

(No Model.)

W. H. HASKELL.

THILL COUPLING.

No. 387,414.

Patented Aug. 7, 1888.

FIG. 1.

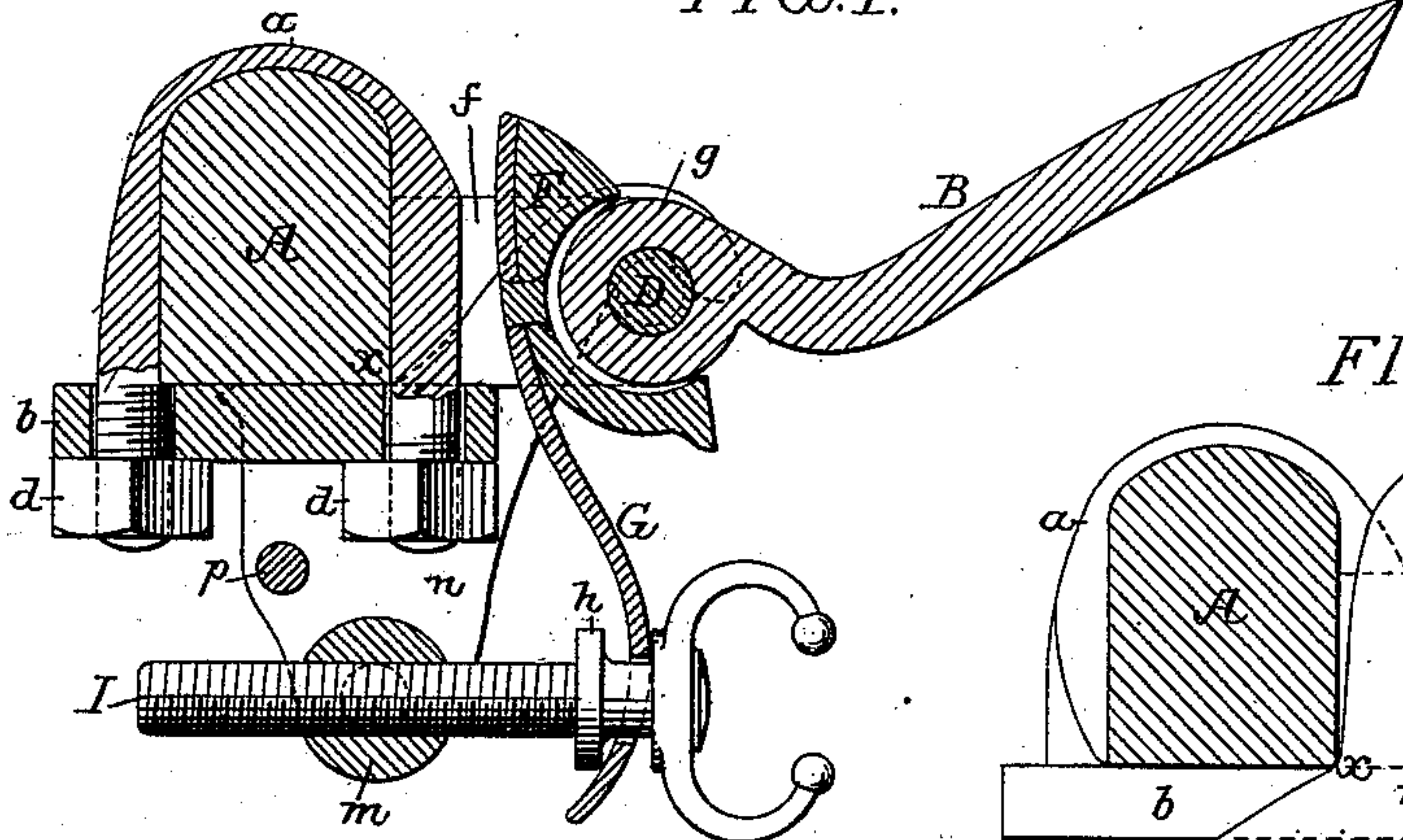


FIG. 2.

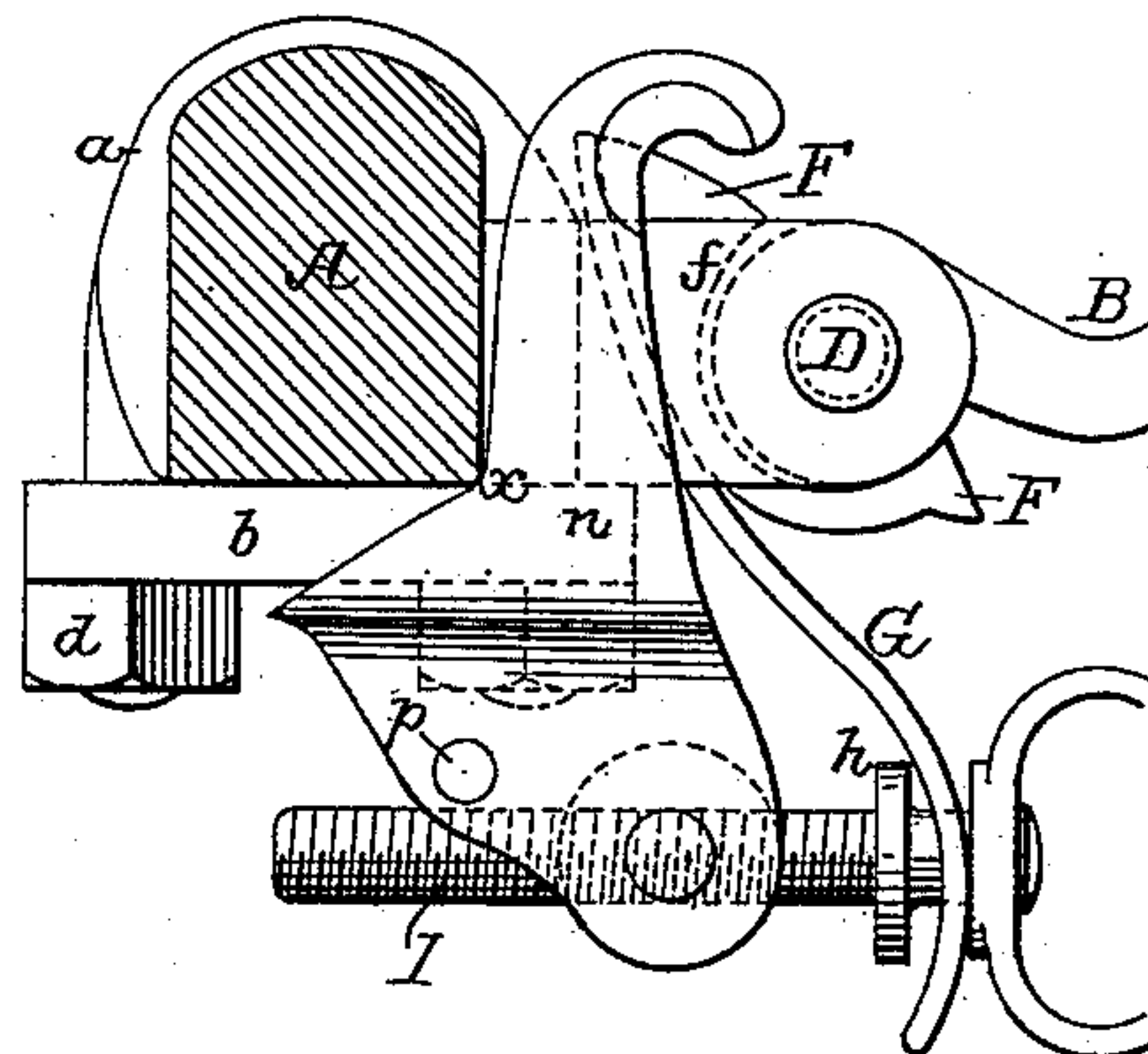


FIG. 3.

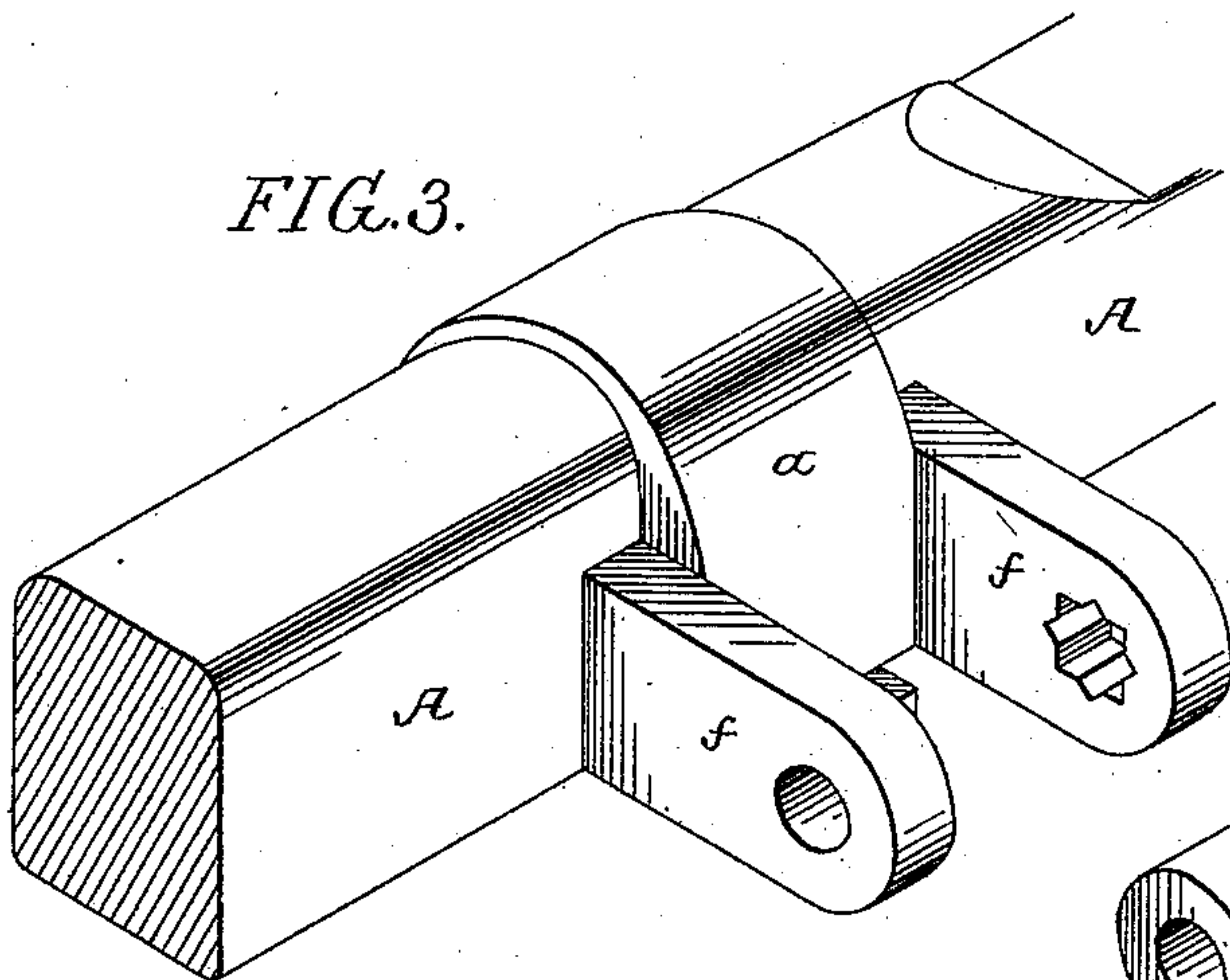


FIG. 7.

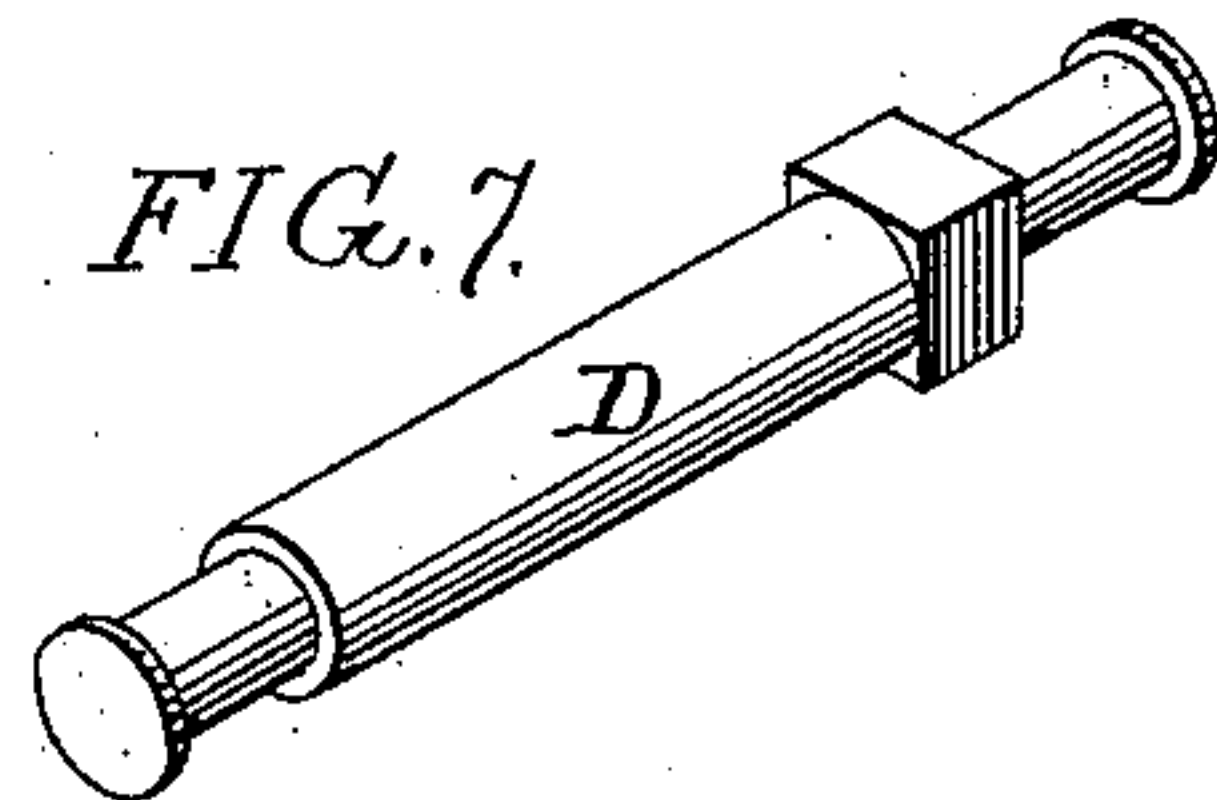


FIG. 6.

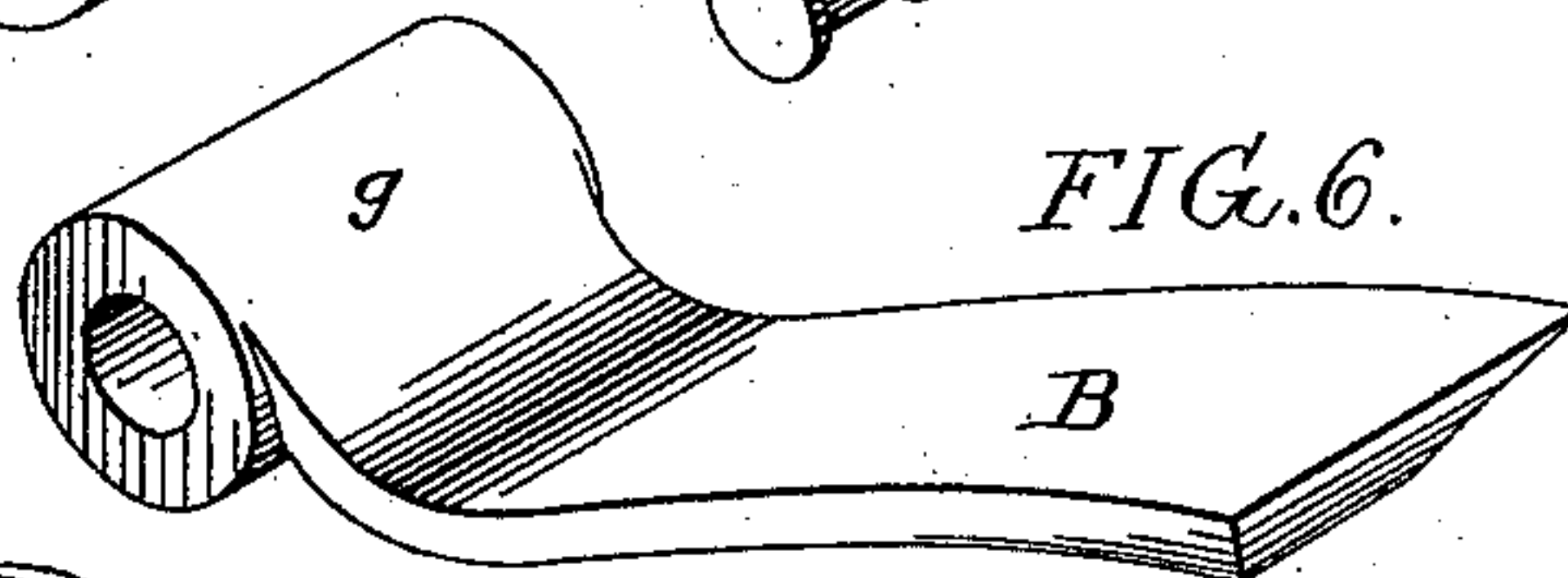


FIG. 4.

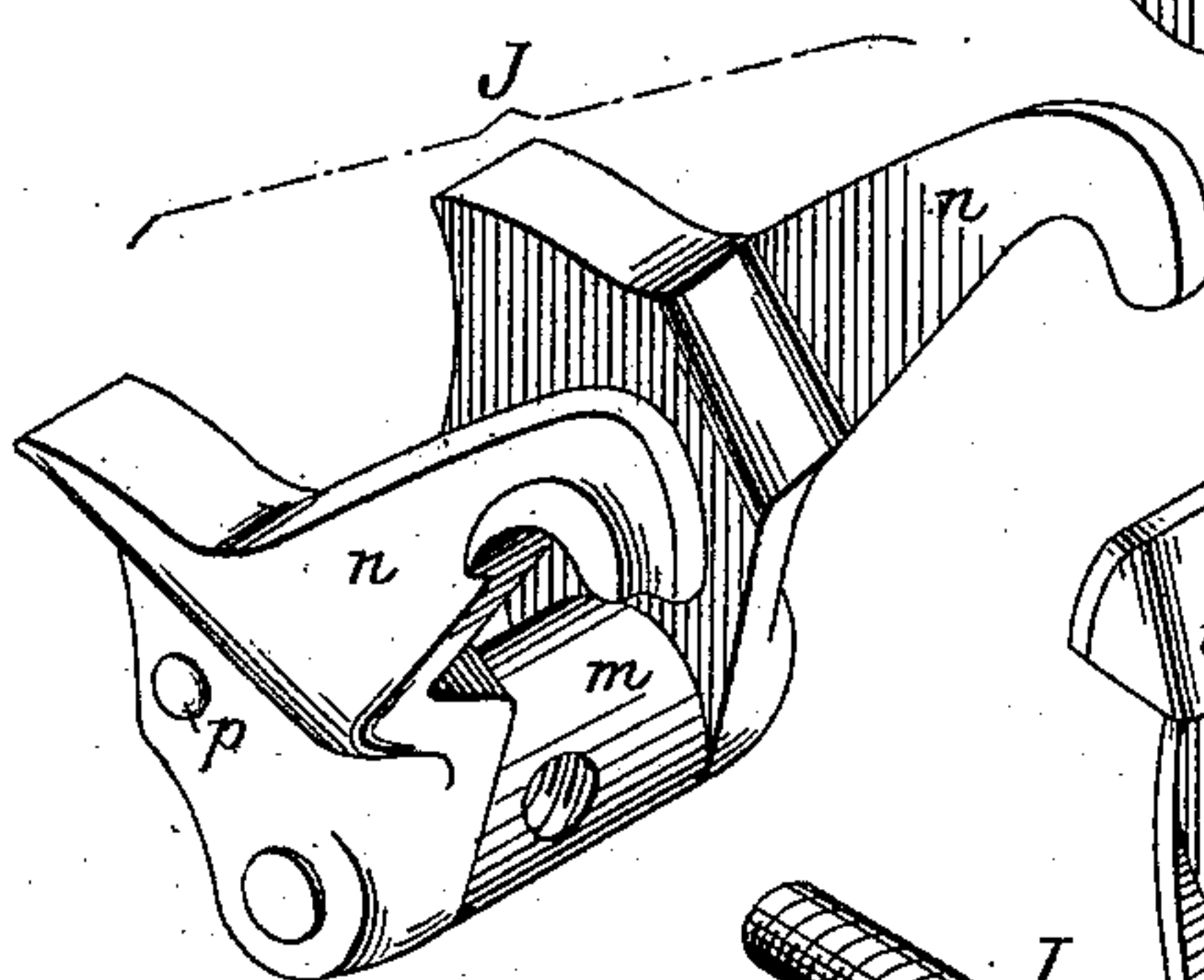
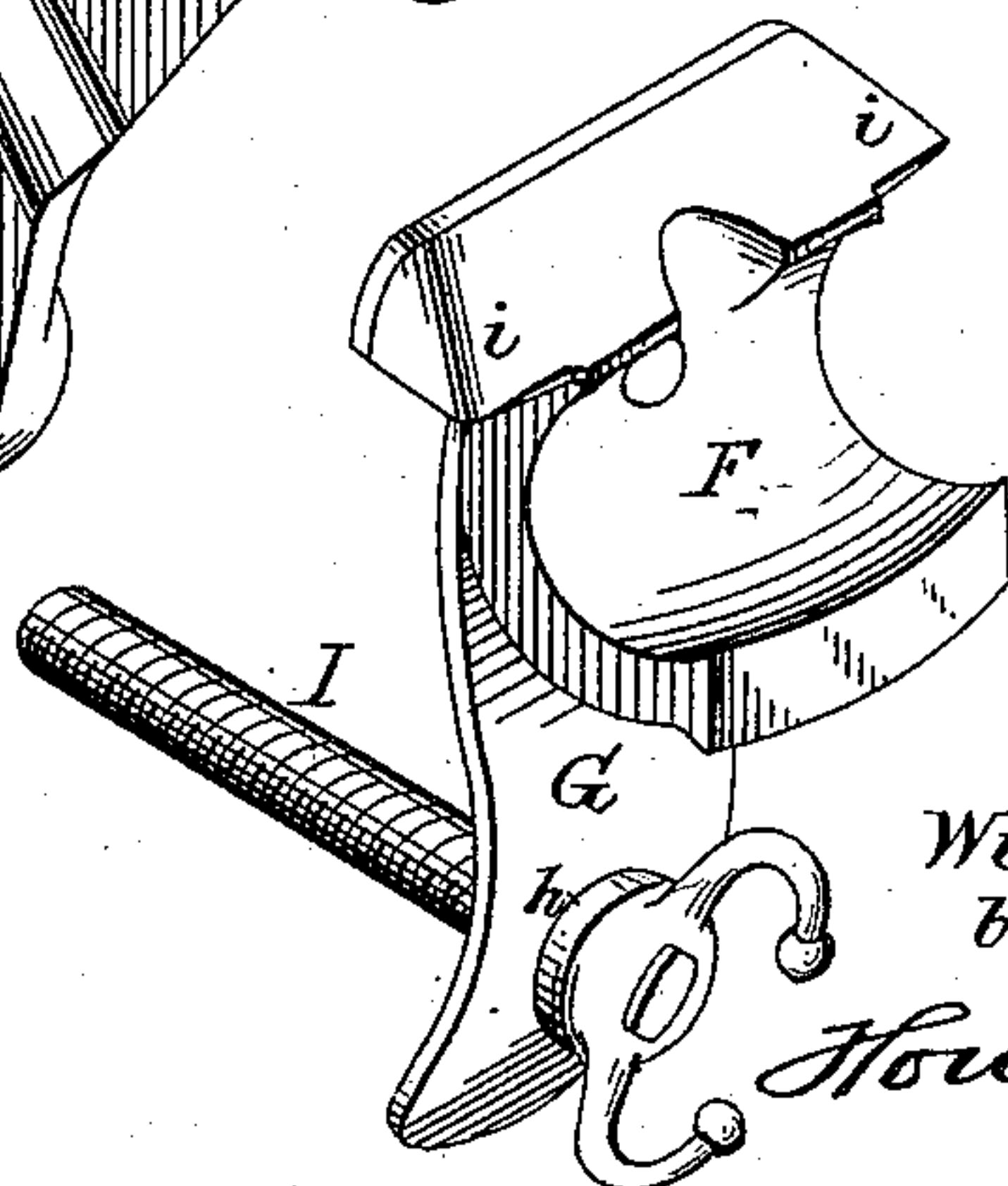


FIG. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM H. HASKELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF, GEORGE W. HASKELL, AND HENRY J. HASKELL, ALL OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 387,414, dated August 7, 1888.

Application filed May 28, 1888. Serial No. 275,282. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HASKELL, a citizen of the United States, residing at Philadelphia, Pennsylvania, have invented certain Improvements in Thill-Couplings, of which the following is a specification.

My invention consists of certain improvements in the thill-coupling forming the subject of previous Letters Patent Nos. 185,528, 205,082, and 279,381, one object of my present invention being to simplify and cheapen the construction of the coupling, and a further object being to render it easier of operation than those before patented. These objects I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a section of the coupling in its operative position. Fig. 2 is a similar view showing the parts adjusted to permit the detaching of the thill from the coupling, and Figs. 3 to 7 are detached perspective views of the various parts composing the coupling.

A represents part of the axle, to which the usual clip, *a*, is secured by means of a transverse bar, *b*, and nuts *d*, the clip having in front of the axle opposite projecting ears *f*, between which fits the eye *g* of the thill-iron B, the opposite ears having openings for the reception of the pivot-pin D of the thill.

Fitting between the ears *f* of the clip is a friction-block, F, which has lugs *i*, bearing upon the tops of the ears, and is provided with a spring-arm, G, the lower end of which engages with a grooved collar, *h*, secured to or forming part of a screw-stem, I, the latter being adapted to a nut, *m*, which is swiveled to the lower end of a frame, J, comprising opposite plates *n*, connected by a transverse bar, *p*, these plates having a bearing upon the axle at *x*, and being hooked at their upper ends for adaptation to the grooved end portions of the pivot-bolt D of the thill, these end portions projecting beyond the opposite ears *f* of the clip when the bolt is applied to the thill-eye.

When the upper hooked ends of the plates *n* are in engagement with the recessed ends of

the pivot-pin, and said plates have their bearing upon the axle, the position of the nut *m* may be said to be fixed, and by turning the screw-stem I the lower end of the spring-arm G may be drawn outward, so as to draw the friction-block F firmly against the thill-eye, and thus prevent rattling of the same. When it is desired to detach the thill, however, the screw-stem I is so manipulated as to draw forward the nut *m* and the lower ends of the plates *n*, the bearings of said plates upon the axle forming a fulcrum, and thus causing the upper hooked ends of the plates to be lifted free from engagement with the projecting recessed ends of the pivot-pin D of the thill, as shown in Fig. 2, so that said pin may be withdrawn laterally and the thill removed, a reversal of the direction of movement of the screw-stem serving to again lock the parts in position on the reinsertion of the thill and its pivot-pin.

While my present coupling has all the advantages of the previous coupling as regards the use of the ordinary clip with its ears and the ordinary thill-iron, the present coupling is simpler and cheaper in construction and more readily operated than those before patented.

The pivot-pin D is independent of the plates *f*, so that the thill can be detached without necessitating lateral movement of said plates, the only manipulation necessary in order to confine or release the thill being the turning of the screw-stem I.

The friction-block F is recessed in the center, so as to bear only upon the end portions of the thill-eye, and thus laterally confine the same, as in the coupling shown in Patent No. 205,082.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the clip and its ears, the thill-iron and its pivot-pin, the friction-block having a projecting arm, the locking-plates engaging with the pivot-pin and having a bearing on the axle, and a screw-stem and nut for acting on the plates and on the arm

of the friction-block, all substantially as specified.

2. The combination of the axle-clip having projecting ears, the thill-iron and its pivot-
5 pin, the friction-block and its spring-arm, locking-plates fulcrumed on the axle and engaging with the pivot-pin, and a screw-stem and nut for operating the friction-block and locking-plates, all substantially as specified.

In testimony whereof I have signed my name 10
to this specification in the presence of two subscribing witnesses.

WM. H. HASKELL.

Witnesses:

WILLIAM D. CONNER,
HARRY SMITH.