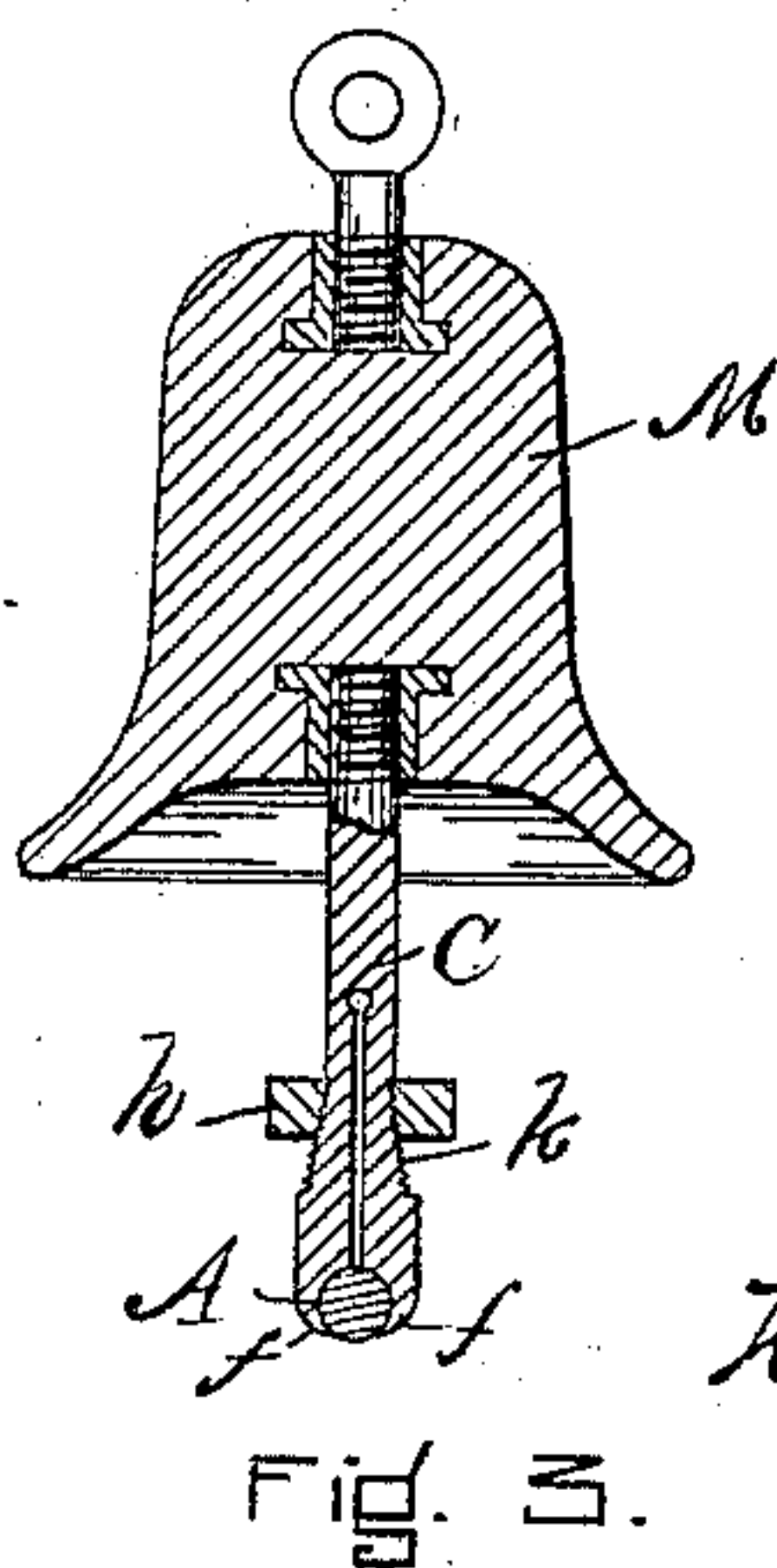
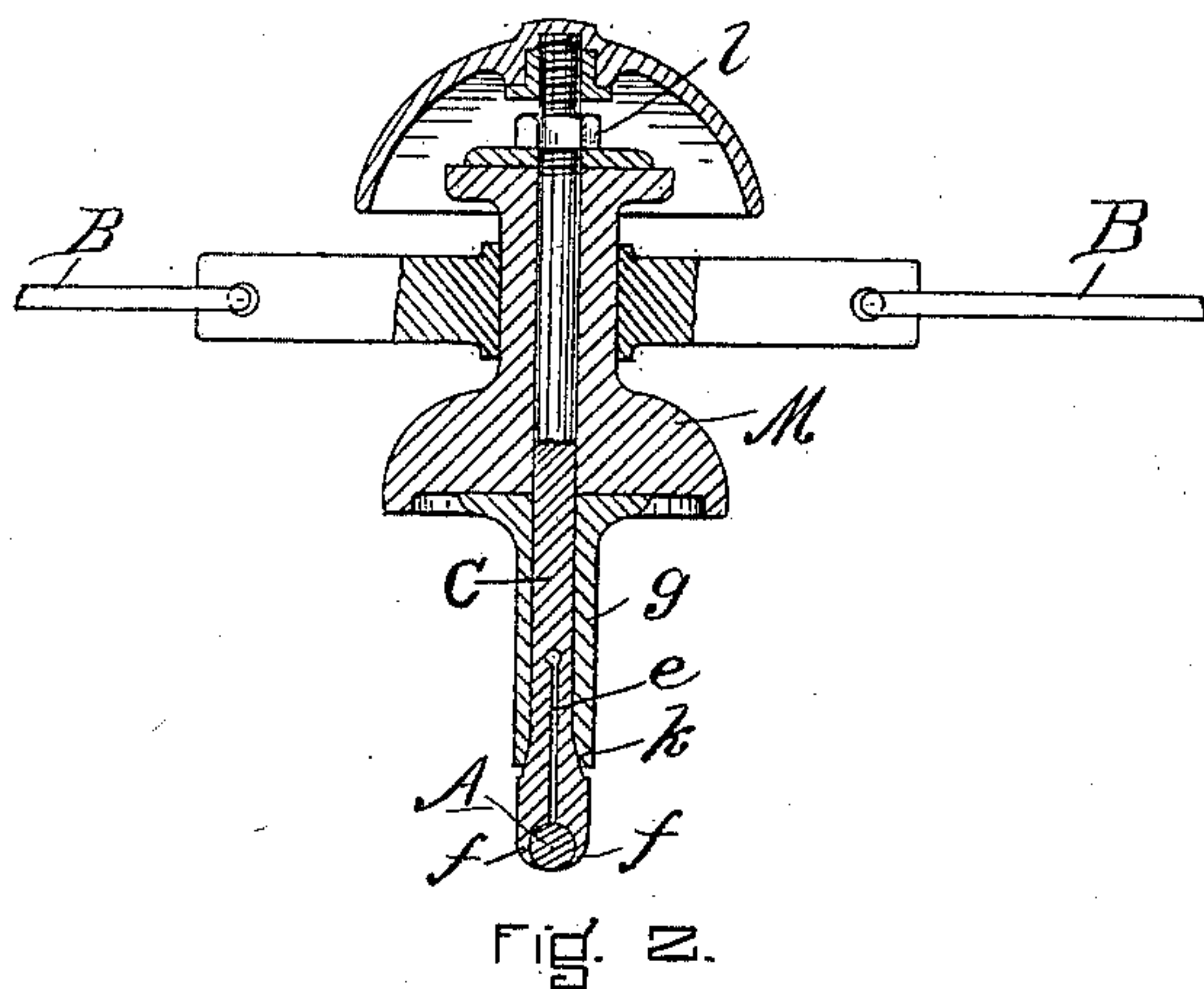
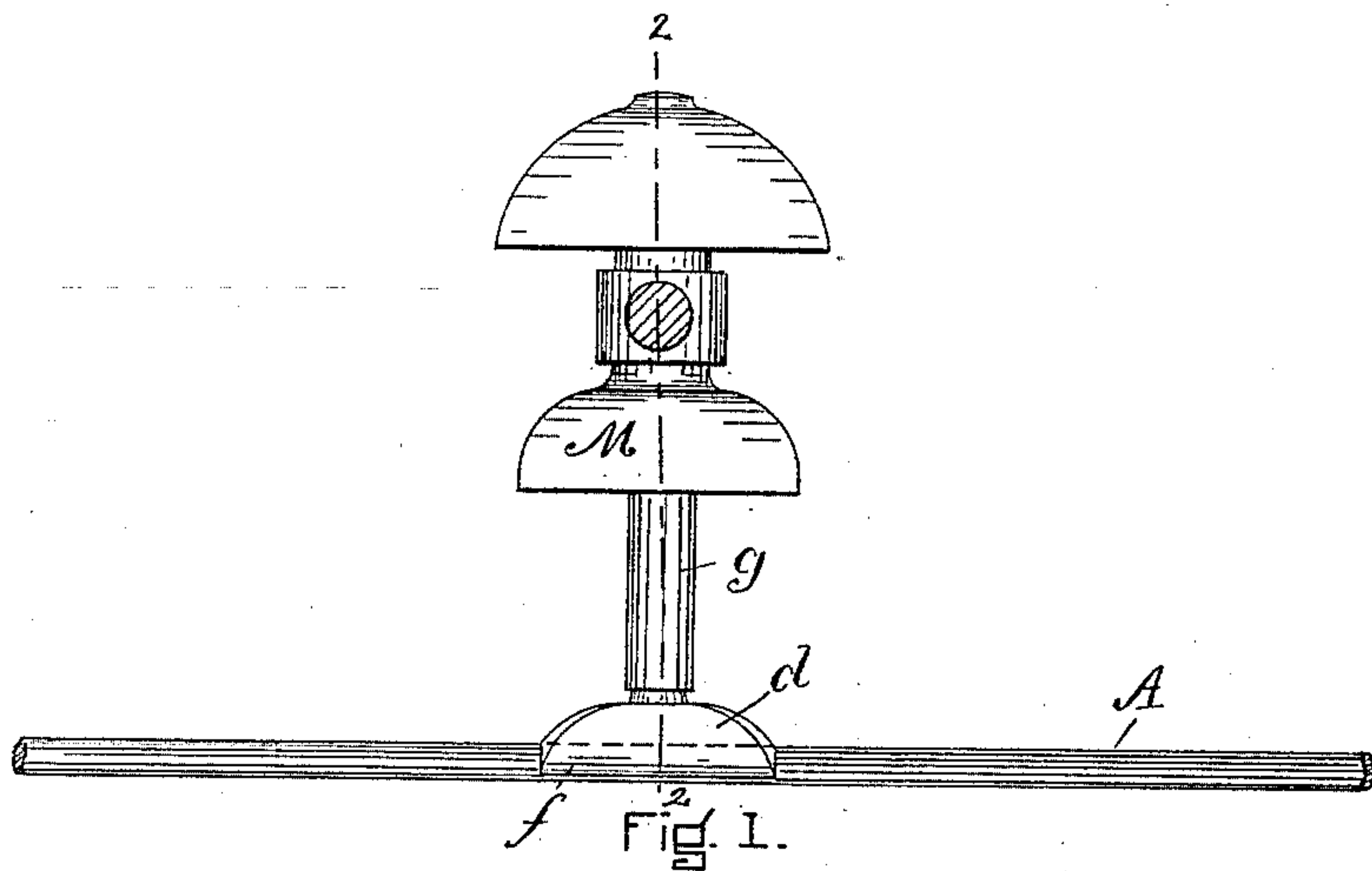


(No Model.)

H. H. LUSCOMB.
TROLLEY WIRE HANGER.

No. 442,446.

Patented Dec. 9, 1890.



WITNESSES.

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UNITED STATES PATENT OFFICE.

HENRY HERBERT LUSCOMB, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO
CHARLES TENNANT LEE AND THE GOULD & WATSON COMPANY, BOTH
OF SAME PLACE.

TROLLEY-WIRE HANGER.

SPECIFICATION forming part of Letters Patent No. 442,446, dated December 9, 1890.

Application filed September 19, 1890. Serial No. 365,493. (No model.)

To all whom it may concern:

Be it known that I, HENRY HERBERT LUSCOMB, of Boston, county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Insulators, of which the following is a specification, reference being had to the drawings accompanying and forming a part hereof, in which—

Figure 1 is an elevation showing my device as embodied in an insulator for securing an overhead conductor to the supporting-wires. Fig. 2 is a section on line 2 2, Fig. 1. Fig. 3 shows a modification of the device applied to an insulator of different shape.

I have shown and I will describe my improvement as embodied in an insulator adapted for use in securing an overhead conductor such as is employed for electric-railway purposes to the cross-wires which support it; but it is obvious that my improvement may be applied to any form of insulator adapted to secure a conductor or other part, which it may be desirable to take down and replace, to the permanent construction by which it is supported.

Overhead conductors are now commonly secured to the insulators which hold them in position by solder, and the operation of soldering, as also the action of the solder itself, tends to diminish the strength of the conductor and is otherwise undesirable. When the conductor is soldered to the insulator, it is difficult to detach it, and this is also inconvenient and expensive. Overhead conductors have also been secured in place by clamping devices; but so far as known to me these devices encircle the conductor or project below it, and so offer an obstruction to the passage of the trolley, which is objectionable.

The object of my invention is to produce an insulator which will obviate these objections, by means of which the conductor may be held securely in place and at the same time be detached when desired, and which will also, when used to secure overhead conductors for railways, present no obstacle or roughness to the trolley in passing; and it consists in the clamping insulator constructed as hereinafter described, and which is more

particularly pointed out in the claim which is appended hereto and which forms a part hereof.

In the following description I will refer to the parts as shown in the accompanying drawings.

A is the overhead conductor.

B is the cross-wire to which the insulator is secured.

C is a rod of metal, which is enlarged at the end which comes in contact with the conductor, as shown at *d*, the enlarged end being split at *e*, so that its two halves will form a clamp, the jaws of which may be sprung apart and which are shaped to receive the conductor, the ends of the clamps shown at *f* being shaped to embrace the conductor without entirely encircling it and to clasp it without forming an obstruction to the passage of the trolley. That portion of the rod C which adjoins the clamping-jaws is beveled or conical, as shown at *k*, and a correspondingly-beveled collar *g* is placed on the rod C, so that as the collar is crowded down on the enlarged portion of the rod the clamps are forced together and made to clamp the conductor and hold it securely. The insulating material M is placed on the rod and may be of any suitable shape, and above it a nut *l* is screwed onto the rod, the upper end of which is threaded for the purpose, and by screwing down the nut the collar *g* may be crowded down and the clamps set on the conductor. A washer of metal is preferably placed between the nut *l* and the insulating material. The unscrewing of the nut enables the collar *g* to be moved back from the conical portion of the rod C and the clamps released. As will be clear, instead of the nut and collar for closing the clamp, a simple nut *h* may be employed, the conical portion of the rod C being threaded and the nut being of a shape to correspond thereto, as shown in Fig. 3. To loosen the clamp and remove the conductor it is only necessary to unscrew the nut *h*, while the reverse movement of the nut secures the clamp rigidly to the conductor. If the open space between the ends *f* of the clamp-jaws is not sufficient to admit of the conductor being inserted when the clamp is

open, the workman may spring the clamp apart sufficiently to enable him to insert the conductor by employing the end of a screw-driver or other simple tool. The jaws *j* of the
5 clamp are so curved and tapered or thinned down, as shown in Figs. 2 and 3, that they partially encircle and clamp the conductor, while at the same time offering no obstruction to the passage of the trolley.

10 Should the nut *h*, Fig. 3, tend to loosen when the device is in use, a check-nut may be applied to the rod C above said nut *h*, or any well-known means may be employed to prevent said nut loosening.

What I claim is—

15 An insulator for overhead conductors, consisting of an insulated clamping device, said clamping device having two jaws curved and tapered at the ends to partially encircle the conductor and having beveled portions *k* and
20 a correspondingly-beveled collar co-operating with said beveled portions to close said clamping device, substantially as shown and described.

HENRY HERBERT LUSCOMB.

Witnesses:

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