

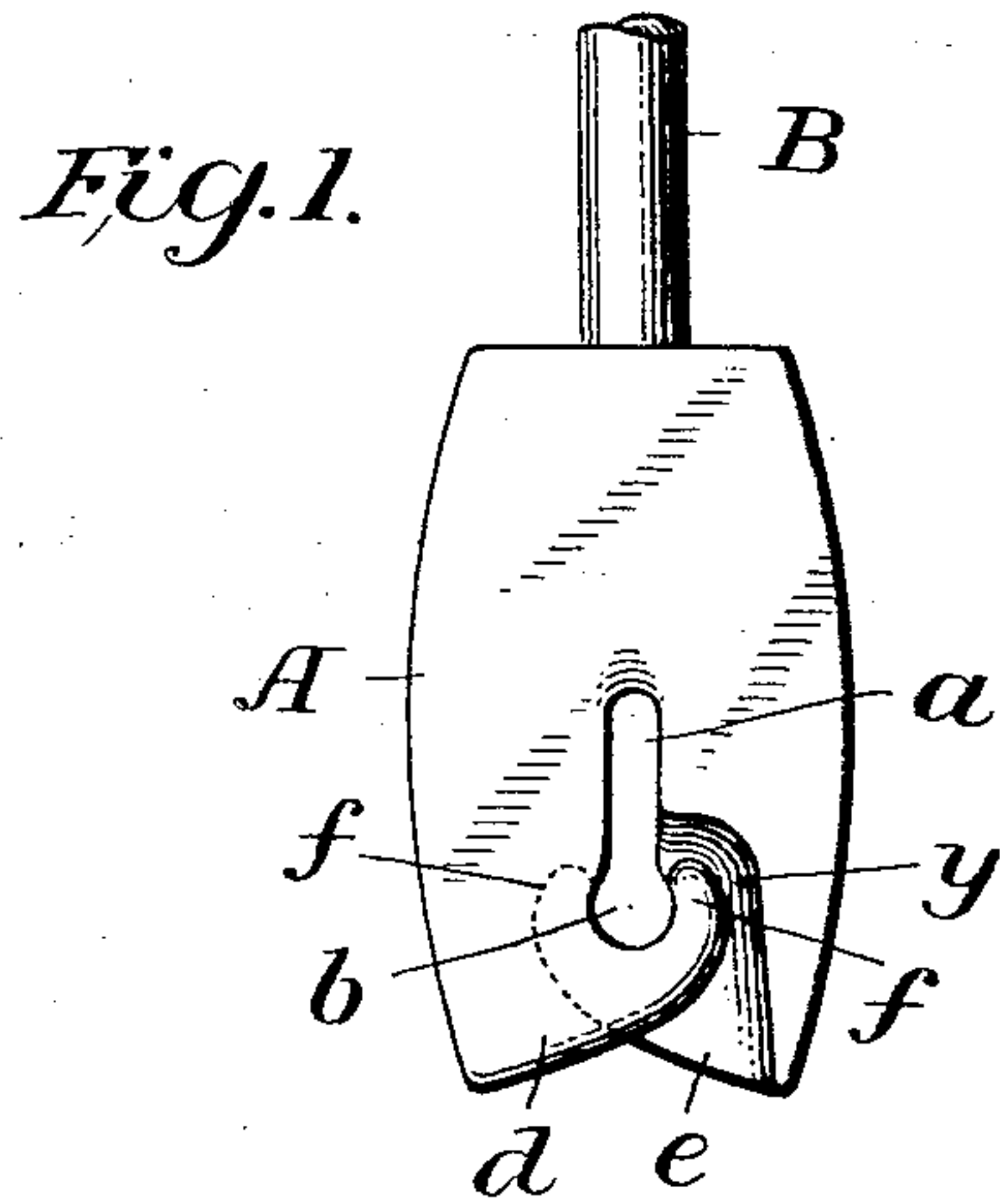
J. R. MITCHELL.

GUIDE.

APPLICATION FILED FEB. 18, 1908.

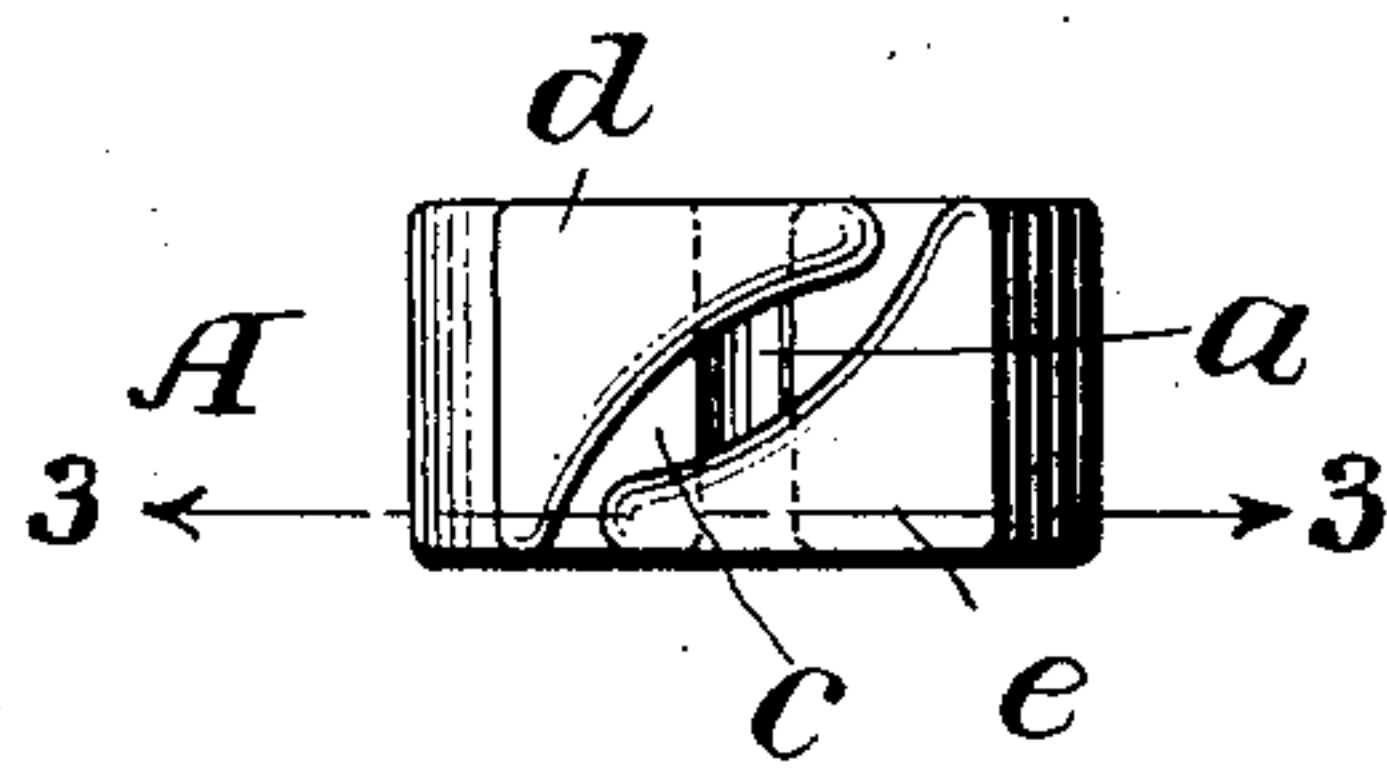
906,543.

Patented Dec. 15, 1908

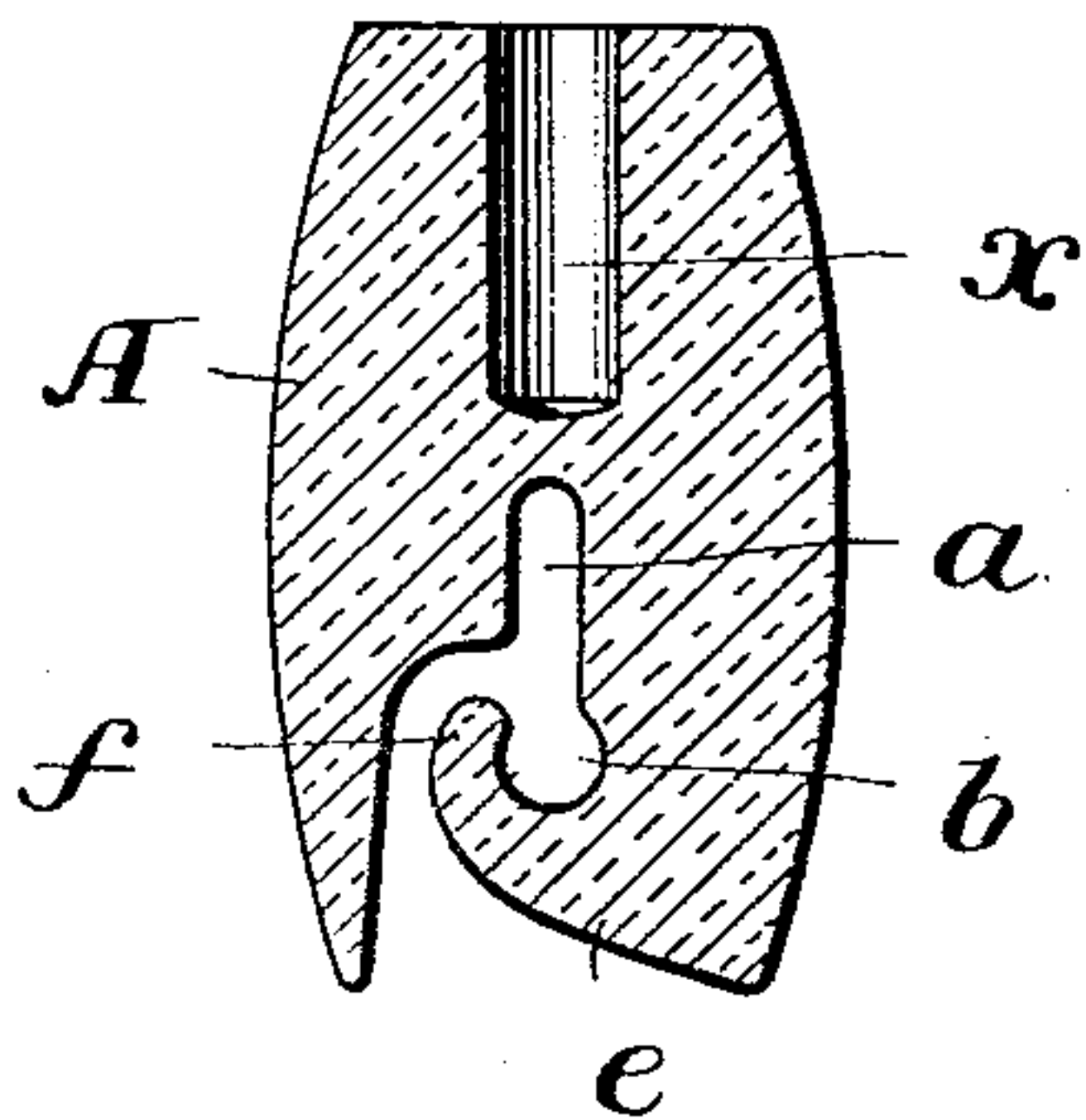
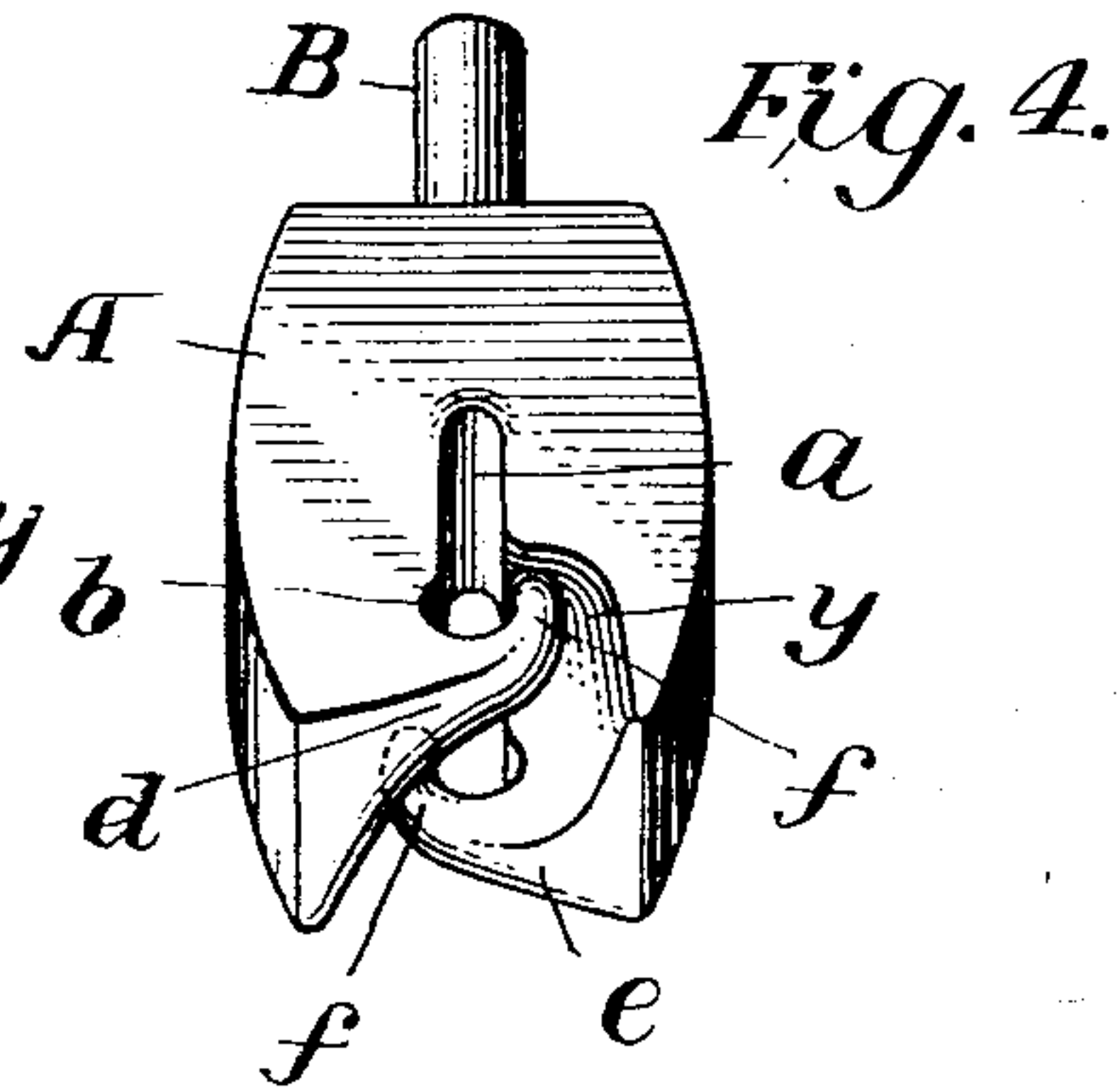


*Fig. 5.*

*Fig. 2.*



*Fig. 3*



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN R. MITCHELL, OF NEW YORK, N. Y.

## GUIDE.

No. 906,543.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed February 18, 1908. Serial No. 416,534.

*To all whom it may concern:*

Be it known that I, JOHN R. MITCHELL, a citizen of the United States, and residing at New York, N. Y., have invented certain new and useful Improvements in Guides, of which the following is a specification.

My invention relates to that class of guides especially adapted for use in connection with winding, doubling and spinning machines, etc., in which it is necessary to pass the yarn into the guide opening from one end or side of the guide, and consists of a block having a slot open at one end and with a diagonal outer passage or channel and overlapping hooks somewhat of the character of the guide patented to me by Letters-Patent No. 852,073, but constructed to secure advantages over the said patented device, as fully set forth hereinafter and as illustrated in the accompanying drawing, in which:

Figure 1 is a face view of a guide embodying my invention; Fig. 2 an end view; Fig. 3 a sectional plan on the line 3—3 Fig. 2; Fig. 4 a perspective view looking from the outer end of the guide. Fig. 5 shows a modification.

The guide consists of a block A which may be of metal or any suitable material, but preferably is of vitreous material, and with a socket or recess *a* for the reception of the supporting bar or other support B. In the block, preferably in the center thereof, is a slot *a* extending vertically (when the guide is arranged in a horizontal position) from the upper to the lower face and open at the outer end where it preferably terminates in an enlargement *b*, and with this enlarged end of the slot communicates a diagonal channel or passage *c* which forms two overlapping fingers *d*, *e*. The face of the block is cut away at each side to form a depression or recess *y* at one side of the outer end of the slot and into this depression or recess extends an inwardly turned hook *f* at the end of the finger *d* or *e*, which hook may have a straight inner edge, as in Fig. 5, but is preferably curved as in the other figures; it is so arranged however that there is room for the passage of the thread between the said hook and the face of the recess *y*, the inner edge of the latter formed to present a transverse shoulder *w*. It will be seen that as thus constructed each inwardly

turned hook lies in the recess *y* at one side of the outer end of the slot so that the outer end or enlargement *b* of the slot constitutes practically a vertical passage with the hooks on opposite sides thereof.

In my aforesaid patented guide block the hooked fingers are differently constructed and are not on the opposite sides of the outer end of the slot, and it has been found that in connection with certain kinds of apparatus where the yarn is subjected to irregular draft and movements there is a chance for the same to jerk out of the outer end of the guide. My improved construction is intended to obviate this character of action and effectually secures this result inasmuch as the hooks are separated so that if the yarn is drawn from either side it must engage one of the hooks and cannot possibly escape unless it passes between the hook and the face of the recess *y*, which the hook overlies. Thus it will be seen that if the yarn is carried outward it cannot possibly escape either hook for such escape is only possible by carrying the yarn in a straight course outward, and then over at right angles and this would have to occur on both sides, an impossible effect under any conditions in which the guide is used, so that the guide constitutes an absolute lock. It will further be seen that the converging angles of the outer faces of the fingers and the shoulder *w* of the recess *y* result in an especially easy threading of the guide, as yarn held vertically and simply carried toward the guide will be directed by the inclined edges and faces toward the slot with no guiding effort on the part of the operator, and as the yarn passes either hook if the thread inclines in respect to the top of the guide, the shoulder *w* will direct the yarn inside the hook.

Without limiting myself to the precise construction and arrangement of parts shown, I claim:

1. A guide consisting of a block having at the outer end two overlapping hooked fingers with an intermediate diagonal recess, and a vertical slot back of said fingers and wider at the point adjacent to the fingers than at the rear, each hook projecting toward the side of the block beyond the side of the widest portion of the recess.

2. A guide consisting of a block having a slot opening at one end into the diagonal

channel in the outer end of the block, and with a recess at the outer end in each face of the block and at opposite sides of the slot, and with fingers having inwardly curved  
5 hooks extending into said recesses.

3. A guide consisting of a block with a slot open at the outer end, and with overlapping hooked fingers and an intermediate

diagonal channel and recesses  $y, y$  with transverse shoulders  $w$ . 10

In testimony whereof I affix my signature in presence of two witnesses.

JOHN R. MITCHELL.

Witnesses:

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