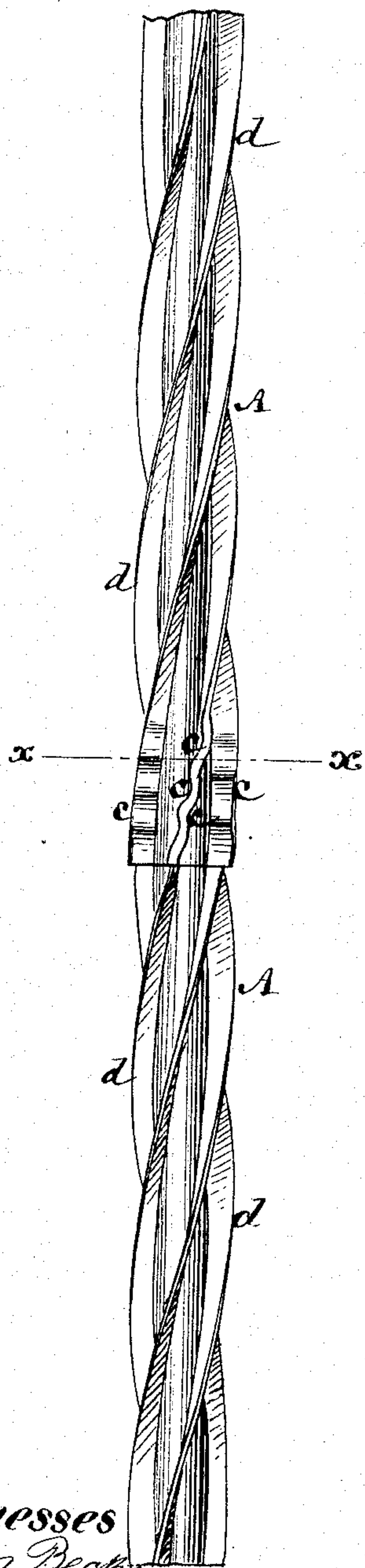


S. R. WILMOT.  
Lightning-Rods.

No. 159,007.

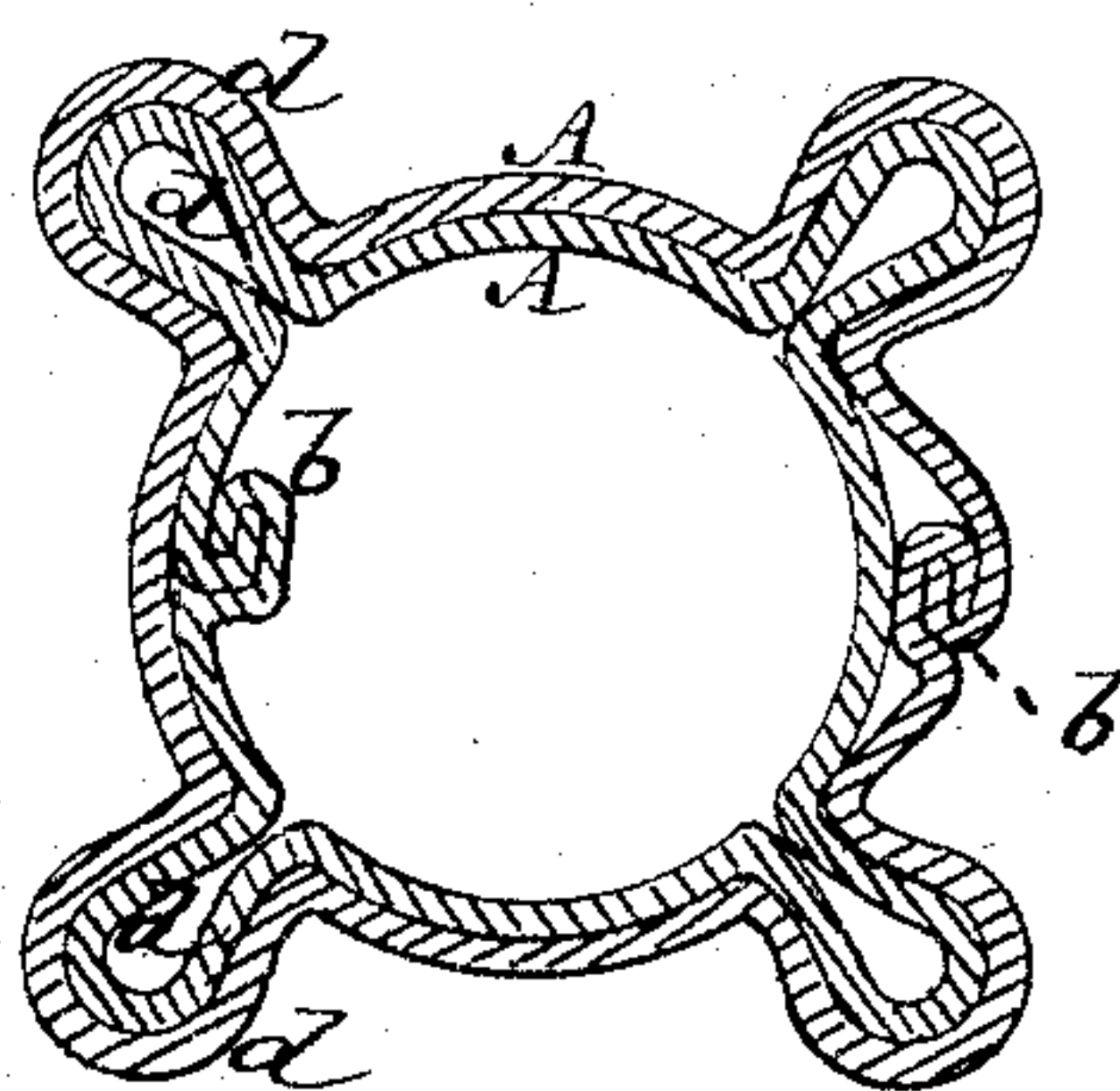
Patented Jan. 19, 1875.

*Fig. 1.*



Witnesses  
John Becker  
Fred Warner

*Fig. 2.*



S. R. Wilmot  
by his Attorneys  
Brown & Allen

# UNITED STATES PATENT OFFICE

SAMUEL R. WILMOT, OF BRIDGEPORT, CONNECTICUT.

## IMPROVEMENT IN LIGHTNING-RODS.

Specification forming part of Letters Patent No. **159,007**, dated January 19, 1875; application filed August 11, 1874.

*To all whom it may concern:*

Be it known that I, SAMUEL R. WILMOT, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain Improvements in Lightning-Rods, of which the following is a specification:

This invention consists in constructing the sections of a lightning-rod of a sheet-metal tube, the side edges of which are connected by a locked seam, which imparts great strength to the same, and prevents collapsing of the tube during the process of twisting the rod, and forming thereon the series of projecting hollow doubled wings, the result being that a lightning-rod thus constructed presents round closed outer edges, and combines cheapness with strength.

Figure 1 represents a longitudinal exterior view of a lightning-rod made in accordance with the invention, and Fig. 2 a transverse section of the same on the line *x x*, but upon a larger scale.

A A are two lengths or sections of the rod, fitted together, as hereinafter described. Each of these lengths is composed of a sheet-copper tube, preferably of a die-drawn locked-seam tube, having its seam *b* compressed and compacted from all sides, or in every direction, toward its center, as in the tube for which Letters Patent No. 137,991 were issued to me April 15, 1873. The object of employing a

locked-seam tube is not only to give increased general strength, but to avoid collapsing of the tube, when twisting it, and prevent one edge from working on the other. Each tube length or section A, being thus made with a die-drawn locked seam, is formed with any desired number of hollow doubled outer wings or ribs, *d*, by passing the tube through a die, and as said winged or ribbed tube leaves the die it is twisted as required. The one end of the one of such hollow winged or ribbed tubular sections is then slightly opened to admit of the insertion within it of an end of the other tube length or section, after which lateral indentations *c c* are made in the exterior of the wings to lock, bind, or unite the two sections, and this in a much stronger manner than if the indentations or corrugations, as they may be termed, were made in the edges of the wings.

I claim—

A lightning-rod composed of a locked-seam tube, formed with a series of hollow doubled projecting wings, *d d*, with rounded edges, substantially in the manner and for the purpose specified.

S. R. WILMOT.

Witnesses:

GEO. A. STAPLES,  
THEODORE E. VEIL.