

No. 606,701.

Patented July 5, 1898.

J. S. BEEMAN.
CAN OPENER.

(Application filed Nov. 9, 1897.)

(No Model.)

2 Sheets—Sheet 1.

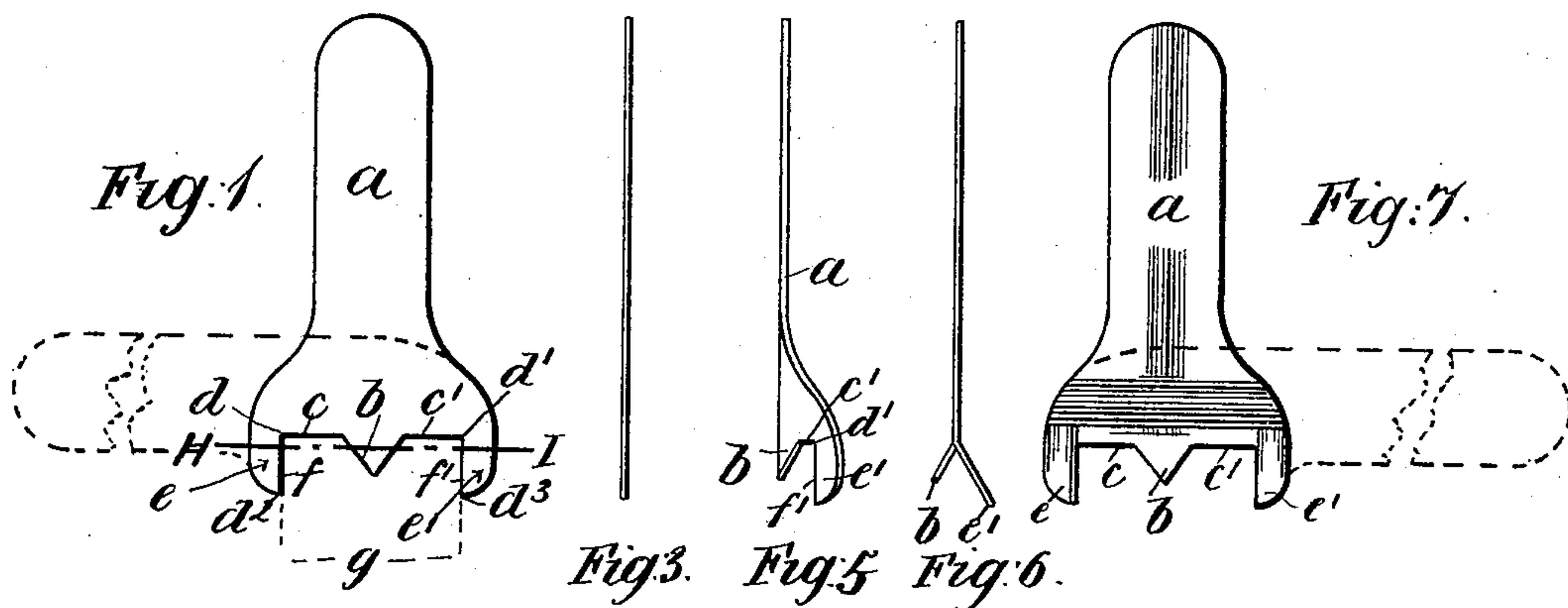


Fig. 2



Fig. 4.

Fig. 4^a

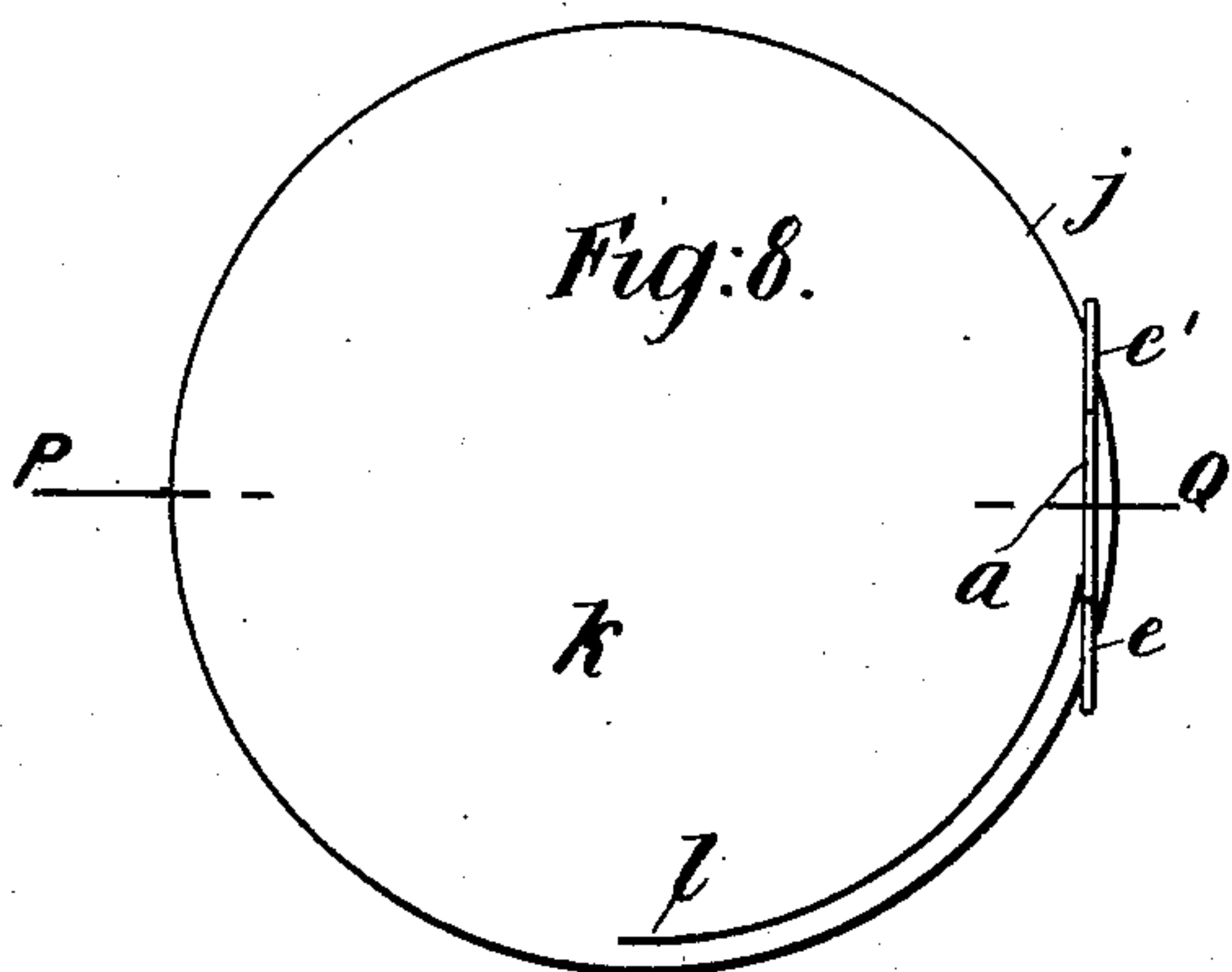


Fig. 8.

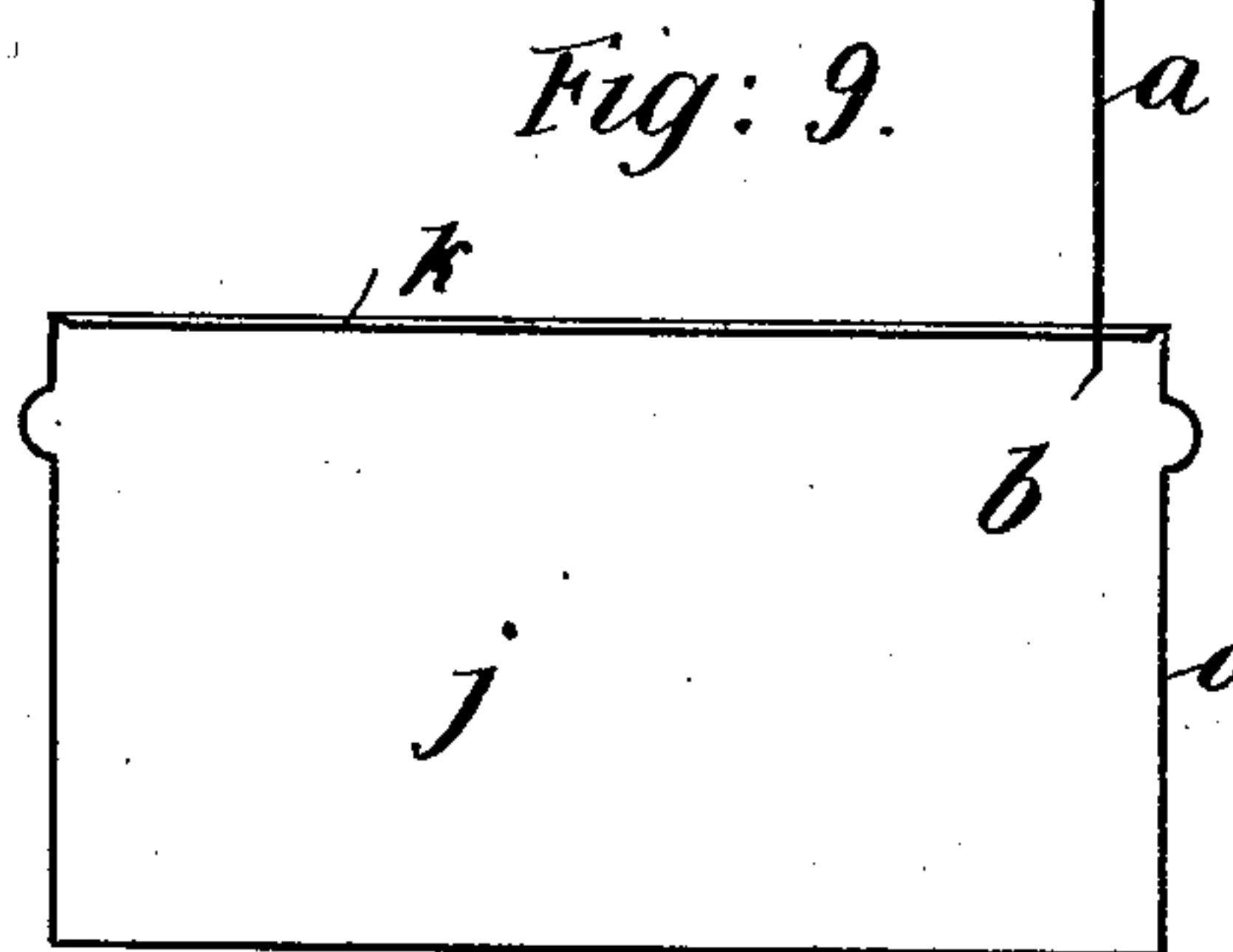


Fig. 9.

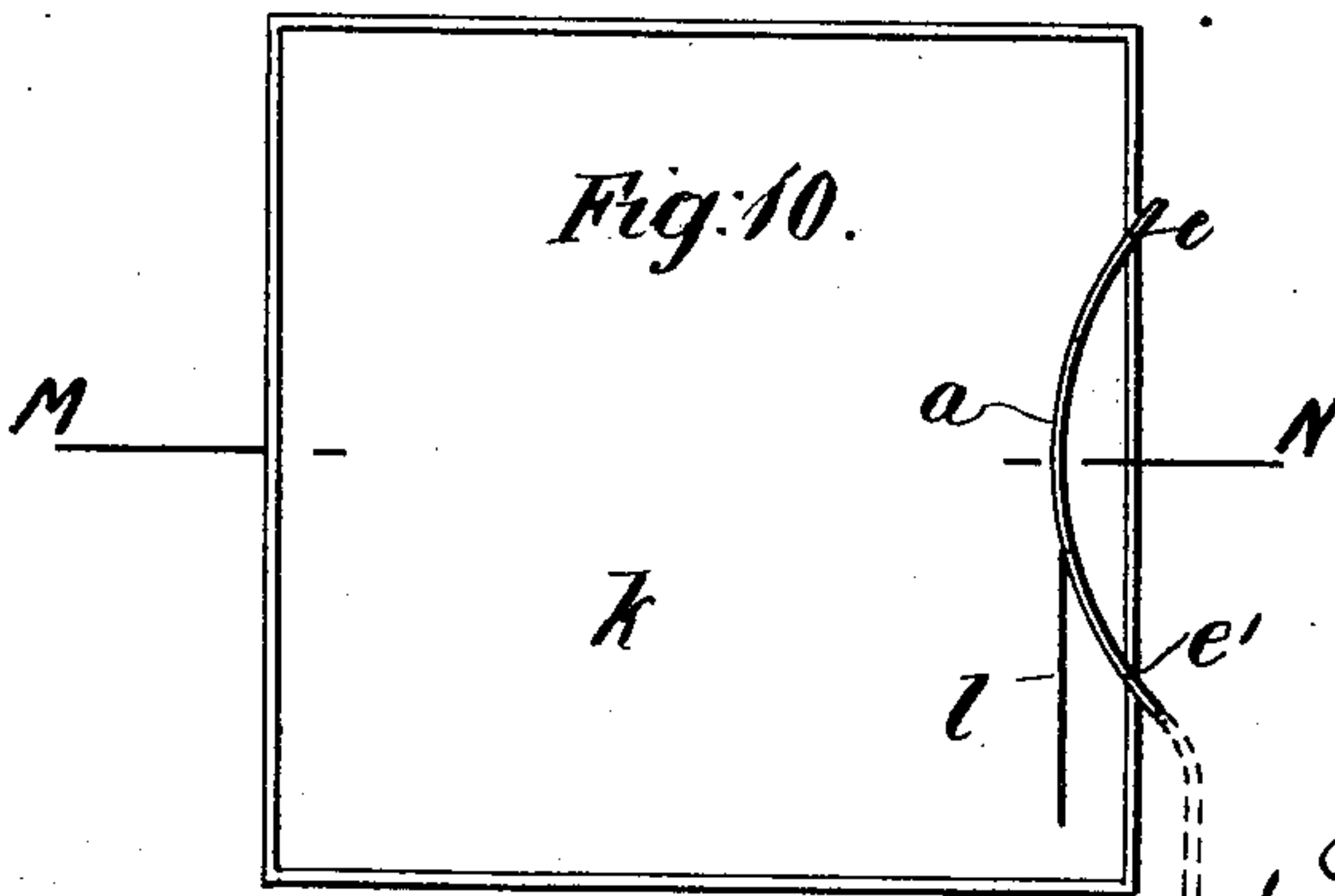


Fig. 10.

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Fig. 11.

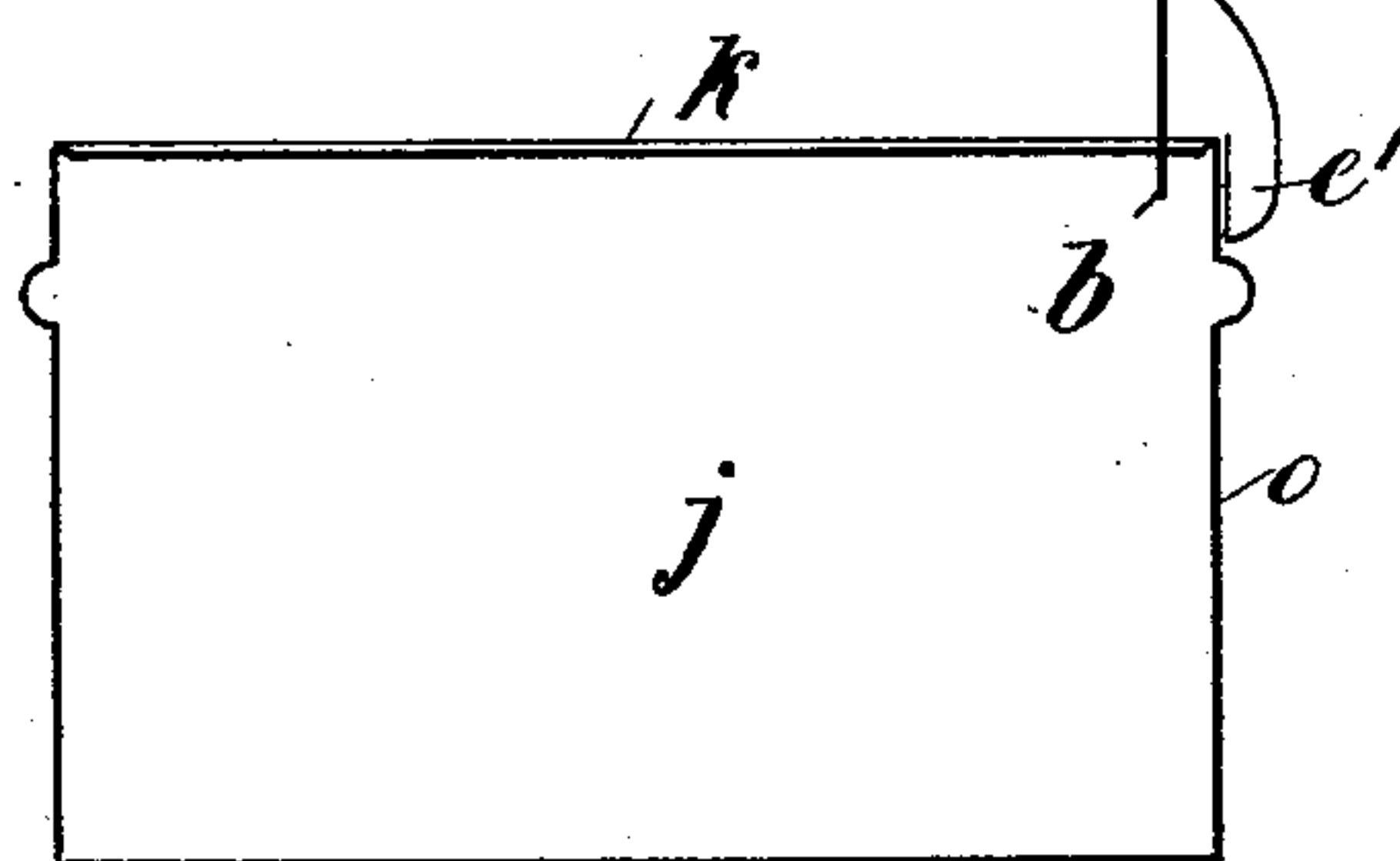


Fig. 12.

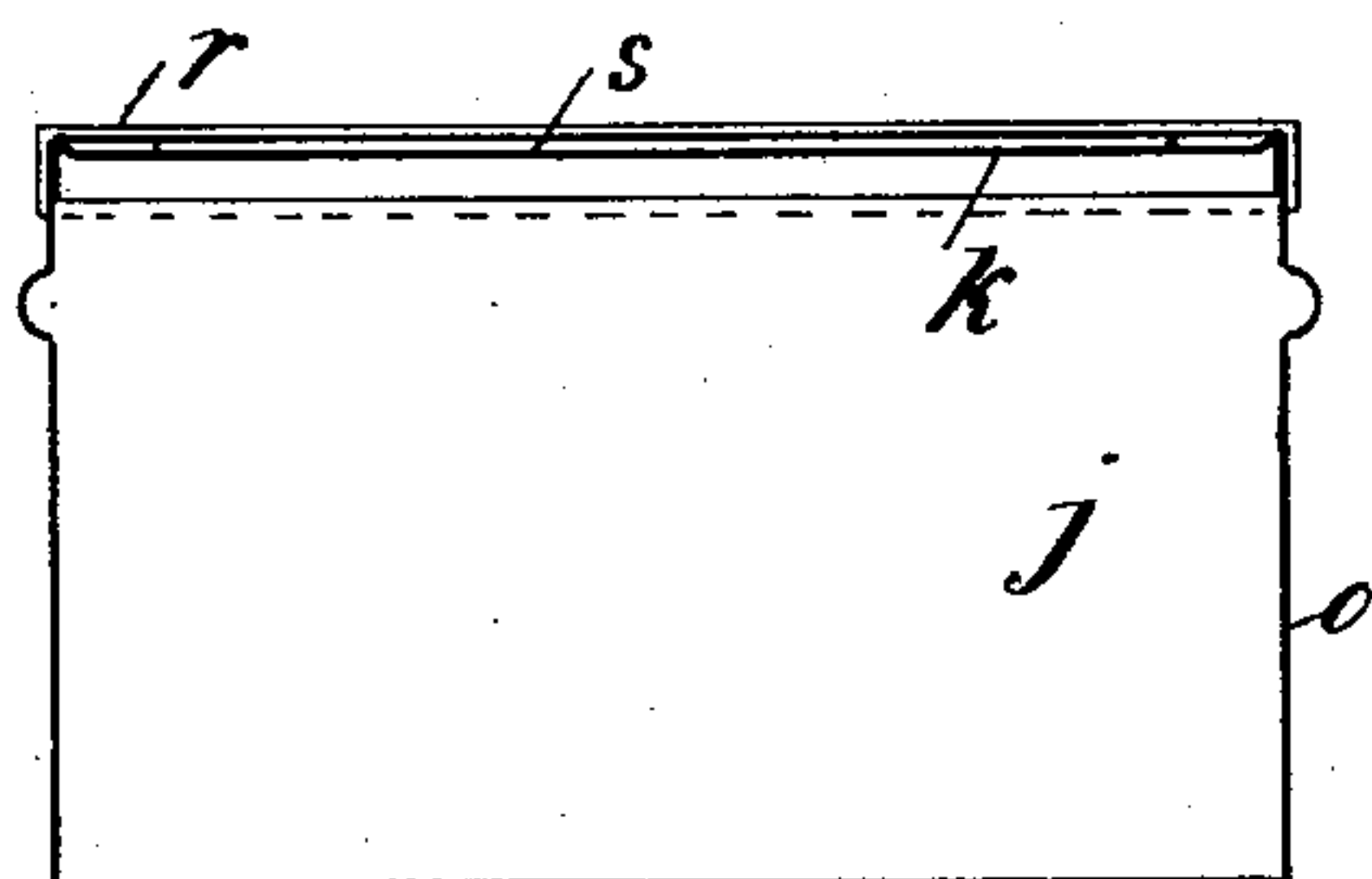
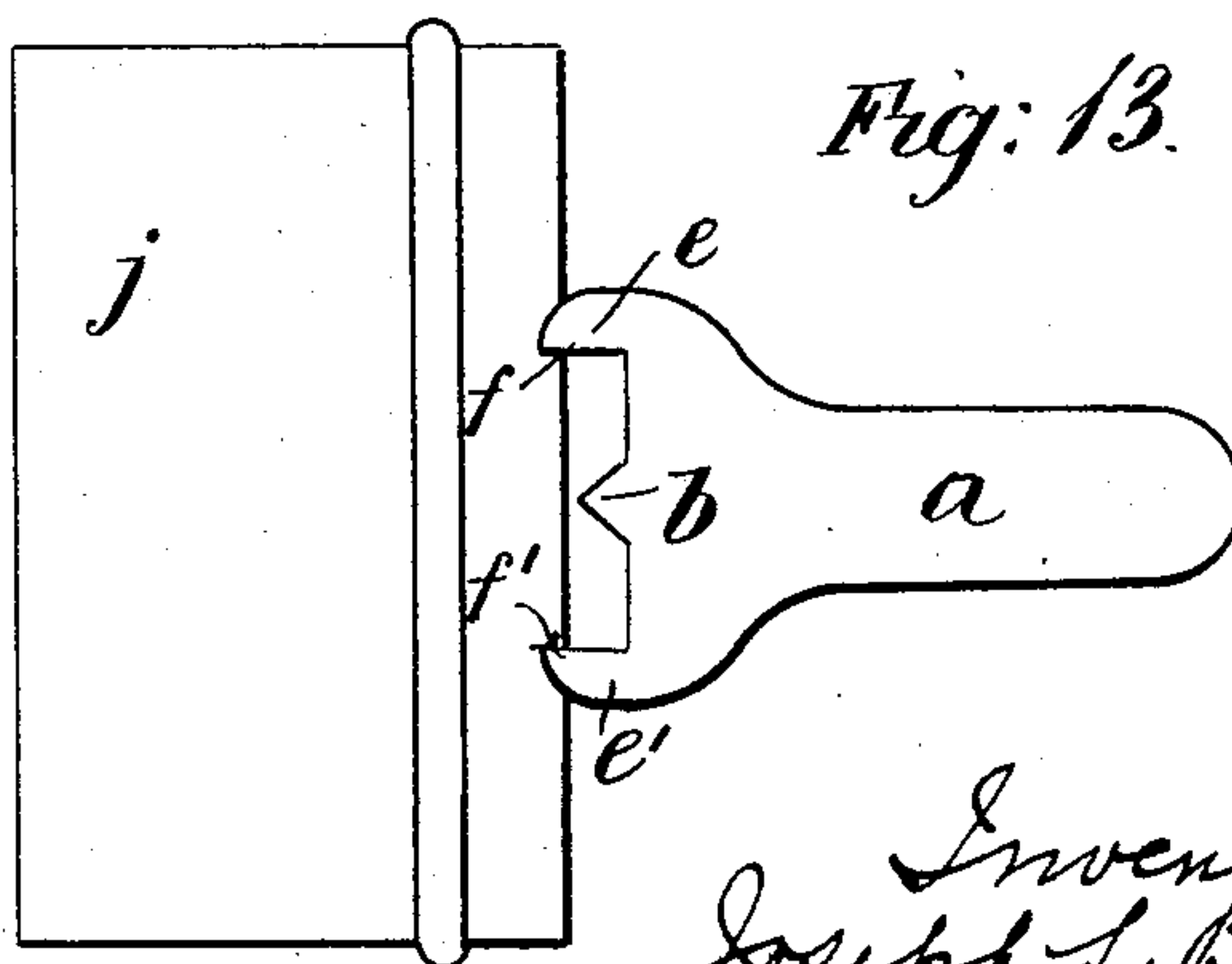


Fig. 13.



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UNITED STATES PATENT OFFICE.

JOSEPH SAMUEL BEEMAN, OF LONDON, ENGLAND, ASSIGNOR TO CHARLES EDWARD LAMBERT, CHARLES BUTLER, AND WALTER BUTLER, OF SAME PLACE.

CAN-OPENER.

SPECIFICATION forming part of Letters Patent No. 606,701, dated July 5, 1898.

Application filed November 9, 1897. Serial No. 657,942. (No model.) Patented in England October 27, 1897, No. 24,936.

To all whom it may concern:

Be it known that I, JOSEPH SAMUEL BEEMAN, a subject of the Queen of Great Britain and Ireland, residing at 182 Earls Court road, London, England, have invented a certain new and useful Improvement in Can-Openers for Opening Hermetically-Sealed Cans, Canisters, and the Like, (for which I have received Letters Patent in Great Britain, No. 24,936, dated October 27, 1897,) of which the following is a full, clear, and exact specification.

My invention relates to an improved can-opener for opening hermetically-sealed cans, canisters, and the like, especially such cans, canisters, and the like as have an inner attached cover or top of tagger tin or equivalent metallic covering and an outer separate lid or cover.

The said invention consists in an improved instrument for enabling such cans, canisters, and the like to be readily opened and is in no way a part of or attached to any part of the cans, canisters, or the like, and is of such a shape and form and weight as to be readily packed or stored away between the separate lid and tagger top or other equivalent covering of such cans, canisters, and the like when such separate lids are used and supplied with the said cans, canisters, and the like.

One object I have in view is to provide a cheap can-opener of little weight and of such a design as to be readily packed or stored away between the tagger top of a can and its separate lid, especially in the vacant space so common in this class of cans, and that shall be sufficiently strong and serviceable for cutting one can-top open.

Although my can-opener can be made of cast metal, I prefer, in carrying out this invention, to stamp it from a sheet of metal, preferably steel, in such a manner as to form along one edge three projections, the middle one being shaped as a cutter. The portions of the edge between these three projections form checks to prevent the cutter entering the tagger top to too great a depth.

Similar letters of reference indicate the same parts in all the drawings.

Referring to the accompanying drawings,

Figure 1 shows the blank as it leaves the dies. Fig. 2 is a section on the line H I, Fig. 1. Fig. 3 is an edge view of the blank, Fig. 1. Figs. 4 and 4^a are sections of the blank on the line H I, Fig. 1, after it has been bent into curved and angular forms, respectively. Fig. 5 is an edge view of the blank after it has been bent. Fig. 6 is an edge view of the blank after the cutter and guides have been bent. Fig. 7 shows the blank corrugated to strengthen it. Fig. 8 is a plan, and Fig. 9 a section, on the line P Q, Fig. 8, showing a circular can in the process of being opened. Fig. 10 is a plan, and Fig. 11 a section, on the line M N, Fig. 10, showing a square can in the process of being opened. Fig. 12 is a section of a can, showing the space to receive the cutter. Fig. 13 is a side view of a can and cutter.

a represents the handle, the upper end of which may be of any convenient shape and may extend in any convenient direction, as shown in full lines in Figs. 1, 3, 5, 6, 9, 11, and 13, or in the direction of the dotted lines in Figs. 1, 2, 4, 4^a, 7, and 10. The three projections from the lower end of the handle are represented by *e b e'*. In these figures, *b* is shaped as a cutter having its two cutting sides by preference symmetrical. I prefer the V-shaped cutter, as shown.

It is not even necessary that the cutter should be sharpened on its cutting edges, as it will be found in practice that the edges of the cutter as they leave the stamping-tool are sufficiently sharp to sever the tagger-tin top of the can. The remaining two projections *e e'* serve the purpose of guides, a portion of each of which guides rests during use against the outer circumference of the can. It is preferable, but not necessary, that these guides *e e'* should be longer or project farther downward than the cutter *b* from the handle *a*.

The edges *c c'* of the metal plate between *e* and *b* and between *b* and *e'* are adapted to serve as checks to prevent the cutter entering the tagger top to too great a depth. The ends *d d'* of the edges *c c'* are preferably equidistant from the center line of the cutter *b*. The projections *e e'* have edges *f f'*. These edges start from *d* and *d'* and terminate at *d²* and *d²*. As shown in Fig. 1, these edges are

at right angles to the checks $c c'$. These edges f and f' are the portions of the guides $e e'$ which rest against the outer circumference of the can or canister. Between the ends d^2 and d^3 is the space g , which is a means provided whereby the distance of the cut in the tagger top from the outside edge of the can is determined. The distance between the edges $f f'$ is greater or less, according to the diameter of the can the opener is intended to open or according to the size of the hole required to be cut in the tagger top. For can-openers for use with rectilinear cans the distance of the incision from the outer edge of the can may be regulated by increasing or decreasing the distance between the edges f and f' by the greater or less curvature of the plate, as herein described. If required for opening tagger-topped square cans, the opener must be bent into a more or less complete curve, as shown in Figs. 4 and 4^a.

In order to save weight of metal by using thinner material, I can impress, emboss, corrugate, or otherwise strengthen the can-opener, as shown in Fig. 7.

In the preferred form of my can-opener the two outer projections $e e'$ are inclined to the plate, as shown in Figs. 1 and 6, in one direction and serve as guides, while the middle projection b is inclined in the opposite direction and serves as a cutter, the edges between the projections serving as a stop.

Fig. 8 represents the top of a circular can j , having a tagger top k , with the can-opener such as is described and illustrated by Figs. 1, 2, and 3, said can-opener having been placed in position and pushed home and partially moved, as hereinafter described, thereby cutting away the tagger-tin top k , the incision made in the tagger-tin top k being represented by the line marked l .

Fig. 9 represents a cross-section on line P Q of Fig. 8, showing the can-opener in its cutting position on top k and the side o of the can j .

Fig. 10 represents the top of a square can j , having a tagger-tin top k with the can-opener, such as is described and illustrated by Figs. 1, 2, and 3, after said can-opener has been bent or curved by the operator, as described under Figs. 4, 4^a, and 5, said can-opener having been placed in position and pushed home and partially moved, thereby

cutting into the tagger-tin top k , the incision made in the tagger-tin top k being represented by the line marked l .

Fig. 11 represents a cross-section on the line M N of Fig. 10, showing the can-opener in its cutting position on the top k and side o of the can j .

Fig. 12 represents a cross-section of a circular can j with a tagger-tin top k , furnished with a separate lid r , and between the lid r and tagger top k the method of packing or storing the can-opener represented by s . In some cases the lid r or tagger top k may be recessed, the recess being approximately the shape of the can-opener s , so that the can-opener will be prevented from moving about during transit from place to place.

The method of using the can-opener is as follows, and for the purpose of more readily explaining it I will do so in reference to a circular can: Referring to Fig. 12, the separate lid is first removed and laid on one side. The can-opener is taken in the right hand and gripped by the handle a , the can j being held at its bottom and in the left hand. The ends of the guides $e e'$ being laid on the side of the free end of the can, as shown in Fig. 13, the can-opener is then pushed toward the left hand, thereby causing the cutter b to pierce the tagger top. The next operation is to rotate the tin and can-opener in opposite directions until the portion of the tagger-tin top is separated from the can.

What I claim is—

1. A can-opener consisting of a plate having along one of its edges projections serving as guides and a cutter, the edge between the projections serving as a stop.

2. A can-opener consisting of a plate having along one of its edges three projections, the two outer projections being inclined to the plate in one direction and serving as guides, the middle projection being inclined in the other direction and serving as a cutter, the edge between the projections serving as a stop.

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

JOSEPH SAMUEL BEEMAN.

Witnesses:

JOSEPH LAKE,

WALTER J. SKERTEN.