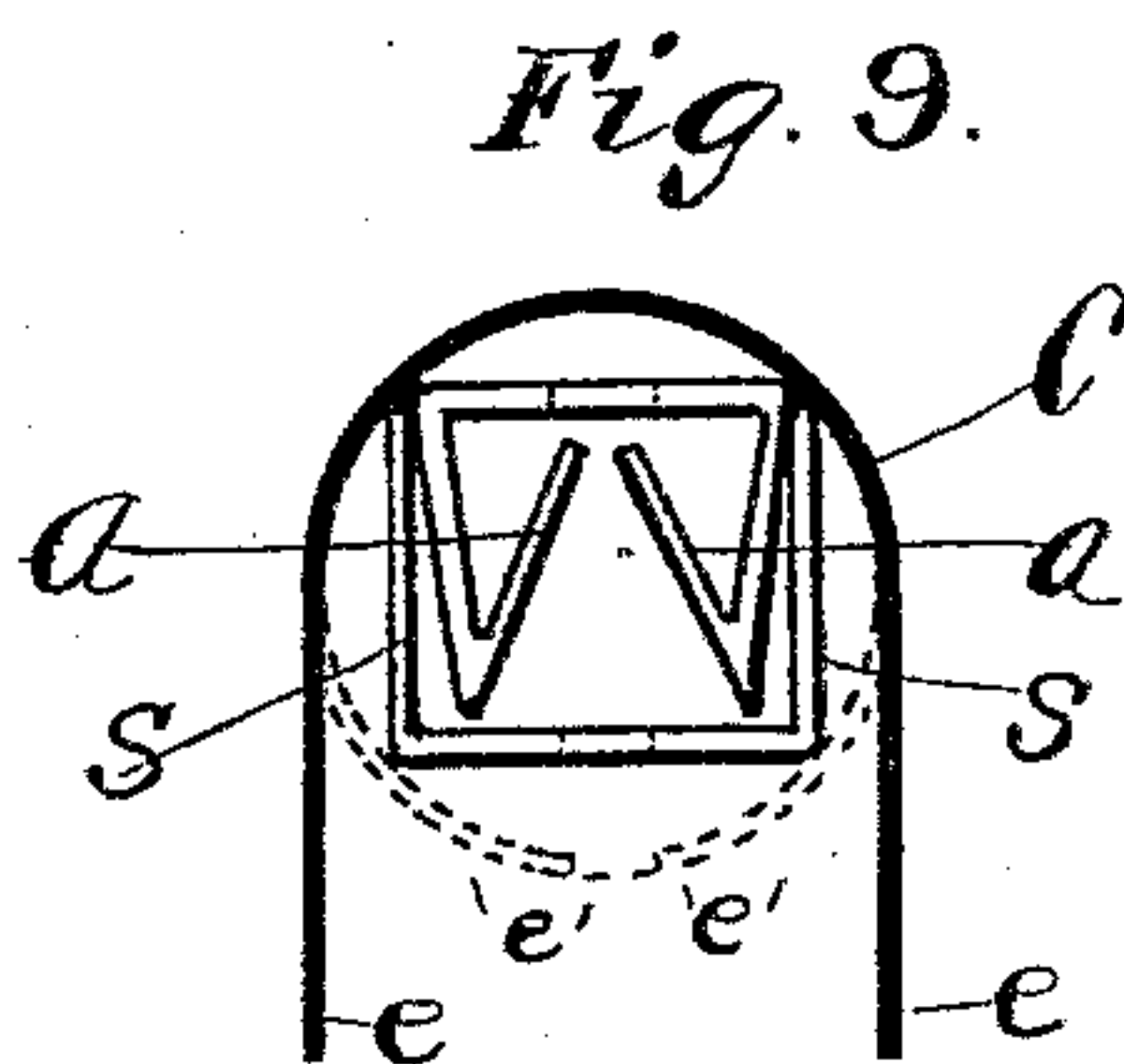
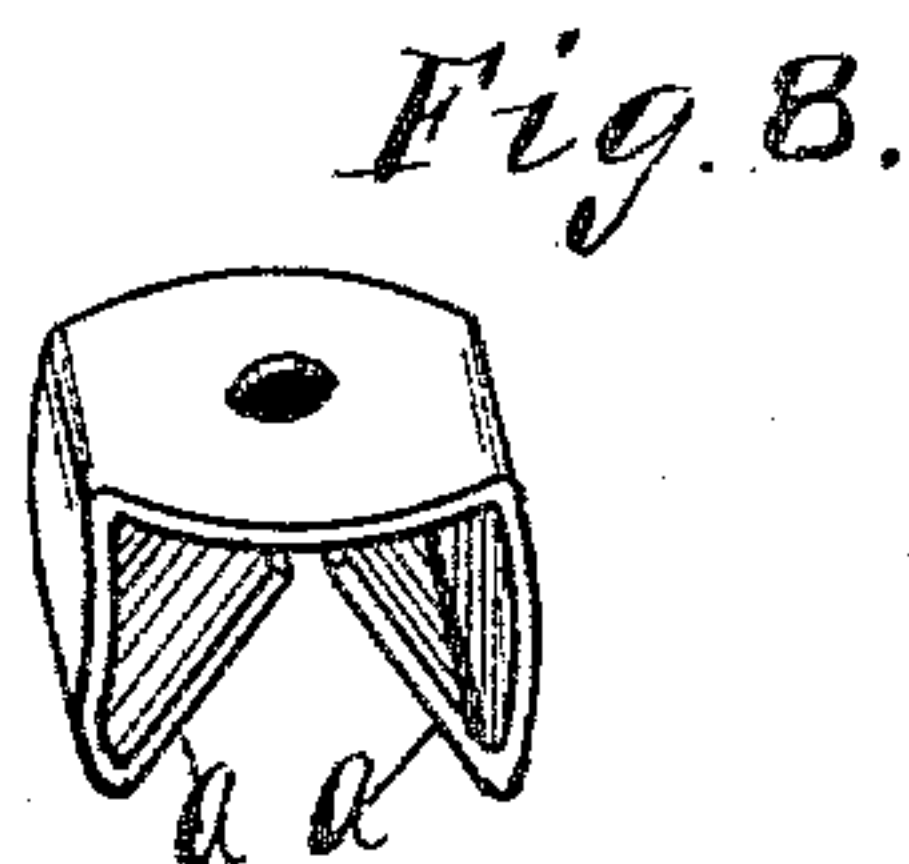
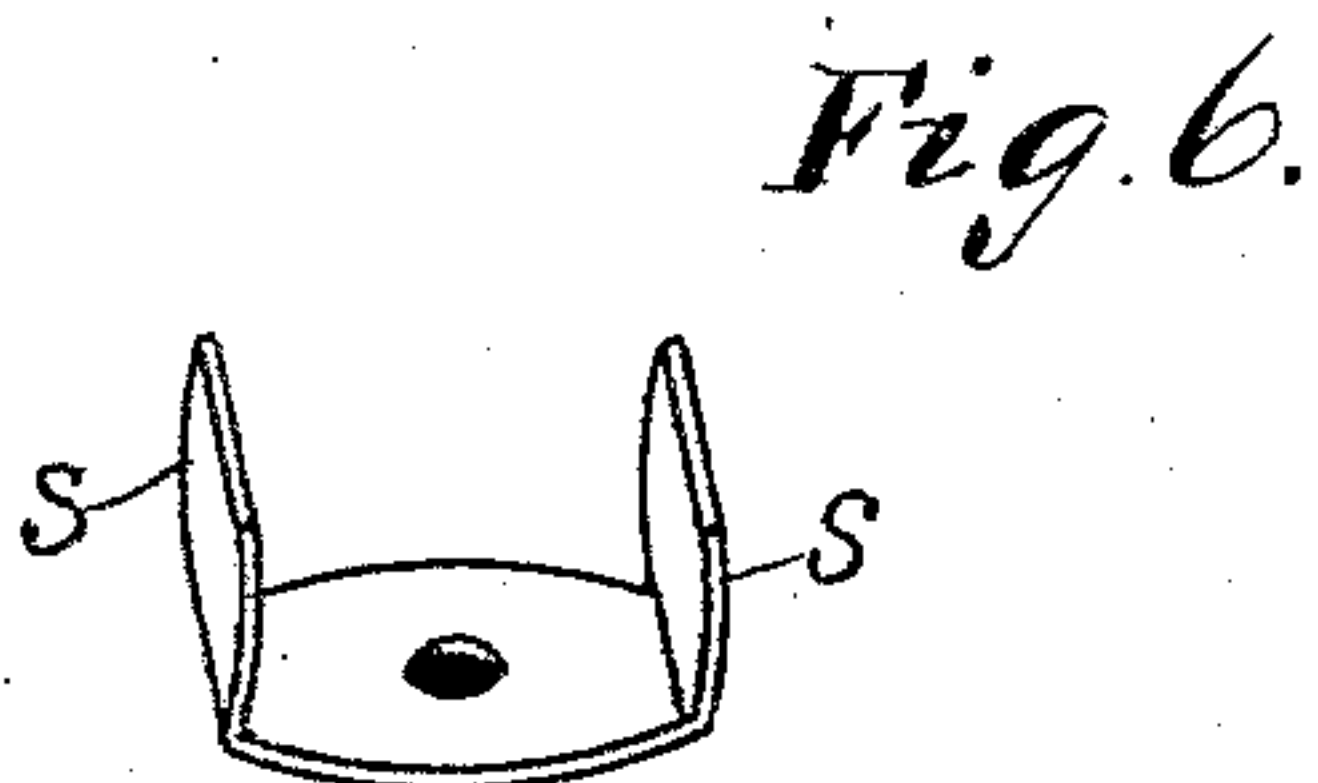
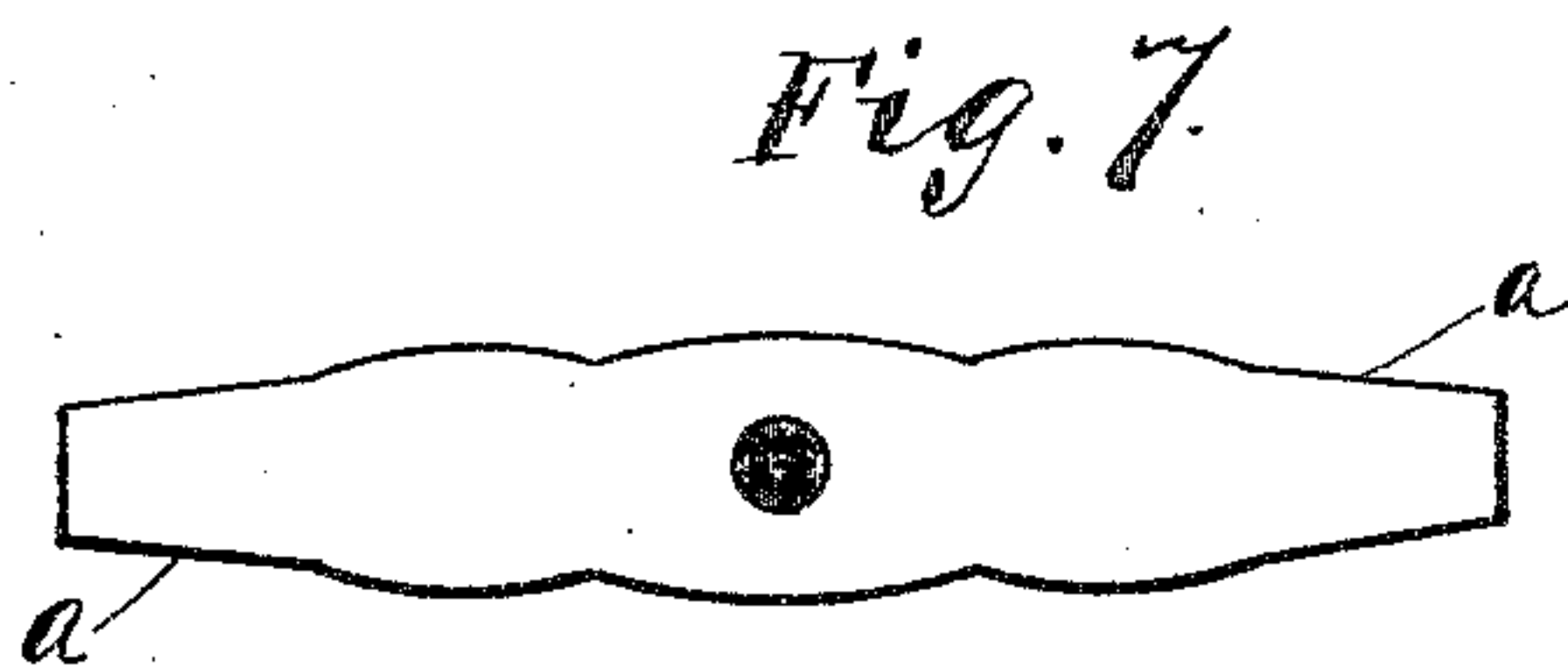
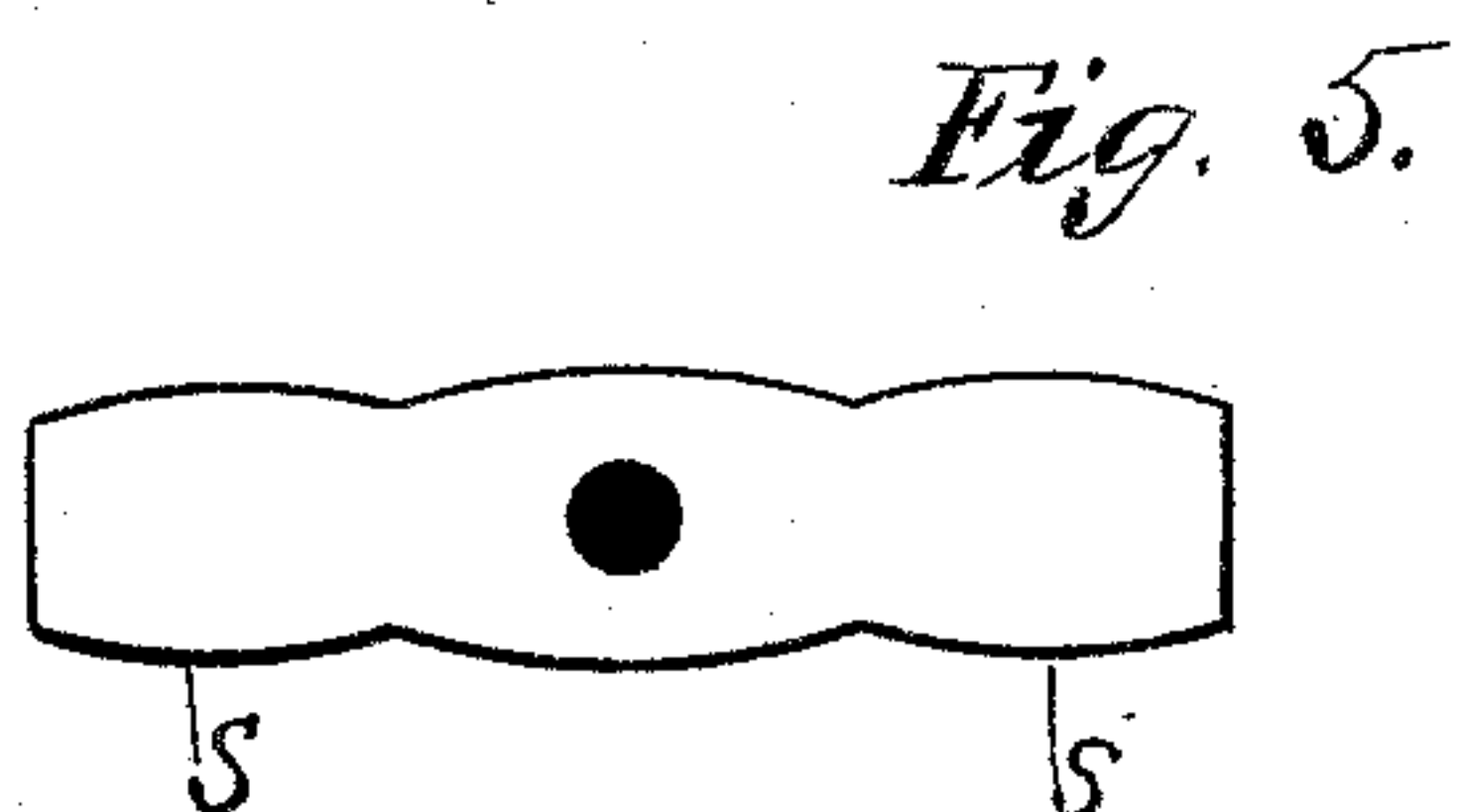
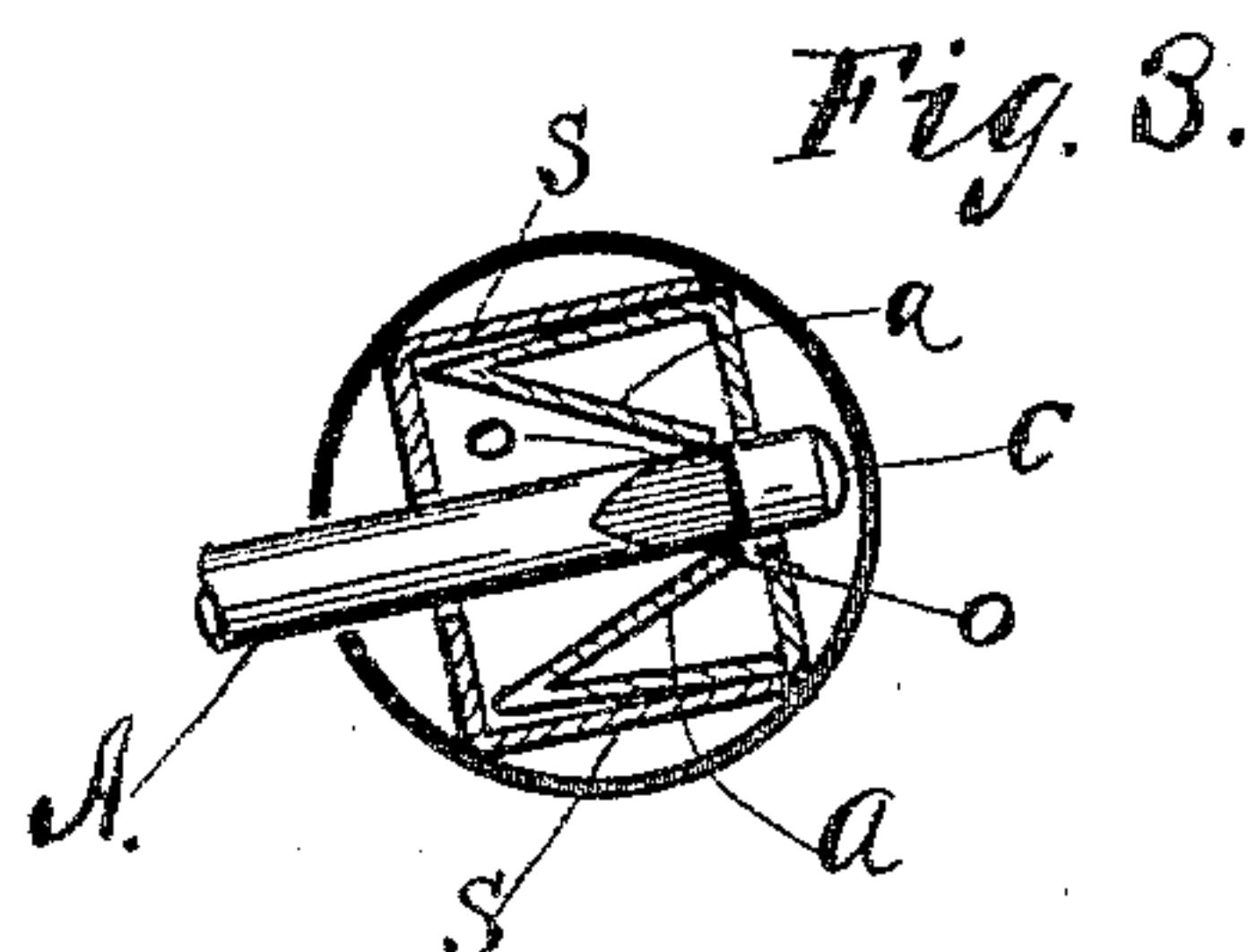
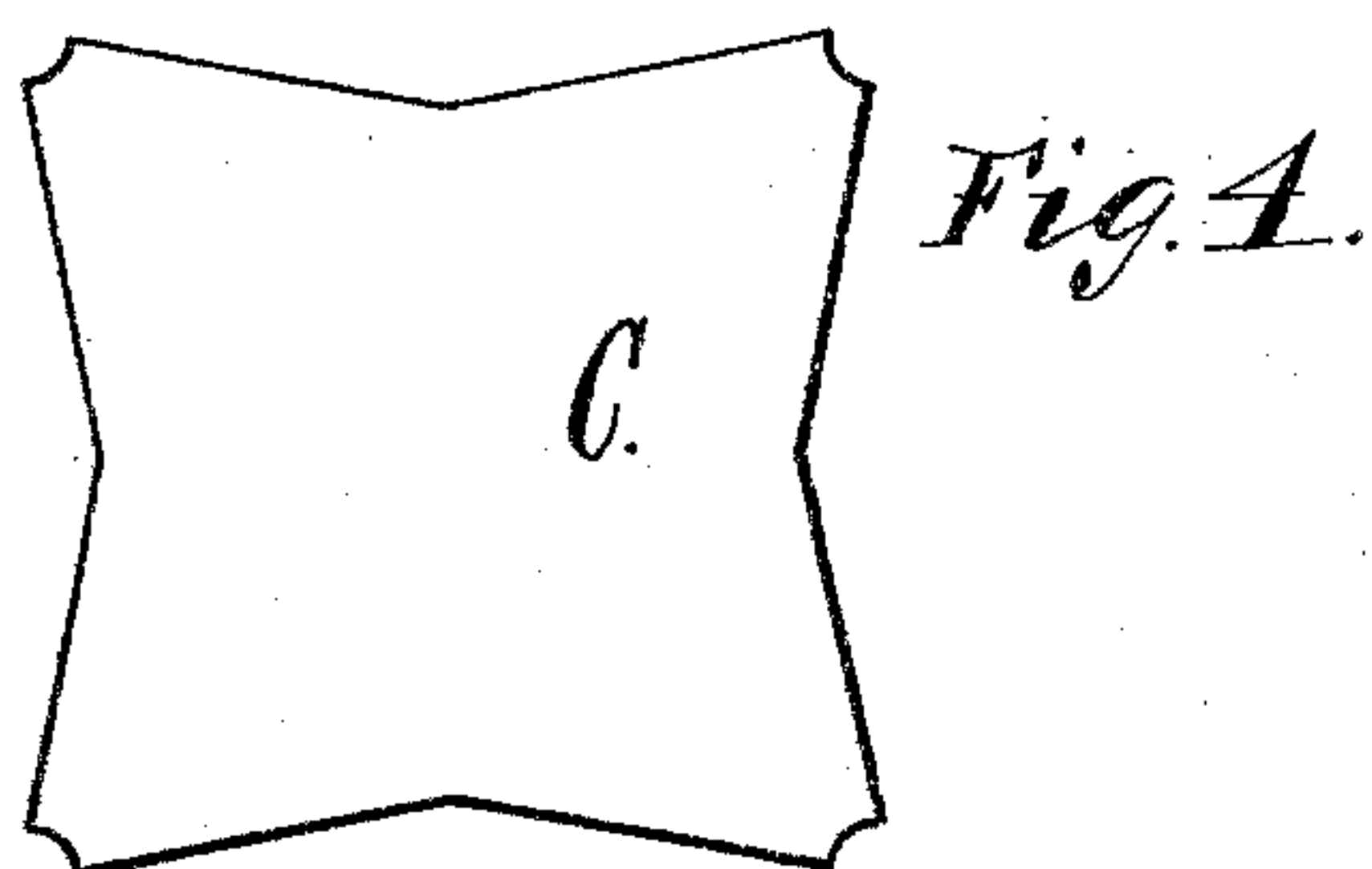
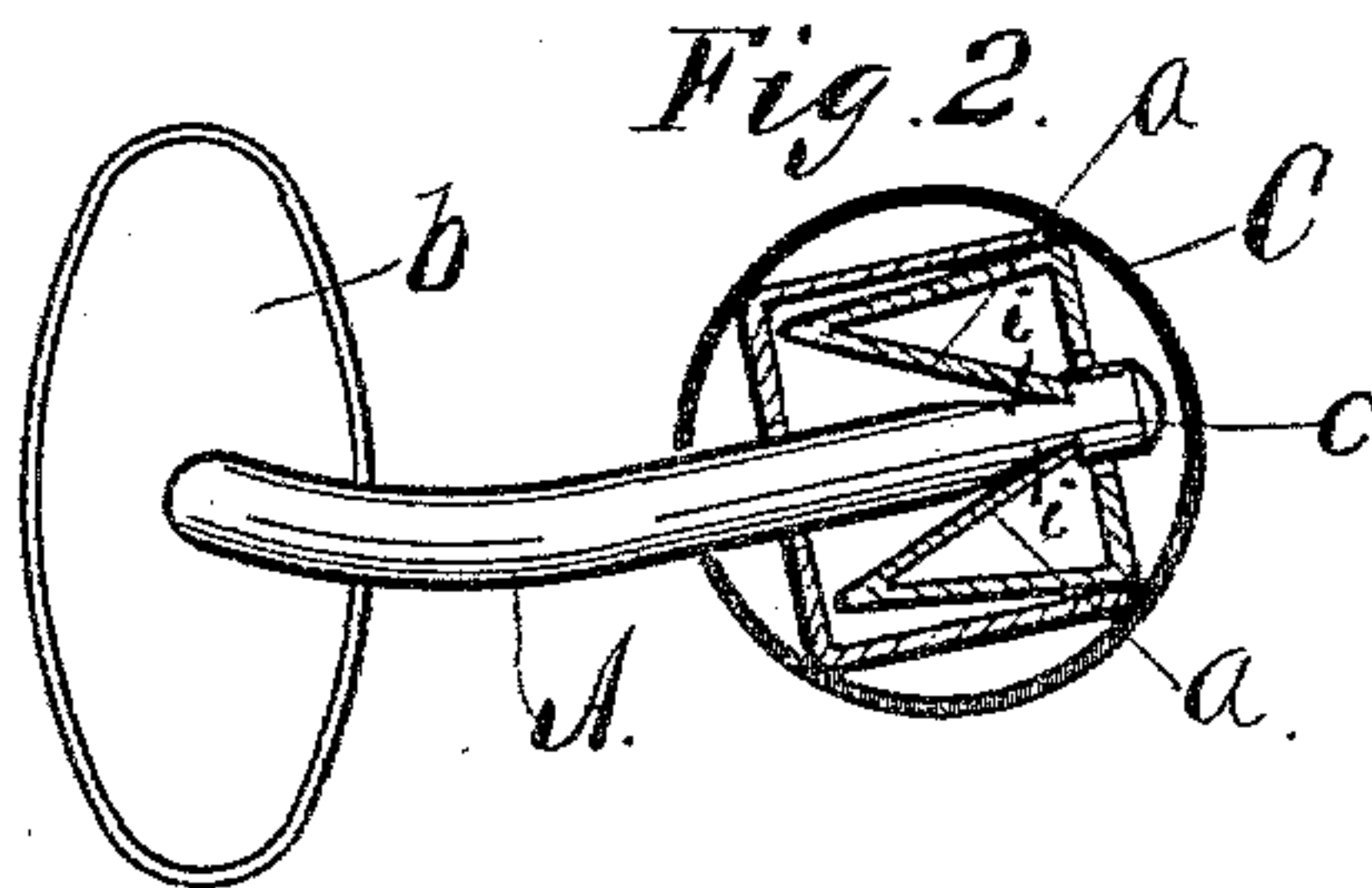
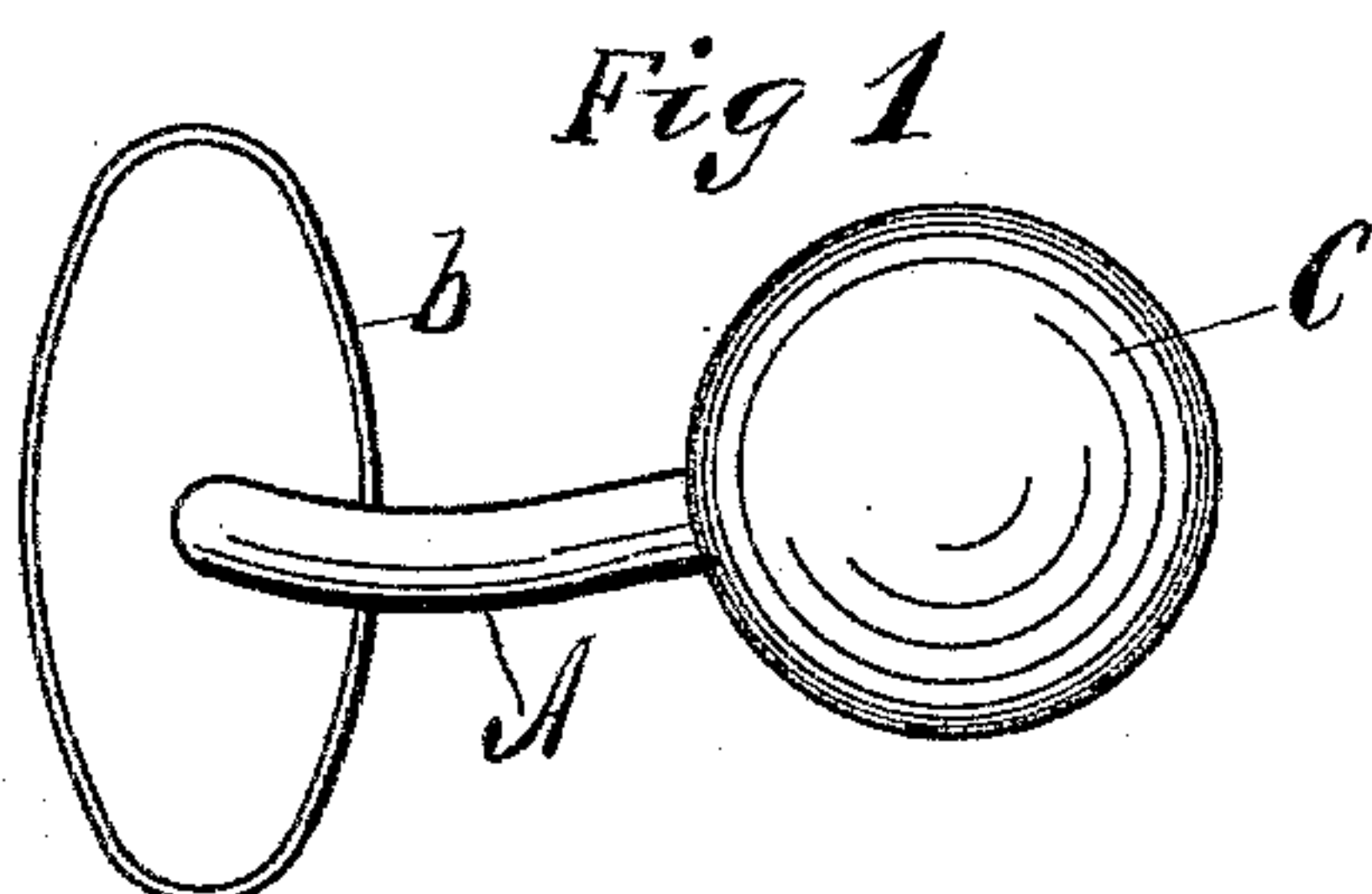


(No Model.)

C. G. KING.
CUFF FASTENER.

No. 597,679.

Patented Jan. 18, 1898.



WITNESSES

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UNITED STATES PATENT OFFICE.

CLIFFORD G. KING, OF ATTLEBOROUGH, MASSACHUSETTS, ASSIGNOR TO
ARTHUR H. CLARK, OF PROVIDENCE, RHODE ISLAND.

CUFF-FASTENER.

SPECIFICATION forming part of Letters Patent No. 597,679, dated January 18, 1898.

Application filed May 19, 1897. Serial No. 637,238. (No model.)

To all whom it may concern:

Be it known that I, CLIFFORD G. KING, of Attleborough, in the county of Bristol and State of Massachusetts, have invented certain
5 new and useful Improvements in Cuff-Fasteners; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying
10 drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of cuff-fasteners having one of the heads made removable to facilitate putting them into the
15 cuff. It is fully explained and illustrated in this specification and the accompanying drawings.

Figure 1 is a perspective view of the cuff-fastener. Fig. 2 shows a vertical cross-section of the removable head and a portion of the connecting-bar. Fig. 3 shows the same
20 section as Fig. 2 excepting that the bar has been turned a quarter-way around to release it from the spring-catches. Figs. 4 to 9 represent the blanks from which the parts are
25 made before they are swaged into shape and the different stages of the operation of combining them together.

The object of this invention is to make a
30 cuff-fastener with a ball on one or both ends that shall have one of the balls made removable, so that the fastener can easily be applied to the cuff, while as made at present with the ball soldered on the end of the bar it
35 is very difficult to get the fastener in the holes in the cuff. This is accomplished by taking two similarly-shaped springs and placing one inside of the other, but in reverse positions, and inclosing them in the ball before the ball
40 is finished. The parts are shown in the drawings much enlarged over their actual size to show their construction and operation more clearly.

Fig. 5 shows the blank of sheet metal that
45 is bent up into the shape seen in Fig. 6 to hold the spring, and Fig. 7 represents the blank that forms the spring that is bent into the form shown in Fig. 8 and inserted in the part shown in Fig. 6, the two parts together
50 to be inclosed in the ball, which is composed of the blank seen in Fig. 4 drawn out by means of a punch and die into the shape of

the outer case C of Fig. 9, in which all the parts are shown in position to have the shaping of the ball finished by rolling in the edges
55 *e* to the dotted lines *e' e'*, leaving a small hole at the junction of the edges, which constitutes the ball seen in Figs. 1, 2, and 3.

It will be seen that the two leaves *a a* in Fig. 7 constitute the two two-pronged springs
60 *a a* in Figs. 2, 3, and 9, and the two leaves *s s* in Fig. 6 form the side plates seen in Figs. 2 and 3, made to fit the inside of the ball at their corners and keep the springs *a a* in place. The bar A is flattened on two sides
65 at *i i* near the end to form two notches, (see Fig. 2,) that when the bar is pushed in between the end of the springs *a a* it will catch on their ends and be held from drawing out, but when the ball is to be taken off of the
70 bar it is turned one-quarter way around, so that the edges of the flat part *o o* of the bar below the head or end *c* will spread the springs *a a* apart. (See Fig. 3.) Then the bar can be
75 readily drawn out and easily inserted in the holes in the cuff, and the ball again pushed onto the end of the bar, so the ends of the spring will close under the head *c* and hold the bar in, and the springs by pressing on the broad flat surface under the head of the
80 bar will prevent the ball from turning of itself and coming off. The plate *b* or another ball may be permanently attached to the other end of the bar in the usual way.

The spring formed of two folds has much
85 more resiliency, and the combination does away with the trouble and cost of soldering any of the parts, and the great difficulty found in preventing the heating and annealing of the spring in soldering is avoided.
90

The closing of the edge *e* of the ball contracts the outer case onto the plates *s* and keeps them in place.

The parts that come in view may be variously ornamented, so as to present to the user
95 an attractive as well as a useful fastener.

The shape of the inclosing case may not be exactly spherical, but near enough so to inclose the parts shown, so that they will operate substantially as described.
100

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

In a cuff-fastener, a connecting-bar pro-

vided with notches at one end, and a stationary head secured to the opposite end of the bar, combined with an inclosing case, a U-shaped spring placed therein, a second spring
5 placed within the other spring and having its two ends turned inwardly so as to form practically two triangles, and between which triangular-shaped ends the notched end of the connecting-bar is made to catch; the inclosing case and both of the springs placed therein
10 being provided with openings through

which the notched end of the bar passes, and which parts are adapted to be turned upon the end of the bar so as to disengage the ends of the spring from the notches, substantially as shown and described.

In testimony whereof I have hereunto set my hand this 13th day of May, A. D. 1897.

CLIFFORD G. KING.

In presence of—

HOWARD E. BARLOW,
JAMES E. ARNOLD.