

No. 698,734.

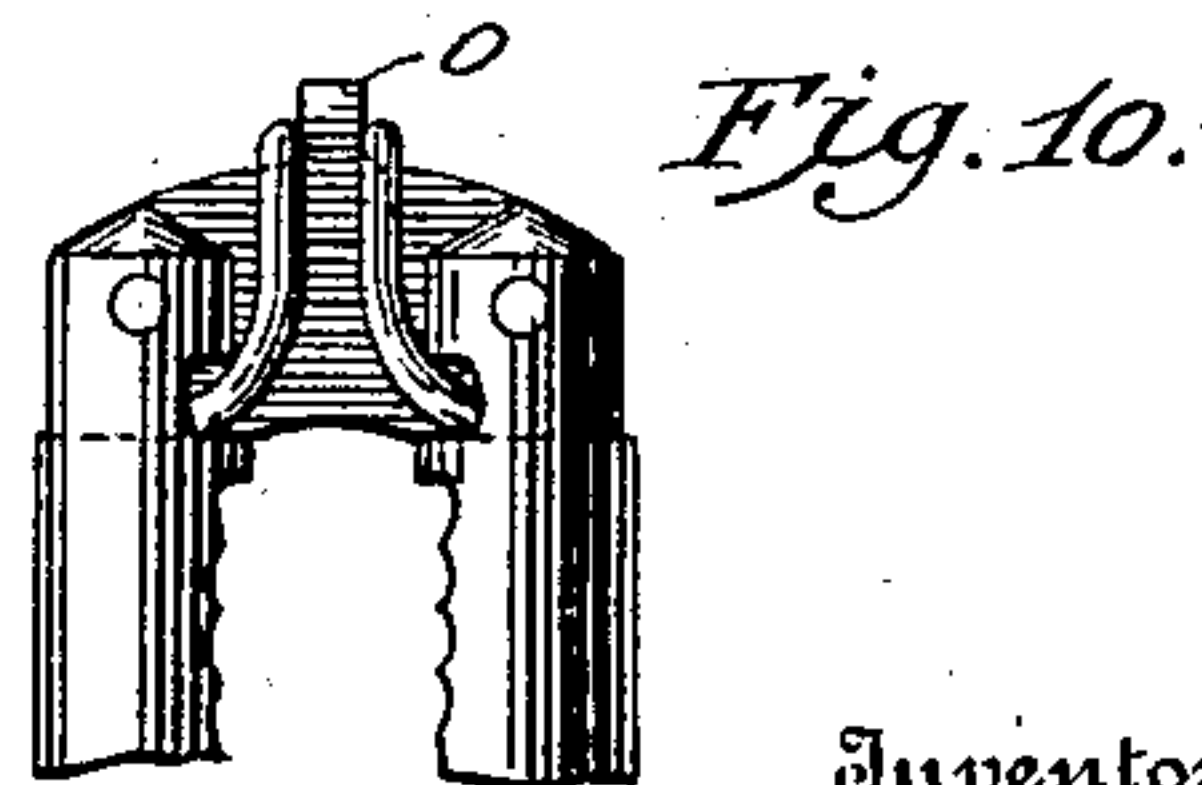
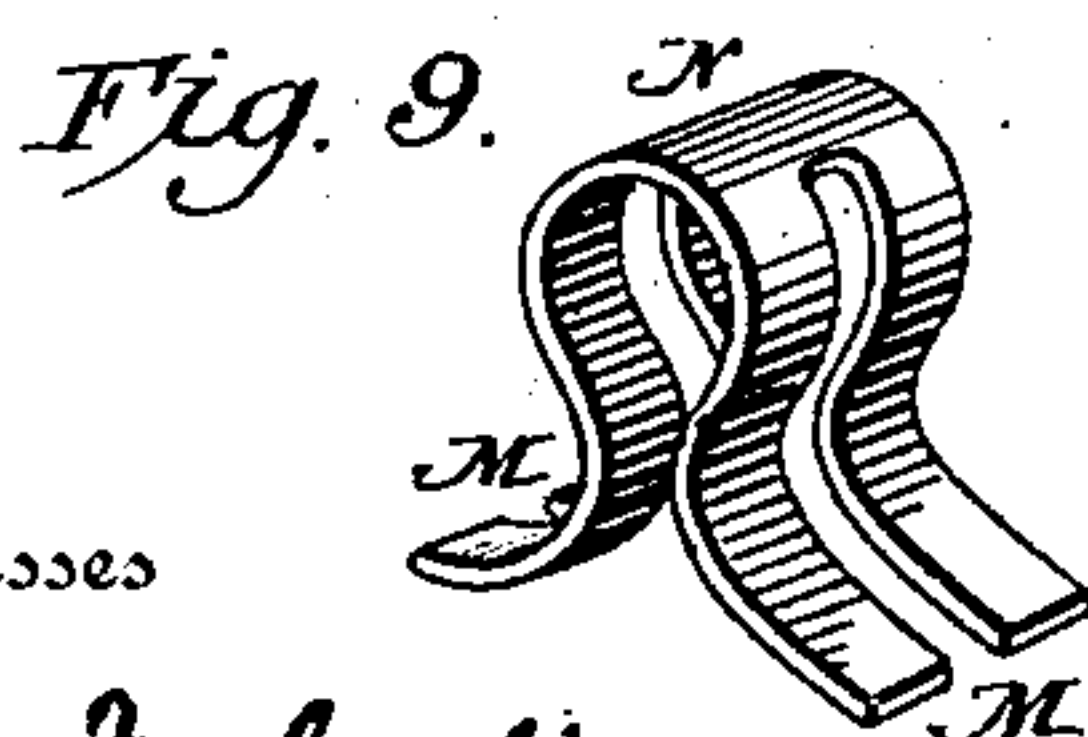
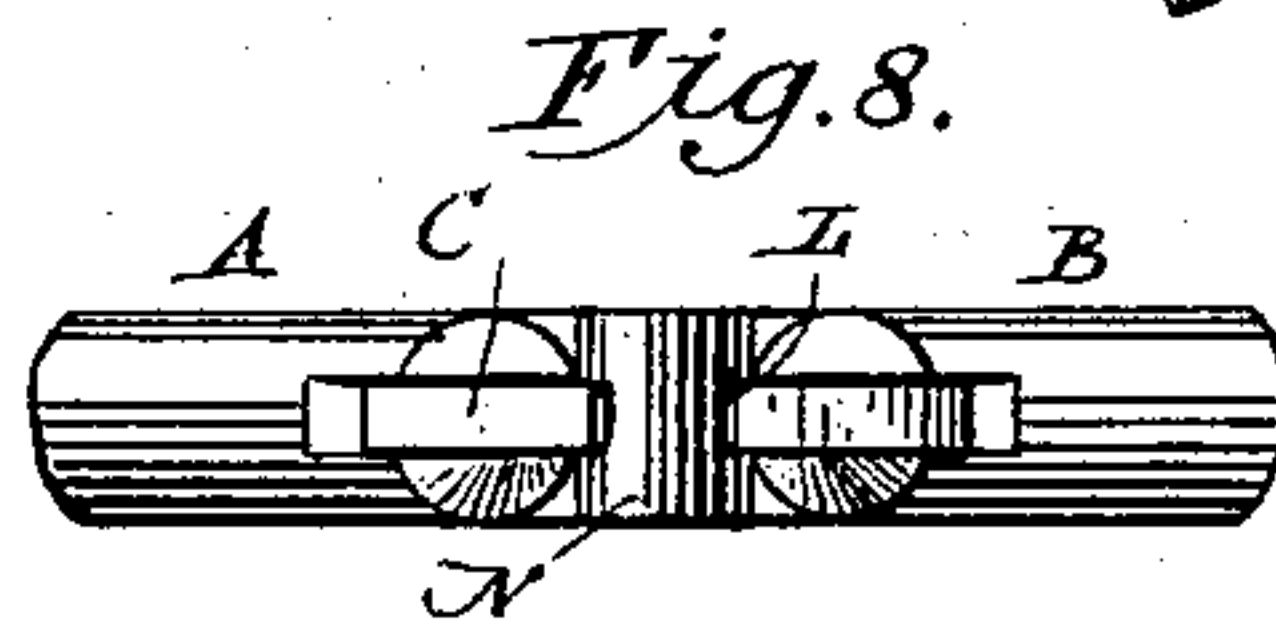
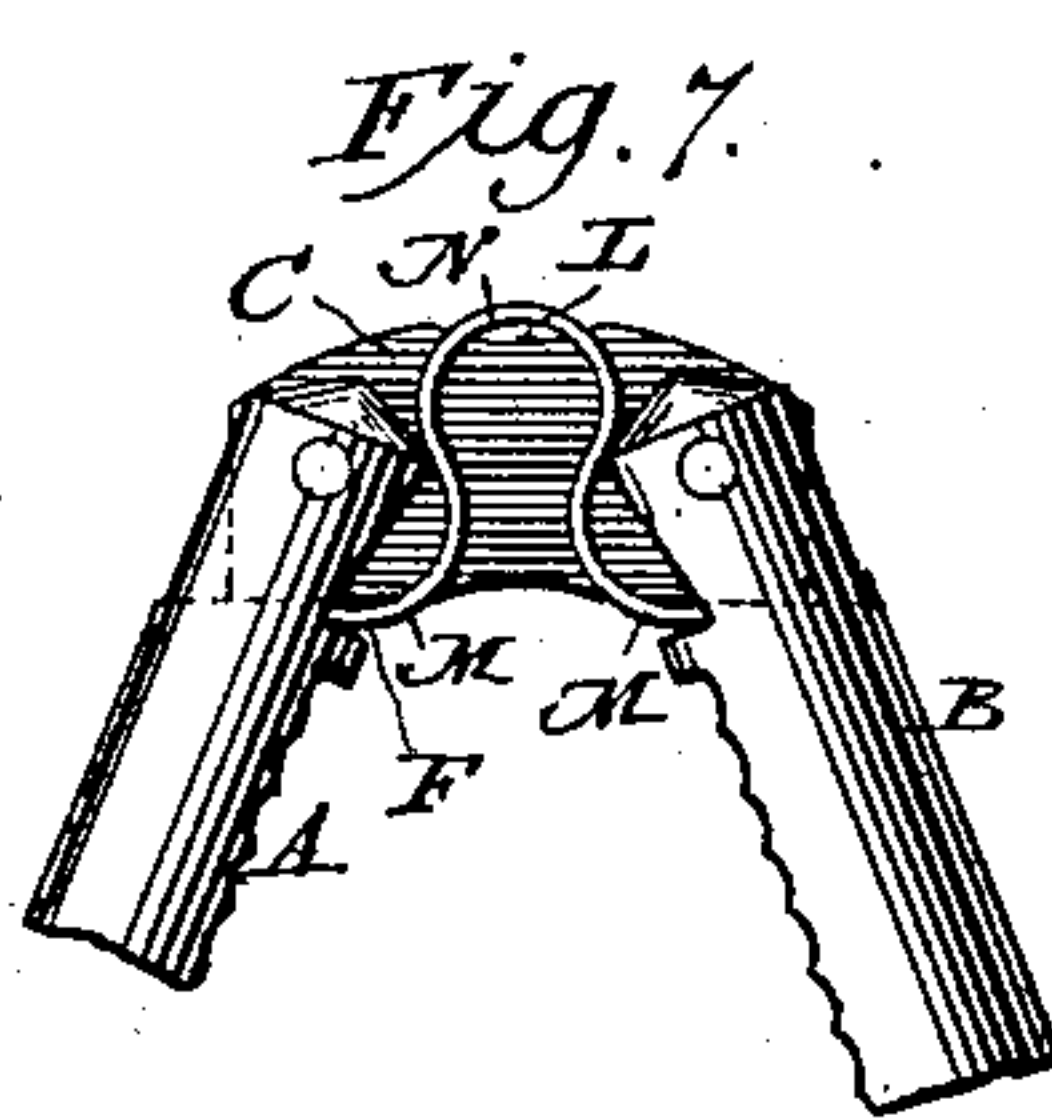
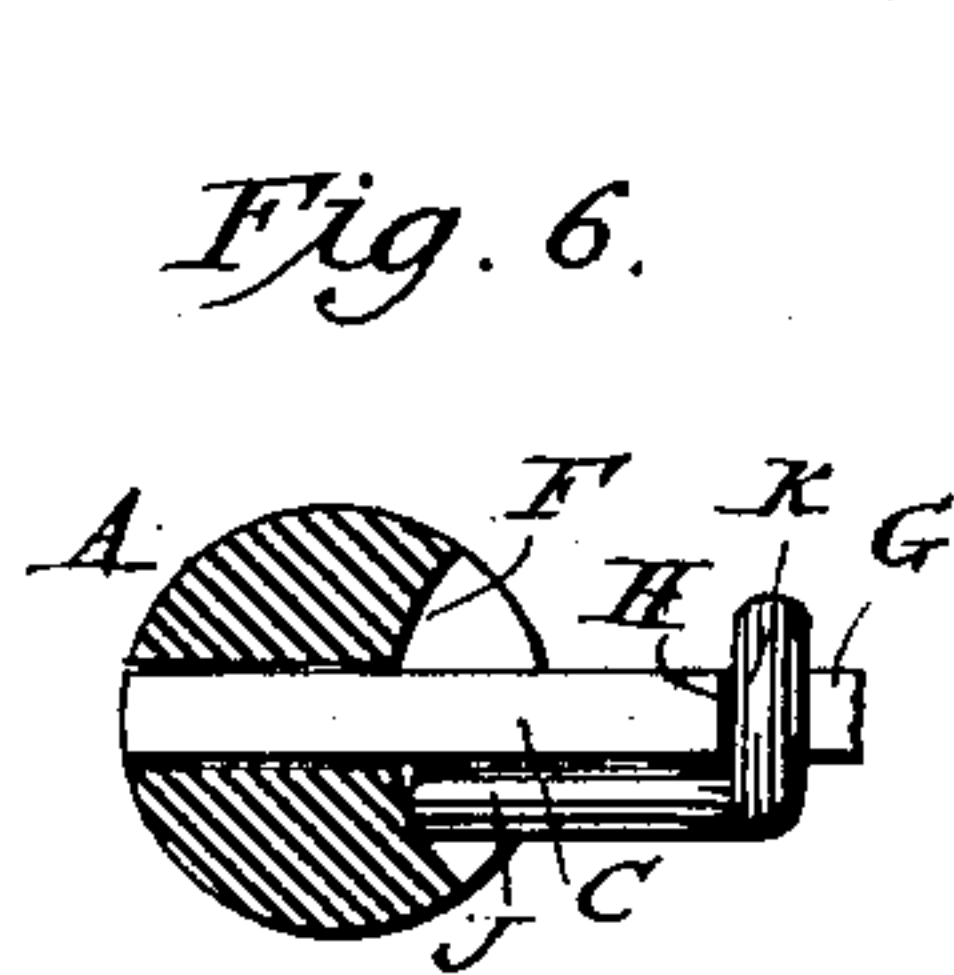
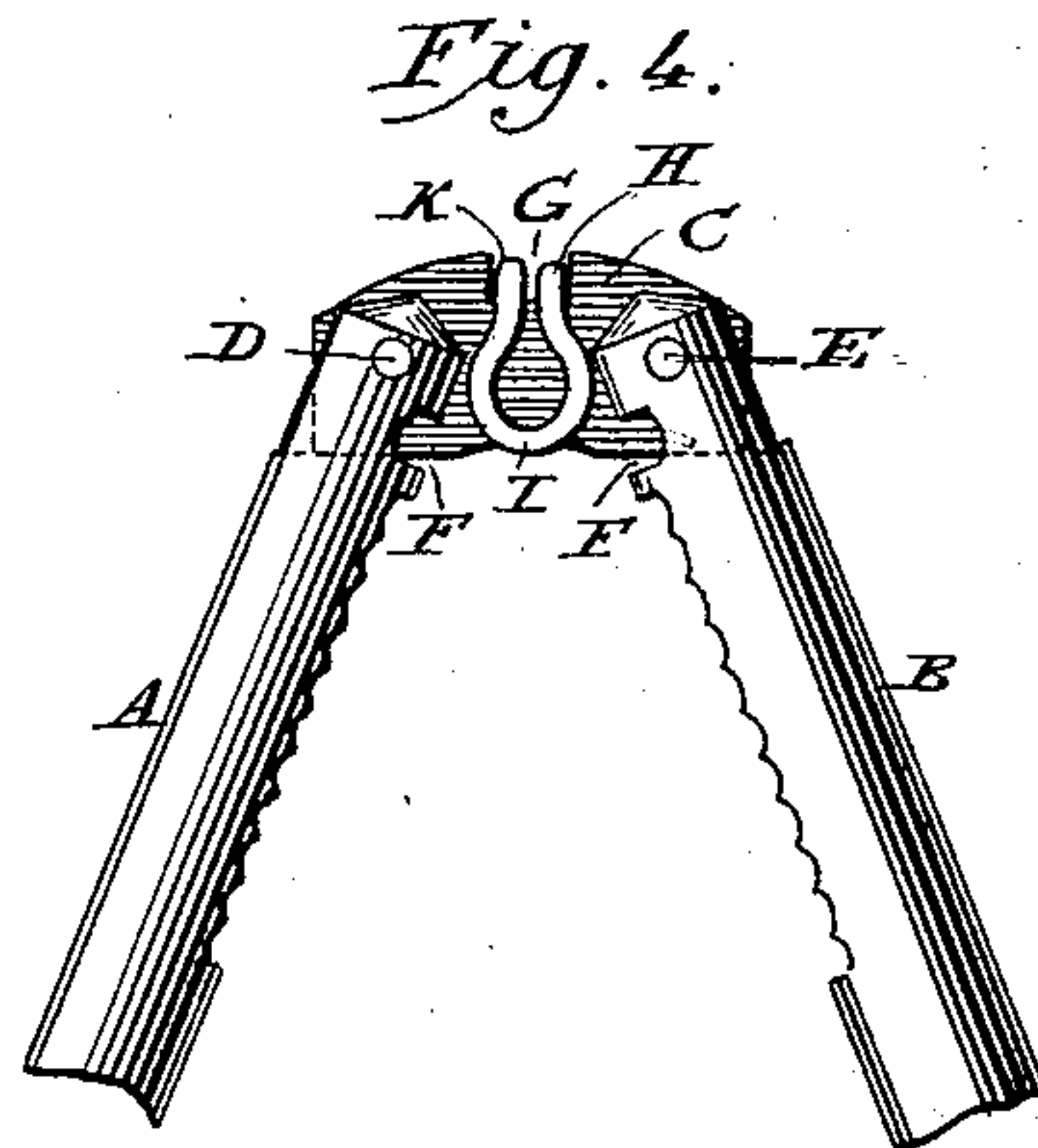
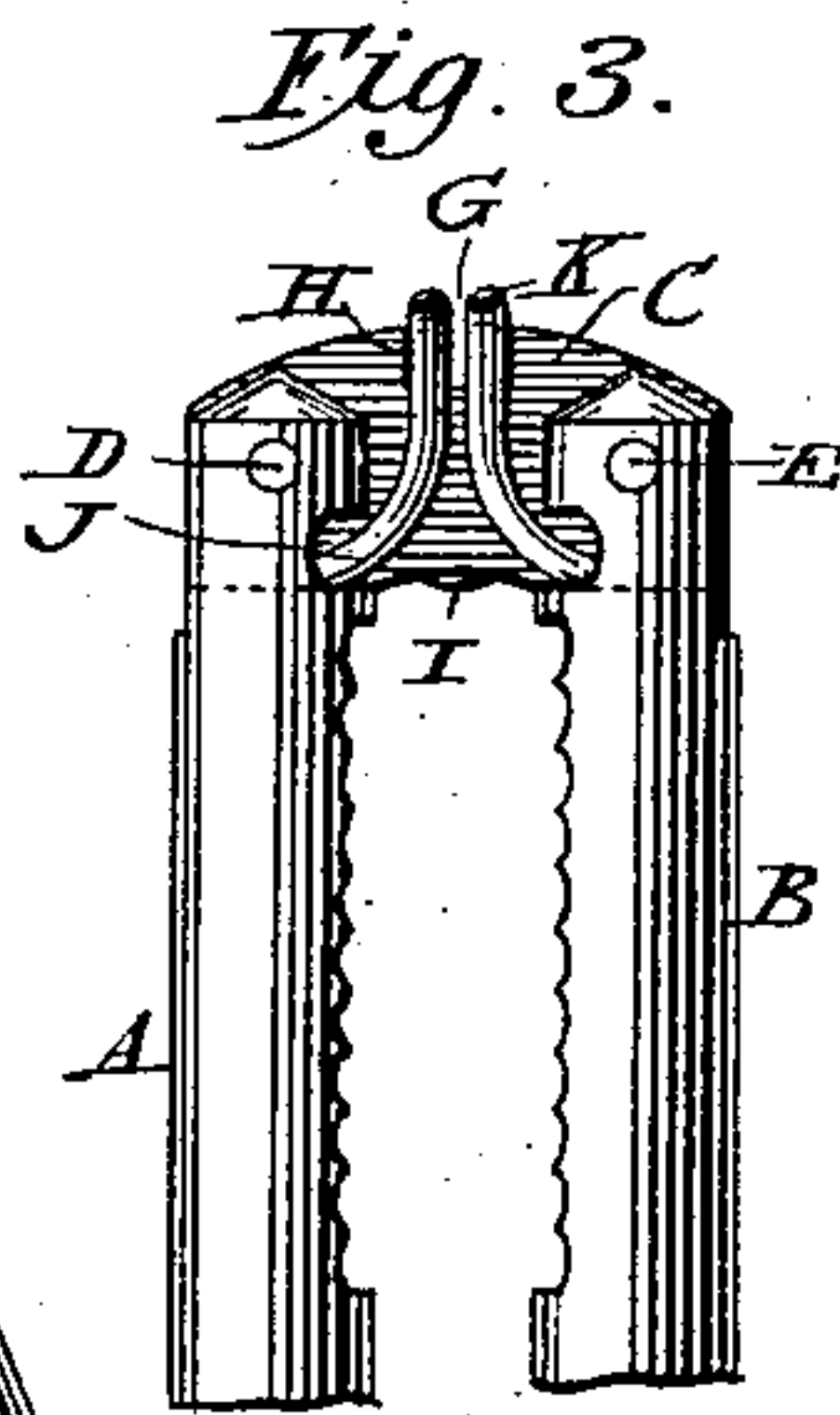
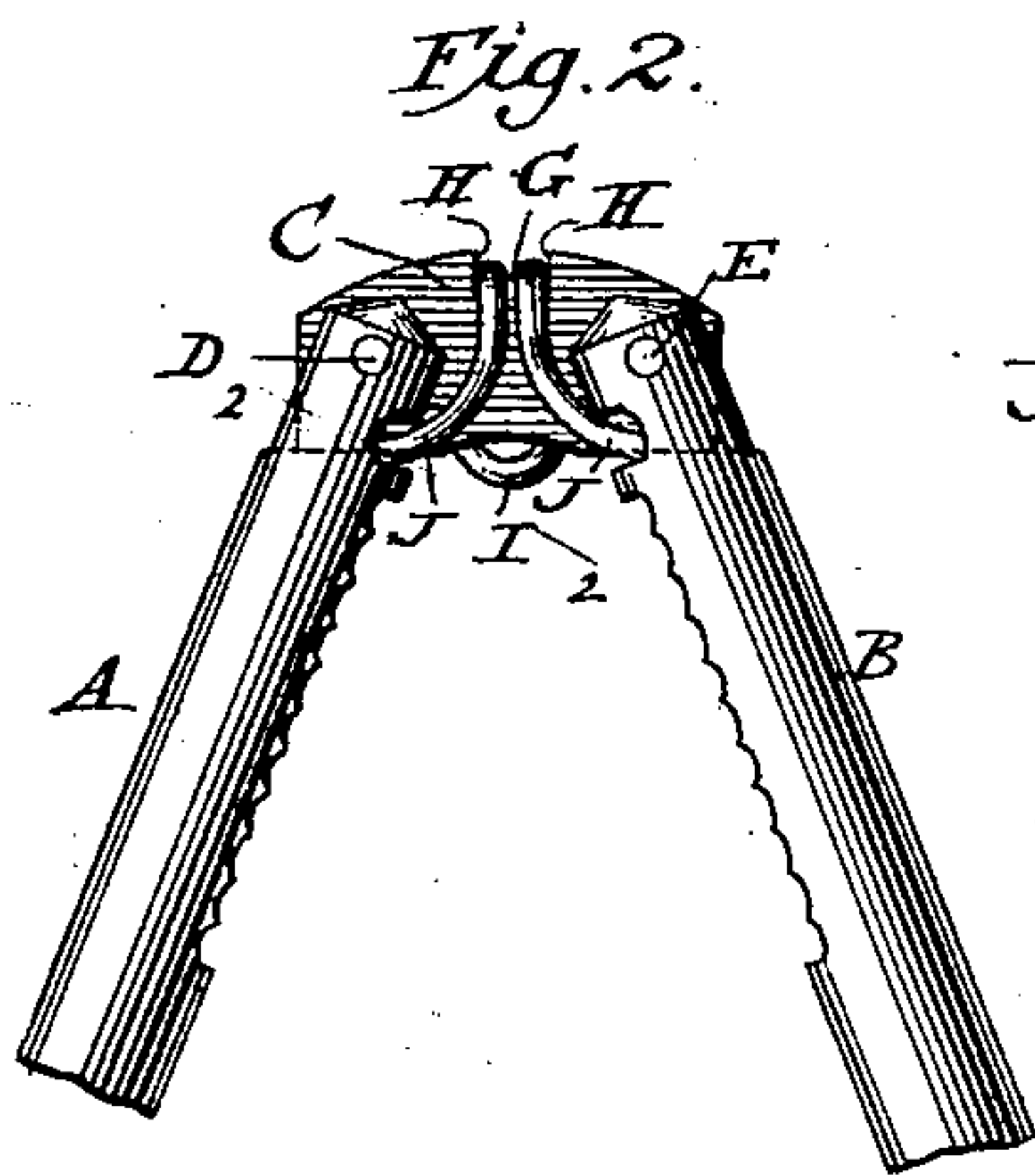
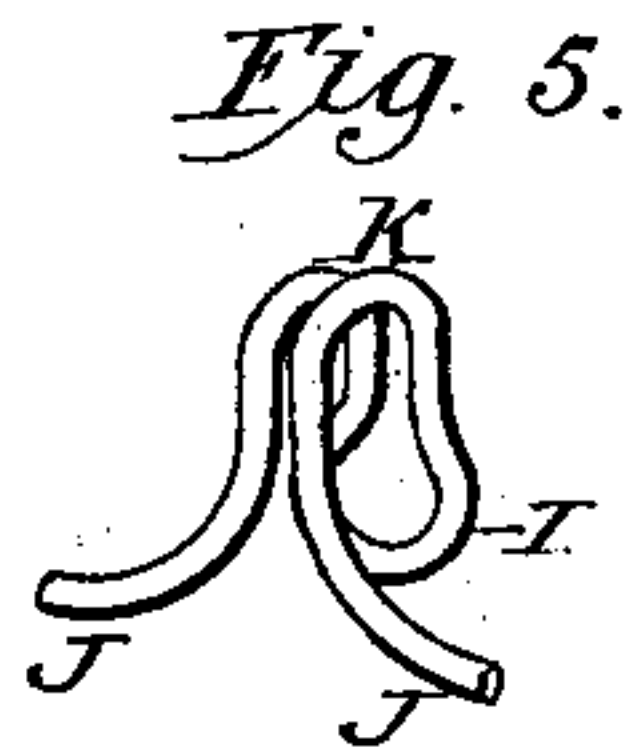
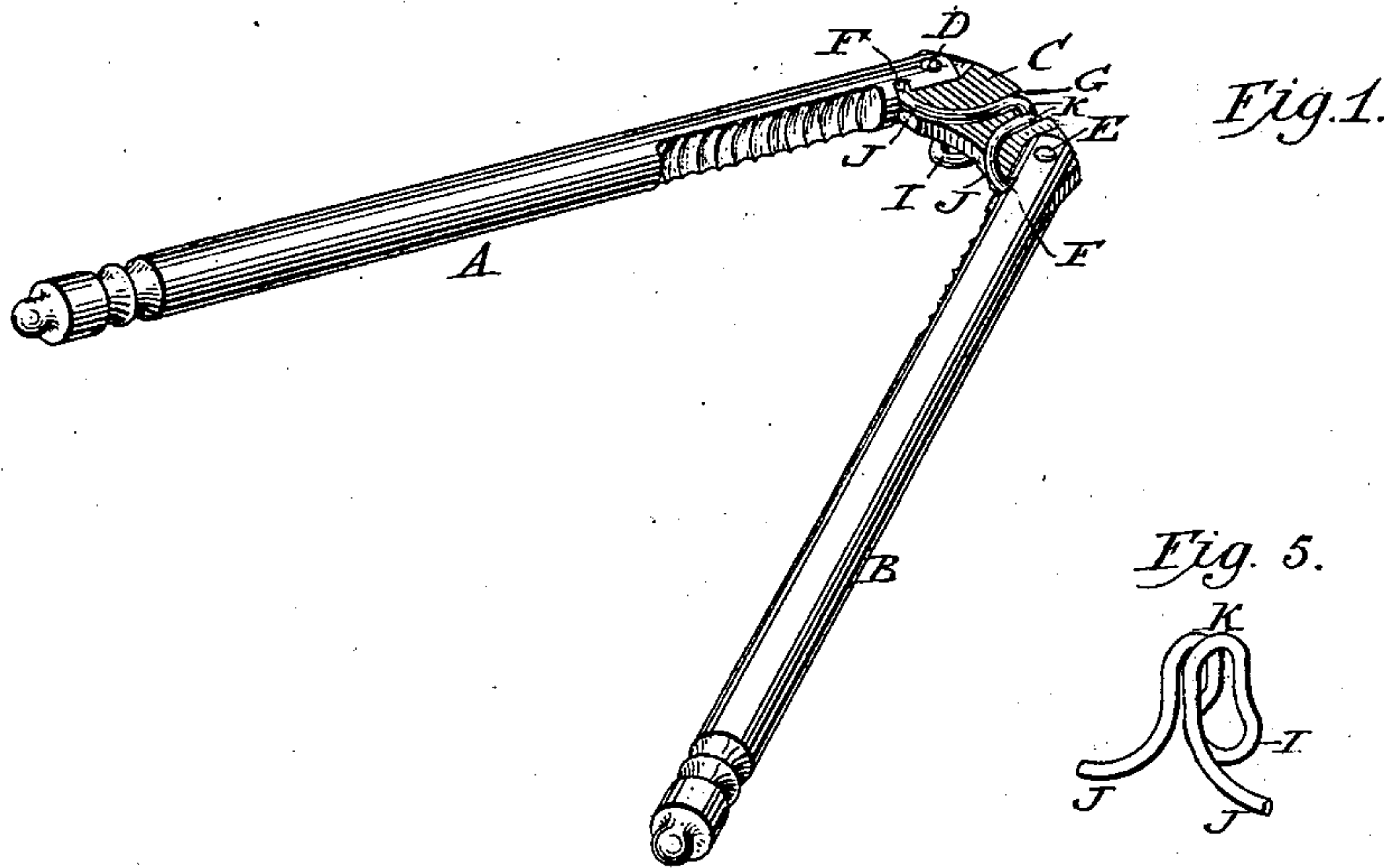
Patented Apr. 29, 1902.

H. M. QUACKENBUSH.

NUT CRACKER.

(Application filed Jan. 24, 1902.)

(No Model.)



Witnesses

J. B. Malnati,
D. C. Bunde

Inventor.

Henry M. Quackenbush,

By

Dodge & Sons

Attorneys.

UNITED STATES PATENT OFFICE.

HENRY M. QUACKENBUSH, OF HERKIMER, NEW YORK.

NUT-CRACKER.

SPECIFICATION forming part of Letters Patent No. 698,734, dated April 29, 1902.

Application filed January 24, 1902. Serial No. 91,111. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. QUACKENBUSH, a citizen of the United States, residing at Herkimer, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Nut-Crackers, of which the following is a specification.

My present invention pertains to improvements in nut-crackers, the construction and advantages of which will be hereinafter set forth, reference being had to the annexed drawings, wherein—

Figure 1 is a perspective view of my improved nut-cracker; Fig. 2, a side elevation of a portion thereof, showing the operating handles or levers open; Fig. 3, a similar view showing the handles in a closed position; Fig. 4, a view similar to Fig. 2, the device being viewed from the opposite side; Fig. 5, a perspective view showing the spring employed in the foregoing construction; Fig. 6, a sectional view on the line 2 2 of Fig. 2; Fig. 7, a side elevation showing a modified form of the invention; Fig. 8, a top plan view of said modified form; Fig. 9, a perspective view of the spring employed in connection with said modified construction, and Fig. 10 a side elevation of a still further modification.

The object of my invention is to provide a nut-cracker having a spring for holding the operating handles or levers thereof in an open or distended position, with means acting in conjunction with said spring for causing said spring to act equally upon both handles or levers.

The invention is susceptible of various embodiments, and I will first describe that illustrated in Figs. 1 to 6, inclusive. In said figures, A and B indicate the ordinary handles or levers of a nut-cracker, the upper end of each of which has a slot formed therein, into which slots extends a cross bar or link C, the link being pivoted to said handles or levers at the points D and E, respectively. Before the link is secured to the handles or levers there is formed in the inner face of each handle a cross groove or channel F. (Best shown in Fig. 6.) This cross groove or channel intersects the vertical slot or channel formed for the reception of the link at its lower end, and, as will be seen upon reference to said Fig. 6, the inner face of said channel is curved,

the deepest portion thereof being at the point of intersection with the vertical slot. This channel F is formed by cutting the same from the stock with a round milling cutter or saw. The upper edge of the link C is provided with a notch or recess G, the side walls H H of which are parallel and extend at approximately right angles to the transverse axis of the link. A spring of the form best shown in Fig. 5 is employed to hold the handles or levers normally apart. The spring in this particular construction is formed of a single piece of wire having a loop or head I and two divergent arms J, said arms and loop being connected together by the curved sections K. When the spring is in position, the outer ends of the arms J find a bearing in the cross grooves or channels F to one side of the link, (see Fig. 6,) the curved sections K extending through and bearing on the walls of the notch or recess G, while the loop I extends down and bears against the opposite side of the link. In assembling the parts the spring is so disposed that it is put under slight compression, and consequently tends at all times to throw the handles or levers away from each other. By reason of the curvature of the cross groove or channel F the ends of the arms J of the spring tend at all times to hug closely to the link. This not only assists in keeping the spring in place, but takes up any wear that may occur in the link. By reason of having the walls H H vertical, or, in other words, at right angles to the longitudinal axis of the link, the loops or curved portions K of the spring must of necessity rise when the handles or levers are brought together, as shown in Fig. 3. This insures equal operation of both handles or levers and prevents any seesawing motion thereof. An unequal movement of one of the handles with reference to the other is an undesirable feature in the operation of nutcrackers of this type.

With the construction shown, the springs may be turned about or reversed in case a part should become worn. It is also to be noted that no fastening devices are necessary for the spring. It will likewise be seen that by extending the spring from the lower side of the link up, over, and down on the other side thereof gives length to it, which is necessary for the purpose of giving the required

travel to the working ends of the spring. Besides, folding the spring over the link makes the spring compact, thus serving a double purpose.

5 In Figs. 7 to 9, inclusive, a modified construction is shown, the link connecting the handles or levers being provided with a seat or depression L in its upper edge, a spring (shown in detail in Fig. 9) working in conjunction therewith. Said spring is formed of sheet metal bent to the form shown in Fig. 9 and cut away at each side, forming two sets of legs M M, connected together by a loop N. The spring straddles the link, and the outer ends of the legs rest in the cross-slots or bearings F formed in the handles or levers, as above noted. The loop or bow section N of the spring bears upon the seat or depression L and serves to properly equalize the action of the spring between the two handles. The construction likewise prevents seesawing of the handles, but is not considered as advantageous as the construction previously described.

25 In Fig. 10 a still further modification is shown, wherein instead of providing the connecting link with a notch or depression it is provided with a projection O, which extends upwardly therefrom and passes between the adjacent loops or folds of the spring, serving to guide the same and prevent unequal action thereof, and consequently insuring even action of both the handles or levers.

Having thus described my invention, what I claim is—

35 1. In a nut-cracker, the combination of a pair of handles or levers; a link pivotally connected to the outer ends thereof; a spring working in conjunction with said handles or levers and serving to normally spread the same apart; and means, carried by the link, for causing the said spring to act equally upon both of said handles or levers.

45 2. In a nut-cracker, a pair of handles or levers; a link pivotally connected to the outer ends thereof; a spring embracing said link and having its free ends bearing on the handles and normally holding the same apart; and means for causing said spring to act equally upon both of said arms.

55 3. In a nut-cracker, the combination of a pair of handles or levers, each of said handles having a cross-slot formed therein near its outer end; a link pivotally connected to the outer ends of said handles or levers; a spring having its ends seated in said cross slots or recesses; and means, carried by the link, for causing said spring to act equally upon both of said handles.

4. In a nut-cracker, the combination of a pair of handles or levers, each of said handles having a curved slot or recess F formed upon its inner face near its outer end; a link pivotally connected to the outer ends of said handles; and a spring having its free ends extending into said curved recesses, substantially as and for the purpose described.

5. In a nut-cracker, the combination of a pair of handles or levers; a link pivotally connected to the outer ends thereof, each of said handles being provided with a curved slot or recess extending transversely thereof and in approximate alinement with the inner or lower edge of the link; and a spring for normally holding the levers apart, the free ends of said spring being seated in said curved recesses.

6. In a nut-cracker, the combination of a pair of handles or levers; a link pivotally connected to the outer ends thereof, each of said levers being provided with a curved cross groove or channel F in approximate alinement with the inner or lower edge of the link; and a spring embracing said link and having its free ends seated in the said curved grooves or channels adjacent to the face of the link, substantially as described.

7. In a nut-cracker, the combination of a pair of handles or levers, each provided with a cross groove or channel near its outer end; a link pivotally connected to the outer ends of said handles or levers, said link being formed with a recess or depression in its outer face; and a spring embracing said link and having its free end seated in the cross grooves or channels in the handles, and likewise having a portion of its body extending through said depression or notch formed in the link, substantially as described.

8. In a nut-cracker, the combination of a pair of handles or levers each provided with a cross groove or channel near its outer end; a link pivotally connected to the outer ends of said handles or levers, said link being provided with a recess G having straight side walls; and a spring comprising a head I, loops K, said loops passing through the notch or recess formed in the link, and divergent arms J, the ends of the arms extending into the cross grooves or channels formed in the handles or levers, substantially as described.

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

HENRY M. QUACKENBUSH.

Witnesses:

JOHN KERSHAW,
CHAS. H. BURRILL.