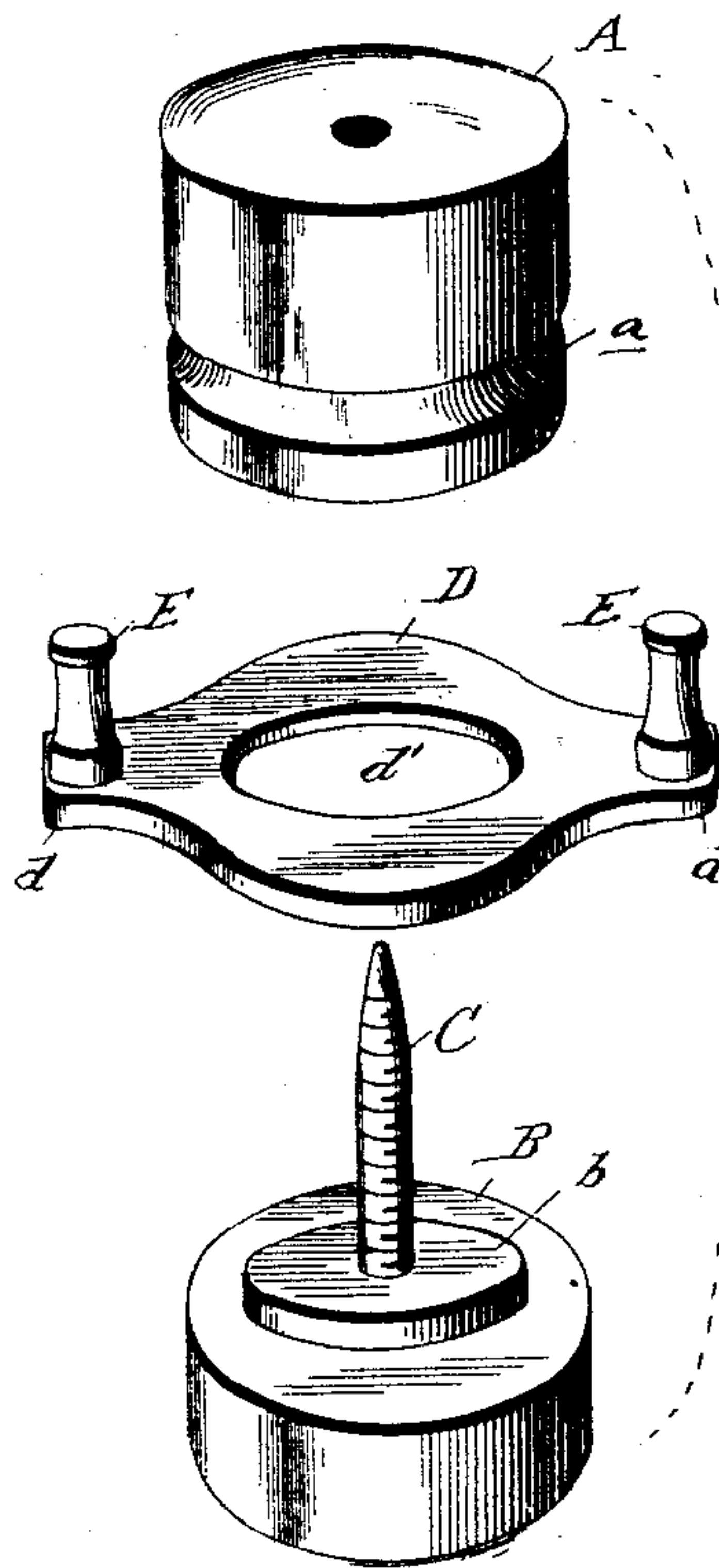
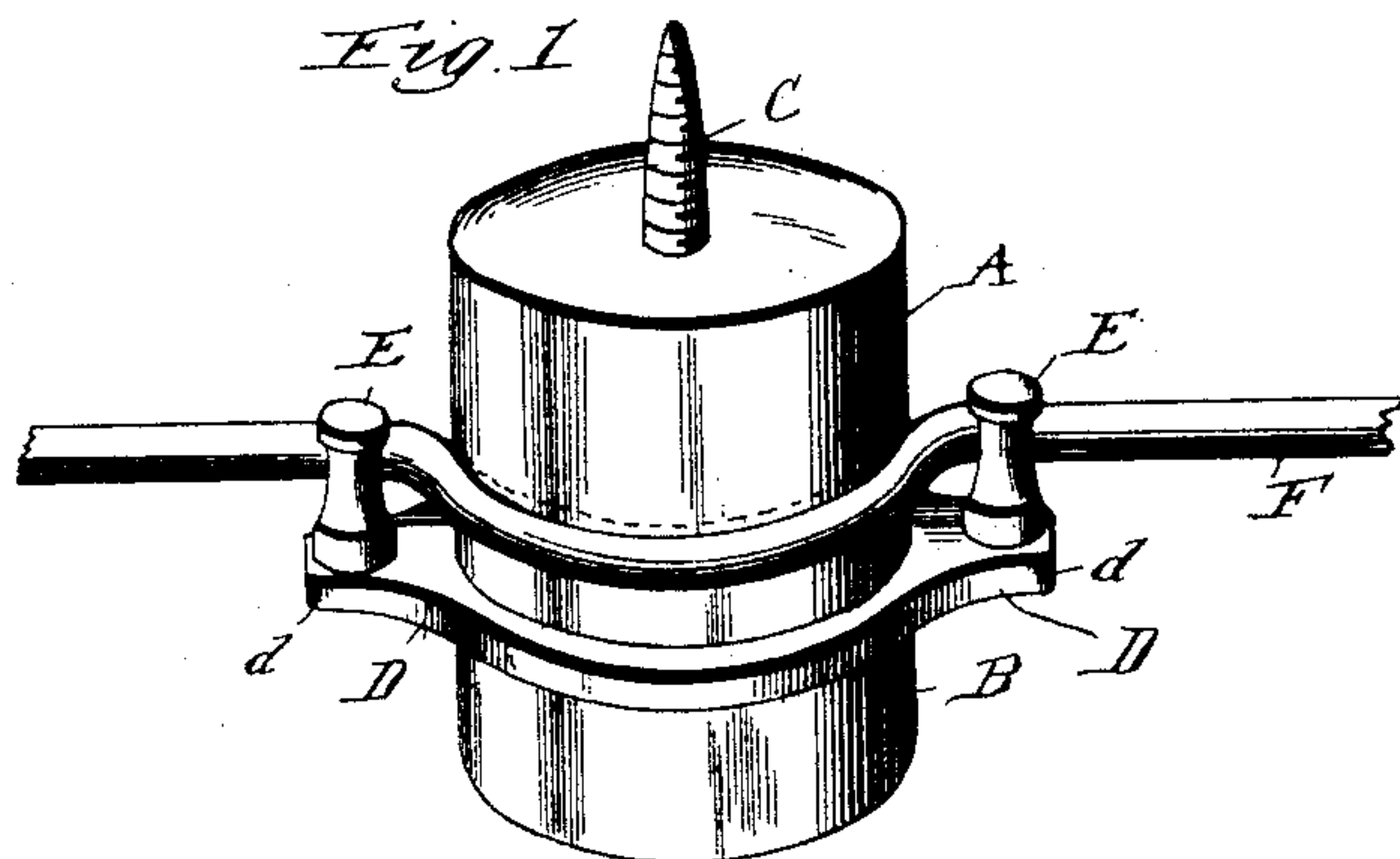


(No Model.)

J. C. BERRANG.  
INSULATOR.

No. 403,727.

Patented May 21 1889.



Witnesses,  
*C. H. Hays*  
Van Buren Hillyard.

Inventor,  
Jacob C. Berrang.

By his Attorneys

*R. H. Lacey*

# UNITED STATES PATENT OFFICE.

JACOB C. BERRANG, OF ASBURY PARK, NEW JERSEY.

## INSULATOR.

SPECIFICATION forming part of Letters Patent No. 403,727, dated May 21, 1889.

Application filed April 2, 1889. Serial No. 305,717. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB C. BERRANG, a citizen of the United States, residing at Asbury Park, in the county of Monmouth and State of New Jersey, have invented certain new and useful Improvements in Insulators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to insulators, and has for its object to provide a simple, cheap, durable, and efficient device for stringing electric wires on buildings or other supports and completely insulating the same.

The improvement consists of the novel features which will be hereinafter more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a perspective view of the insulator, showing the wire attached thereto; Fig. 2, a perspective view showing the parts detached and their relative arrangement.

The insulator is composed of four parts—the two insulating-blocks A and B, the bolt or screw C, and the plate D, the latter being held between the two blocks A and B, and having diametrically-opposite extensions *d*, which are provided with the vertical retaining-arms E. The plate D is centrally apertured at *d'* to receive a portion of one of the blocks, to hold it from lateral displacement. The opening and projecting portion of the block are of such shape that when the said portion is fitted in the said opening the plate D will be held from turning on the said block. By preference the projection *b* is formed on the lower block, B, and is oblong, and the opening *d'* is of corresponding shape.

The block A is provided with a groove, *a*, near its lower end, in which the wire is seated, and the arms E are contracted below their ends to receive the wire and hold it from vertical displacement.

The blocks and plate are held together by the same screw, C, which secures the insulator to the support. The wire F is bent around the block A and fitted in the groove *a* therein, and then about the arms E, in the usual manner.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein-described insulator, composed of the two insulating-blocks and the plate having arms held between the blocks, substantially as set forth.

2. The combination, with the two insulating-blocks, of the plate having retaining-arms held between the blocks, and having a central opening to receive a projecting portion of one of the blocks, substantially as described.

3. The combination, with the block A, having the groove *a*, of the plate D, having the retaining-arms E, substantially as and for the purpose described.

4. The herein shown and described insulator, composed of the blocks A and B, the block B having the projection *b* and the block A the groove *a*, the plate D, having the arms E and an opening, *d'*, to receive the projection *b*, and the screw C, combined and arranged substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

J. C. BERRANG.

Witnesses:

GEO. M. LANE,  
HARRY E. WARREN.