitable size and num-

ber to form the core of the desired diameter, which is generally one-half of an inch. These wires are cut of sufficient length to make the conductor of the proper length for each particular place in which the same is to be used. I then take a strip of copper, B, of the same length of the wires aforesaid, or rather of such length that when wound around said central core obliquely, in the manner shown in the drawings, it will completely cover the same, and wind said copper strip around the cord of twisted wire obliquely in such a manner (the said strip being of the proper width and varying with the size of the central cord) that the said wires are compactly inclosed as by a continuous tube, while at the same time its pliability will permit the whole to be coiled up for transportation and readily uncoiled for use. Fig. 3 shows the conductor after the said copper strip is wound about the wires.

Figs. 5 and 6 represent the insulators used by me, although I do not claim them as my invention.

D represents a glass block fastened to the house by the screws *d*.

F is a zinc plate fastened upon the end of said block, and *b b* are wires passing through said plate E, by means of which the conductor is firmly attached to the insulators by twisting them around the same.

Having now fully described my improved lightning-conductor, I will specify what I claim as new therein and desire to secure by Letters Patent—

Inclosing the cord of continuous twisted wires with a continuous copper strip, arranged and operating substantially as and for the purposes herein shown and described.

JAMES PRATT.

Witnesses:

N. E. MARRS,  
F. H. BROWN.