

(No Model.)

D. L. SMITH.
BUCKLE.

No. 477,024.

Patented June 14, 1892.

Fig. 1

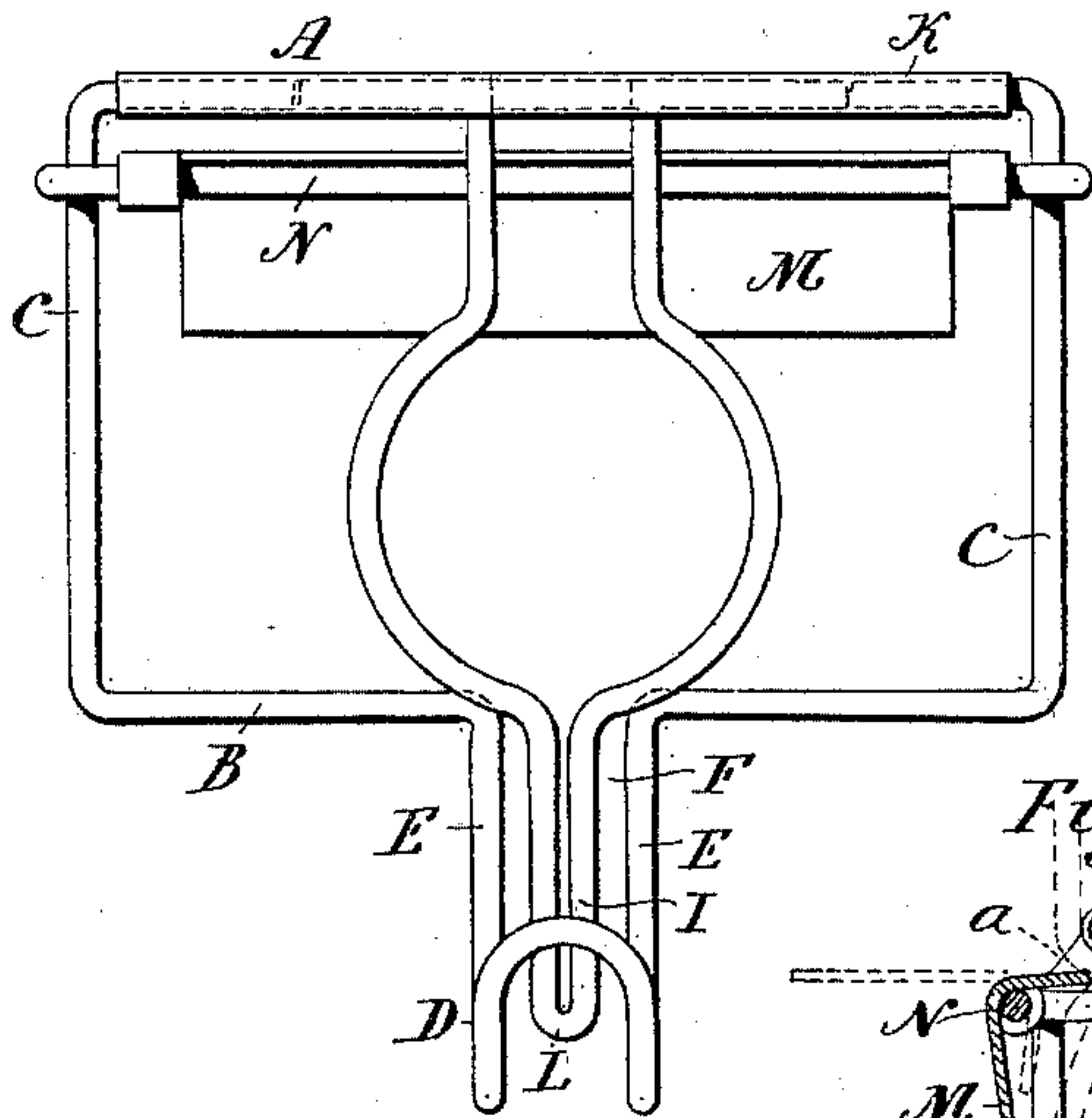


Fig. 2

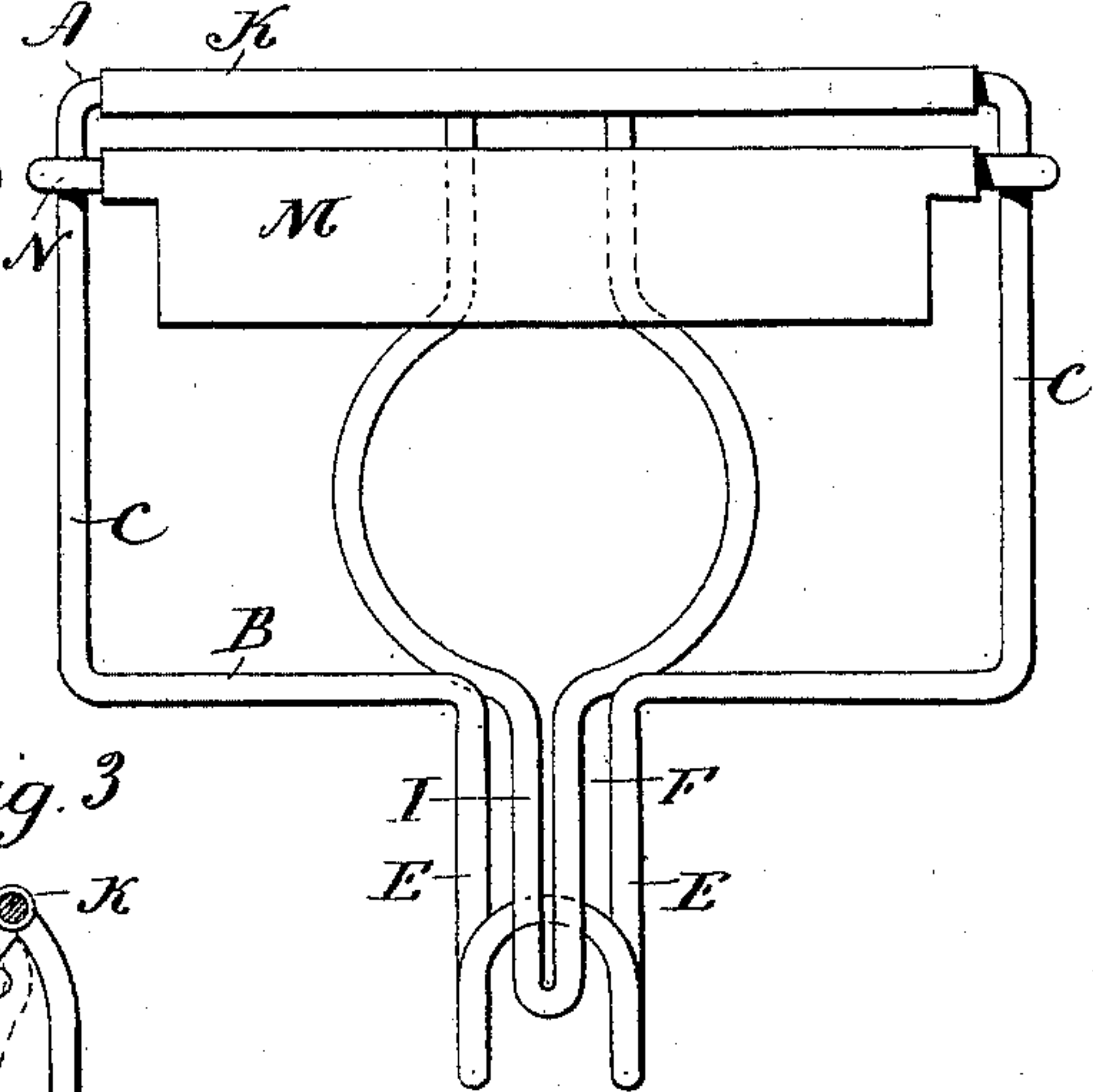


Fig. 3

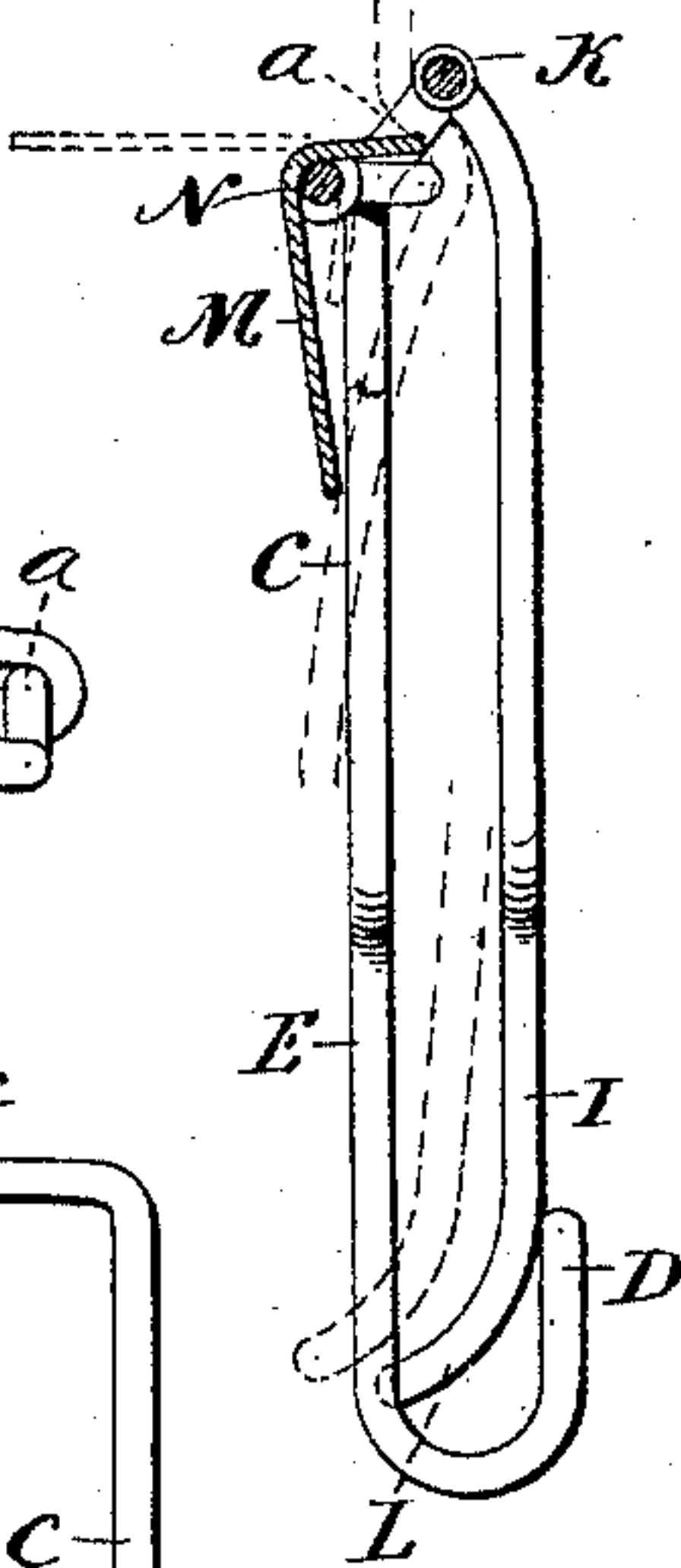


Fig. 4

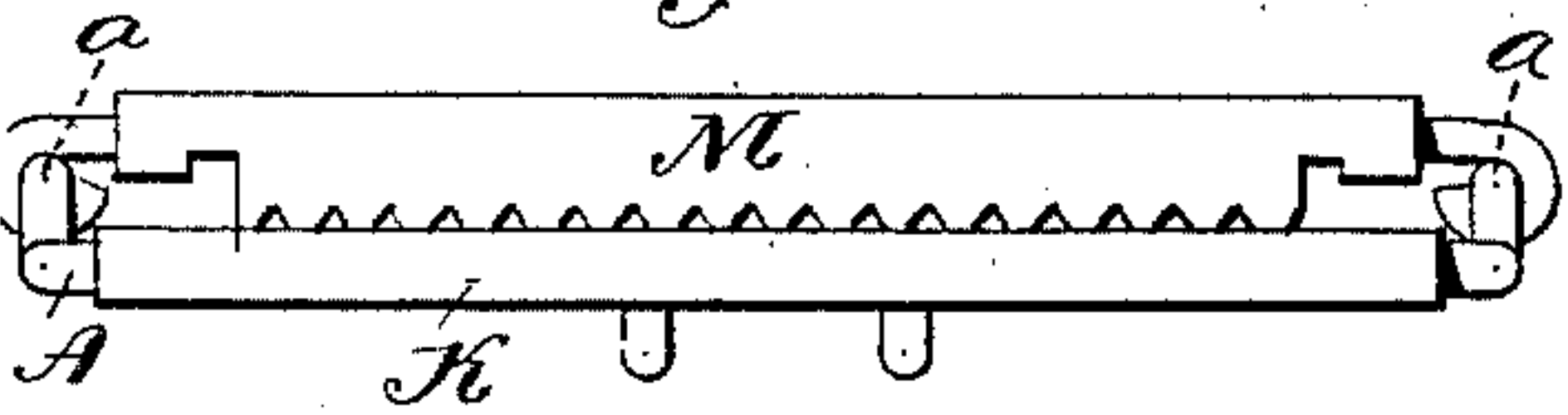


Fig. 5

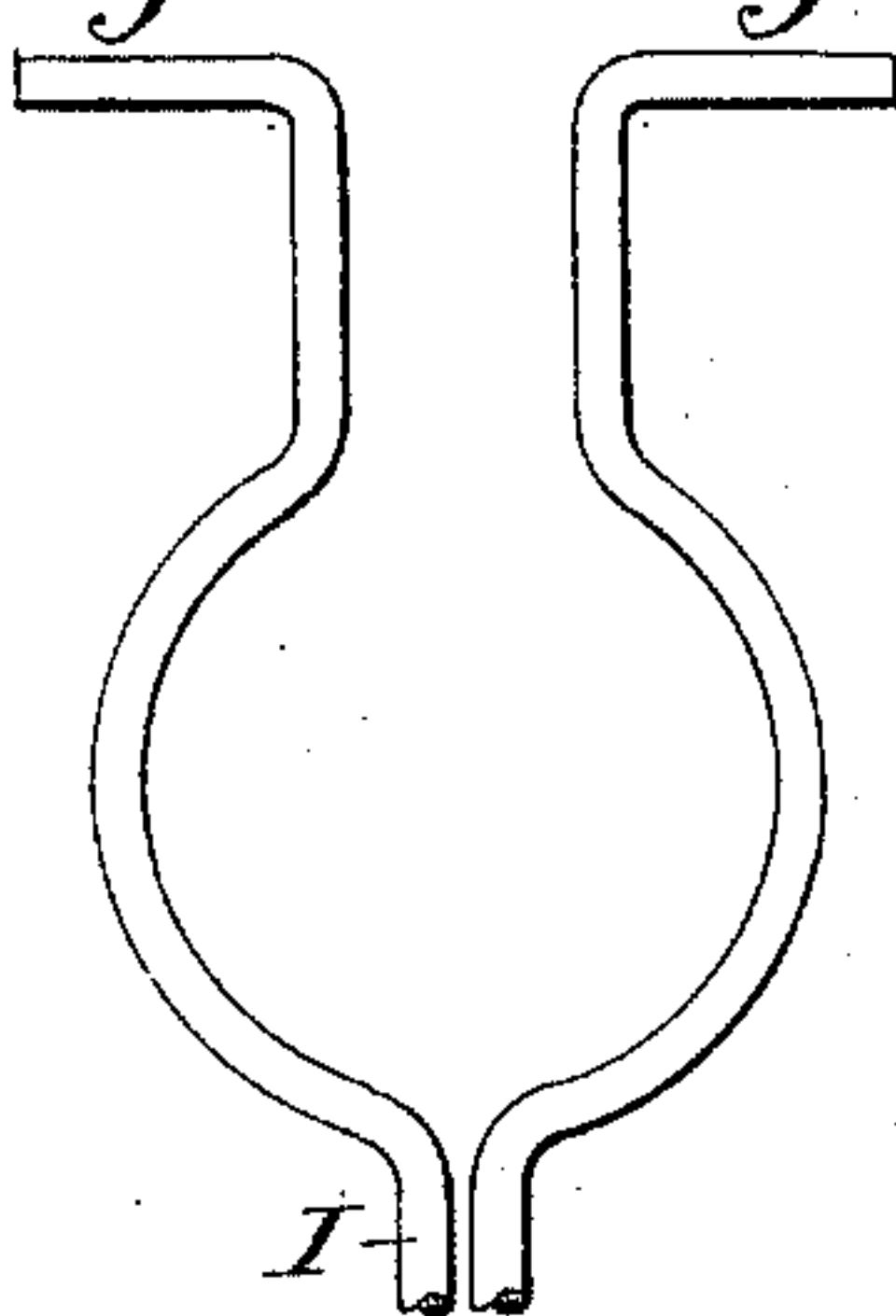


Fig. 6

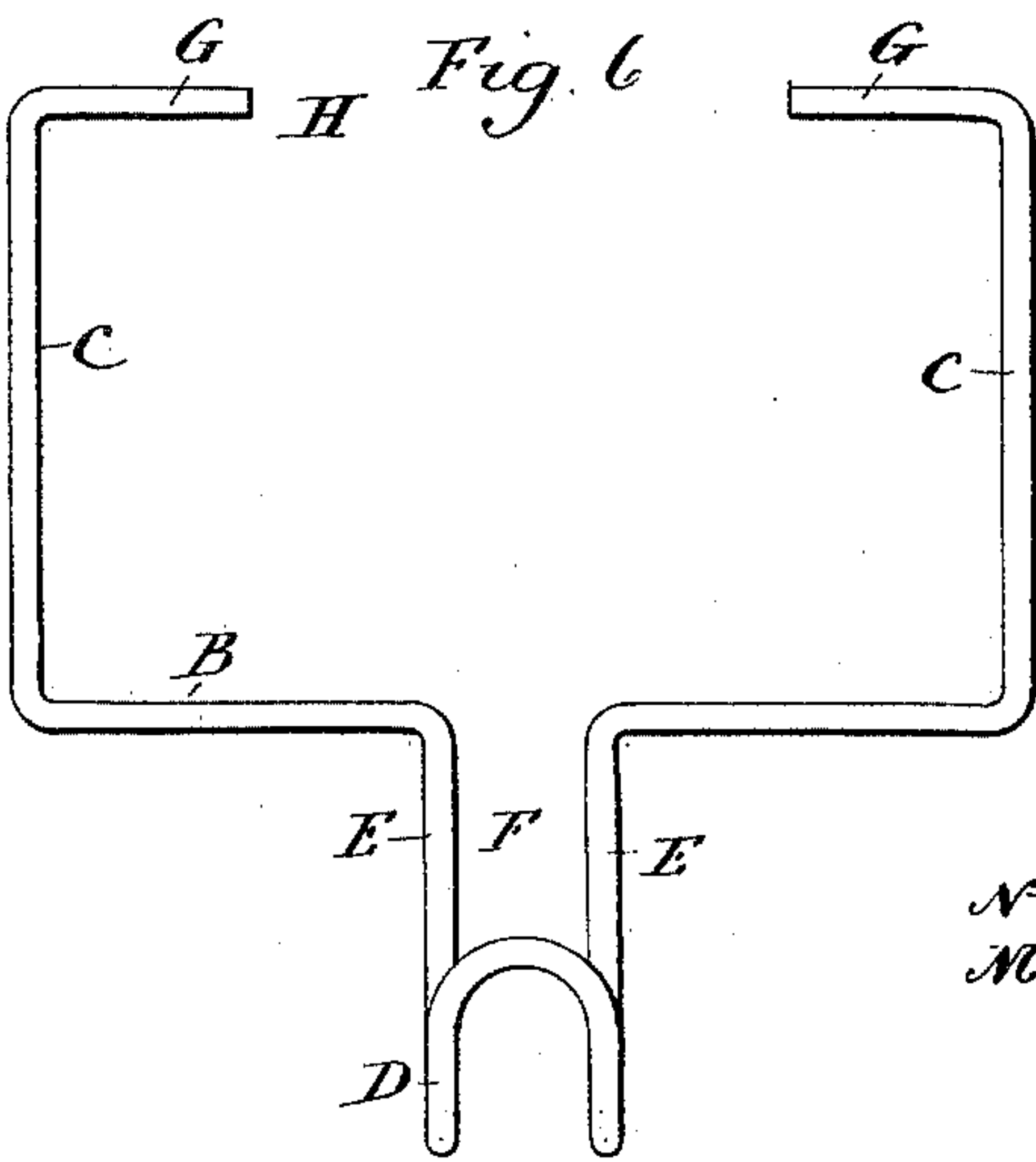


Fig. 8

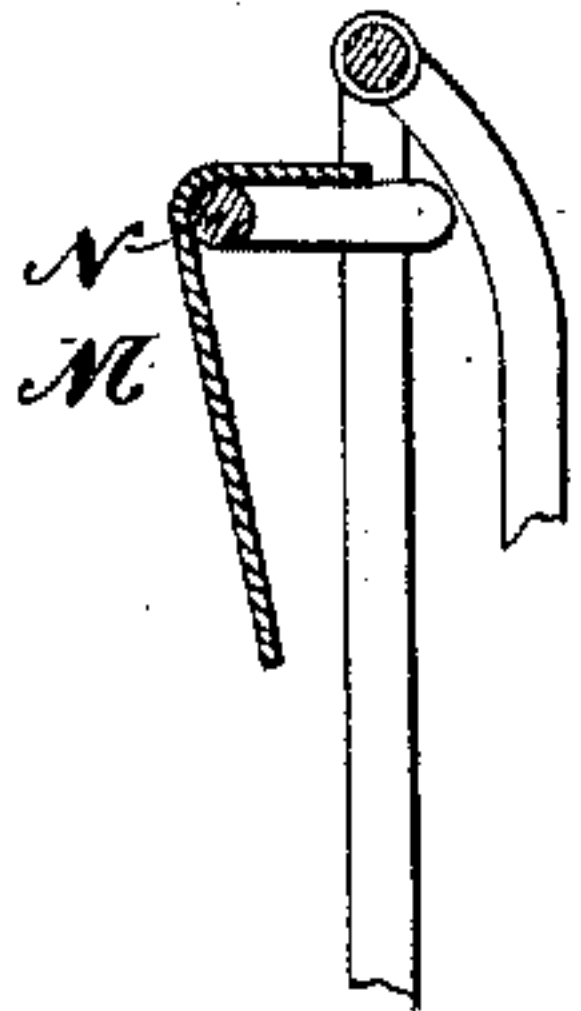
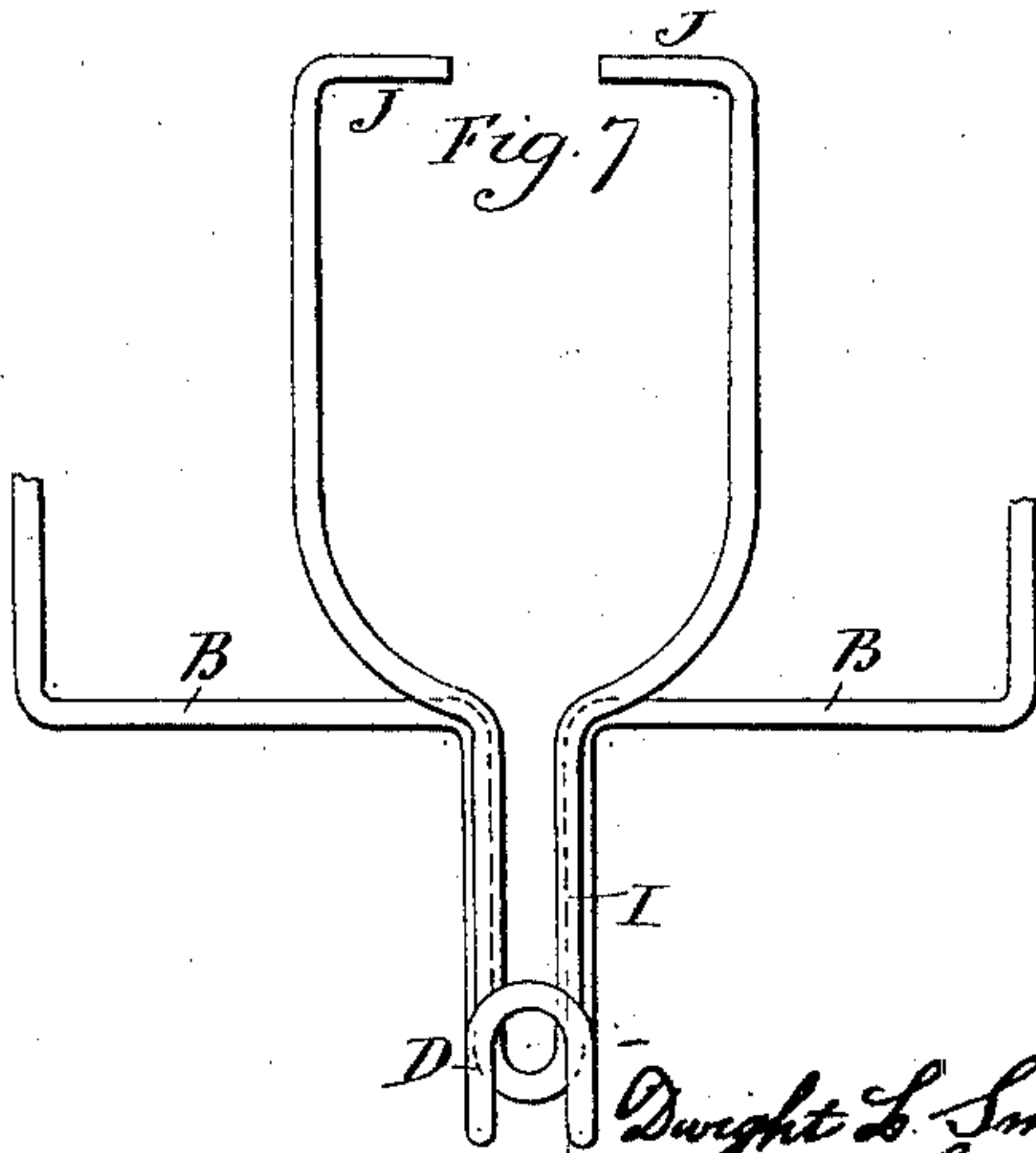


Fig. 7



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UNITED STATES PATENT OFFICE.

DWIGHT L. SMITH, OF WATERBURY, CONNECTICUT, ASSIGNOR OF ONE-HALF
TO EARL A. SMITH, OF SAME PLACE.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 477,024, dated June 14, 1892.

Application filed February 8, 1892. Serial No. 420,702. (No model.)

To all whom it may concern:

Be it known that I, DWIGHT L. SMITH, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new
5 Improvement in Buckles, (Case B;) and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same,
10 and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view of the buckle complete; Fig. 2, a rear view of the same; Fig. 3, a vertical section of the same; Fig. 4, a top
15 view; Fig. 5, a front view of the guard detached; Fig. 6, the frame detached; Fig. 7, a front view of a modified form of buckle; Fig. 8, a vertical section showing a modification.

This invention relates to an improvement
20 in that class of suspender-buckles in which the frame is made from wire having a depending hook from the lower side, to which the suspender-ends may be attached, and in which a guard is provided to prevent the ac-
25 cidental escape of the loop or ring of the suspender-ends from the hook, and having combined therewith a clamping device as a means for securing the suspender in the frame; and the invention consists in the construction as
30 hereinafter described, and particularly recited in the claims.

The frame is made from wire and composed of two sides A B, with ends C C. On the lower side B the wire is bent downward at the cen-
35 ter into U shape, the lower end turned upward to form the depending hook D, to which the suspender-ends may be attached; but instead of bringing the two branches E E of the body of the hook together they are separated,
40 so as to leave a space F between them. (See Figs. 1 and 5.)

The two ends of the wire frame are turned inward to the right and left, as seen at G G, Fig. 5, to form a portion of the upper side;
45 but they are less in length than the upper side, so as to leave a space H between the two ends. The upper side of the frame is thrown forward out of the plane of the frame by making a forward bend in the end C of
50 the frame, as at a, Fig. 3, and as also seen in

Fig. 4. The guard or tongue for the hook is made from wire doubled at its center to form the tongue I. The two branches are carried upward, preferably spread, and the two ends of the wire turned to the right and left, as at
55 J J, Fig. 5, into line with each other. The length of these thus-turned branches J J corresponds to the space H in the frame, and so that when placed between the ends, as seen in broken lines, Fig. 6, they substantially
60 complete the upper side of the frame. Then the upper side is inclosed by a sheet-metal sleeve K, which unites the guard to the frame, but yet leaves the guard with a certain amount of freedom to swing. The guard I
65 extends down on the front of the frame and so as to stand forward of the recess F in the hook, and its lower end is turned backward slightly, so as to produce a rounded surface L at its lower end (see Fig. 3) within and so
70 as to substantially cross the mouth of the hook. As a means for clamping the suspender, a longitudinal bar N is arranged across the frame at the bends or near the upper
75 side and secured to the two ends of the frame. This bar is made from wire, and on this bar a sheet-metal L-shaped lever M is hung, so as to swing as upon a pivot. One leg of the L-shaped lever projects forward as a jaw to impinge upon the suspender, while
80 the other leg extends downward to serve as a handle and so that the lever may swing as from the closed position seen in Fig. 3 to the open position seen in broken lines, same figure. The suspender is introduced at the rear
85 of the upper side of the frame downward between the jaw of the lever and the upper side of the frame, and when the proper position is attained the lever is turned to grasp the suspender against the said upper side of the
90 frame, as seen in Fig. 3, the suspender or strap being represented in broken lines. The suspender is returned through the frame below the lever and the body of the guard lies upon the surface of the suspender, which yielding-
95 ly holds the guard in the outward position, so as to close the mouth of the hook, as seen in Fig. 3, but so that the guard will readily yield for the introduction or removal of the loop or eye of the suspender-ends.

By curving the lower end of the tongue rearward and downward it presents an inclined surface to the ring, so that the ring may be removed by simply lifting it upward and against the tongue, such pressure serving to depress the tongue for the escape of the ring.

Instead of turning the ends of the guard-piece outward, as represented in Fig. 5, they may be turned inward, as represented in Fig. 7, and united in the same manner.

The rearward and downward bend of the tongue or guard is not essential to the invention, as it may be left substantially straight, as represented in broken lines, Fig. 3. The form of the spread of the guard-piece is immaterial, as will be seen by the two illustrations given, in which this form is varied to a considerable extent, and this for the reason that the amount of surface which the guard presents to the suspender is immaterial, the guard having no other function than to simply form a tongue for the hook to operate like the tongue of a snap-hook.

Instead of spreading the two branches of the hook so far apart as to permit the tongue to swing between, which it is necessary to do in case of the curve at the lower end of the tongue, they may be nearer together, as represented in Fig. 6, and the tongue of corresponding width, so that the tongue cannot pass between the two branches.

While preferring to construct the frame with the bends in the ends of the frame near the upper side so as to throw the upper side forward out of the plane of the frame, as I have described, in order that the jaw of the lever may grasp the suspender or strap without producing a short bend in the suspender, the bend may be omitted, as seen in Fig. 8; but in this case it will be desirable to arrange the bar in a position farther to the rear of the upper side of the frame than when that side is thrown forward, and as seen in Fig. 8.

I claim—

1. A buckle composed of a frame made from wire, the wire bent to form the lower side B, with its depending hook projecting therefrom, the two ends C C and the ends of the wire turned inward to form parts G G of the upper side A, but so as to leave a space between the said two parts G G, combined with a guard, also made from wire, doubled to form the hook-tongue I, the two branches of the wire forming the guard extending upward and

turned horizontally and so as to stand in the space between the two ends of the wire on the upper side of the frame, a sleeve around the said inwardly-projecting ends of the frame and the projecting ends of the guard, the bar N, longitudinally across the frame, secured to the two ends of the frame near and parallel to the upper side of the frame, and a metal lever hung upon said bar, the upper edge of the lever turned forward and adapted to engage the suspender between the upper side of the frame and the edge of the jaw, substantially as described.

2. A buckle consisting of a frame made from wire, the ends of the frame bent forward so as to bring the upper side of the frame into a plane forward of the plane of the frame, a cross-bar longitudinally across the frame, secured to the two ends of the frame substantially at the said bends, and a sheet-metal lever hung upon said cross-bar, the upper edge of the lever turned forward and adapted to engage the suspender between the upper side of the frame and the edge of the jaw, substantially as described.

3. A buckle consisting of a frame made from wire bent to form the lower side B, with a depending hook therefrom, the two ends C C, the ends of the wire turned inward to form portions G G of the upper side, but so as to leave a space H between the said turned-in ends, the ends C C of the frame bent near the upper side and so as to bring the said turned-in ends G into a plane forward of the plane of the frame, a guard made from wire doubled to form a tongue for the hook and extending upward, the two ends of the wire turned horizontally, corresponding to and so as to stand in the space H between the two ends G G of the frame, a sleeve K around the said turned-in ends G G and the horizontal portions of the guard, a cross-bar N, attached to the two ends of the frame near the upper side and parallel therewith, and a sheet-metal lever hung upon the said bar, its upper edge turned forward and adapted to grasp the suspender between the upper side of the frame and the edge of the jaw, substantially as described.

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

DWIGHT L. SMITH.

Witnesses:

H. L. DAWSON,
G. E. MINTIE.