

No. 887,107.

PATENTED MAY 12, 1908.

F. M. LOCKE.
WIRE FASTENER FOR INSULATORS.
APPLICATION FILED NOV. 24, 1905.

Fig. 1.

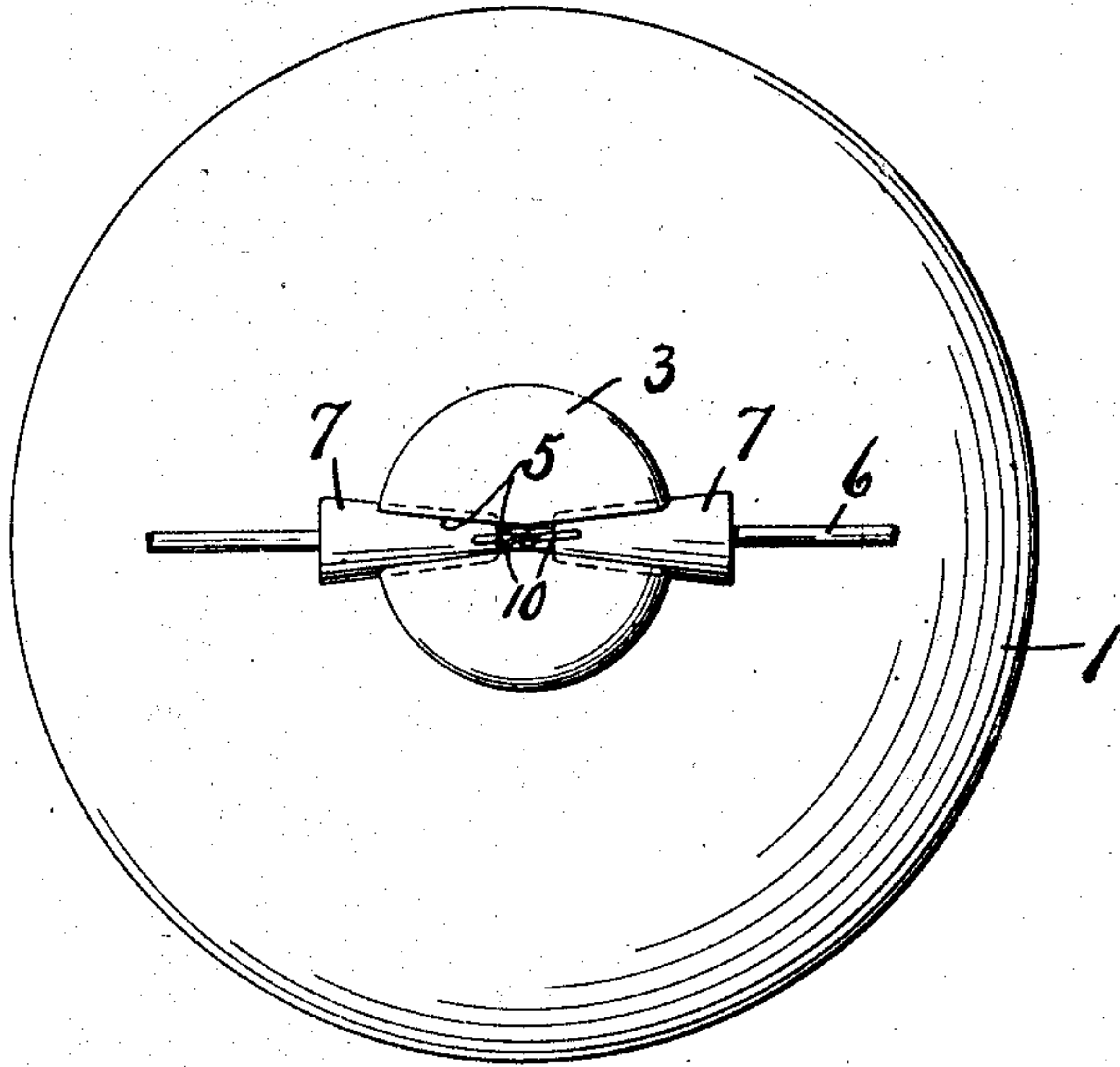


Fig. 2.

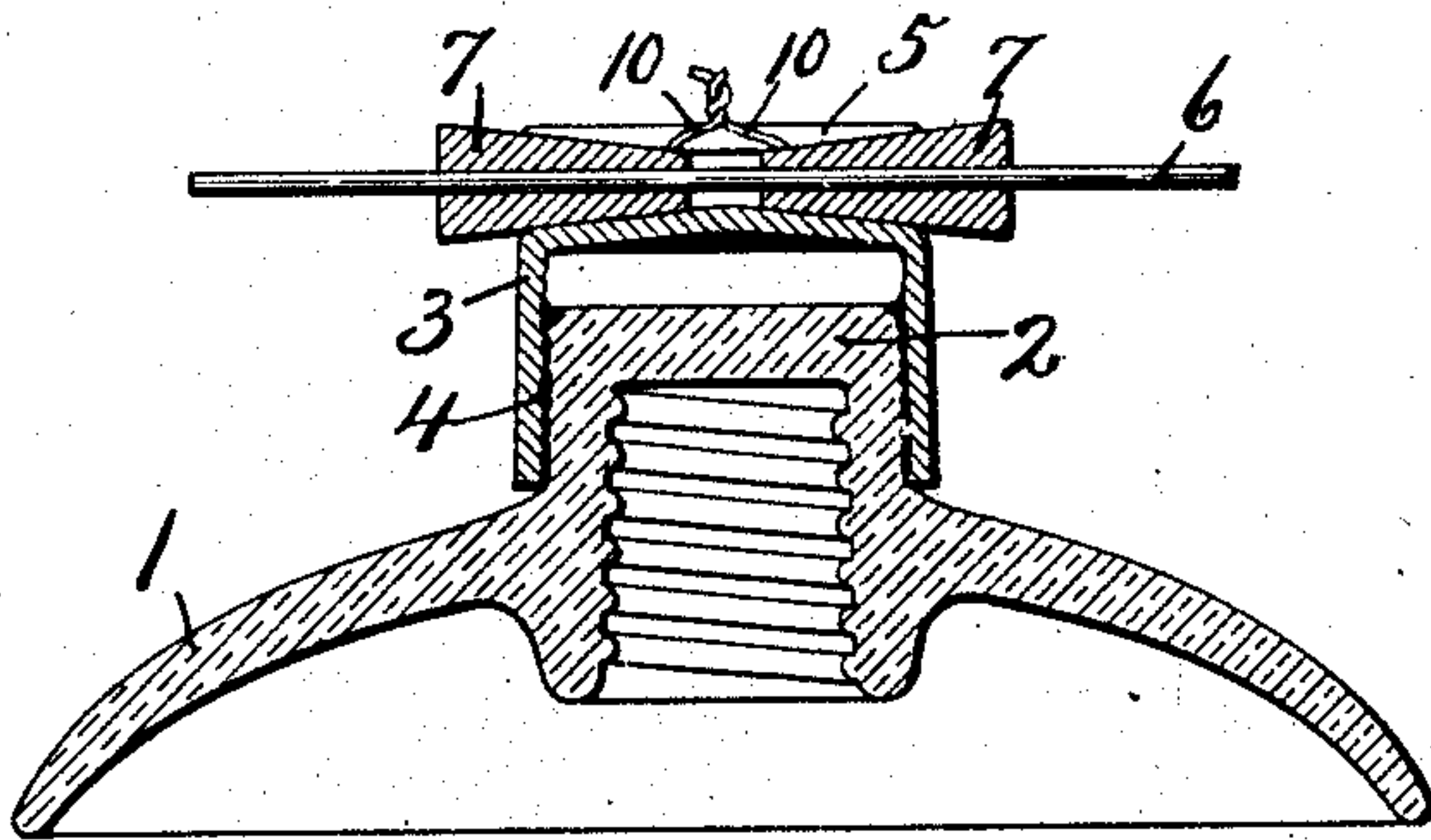
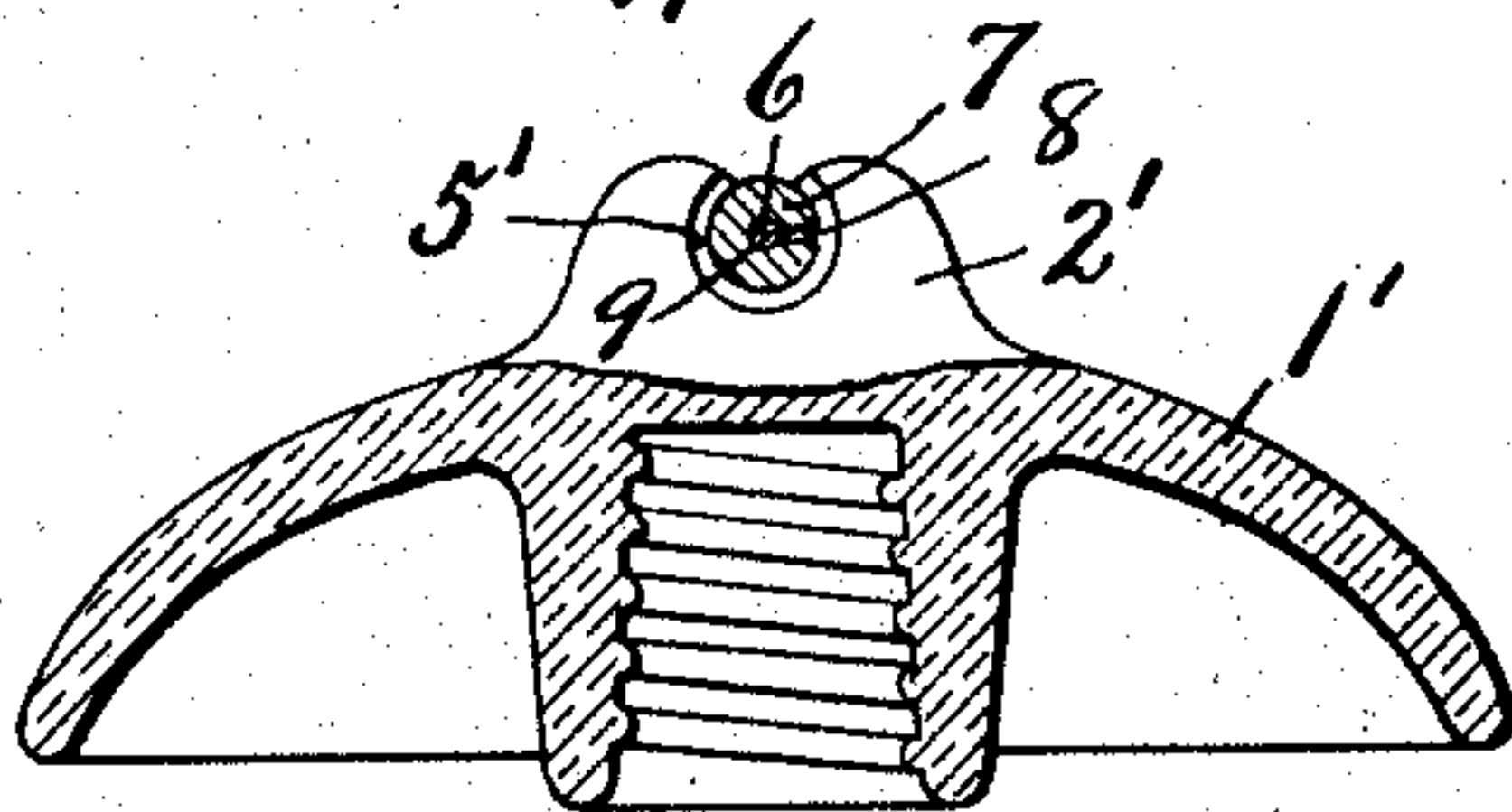


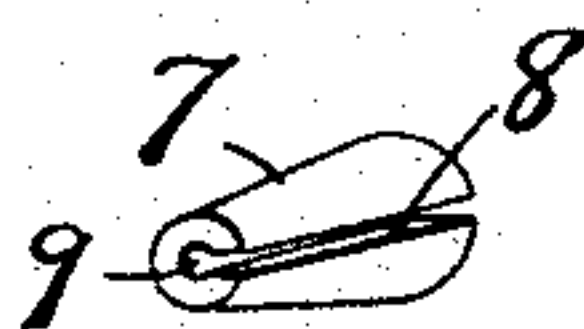
Fig. 3.



WITNESSES:

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Fig. 4.



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WIRE-FASTENER FOR INSULATORS.

No. 887,107.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed November 24, 1905. Serial No. 288,976.

To all whom it may concern:

Be it known that I, FRED M. LOCKE, of Victor, in the county of Ontario, in the State of New York, have invented new and useful
5 Improvements in Wire-Fasteners for Insulators, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in
10 means for fastening electric conductors to insulators and involves the use of an open groove having flaring ends for receiving an electric conductor and tapering retainers embracing the conductor and wedged into the
15 flaring ends of the groove for fastening the conductor to the insulator.

The essential purpose of my invention is to provide a simple and economical means for expeditiously attaching the electric conductor to the insulators without the use of
20 tie wires or by providing the insulators with open sided grooves through which the wires may be drawn and temporarily retained as the wires are strung from pole to pole, after
25 which the tapering bushings or the retainers are forced into the flaring ends of the grooves and for frictionally retaining the wire therein.

A further object is to provide the tapering bushings with means to tie them together to
30 prevent axial displacement from their respective sides.

In the drawings.—Figure 1 is a top plan of the insulator equipped with my improved wire attaching device. Fig. 2 is a trans-
35 verse vertical sectional view through the insulator and wire fastening device seen in Fig. 1. Fig. 3 is a similar sectional view partly in elevation of an insulator having the transverse groove formed directly in its top. Fig.
40 4 is a perspective view of one of the tapering bushings or wire retainers seen in Figs. 1, 2 and 3.

In order to demonstrate the practicability of my invention, I have shown in Figs. 1 and
45 2 an insulator—1— which may be of any desired form or size and adapted to be supported upon a pin or other support of the cross arm or pole not necessary to herein illustrate or describe as the manner of mounting these
50 insulators is well known. In this instance, the insulator—1— is provided with a substantially central raised boss—2— around and upon which is fitted a cap—3— of metal or any other suitable material which is per-
55 manently secured to the boss—2— by corrugating or roughening the contiguous faces

and interposing a cementitious filling as—4—. This cap—3—, which in this instance, is made of metal is provided with a transverse groove—5— open at one side, 60 preferably at the top and provided with flaring ends for receiving the electric conductor as—6— and tapering bushings or retainers—7—.

The open side of the groove—5— substan- 65 tially midway between its ends is comparatively narrow or slightly wider than the diameter of the wire to allow the latter to be easily inserted or removed therethrough, but the base of the groove is enlarged and is pref- 70 erably circular in cross section and provided with flaring or conical ends in which the tapering retainers—7— are fitted. It therefore follows that the base of the groove is under cut or of greater transverse width than 75 the open side of the groove which prevents radial displacement of the bushings—7—. These bushings or retainers—7— are preferably split longitudinally at—8— through one side and are provided with an aperture 80 —9— for receiving the conductor—6—, said bushings or retainers being slipped over the end of the wire in portions with their smaller ends facing each other or they may be made of suitable spring material and 85 adapted to be sprung over the wire by opening up the split—8—. The exact formation of these bushings, however, is not as essential as the fact that they are made to embrace and to slide upon the wire so that when 90 stringing the wires from pole to pole, the bushings or retainers which are to be fitted in the ends of the grooves—5— may be spread apart a sufficient distance to allow the intervening portion of the wire to drop into said 95 groove after which the bushings—7— are forced toward each other into the opposite tapering ends of the groove for locking the wire to its insulator.

In order to prevent the bushings from 100 wearing loose axially from each other, they may be provided with interlocking members and wires—10— which in this instance, are soldered to the adjacent ends of the bushings having their free ends adapted to be twisted 105 one upon the other as shown in Fig. 2. It is evident, however, that many other devices may be employed for holding the bushings against axial displacement one from the other, and I, therefore, claim means broadly 110 for effecting such a result.

In Fig. 3, I have shown an insulator—1'—

having a boss —2'— in which is formed a groove —5'— which is of substantially the same form and for the same purpose as the groove —5—, the only difference being that
5 it is formed directly in the body of insulating material instead of in a separate cap as shown in Figs. 1 and 2.

What I claim is:

1. In combination with an electric conduc-
10 tor and its supporting insulator, a wire hold-
ing element on the insulator and provided
with an under cut groove having tapering
open ends and opposite retainers grasping
15 the conductor and inserted in the open ends
of the groove and means to hold the retainers
in operative position in said grooves.

2. In combination with an electric conduc-
tor and its supporting insulator, a metal cap
fitted upon the head of the insulator and pro-
vided with a transverse groove in its top face, 20
said groove being open at its upper side, and
tapering split bushings grasping the wire and
movable lengthwise thereof and having their
small ends driven into the opposite ends of
said groove, whereby the bushings are com- 25
pressed upon the wire.

In witness whereof I have hereunto set my
hand this 16th day of November, 1905.

FRED M. LOCKE.

Witnesses:

G. T. CURTIS,

W. W. HIBBARD.