

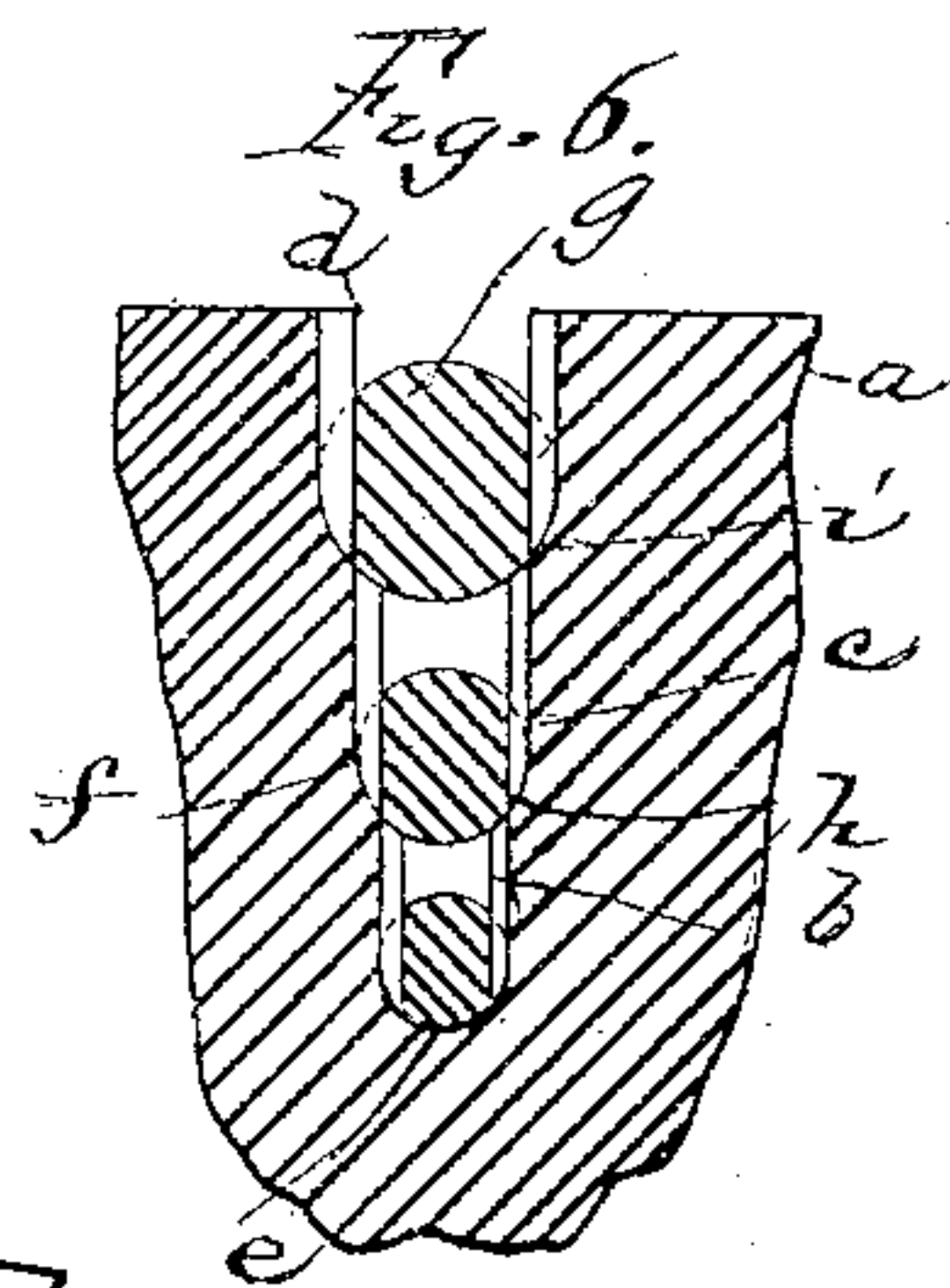
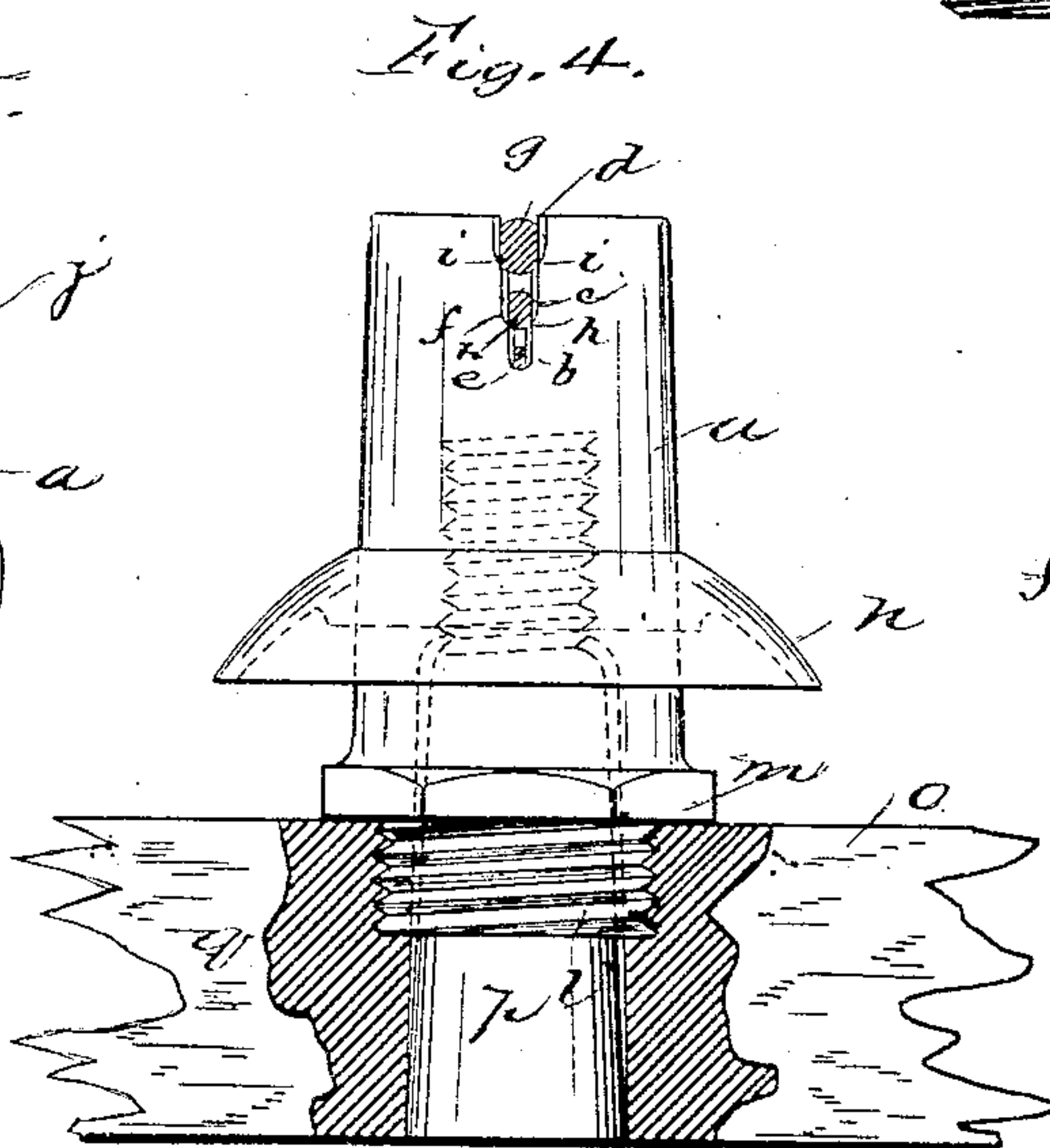
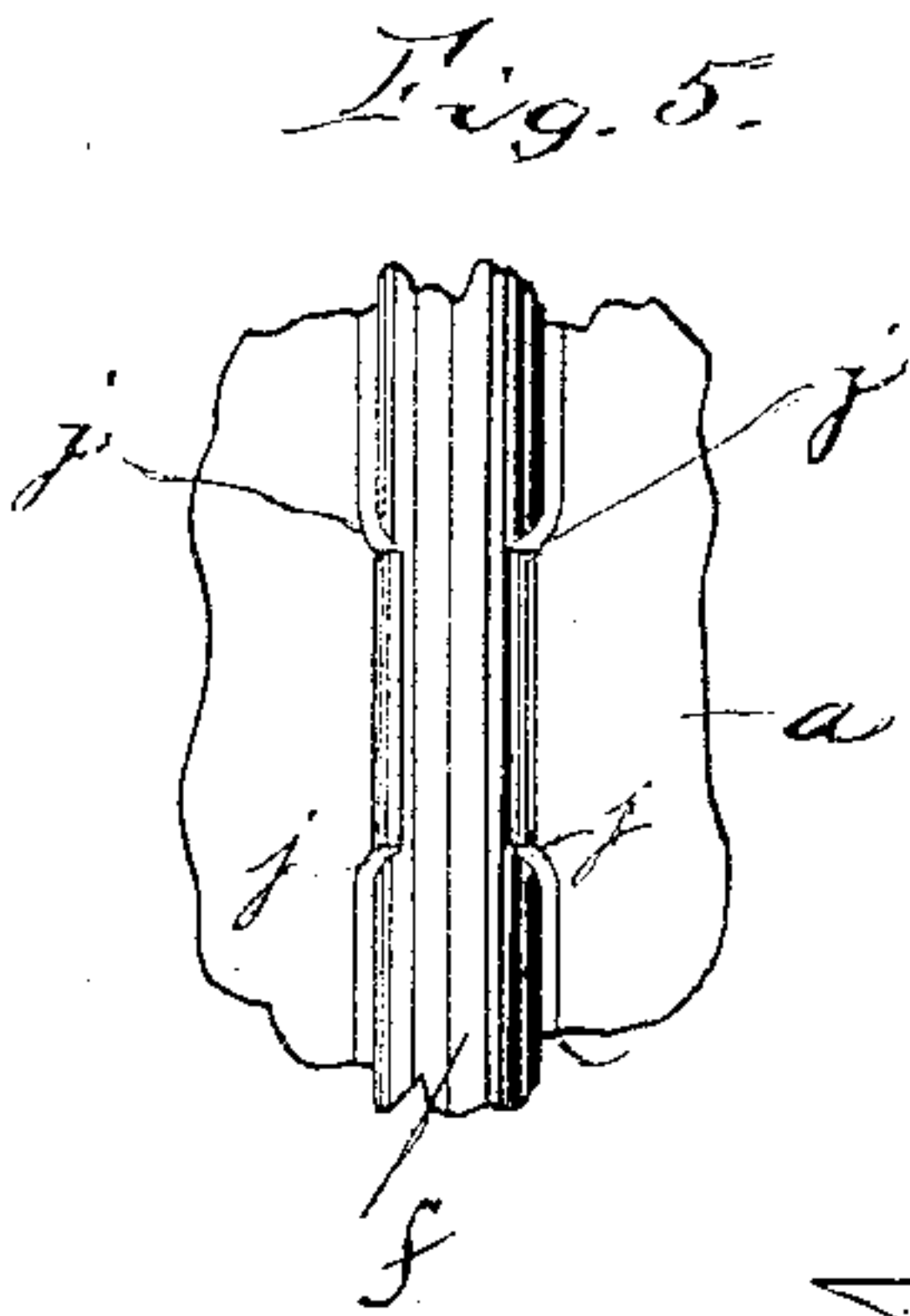
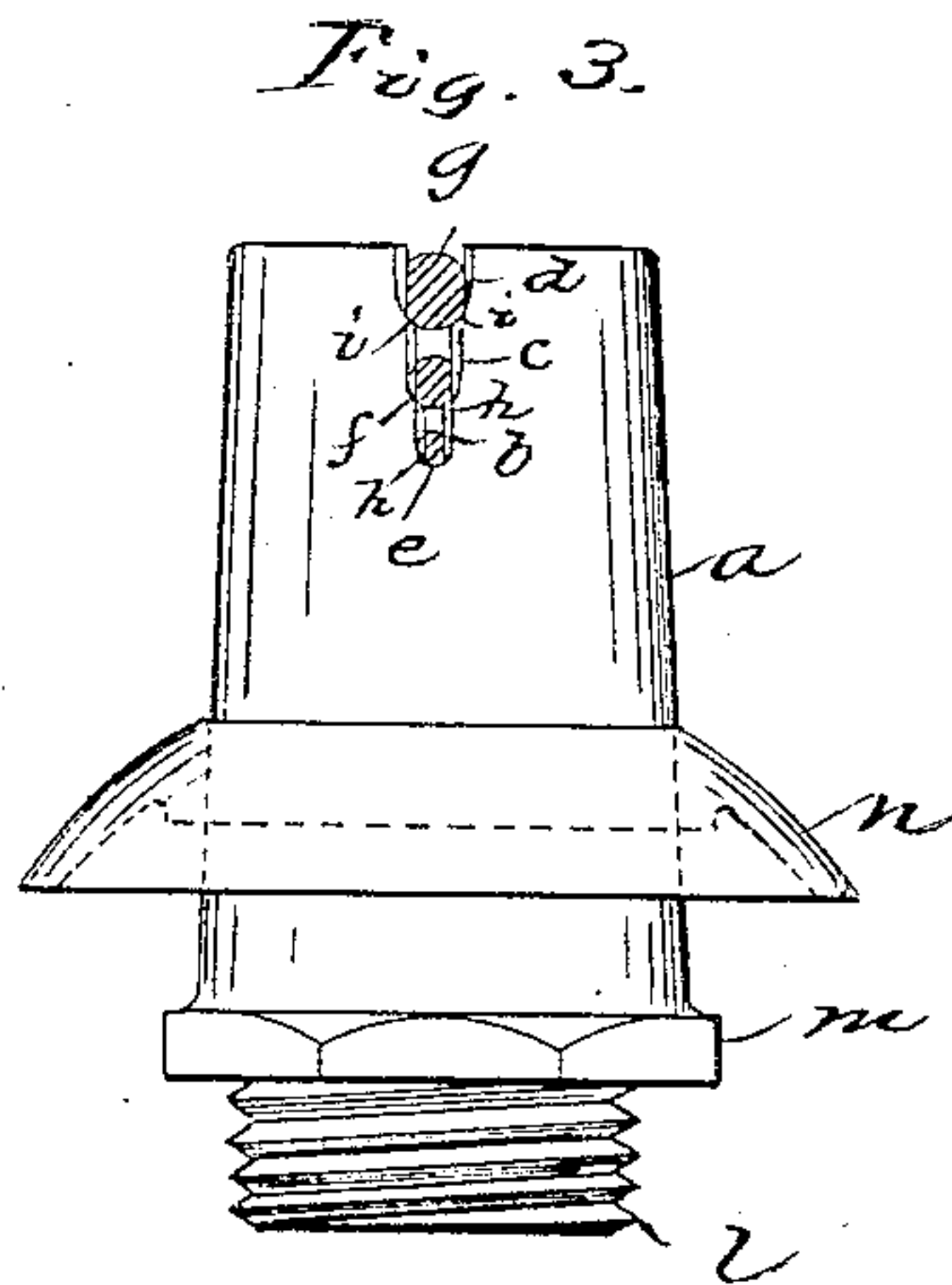
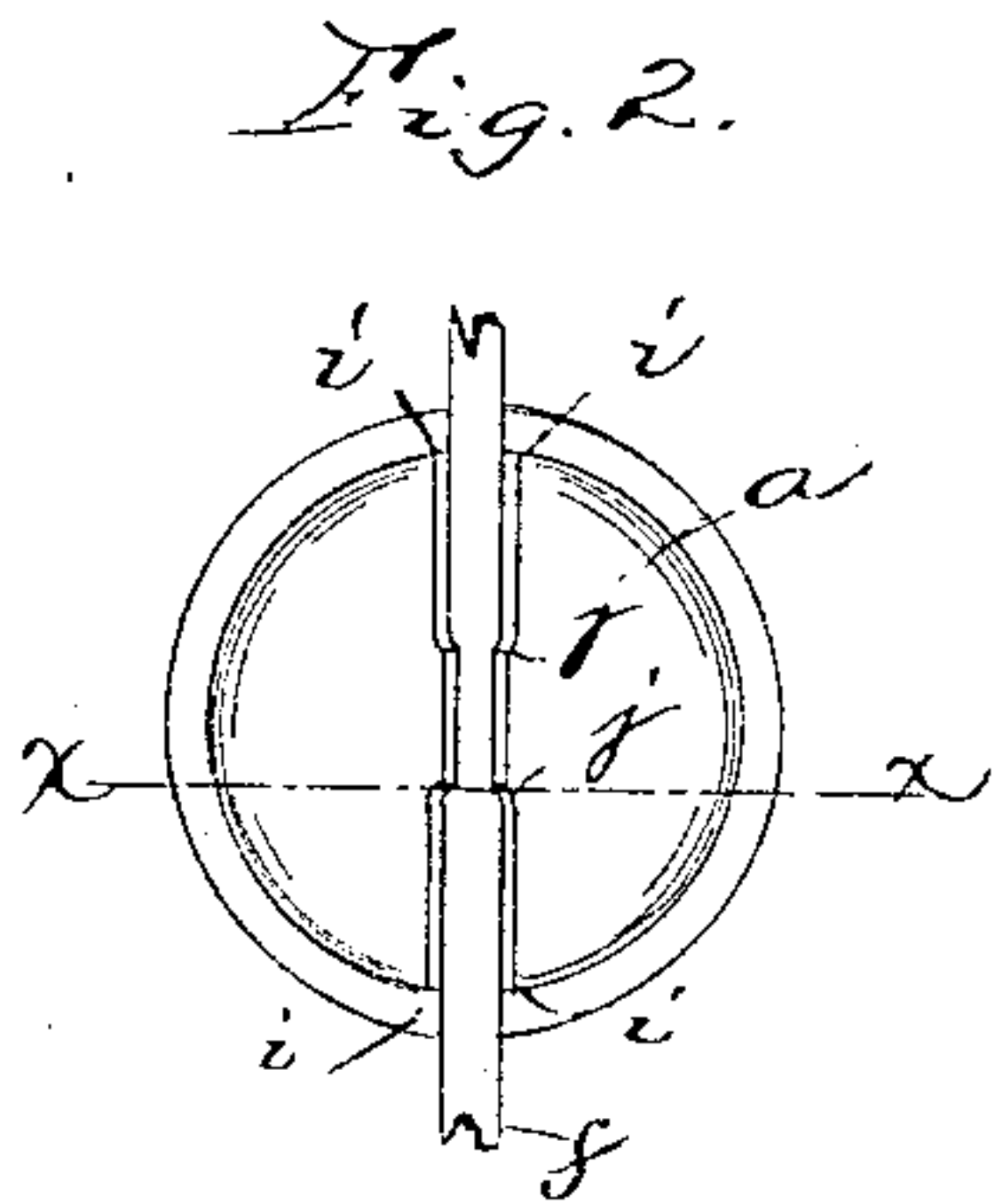
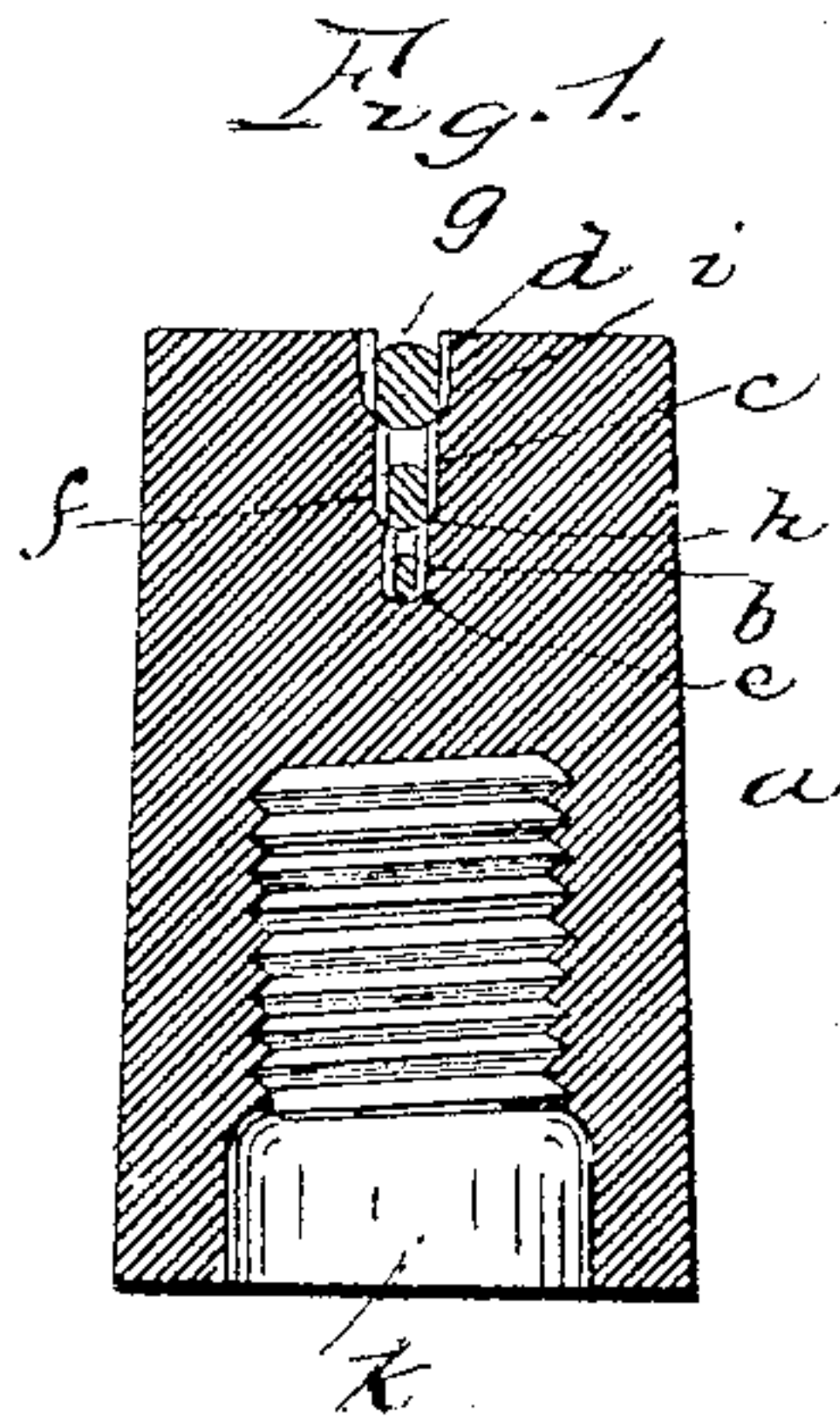
(No Model.)

J. WILSON.

INSULATOR FOR TELEGRAPH WIRES.

No. 336,276.

Patented Feb. 16, 1886.



WITNESSES:

W. J. Morgan
L. H. Morgan

INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN WILSON, OF NEW YORK, N. Y.

INSULATOR FOR TELEGRAPH-WIRES.

SPECIFICATION forming part of Letters Patent No. 336,276, dated February 16, 1886.

Application filed May 14, 1885. Serial No 165,546. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILSON, a citizen of the United States, residing in New York city, in the county and State of New York, have
5 invented new and useful Improvements in Insulators for Telegraph-Wires, of which the following is a specification.

My invention consists of an improved contrivance of the common glass insulator for
10 holding the wires, and also of an improved contrivance for the fastening of the insulators to the supporting-bars, the object being to increase the efficiency and cheapen the cost of the same, as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a sectional elevation of the insulator on line *x x* of Fig. 2, showing the improved contrivance for holding the wires,
20 with the common contrivance for mounting and supporting the insulator. Fig. 2 is a top view of the devices as represented in Fig. 1, except the uppermost wire. Fig. 3 is a side view of the insulator, showing the improved contrivance for holding the wires and also the improved contrivance of the fastening device,
25 the wires being sectioned on the line *x x* of Fig. 2. Fig. 4 is a side elevation of the improved insulator, showing the improved form of the fastening device combined with the common form of fastening. Figs. 5 and 6 represent details for showing the wire-holding
30 device on an enlarged scale.

I mold or otherwise form the glass insulator
35 *a* with a deep transverse nick or notch in the top in two or more sections, differing in breadth according to the different sizes of wire to be supported, the lower section being the narrowest for the smallest wire, and the next one
40 above being a little wider for the wire of next larger size, and so on, so that the ledges formed at the widening of the notch constitute rests under the quarters of the wires, above the lowest one on which the wires are supported independently of, and are thereby effectually
45 insulated from, each other. In this example I have represented the notch in three sections, *b*, *c*, and *d*, for the support of three wires, *e f g*, of different sizes, the lowest wire, *e*, resting on the bottom of the notch, the next resting on shoulders or ledges *h* at the widening
50 of the notch from section *b* to section *c*, and

the upper wire, *g*, resting on the shoulders *i* at the widening of the notch from section *c* to section *d*; but I may make the notches 55 in two or any greater number of sections, as preferred. I also make the sections of the notches a little narrower than the wires, respectively, and flatten the wires correspondingly to make shoulders *j* to prevent the slipping of the wires longitudinally on their seats by expansion and contraction, or by the wind or other cause, preferring to make the contraction at the middle of the insulator, as represented in Fig. 2, but may of course locate it 60 anywhere along the notch, taking care to have sufficient length of shoulders *h i* each side of it. The insulator thus constructed may have the ordinary socket, *k*, for screwing onto the wood peg of the post or cross-bar; but for a 65 better and more substantial means of attaching and supporting the insulators, I propose to form them with a screw-stud, *l*, on the lower end, to screw into the cross-bar, with a base collar, *m*, of broad dimensions, which, being 70 screwed "home" on the cross-bar, affords very much more secure support to the insulator against the lateral stress of the wires, which frequently breaks the pegs off; and with this form of connection for attaching the insu- 75 lator I combine a rain-cap, *n*, to shed off the rain and prevent the water from settling in the screw-socket of the cross-bar *o*, said rain-cap being a circular projection of the body of the insulator a short distance above the base, 80 and having suitable lateral extension to carry off the water and protect the bar at the base of the insulator, both for preventing the waste of the electric current by the effect of moisture in connection with the insulator and preventing the rotting of the cross-bar by the moisture 85 that would otherwise be retained in the socket. For still more substantial connection of the insulator to the cross-bar, I propose to combine the two methods of fastening by forming the 90 insulator with the screw-socket *k* for the screw-peg *p*, together with the screw-stud *l* and collar *m*, and fitting the cross-bar *o* with the screw-peg *p*, suitably projecting up from the bottom of the socket, for the screw-peg to screw into 95 the threaded portion of the socket *k* at the same time that the stud *l* screws into the socket *q* of the cross-bar. The screw-peg *p* may in this case be driven through the cross-bar in a 100

hole concentric with the socket *q*, or be otherwise secured, as preferred. I utilize the base-collar *m* for the application of a wrench or spanner to screw the insulator firmly into the
5 cross-bar and shape it accordingly. The rain-cap is to be integral with the body of the insulator. By this contrivance for the holding of the wires they extend directly through or
10 along the insulator in a straight course, instead of coiling or bending around it, which is better and simpler, and there is no special fastening device required, as when the wire is secured against one side of the insulator by a tie
extending around the other side.

15 This improved insulator is alike useful for any electric conducting-wires, and I intend it for all such wires, as well as for telegraph-wires.

What I claim, and desire to secure by Letters Patent, is—

20 1. The improved telegraph-wire insulator,

having a transverse notch in the upper end, the walls of which notch are offset and form shoulders, as described, for seating and insulating two or more wires of different sizes one above another, substantially as described. 25

2. The improvement in telegraph-wire insulators, consisting of a transverse notch in the upper end for the wire to lie in, and having a contracted portion of less breadth than the diameter of the wire forming shoulders *j*,
30 in combination with a wire having a corresponding flattened section, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing
witnesses. 35

JOHN WILSON.

Witnesses:

W. J. MORGAN,
S. H. MORGAN.