

No. 747,470.

PATENTED DEC. 22, 1903.

R. ORR & J. MORRISON.  
SUPPORT FOR ELECTRICAL CONDUCTORS.

APPLICATION FILED JAN. 9, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig:1

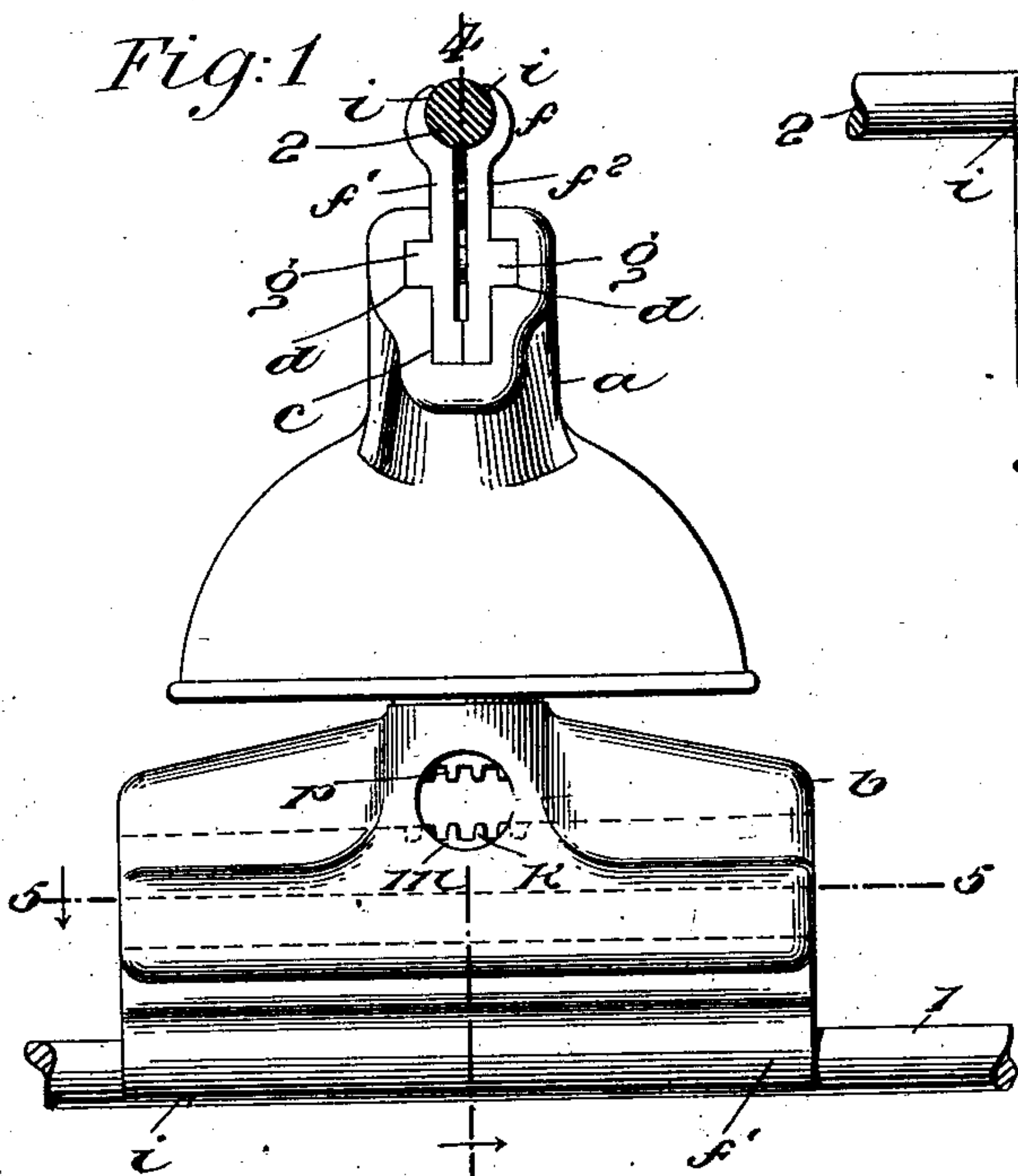
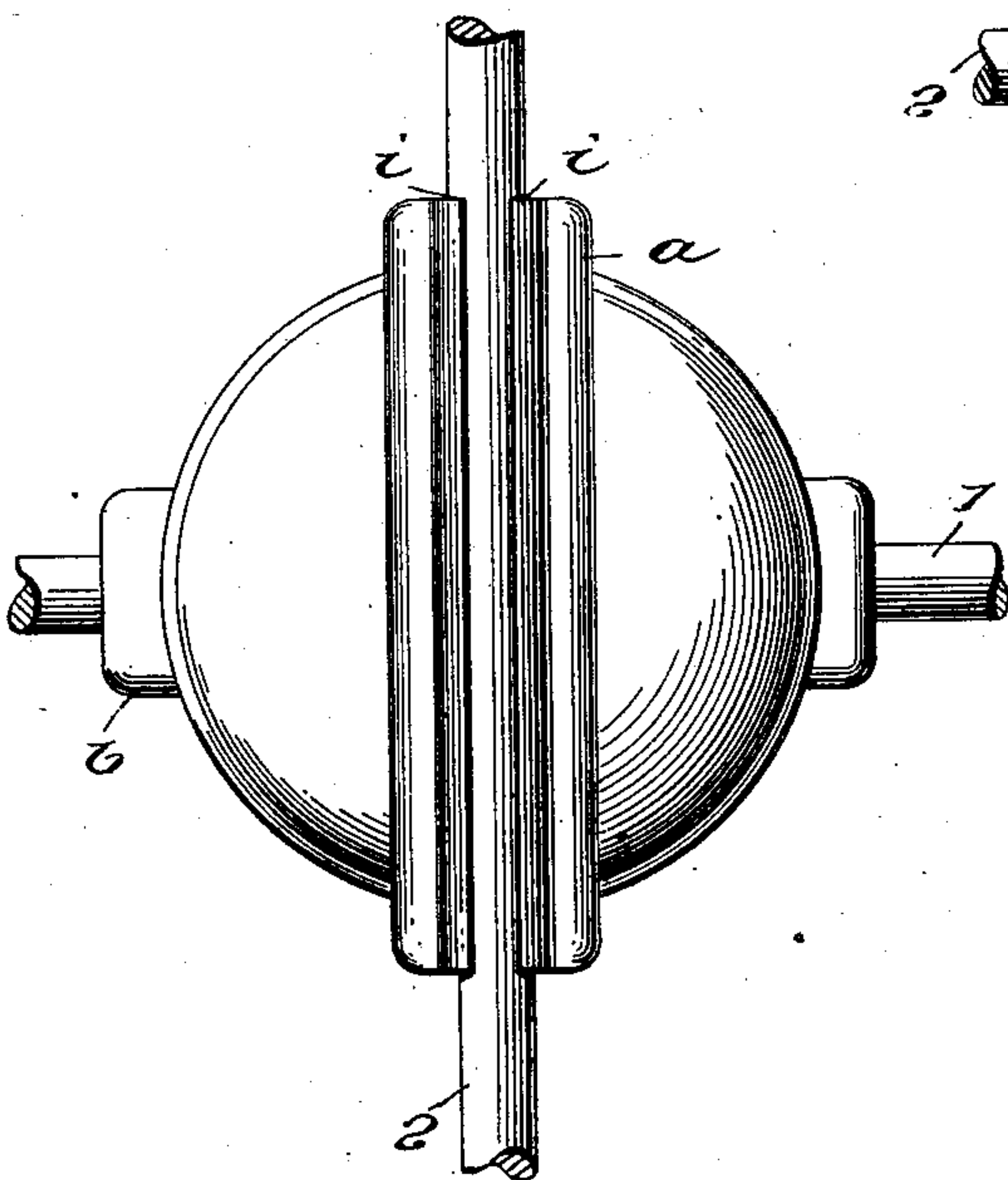


Fig:3.



Witnesses:

John A. Kennie.  
Robert Orr

Fig:2.

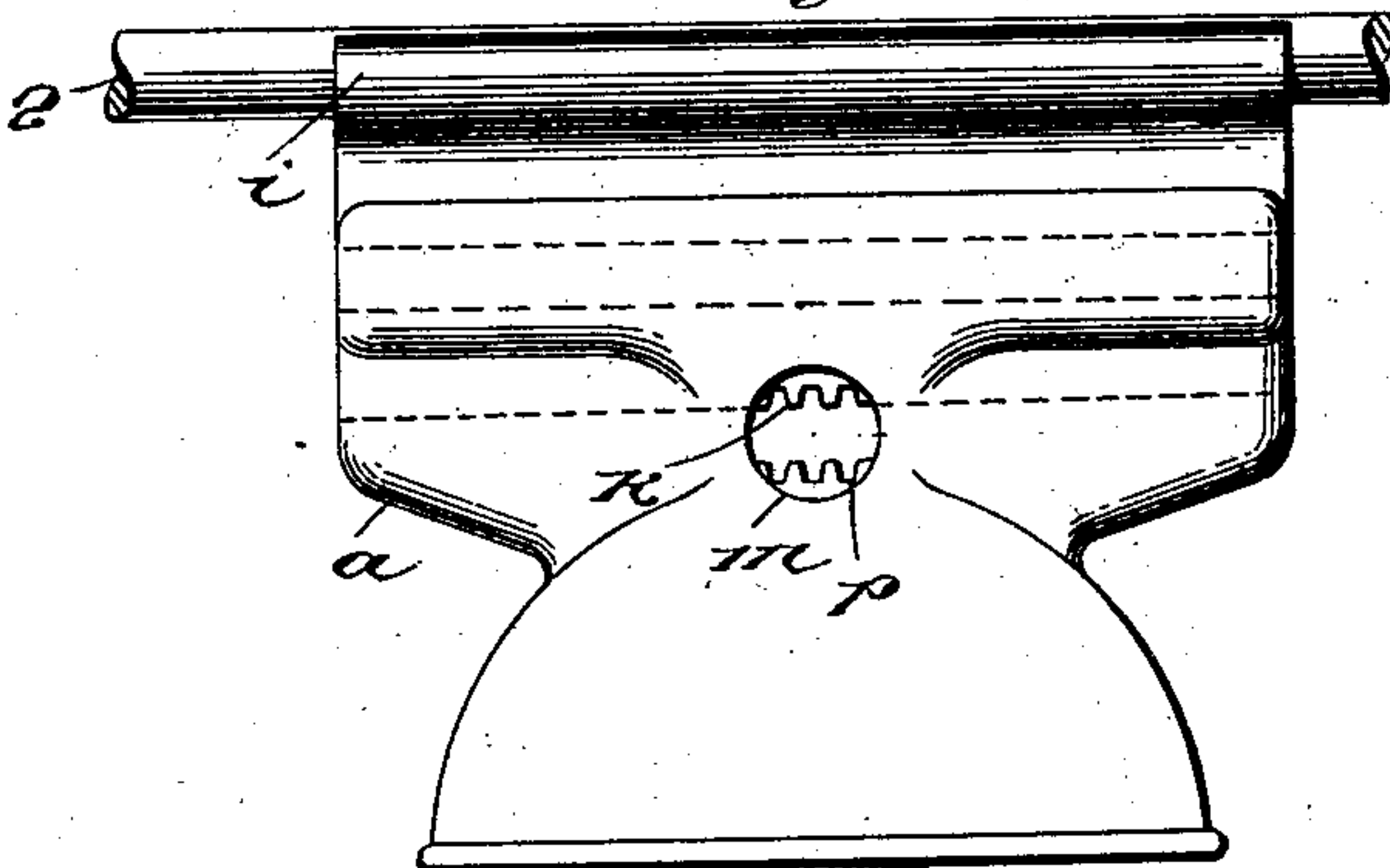
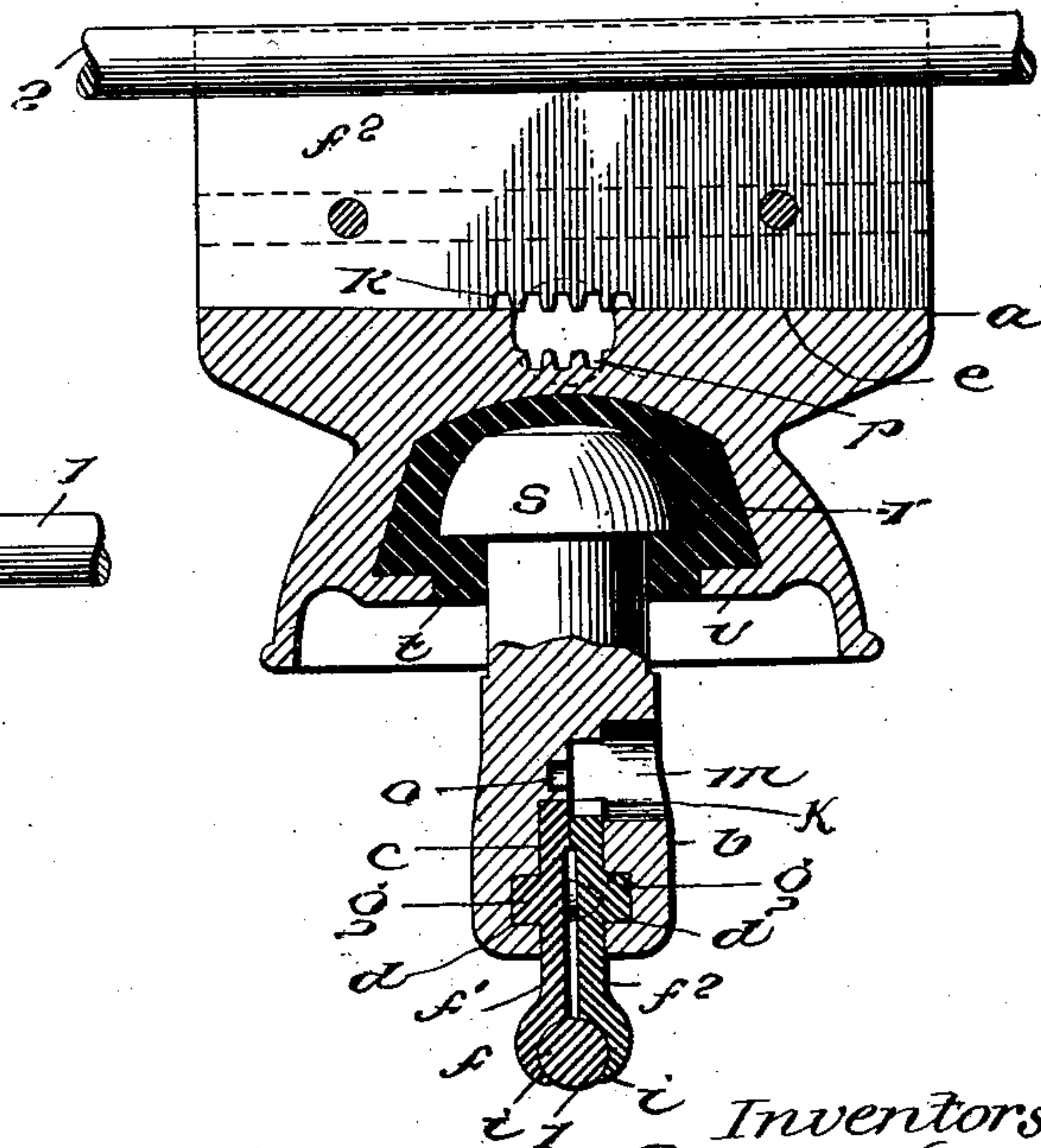


Fig:4.



Inventors:

Robert Orr  
John Morrison

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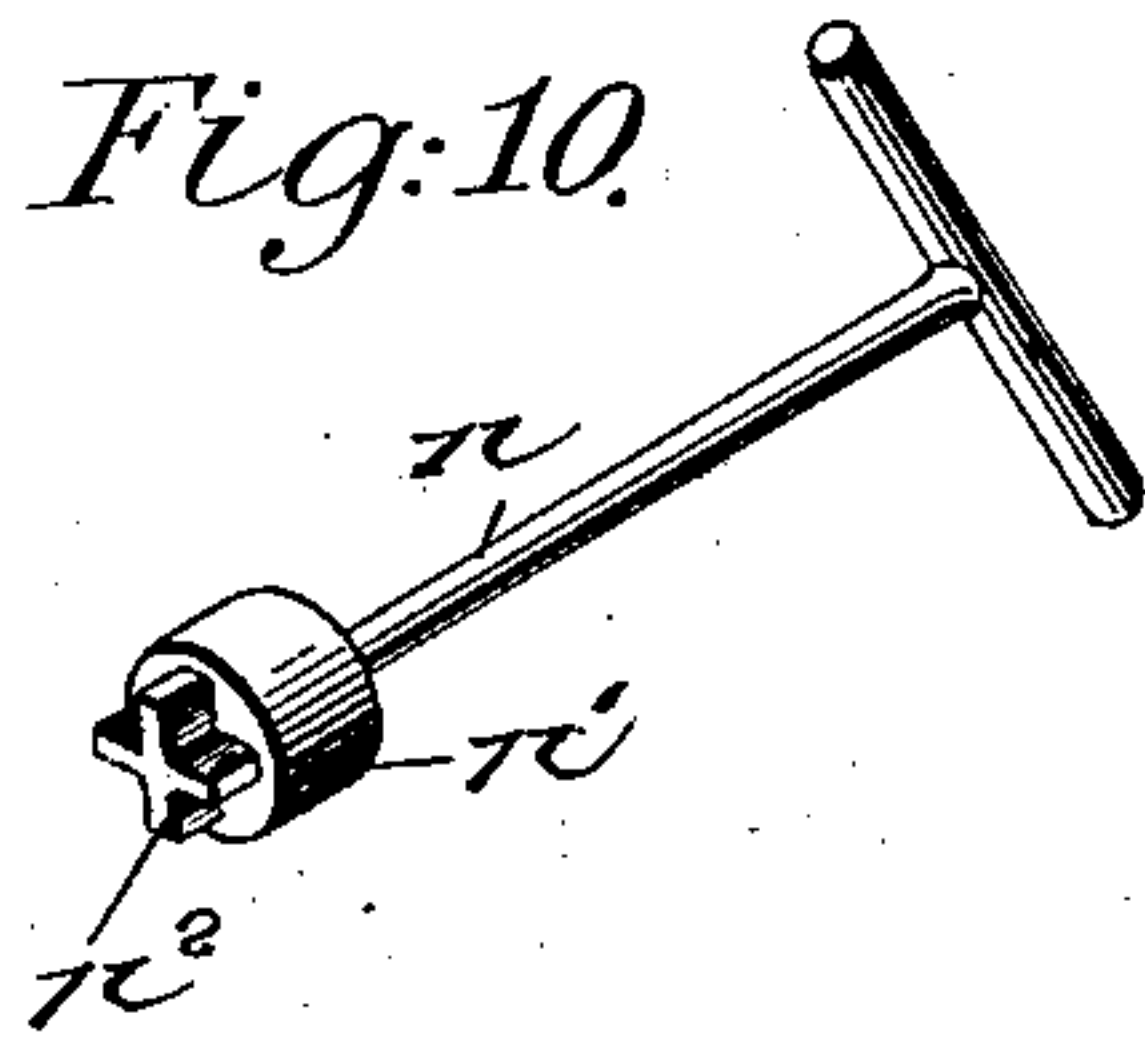
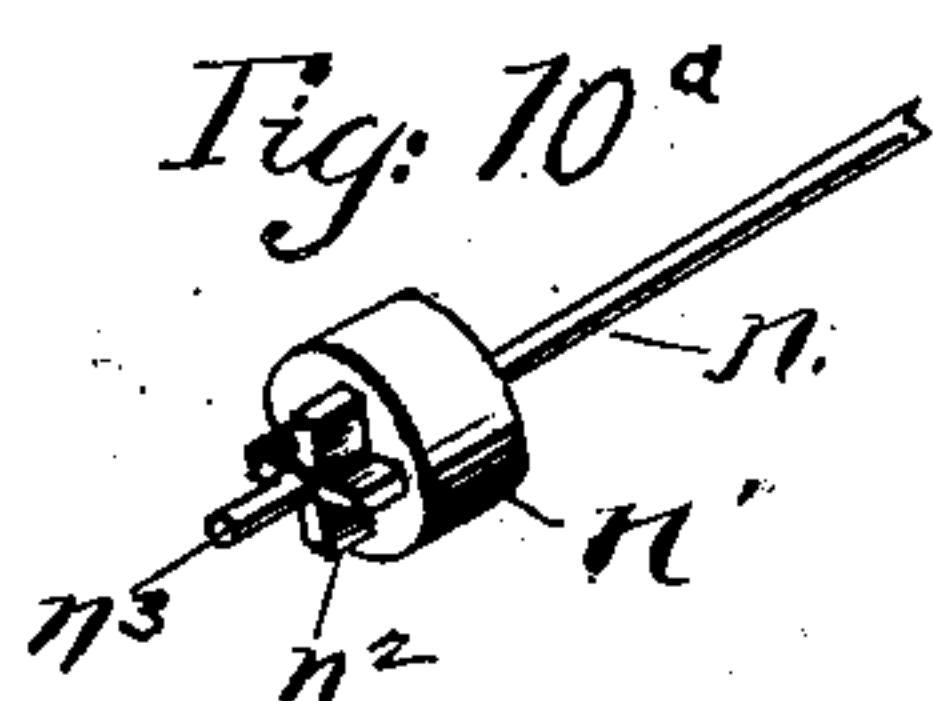
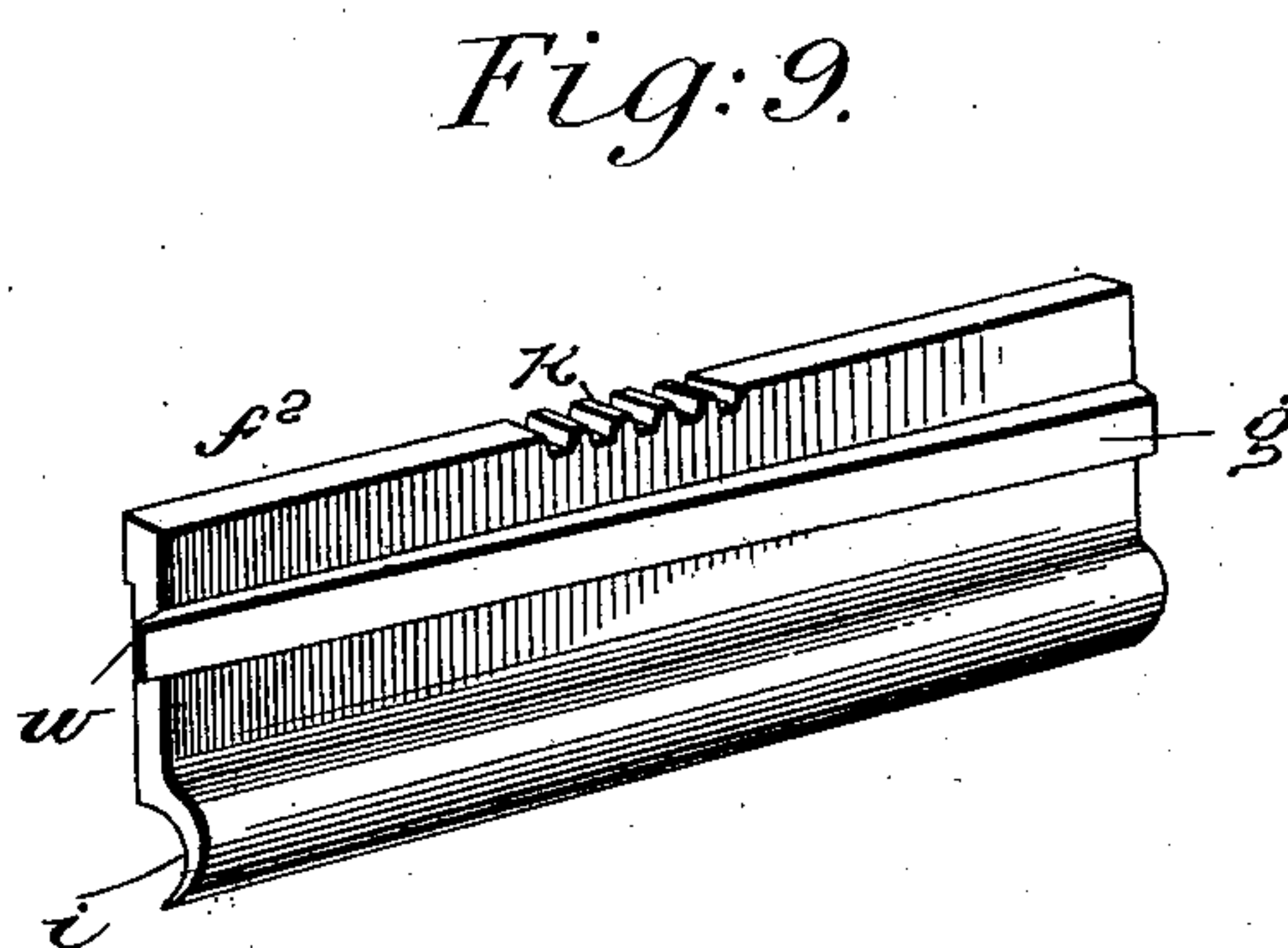
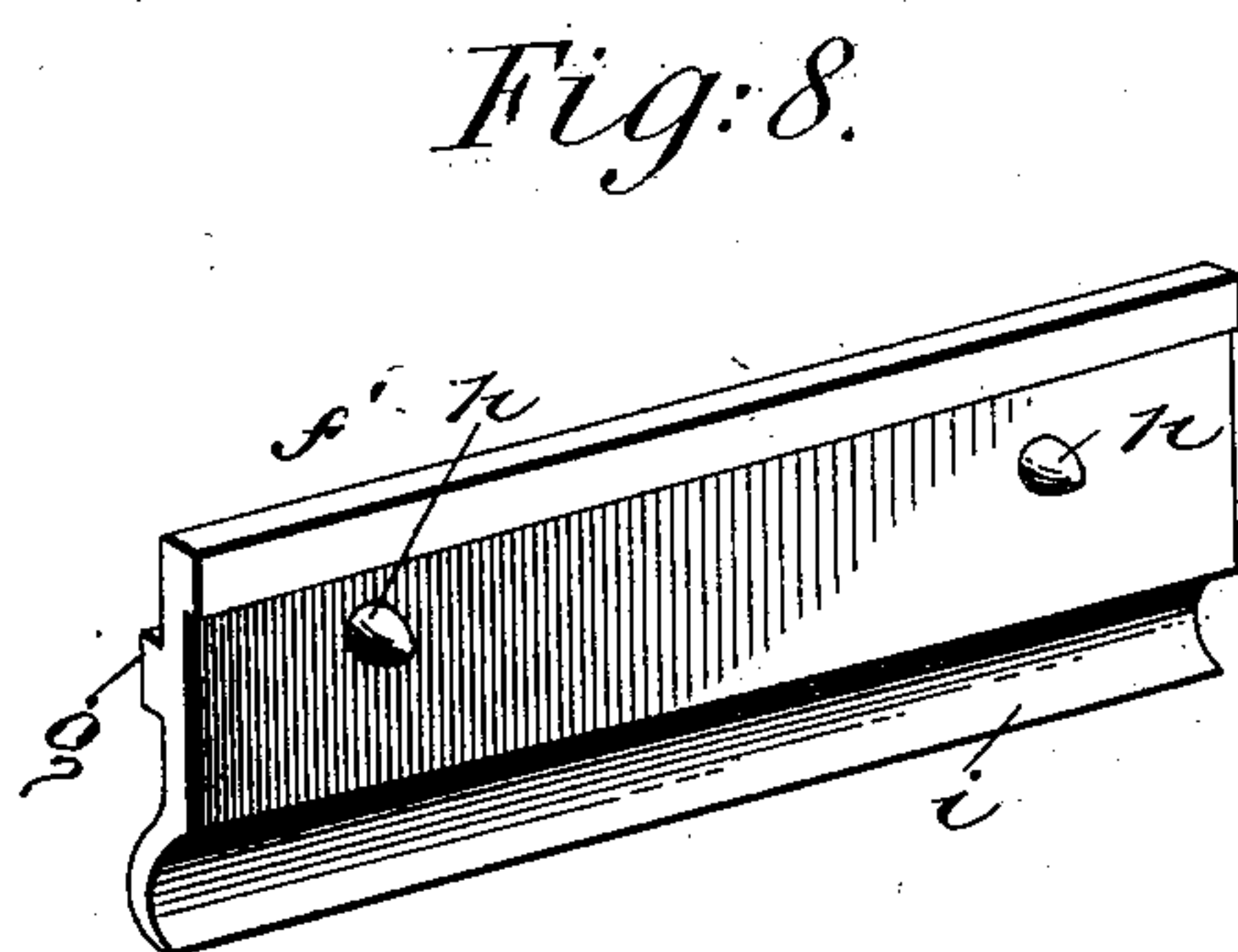
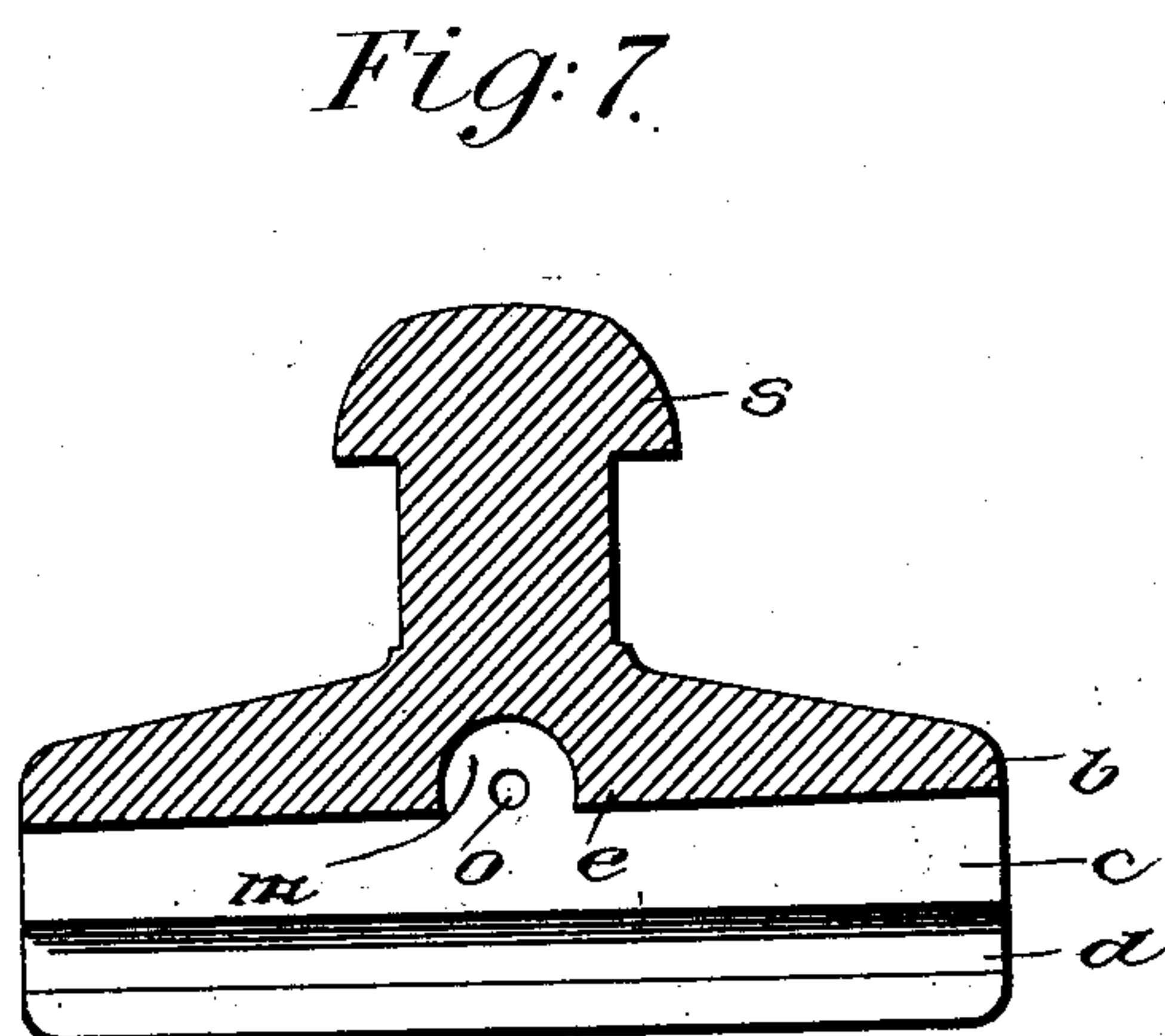
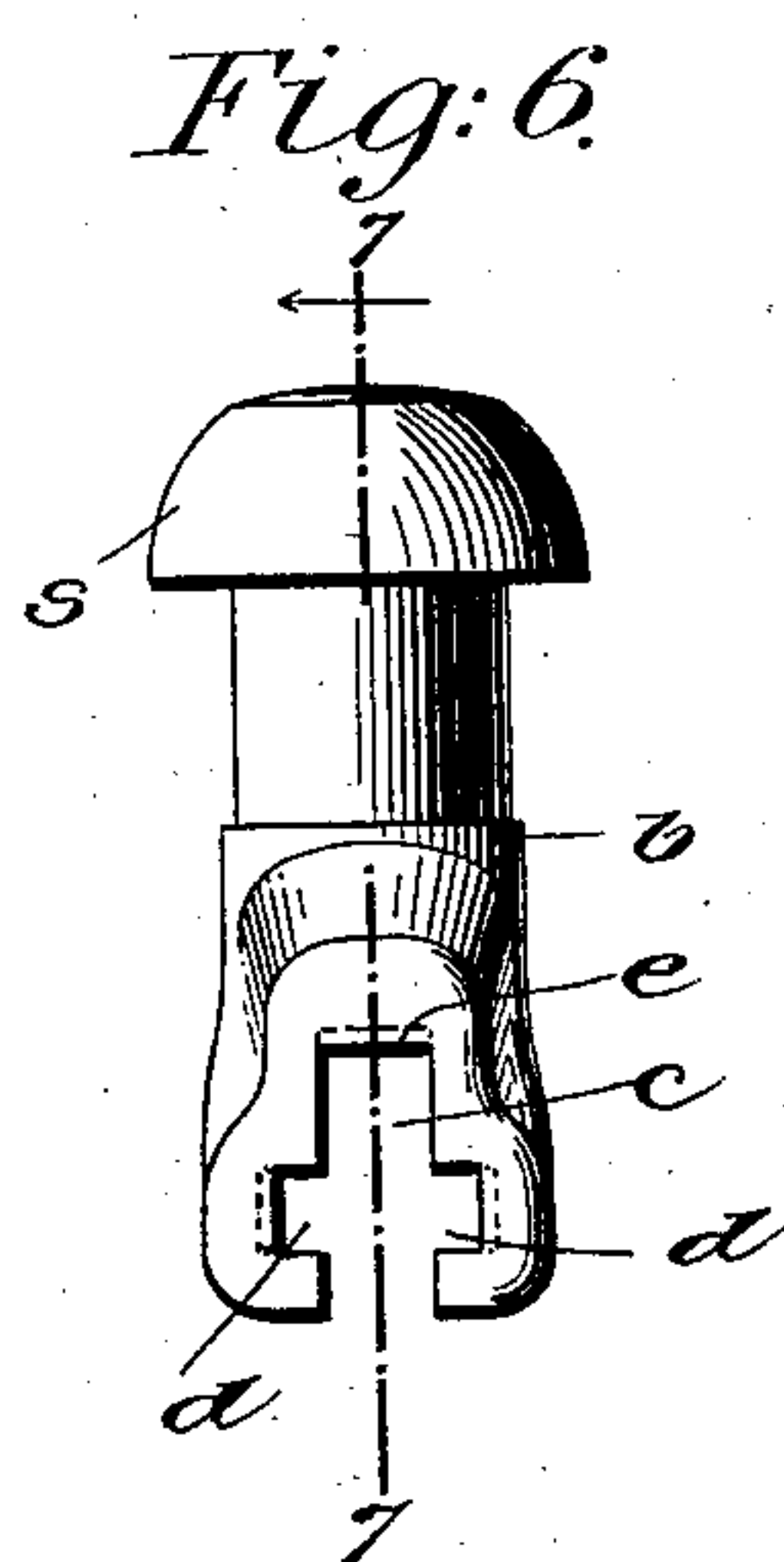
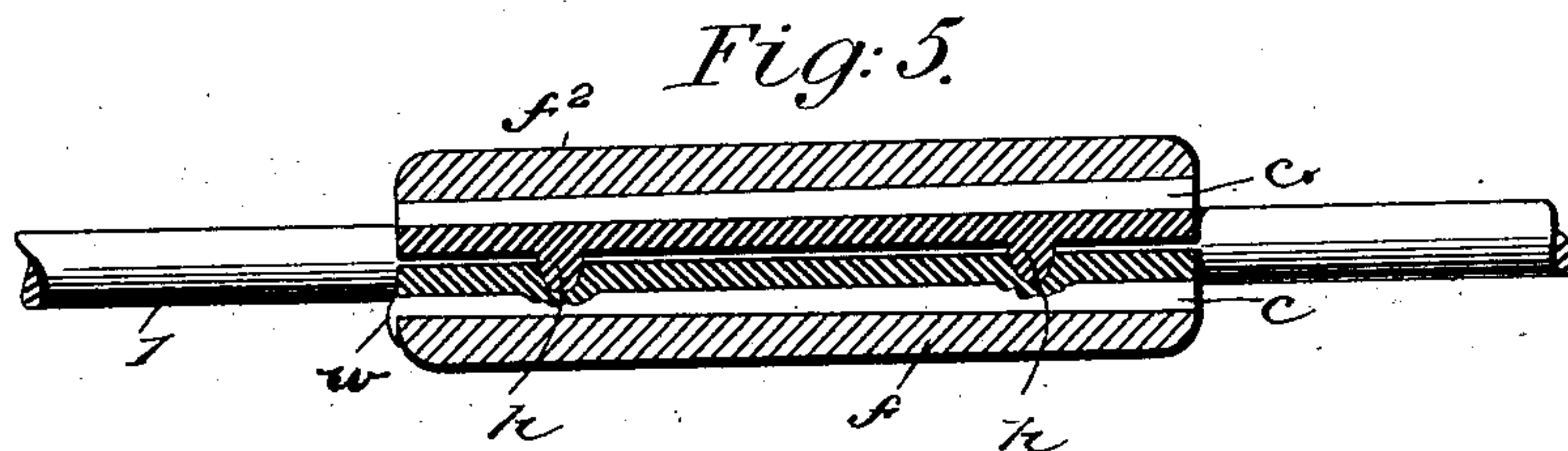
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NO MODEL.

2 SHEETS—SHEET 2.



Witnesses:

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Robert Orr

Inventors:

Robert Orr  
John Morrison



# UNITED STATES PATENT OFFICE.

ROBERT ORR AND JOHN MORRISON, OF NEW YORK, N. Y.

## SUPPORT FOR ELECTRICAL CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 747,470, dated December 22, 1903.

Application filed January 9, 1903. Serial No. 138,392. (No model.)

*To all whom it may concern:*

Be it known that we, ROBERT ORR and JOHN MORRISON, citizens of the United States, residing in the borough of Brooklyn, city of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Supports for Electric Conductors; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to devices for supporting electrical conductors; and it consists of the novel construction and peculiar arrangement of a supporting cross-wire-gripping member and a conductor-gripping member, as will be hereinafter described, and stated in the claims.

In the drawings, Figure 1 is side elevation of the conductor-gripping member, showing the supporting cross-wire-gripping member in end elevation; Fig. 2, a side elevation of the supporting cross-wire-gripping member, showing the conductor-gripping member in end elevation; Fig. 3, a top plan view; Fig. 4, a vertical sectional view on line 4 4 of Fig. 1; Fig. 5, a longitudinal sectional view on line 5 5 of Fig. 1; Fig. 6, an end elevation of the conductor member; Fig. 7, a vertical longitudinal section on line 7 7 of Fig. 6; Fig. 8, a perspective view of one of the clip or clamp jaws; Fig. 9, a similar view of the other clip or clamp jaw; Fig. 10, a perspective view of a key for forcing in the clip or clamp, and Fig. 10<sup>a</sup> a modified form of the key-operating point.

Referring to the several views, the letter *a* indicates the supporting cross-wire-gripping member, and *b* the conductor-gripping member. The two members are of similar construction and are arranged transversely to each other. Each member is provided in its longitudinal edge with a groove *c*, the inner and side walls of said groove gradually contracting toward one end, as shown in Figs. 4, 5, and 7, to form a wedge-shape recess, and said side walls are provided with oppositely-disposed and gradually-contracting grooves *d d* for a purpose hereinafter specified. Seated in the wedge-shape groove *c*

of each member is a wedge-shape clip or clamp *f*, composed of two jaws *f'* and *f''*. Each jaw is provided with a longitudinal and gradually-contracting rib or tongue *g*, which fits into one of the grooves *d* and the two jaws are detachably joined together by pins *h h*. The outer longitudinal edge of each jaw is provided with a concave gripping-face *i*, so that when united together the two concave faces will grip and securely hold the conductor 1 and the supporting cross-wire 2 when the clips are forced into position. The inner edge of one of the jaws is provided with a series of teeth *k* and one of the side faces of each member is provided with a circular aperture *m* for the insertion of a key *n*, (shown in Fig. 10,) which is formed with a boss or hub *n'*, having projecting wards *n''*, adapted to engage the teeth *k* of the jaw. Projecting from the point of juncture of the wards *n''* is a post *n'''* (shown in Fig. 10<sup>a</sup>) and opposite the aperture *k* is a small hole *o* for receiving the post *n'''*, said hole serving as a bearing for the key when employed to force the clip or clamp in tightly-wedged position. Instead of providing the key with the post *n'''* and the member with the hole *o* the inner wall of the groove *e* may be provided with teeth *p* to be engaged by the wards *n''* and serve as the bearing for the key, or both the hole *o* and the teeth *p*, and consequently the post *n'''*, may be dispensed with and the circular aperture *m* made to serve as the bearing for the key by having the hub or boss thereof of a size to fit said aperture; but either of the first two methods are preferable, as they afford a firmer bearing for the manipulation of the key.

In uniting the two members together we prefer to provide the gripping member that is supported by the cross-wire with a recess *r* and the conductor-gripping member with a head *s* on the first-mentioned member with the recess, as is evident, said head in either event being adapted to be received within said recess and firmly supported by a suitable insulating material *t*, which material fills the space surrounding the head *s* and is securely held within said recess by an inwardly-extending flange *v*.

The longitudinal rib or tongue of one of



the clip or clamp jaws is preferably extended a slight distance beyond its end to form a flange *w*, so that when the clip or clamp is forced in wedged position the flange *w* is bent over upon the edge of the member at one side, as shown in Fig. 5, to prevent the accidental displacement of the clip or clamp.

The operation of the device will be readily understood without further explanation other than to state that by inserting the key in the aperture *m* and turning it the clip or clamp may be quickly and readily forced to wedged position and that by making the clip or clamp wedge shape its entrance into the groove *c* is greatly facilitated.

Various modifications or changes in the construction of our improved device besides those herein mentioned may be made without departing from the spirit of the invention or sacrificing the principle thereof.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A device for supporting electrical conductors, consisting of two connected members, each member being provided with a wedge-shape groove, and a wedge-shape wire-gripping clip or clamp adapted to be secured in said groove.

2. A device for supporting electrical conductors, consisting of two connected members, each member being provided with a wedge-shape recess having oppositely-disposed grooves in its side walls, and a wedge-

shape wire-gripping clip or clamp having ribs to set in the oppositely-disposed grooves.

3. In a device for supporting electrical conductors, the combination of two members connected together, each member being provided with a wedge-shape recess, a wedge-shape wire-gripping clip or clamp, and means for forcing the clip or clamp into wedged position.

4. In a device for supporting electrical conductors, the combination of two members connected together, each member being provided with a wedge-shape recess and a key-hole, a wedge-shape wire-gripping clip or clamp provided with a series of teeth, and a device for engaging the teeth to force the clip or clamp into wedged position.

5. In a device for supporting electrical conductors, the combination of two members connected together, one of said members being provided with a recess having an inwardly-extending flange, and the other member provided with a head extending into said recess and surrounded by an insulating material, each member being provided with a wedge-shape recess, and a wedge-shape wire-gripping clip or clamp seated in said recess.

In testimony whereof we affix our signatures in the presence of two witnesses.

ROBERT ORR.

JOHN MORRISON.

Witnesses:

FRANK TOUSEY,  
JOHN PULLMAN.