

No. 890,891.

PATENTED JUNE 16, 1908.

C. J. DORFF.  
INSULATOR PIN.  
APPLICATION FILED NOV. 18, 1907.

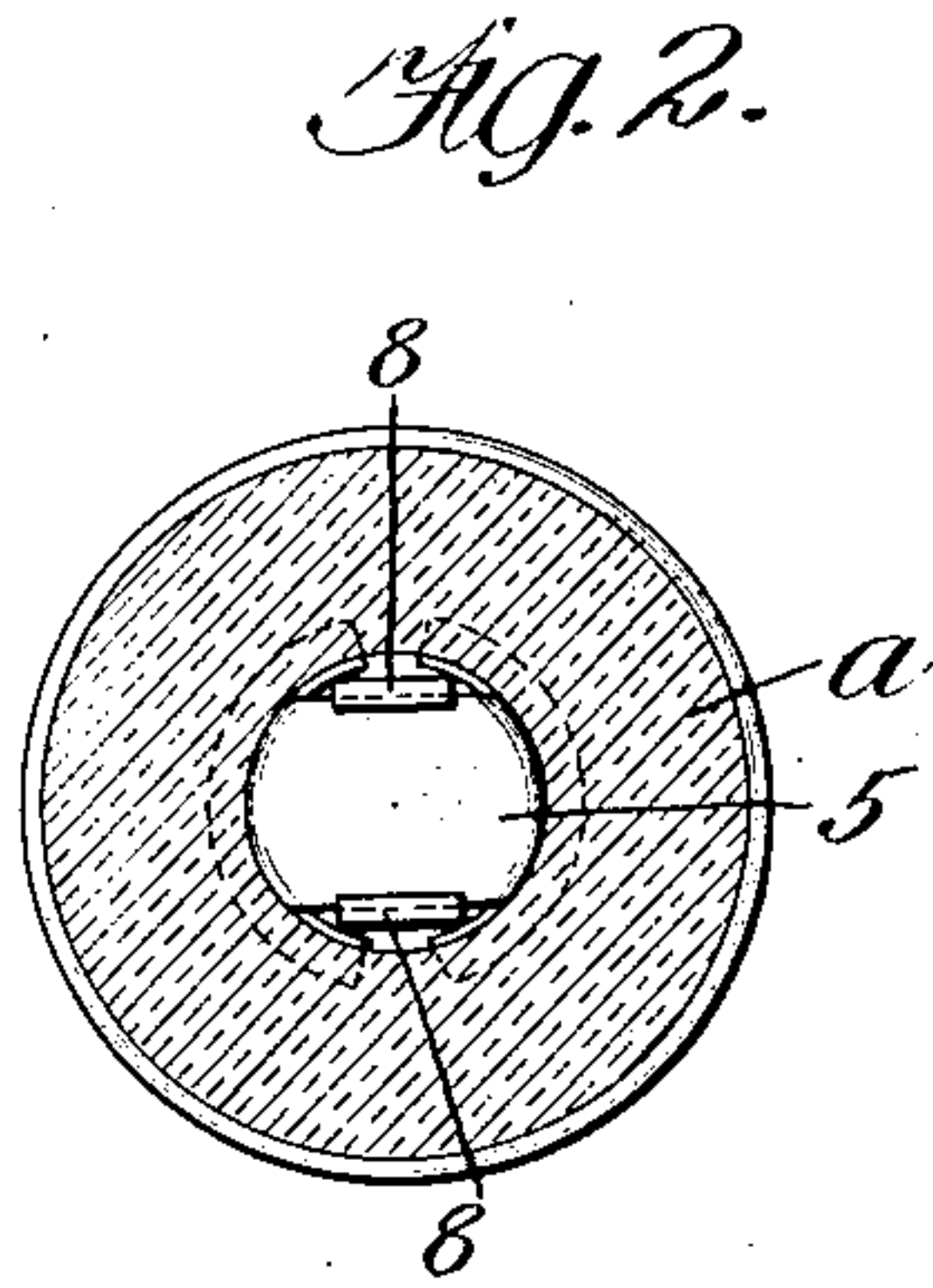
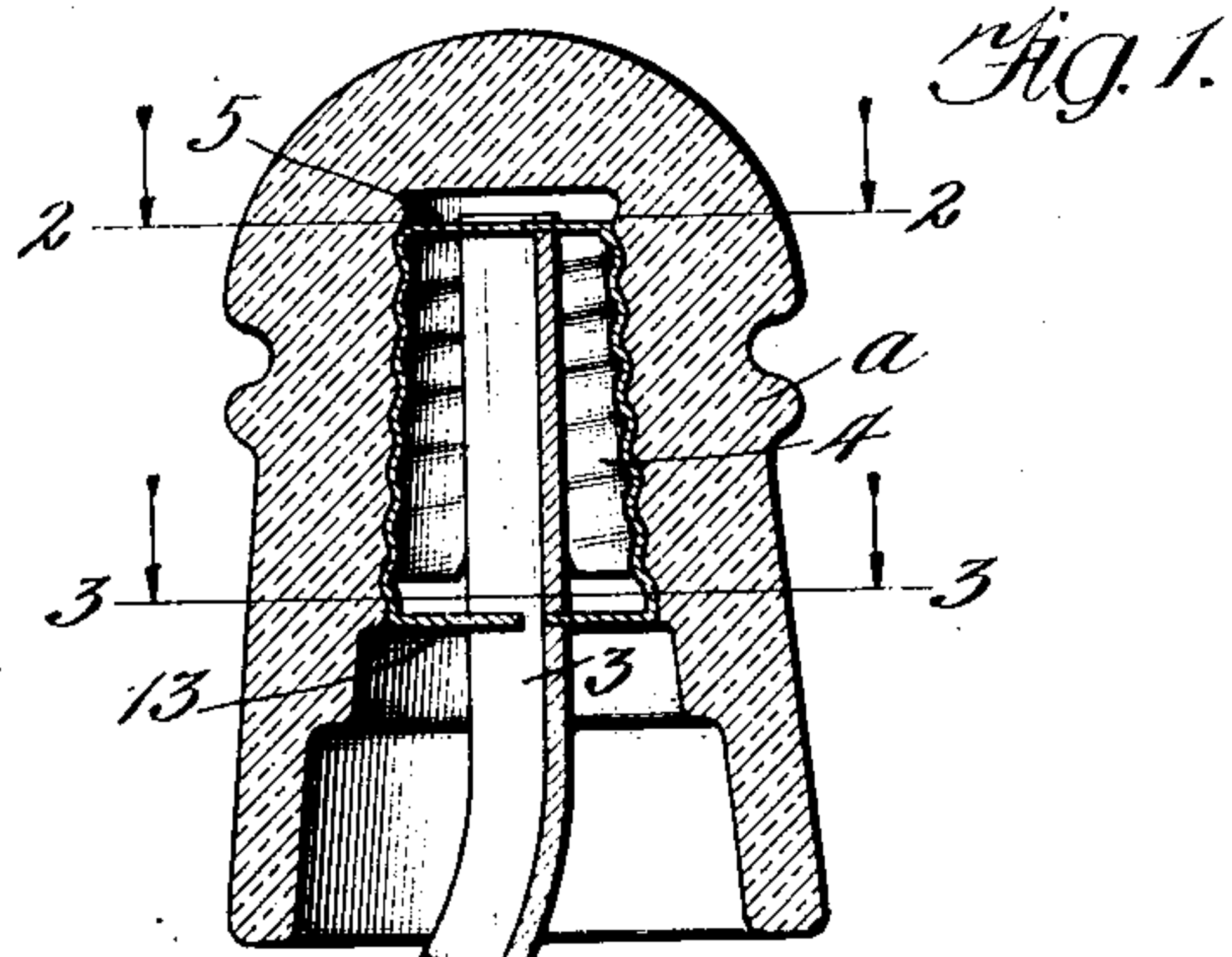


Fig. 3.

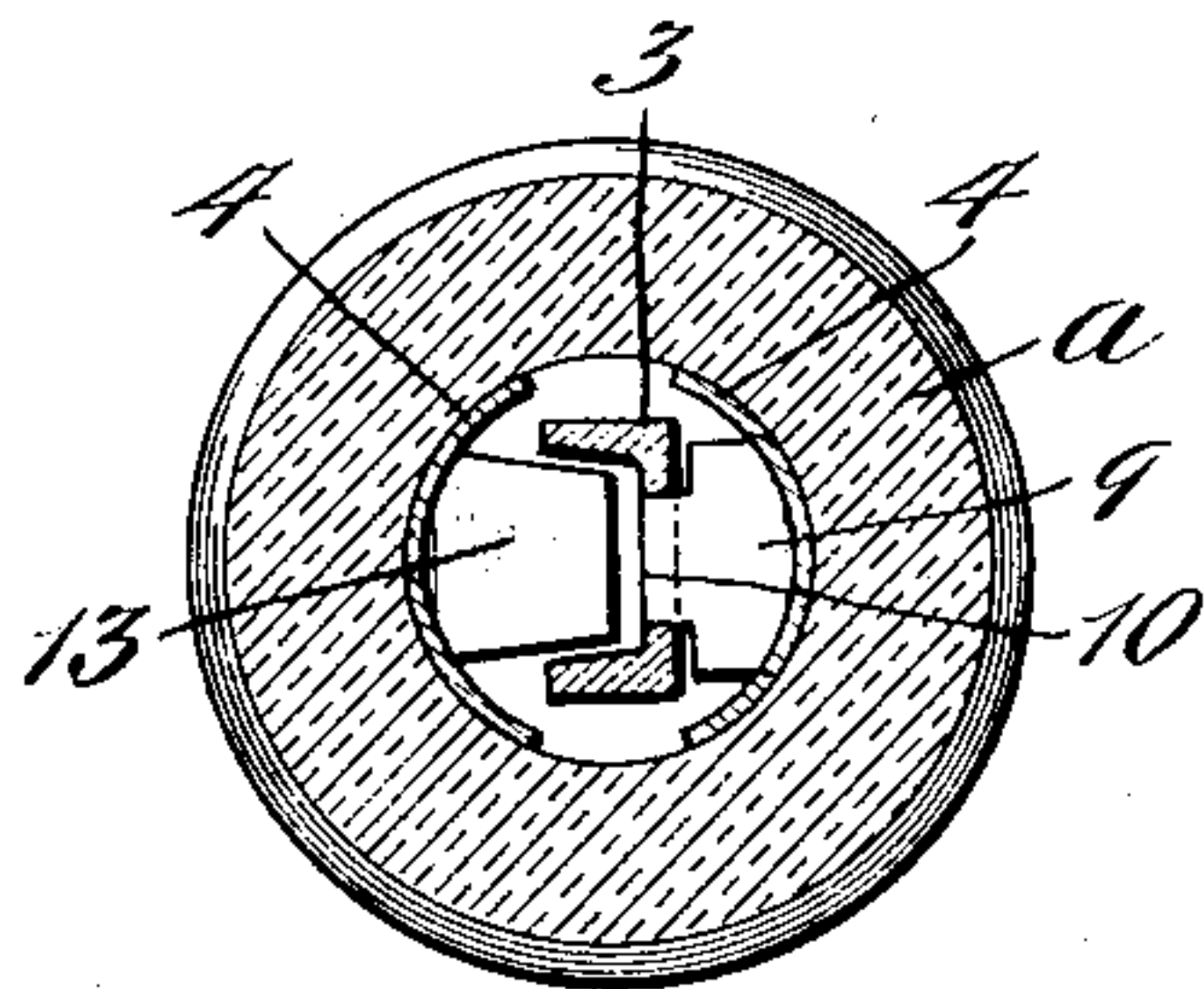


Fig. 4.

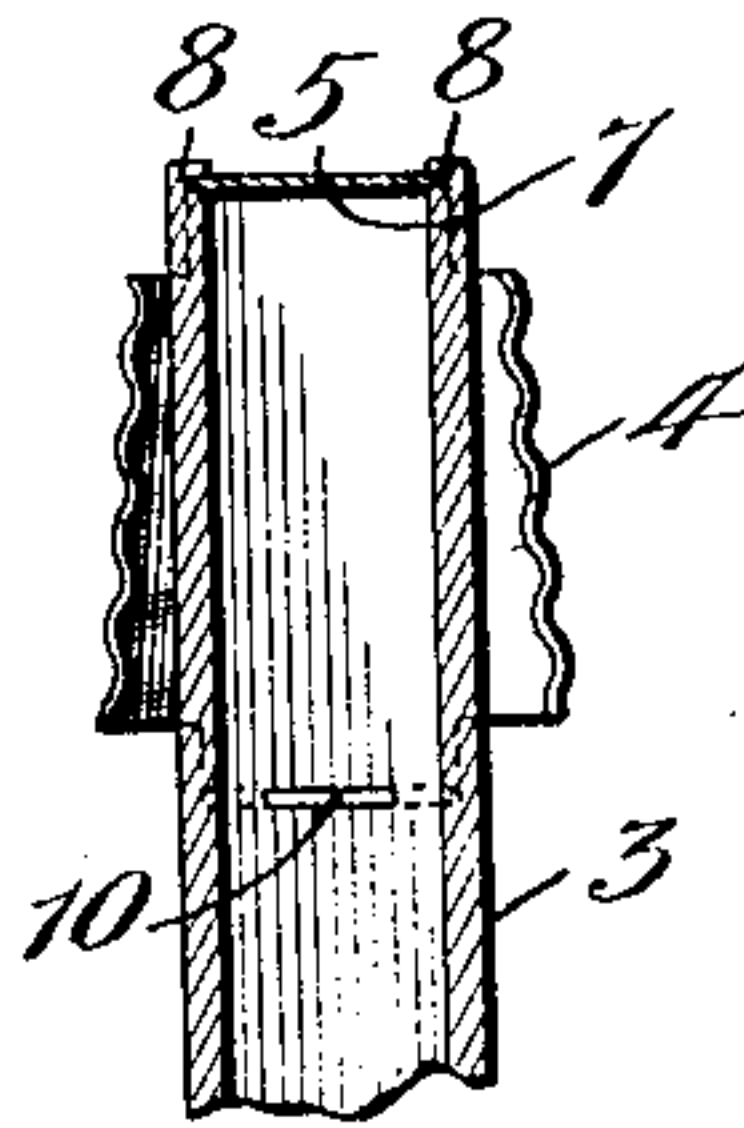
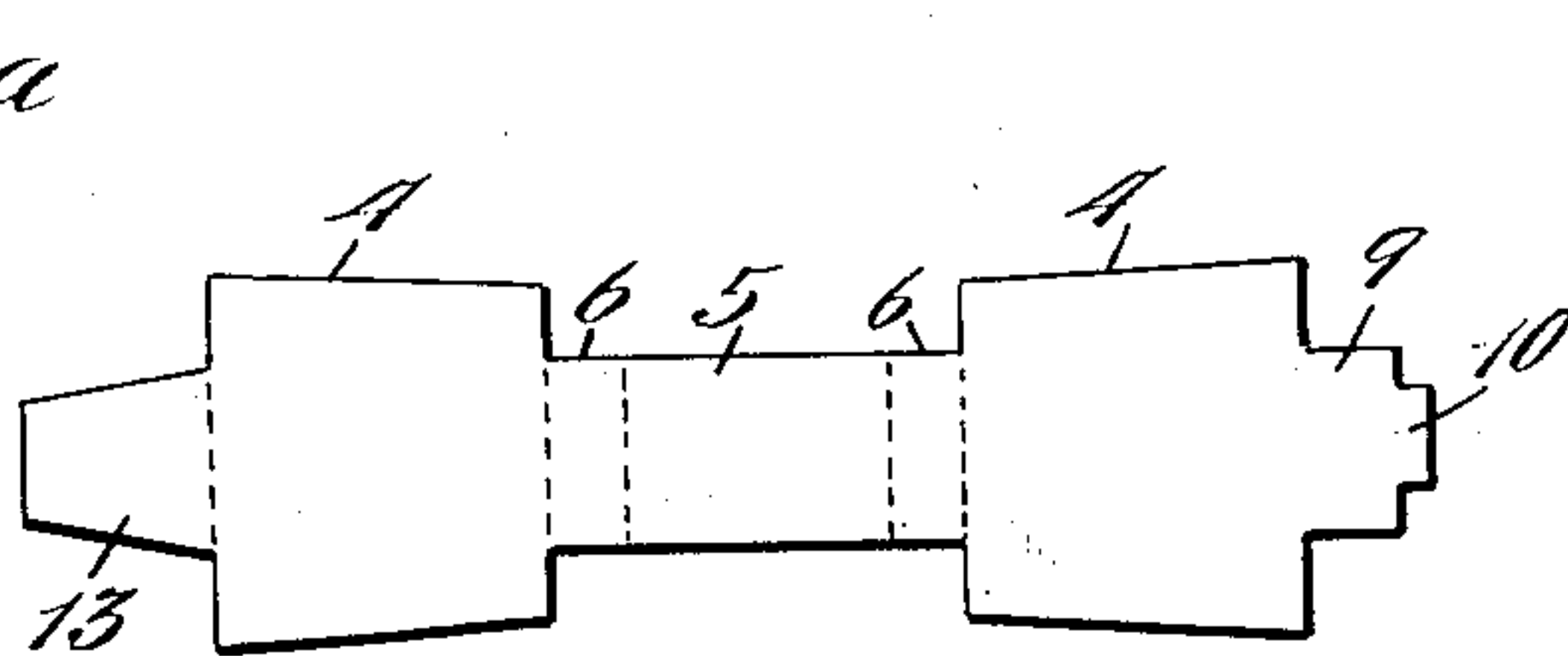


Fig. 5.



Witnesses:  
*Ed D. Perry*  
*Robert H. Weir*

Inventor:  
*Conrad J. Dorff*  
By *Luther L. Miller*  
Attorney



# UNITED STATES PATENT OFFICE.

CONRAD J. DORFF, OF CHICAGO, ILLINOIS, ASSIGNOR TO FREDRIC GREER, OF CHICAGO, ILLINOIS.

## INSULATOR-PIN.

No. 890,891.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed November 18, 1907. Serial No. 402,679.

*To all whom it may concern:*

Be it known that I, CONRAD J. DORFF, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Insulator-Pins, of which the following is a specification.

This invention relates to improved means for supporting insulators, and especially the glass insulators commonly employed for carrying electric wires, such glass insulators being attached to their supports by means of a screw-thread connection. Being formed by molding, the screw-threads of such insulators frequently vary considerably in form.

It is one of the objects of this invention to provide an insulator pin adapted to yield slightly to accommodate itself to insulators having variations in their screw-threads. Such yielding construction also allows for the different coefficients of expansion of the materials of which the insulators and the pins are made.

The invention also relates to the general improvement of insulator pins as regards cost of manufacture, durability and efficiency.

In the accompanying drawings, Figure 1 is a side elevation of a bracket comprising two insulator pins embodying the features of my invention. Fig. 2 is a section on line 2 2 of Fig. 1. Fig. 3 is a section on line 3 3 of Fig. 1. Fig. 4 is a section on line 4 4 of Fig. 1. Fig. 5 is a plan view of the blank from which the screw portion of the insulator pin is formed.

The insulator pin may be attached to a supporting structure in various ways. The embodiment selected for illustration consists of a bracket 1 formed by bending a metal bar to provide an attaching portion 2 and two insulator supports 3. In the present instance, said metal bar is a piece of channel iron of common form.

Upon each of the insulator supports 3 is placed a device forming a screw upon which the insulator *a* is adapted to be turned. Said device, as herein shown, is made of an integral piece of sheet metal, the blank having substantially the form indicated in Fig. 5. Each of the portions 4 of said blank is of sufficient width to be formed into substantially a semicylindrical section, in which are pressed grooves constituting part of the screw-threads for the insulator pin. The part of the blank which connects the portions

4 is bent to provide a portion 5 by means of which the screw device is attached to the insulator support 3, the screw-threaded portions 4 being connected to the attaching portion 5 by the short arms 6. In the present embodiment, the portion 5 is secured to the insulator support by cutting a shallow recess 7 in the end of the support, placing the attaching portion 5 in said recess, and riveting the opposite walls 8 of said recess over upon said attaching portion, as indicated in Figs. 2 and 4.

The screw portions 4 are held from rotation or lateral displacement, while free to yield toward and away from each other, by means comprising, in this instance, a lug 9 integral with one of said screw portions and bent to extend at a right angle therewith, said lug having a reduced end 10 lying loosely within an opening 11 in the insulator support. The shoulders 12 on said lug limit the inward movement of the screw portion to which said lug is attached. The opposite screw portion is provided with a lug 13 bent at a right angle with said screw portion and lying between the flanges of the channel bar.

The screw device is preferably made tapering as shown, and is attached to the insulator support 3 by its upper smaller end. The device is given its tapering form by properly proportioning the relative lengths of the parts 5 6 6 and the parts 9 13. The portions 4 also are preferably formed with two opposite converging side edges, as indicated in Fig. 5.

When the glass insulator *a* is screwed upon the insulator pin, the screw portions 4 yield to accommodate themselves to any irregularities in the screw-threads of said insulator. Being resilient and slightly compressed when the insulator is screwed home, said screw portions also hold the insulator securely in place. When temperature changes cause contraction or expansion of the insulator and its support, the spring portions 4 yield to prevent breakage and to retain a firm hold upon the insulator.

It is obvious that various changes may be made in the embodiment herein shown without departing from my invention. I, therefore, do not limit myself to the precise details herein set forth.

I claim as my invention:

1. An insulator pin comprising a supporting member of channel form; two screw-sec-



tions having an attaching portion secured to said supporting member; a lug attached to one of said screw-sections and extending at a right angle therewith and lying between the  
5 flanges of said supporting member; a lug attached to the other screw-section and extending at an angle therewith, said last mentioned lug having a reduced end lying within an opening in said supporting member; and  
10 shoulders on the last mentioned lug.

2. An integral sheet metal blank for the screw portion of an insulator pin consisting of two parts adapted to form substantially semicylindrical screw-sections; an intermediate portion connecting said first mentioned  
15 parts; and a lug on each of said first mentioned parts.

3. An insulator pin comprising a supporting member; and two tapering screw sections yieldingly attached to said supporting  
20 member at the smaller end of said sections.

4. An insulator pin comprising a supporting member having a recess in one end; two screw-sections having an intermediate connecting portion lying within said recess, the  
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walls of said recess being riveted to hold said intermediate connecting portion in place; and means at the opposite ends of said screw sections adapted to engage said supporting member to prevent rotational displacement  
30 of said sections.

5. An insulator pin comprising a supporting member in channel form; two screw sections yieldingly attached to said supporting member at one end; a lug on one of said  
35 screw sections lying between the flanges of said supporting member; and a lug on the other section lying within an opening in said supporting member.

6. An insulator pin comprising a supporting member and two screw-sections yieldingly attached to said supporting member at their upper ends; and means at the lower  
40 ends of said screw sections engaging said supporting member for preventing displacement  
45 of said screw sections.

CONRAD J. DORFF.

Witnesses:

C. P. PARKER,

GEORGE L. CHINDAHL.