No. 833,877. PATENTED OCT. 23, 1906.

F. J. GRANT.

INSULATOR.

APPLICATION FILED AUG. 12, 1905.

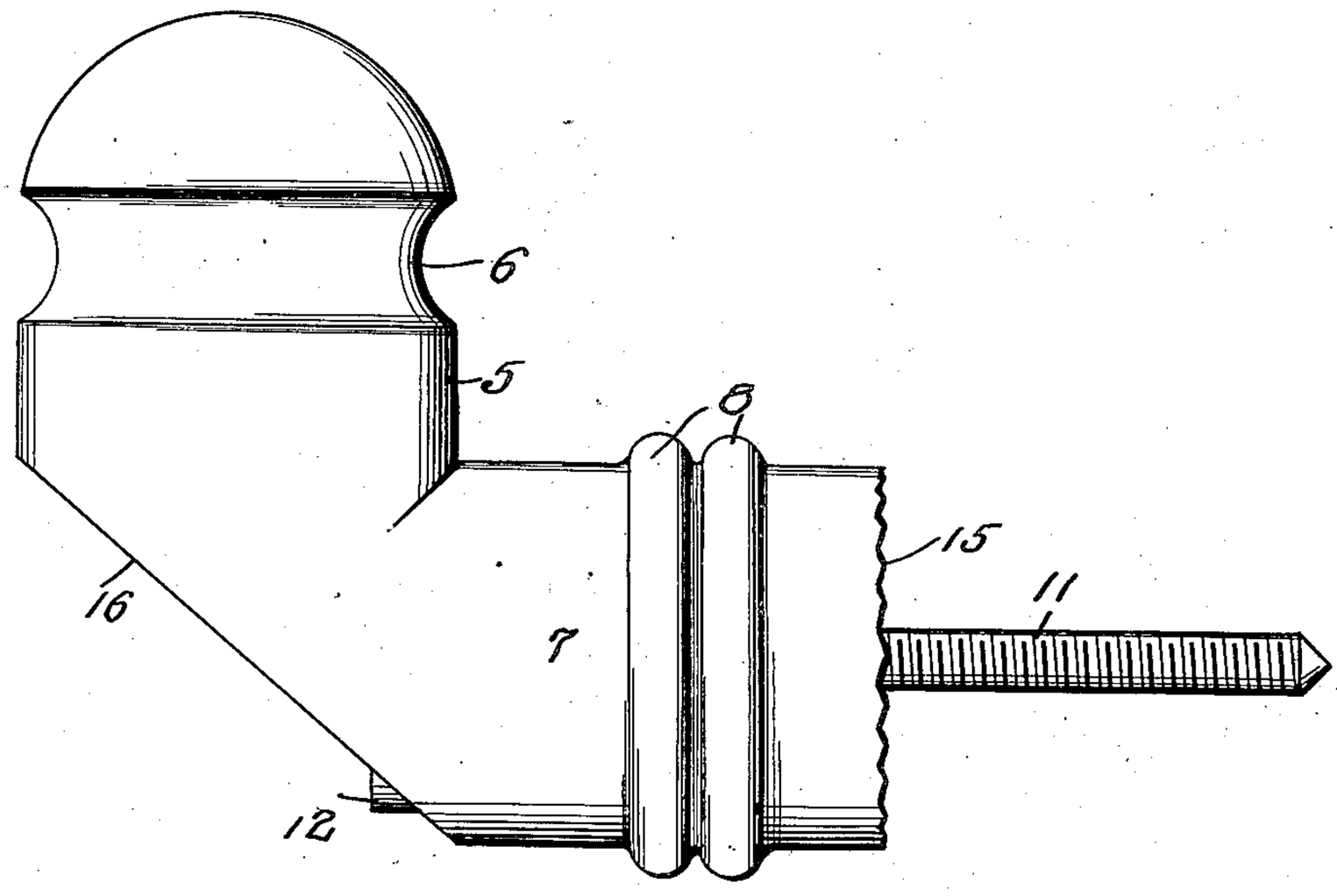

Fig. 1.

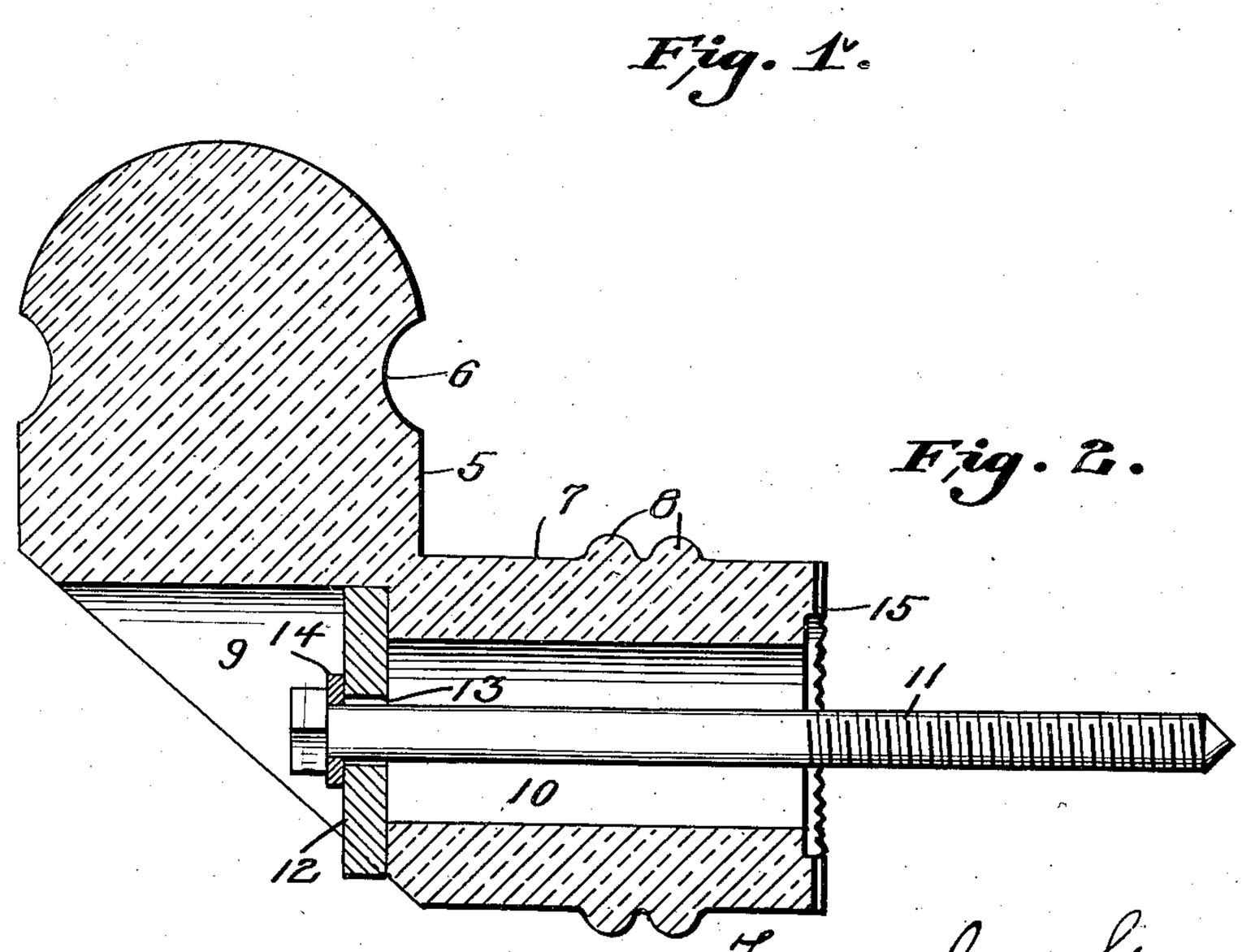

Fig. 2.

Witnesses
O. E. Murray.
M. A. Schmidt

Francis Jones Grant
Inventor

by Milo P. Stevens and Co
Attorneys.

UNITED STATES PATENT OFFICE.

FRANCIS JONES GRANT, OF CHICAGO, ILLINOIS.

INSULATOR.

No. 833,877. Specification of Letters Patent. Patented Oct. 23, 1906.

Application filed August 12, 1905. Serial No. 273,897.

To all whom it may concern:

Be it known that I, FRANCIS JONES GRANT, a subject of the King of England, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Insulators, of which the following is a specification.

My invention is an insulator for electric wires; and it consists in certain novel features of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is an elevation of the invention, and Fig. 2 is a central vertical sectional view.

Referring specifically to the drawings, the insulator is in the form of an elbow and is made of glass or other suitable non-conducting material. The vertical arm 5 has a circumferential groove 6 to receive the wire. The horizontal arm 7 has two circumferential ridges 8, and the groove formed by the space between said ridges receives another wire, so that two wires can be supported without the disadvantage of the wires being directly one above the other. The ridges 8 strengthen the glass and also prevent water from running into the groove.

At the junction of the arms a recess 9 is made, from which a central opening 10 extends through the arm 7. A screw-bolt 11 extends loosely through the opening 10. A disk 12, fitting snugly in the recess 9, is placed over the outer end of the opening 10, and this disk has a perforation, as at 13, through which the bolt extends. Between the disk and the bolt-head a washer 14 is placed. The insulator is fastened to its support or removed therefrom by applying a socket-wrench or other suitable tool to the head of the bolt, access thereto being had through the recess 9. The inner end of the arm 7 is formed with sharp notches or teeth 15, which bite into the support when the bolt is screwed home and assist in holding the insulator in position. By making the opening 10 larger than the bolt the latter does not come in contact with the wall of the opening, so that danger of breakage of the insulator from expansion and contraction is avoided. At the junction of the arms the insulator is beveled, as at 16. The bevel extends from the front to the rear end of the recess 9, so that the latter is open at the bottom. This construction prevents water from collecting in the recess, so that liability of damage to the insulator from freezing is avoided.

Having thus described my invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. An insulator having arms presented at an angle to each other, each of said arms having a circumferential groove, and one of said arms having a longitudinal opening to receive a support for the insulator, and having a recess at the corner where the arms join, communicating with said opening, the recess being open at the bottom or under side, so that water cannot collect therein.

2. An insulator comprising two arms connected together at their inner ends at an angle to each other, each having a circumferential groove, one of the arms having at its outer end a holding-face adapted to bear against a support, and an opening extending lengthwise through said arm from said face, the corner at the junction of the arms having an oblique surface on the outer side, with a recess therein communicating with said opening.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANCIS JONES GRANT.

Witnesses:

WM. J. ROBINSON,

SIGNA FELTSKOG.