

No. 636,425.

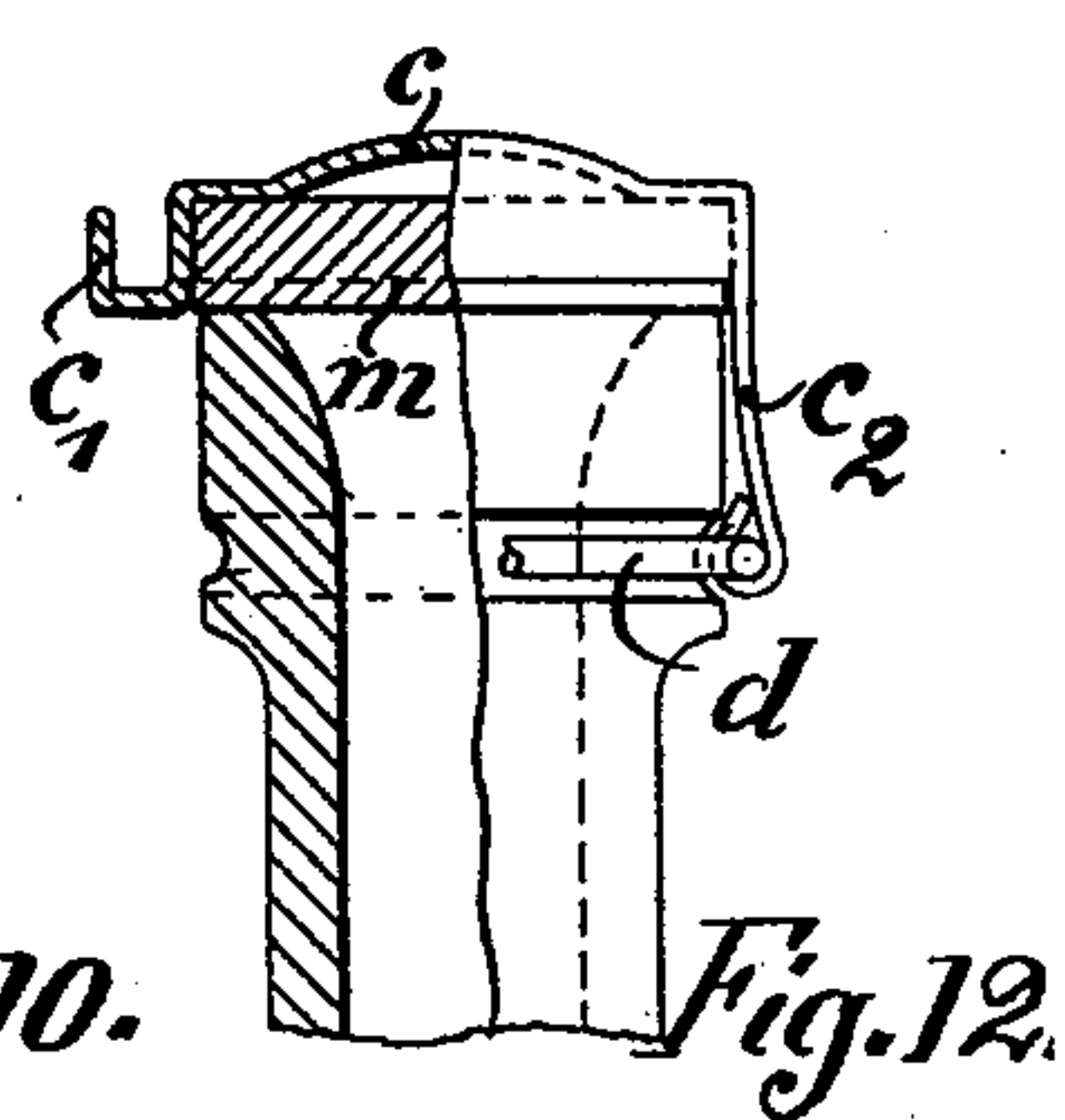
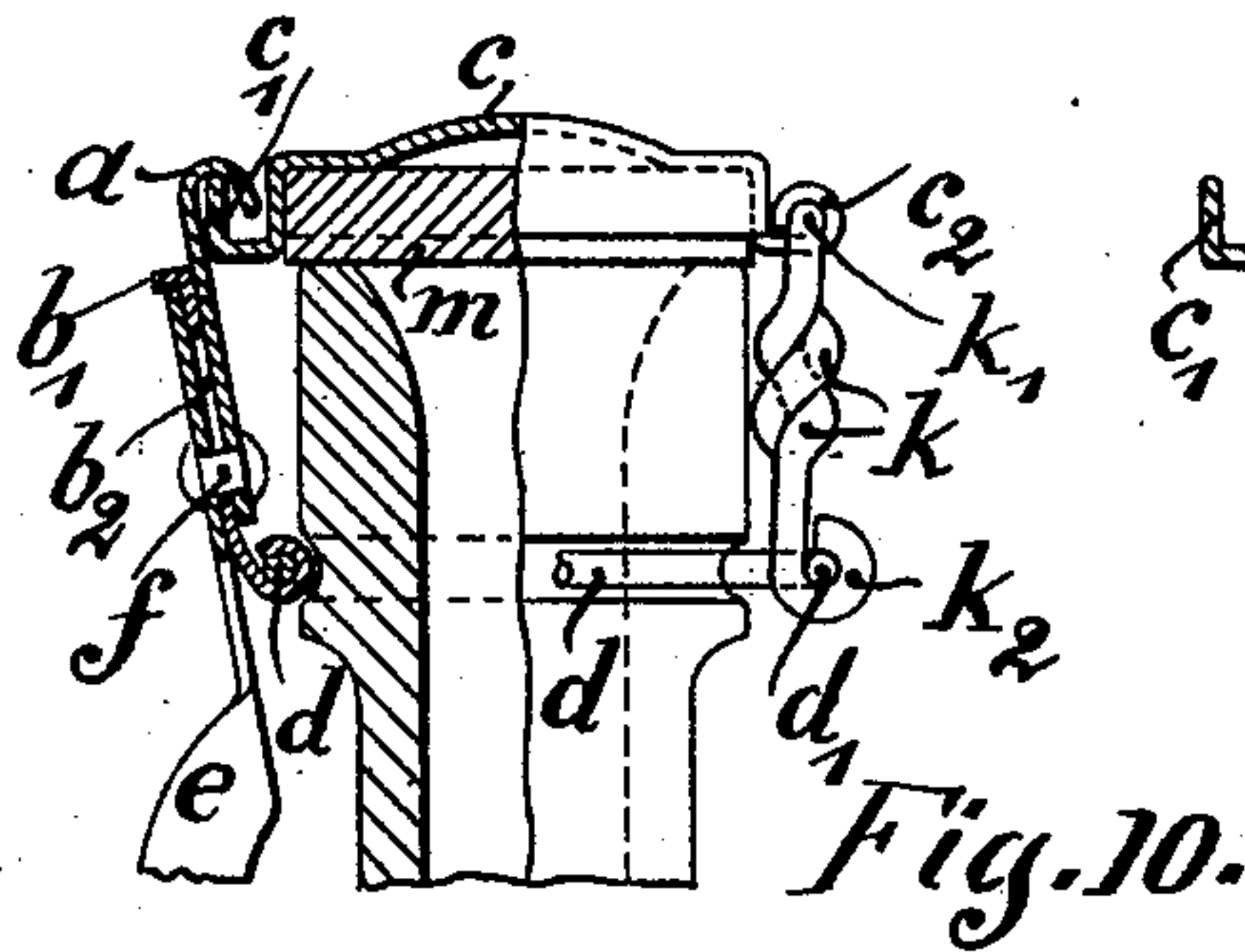
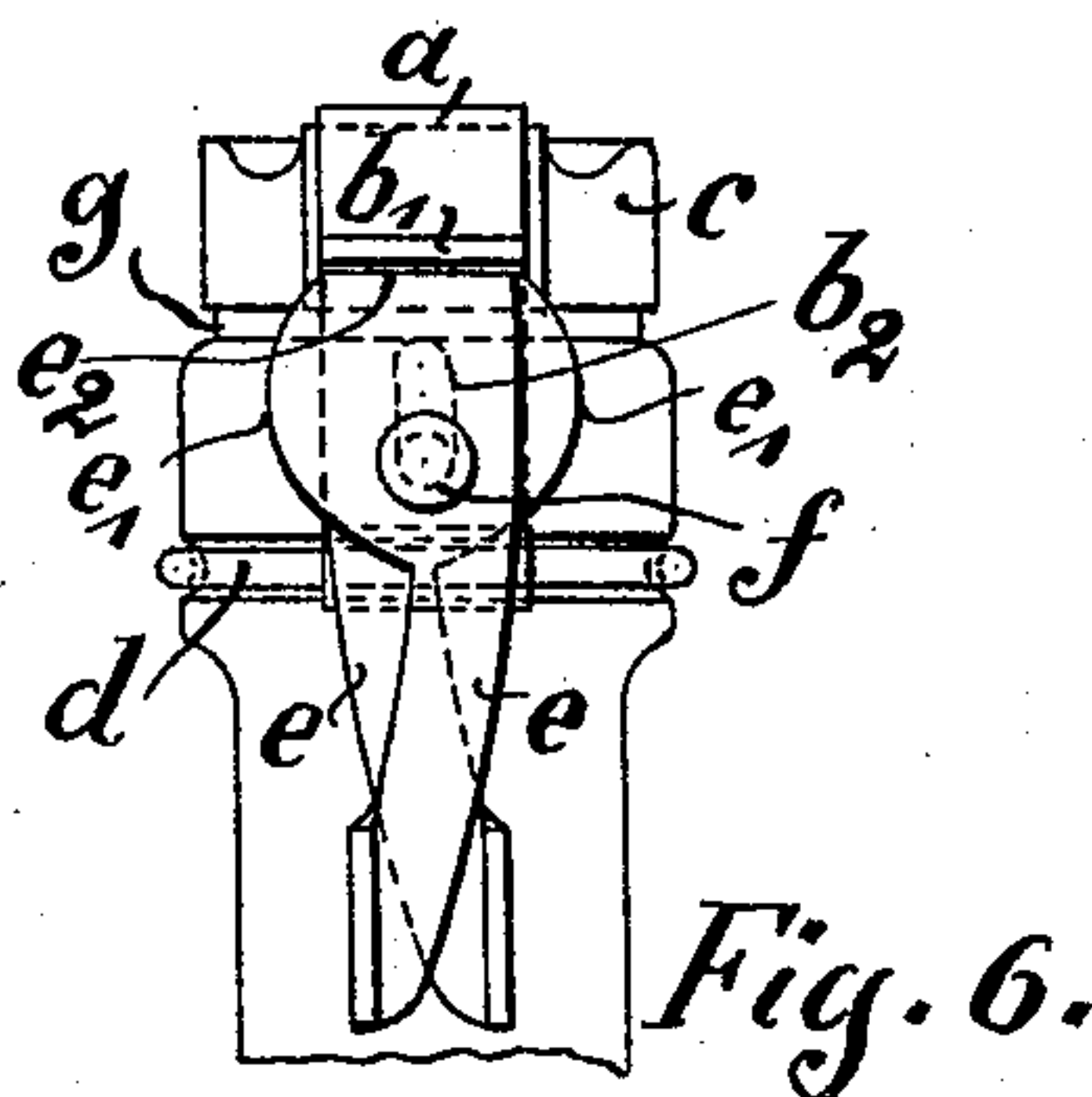
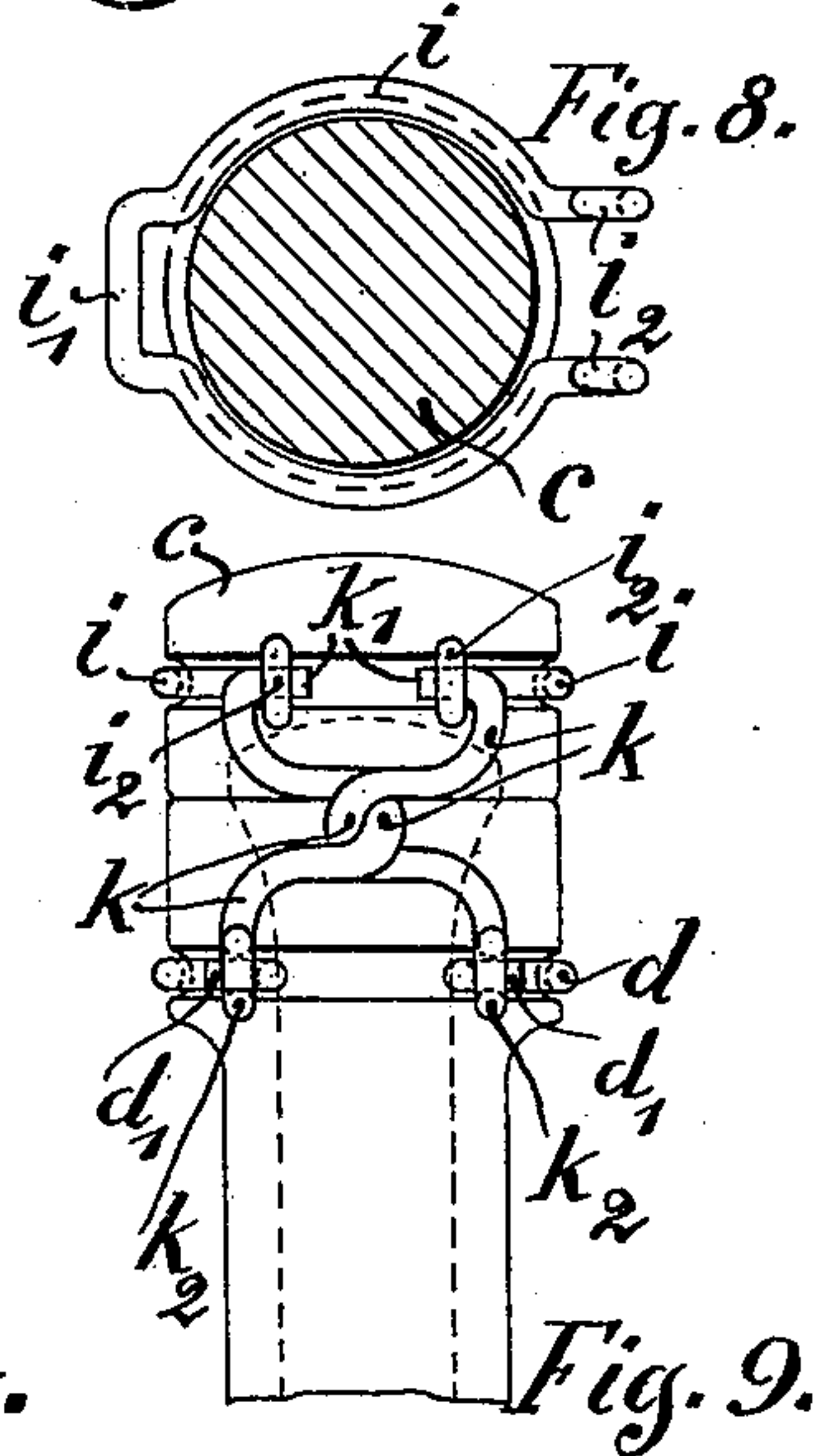
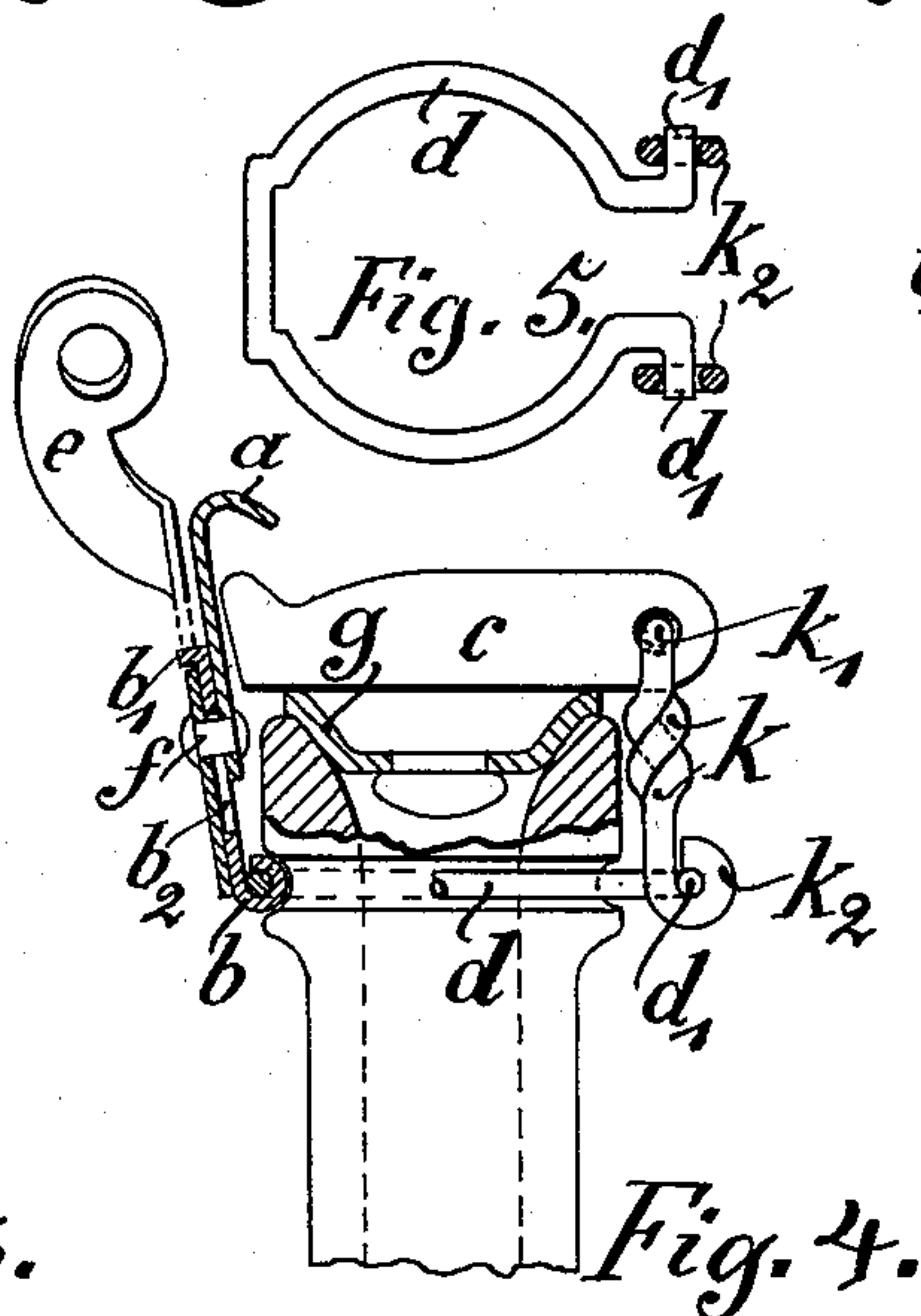
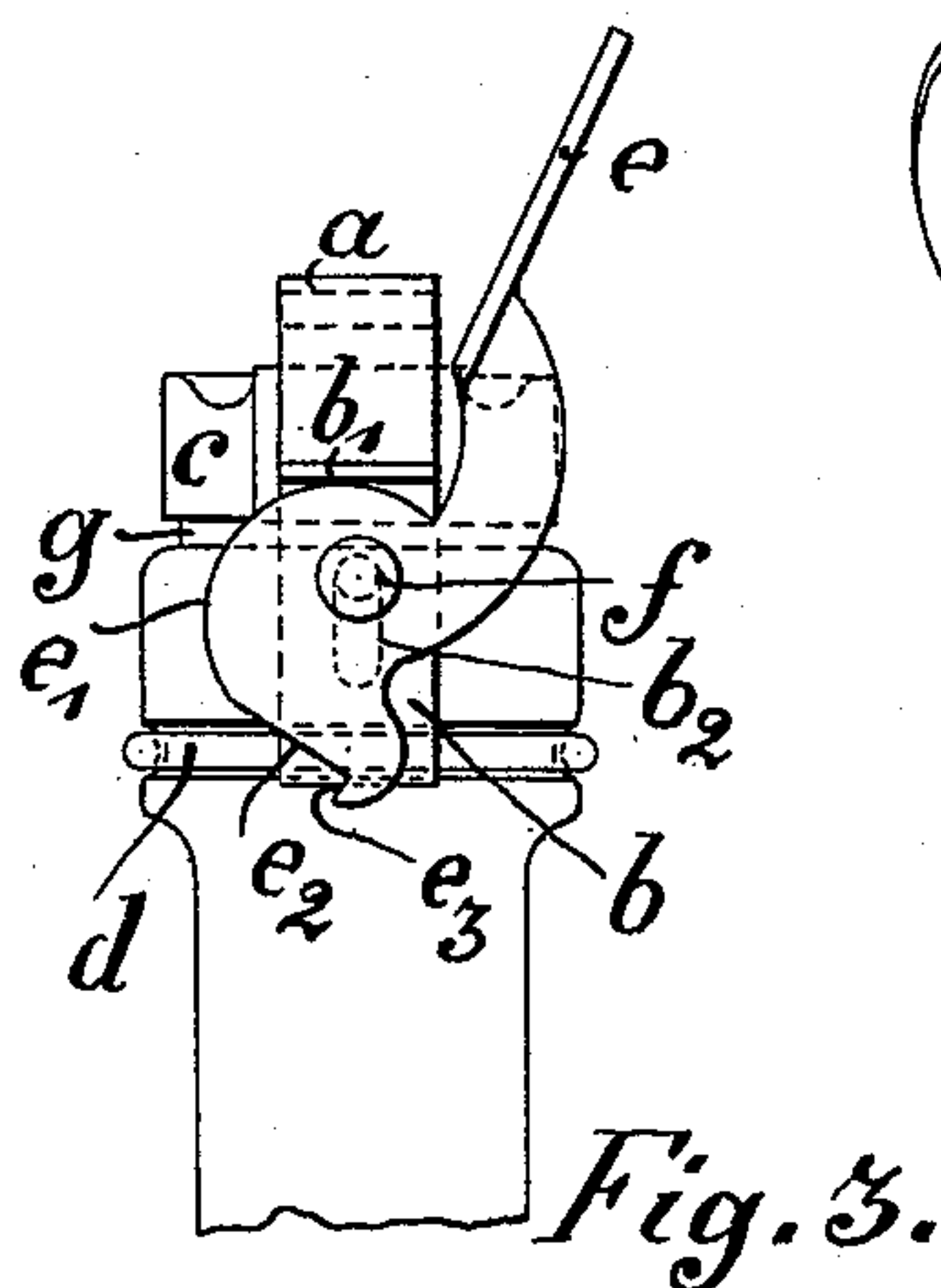
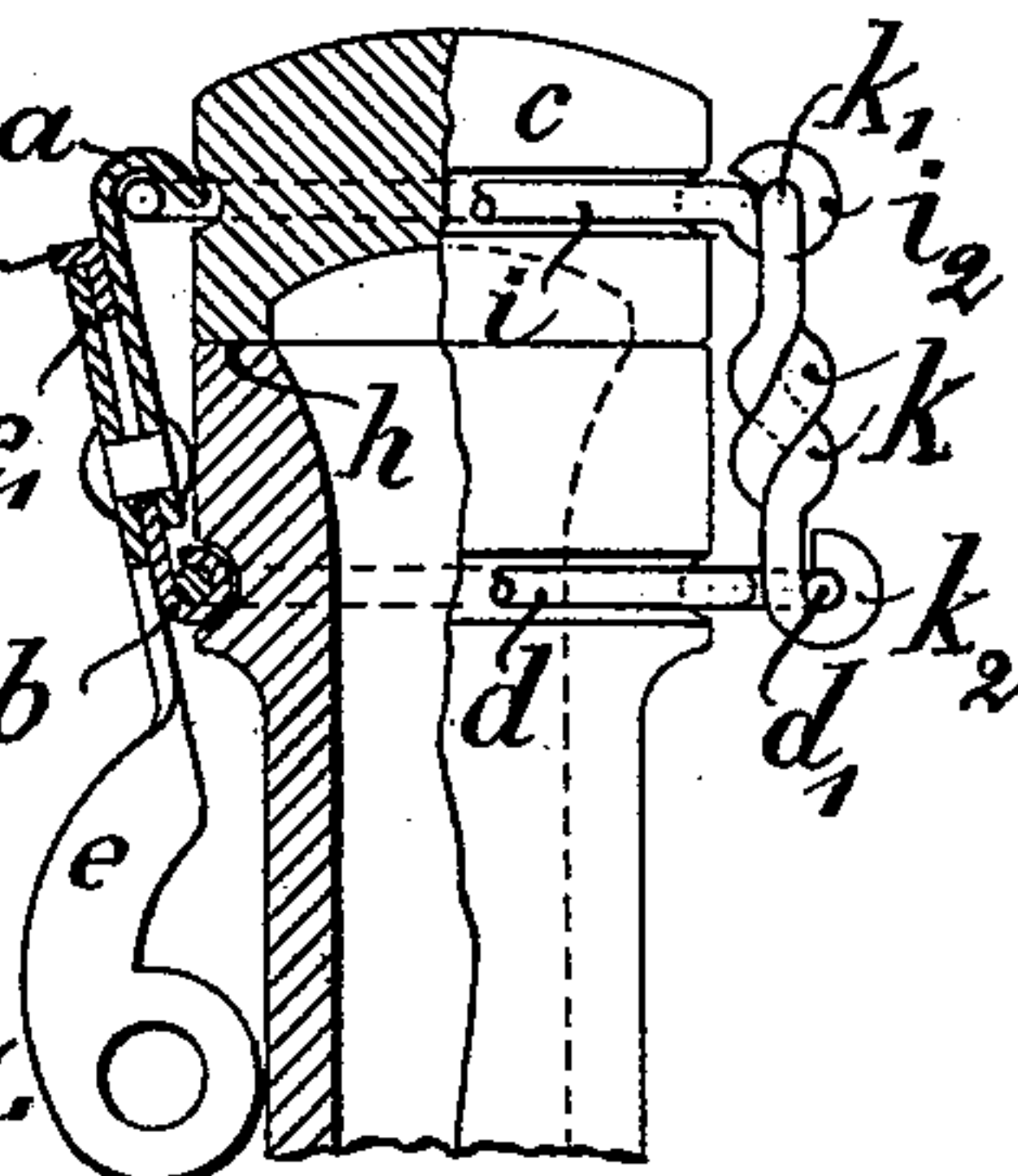
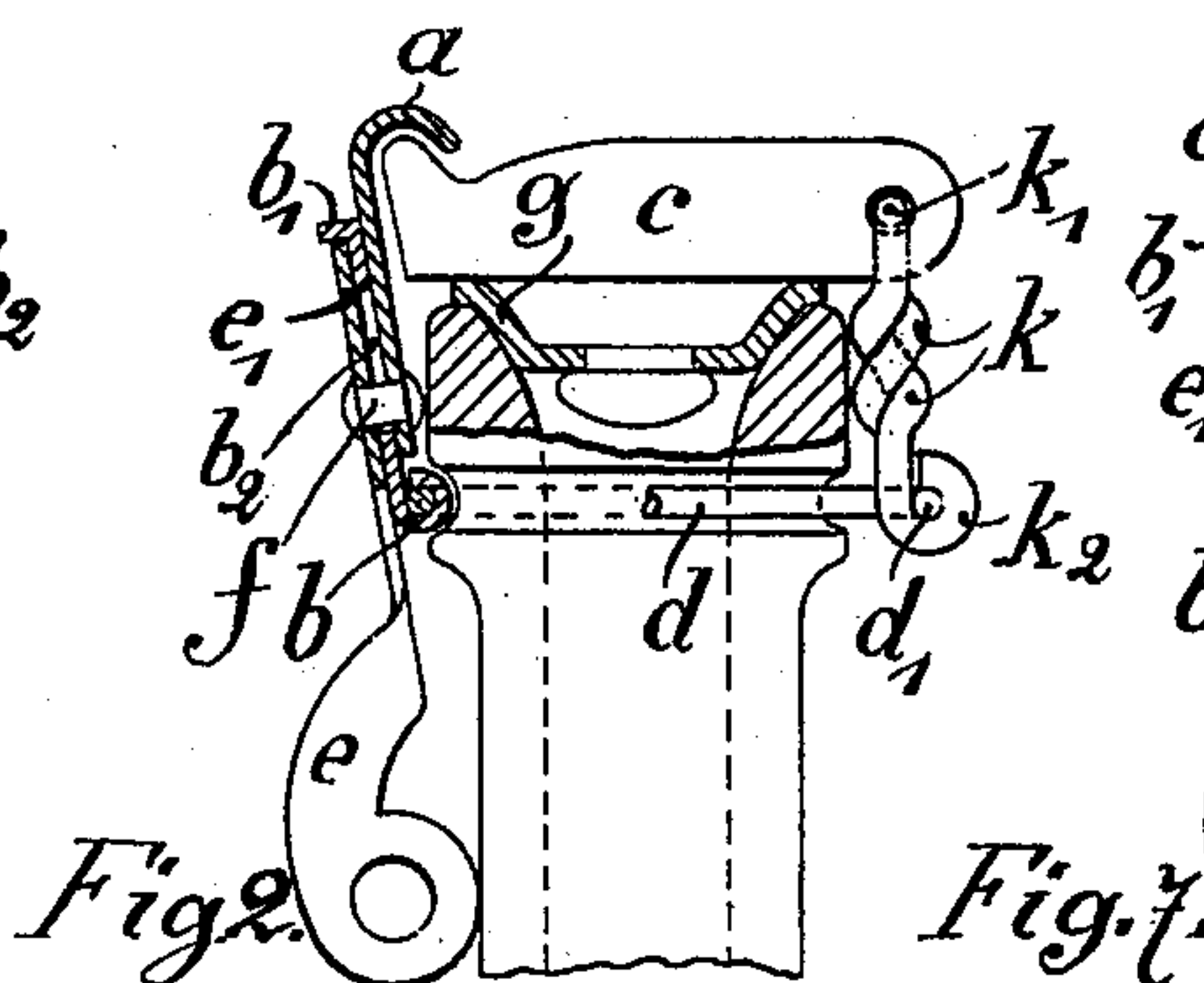
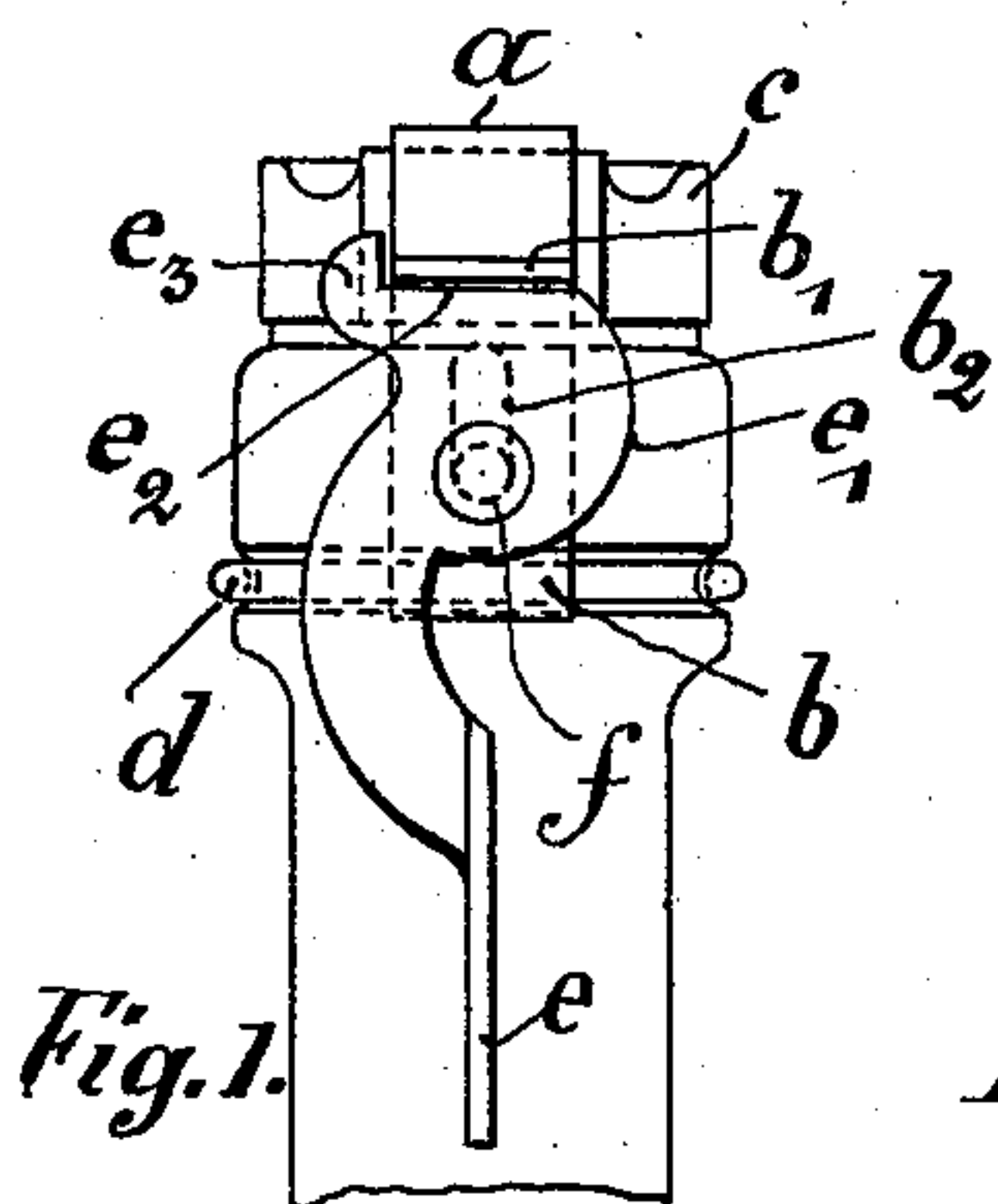
Patented Nov. 7, 1899.

A. DÄMITZ.

LOCKING DEVICE FOR BOTTLE STOPPERS.

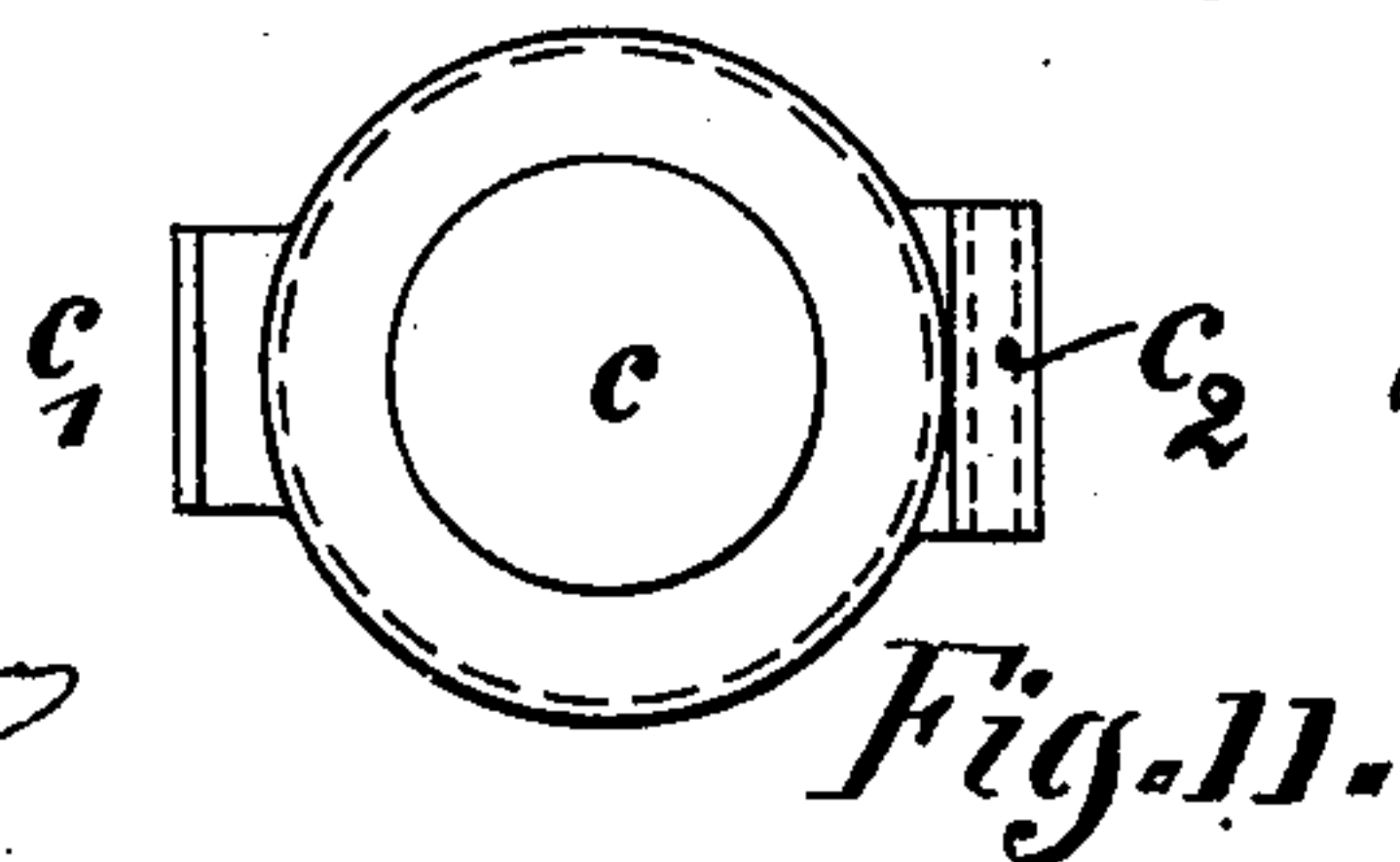
(Application filed Aug. 8, 1899.)

(No Model.)



Witnesses:

Paul Hesse
Julius Waldmann



Inventor
Hedolf Dämitz

by Richard

ATTORNEYS

UNITED STATES PATENT OFFICE.

ADOLF DÄMITZ, OF BERLIN, GERMANY, ASSIGNOR TO WALTER KOETTGEN
AND MAX PRECKELT, OF SAME PLACE.

LOCKING DEVICE FOR BOTTLE-STOPPERS.

SPECIFICATION forming part of Letters Patent No. 636,425, dated November 7, 1899.

Application filed August 8, 1899. Serial No. 726,560. (No model.)

To all whom it may concern:

Be it known that I, ADOLF DÄMITZ, a subject of the Emperor of Germany, residing at Berlin, Germany, have invented certain new and useful Improvements in Locking Devices for Bottle-Stoppers, of which the following is a description, reference being had to the accompanying drawings, and to the letters marked thereon, which form part of this specification.

My invention has reference to certain new and useful improvements in locking devices for stoppers for bottles, jars, and the like, and more especially to that class of stoppers which by turning a lever downward cause a hook-shaped locking part to engage and pull downward the cover-plug proper, hinged at one side to the neck of the bottle, pressing it tightly upon a washer of resilient material interposed between the cover and the upper edge of the neck of the bottle and securely occluding thereby the mouth of the bottle.

The device consists principally of three parts—a member linked to the neck of the bottle, a hook-shaped part adapted to engage the front end of the cover, and the pressure-lever. The latter two parts are arranged one on either side of the link member and are connected with each other in such a way as to permit of the lever part being swung around upward or downward and of the two parts sliding up or down along the member linked to the neck of the bottle. This up-and-down motion is limited by a slot provided in the link member, within which is guided a pin connecting the lever with the hook-shaped part.

In the accompanying drawings, which illustrate my invention, Figure 1 represents a front view of the locking device in closed position. Fig. 2 is a sectional elevation of the closed device, taken at an angle of ninety degrees from Fig. 1. Figs. 3 and 4 show the same views of Figs. 1 and 2, respectively, but in opened position. Fig. 5 is a detail. Fig. 6 represents a modification with two pressure-levers swinging in opposite directions. Fig. 7 is a side elevation, partly in section, of the locking device, in combination with a ground cover. Fig. 8 is a detail, and Fig. 9 a rear view, of Fig. 7. Fig. 10 is another modi-

fication of cover, in combination with the improved locking device, partly in section. Fig. 11 represents a plan view of the cover used in Fig. 10; and Fig. 12 is still another modification of cover, in combination with my improved locking device, partly in section, and with the front working parts of the locking device omitted.

Like letters of reference designate like parts throughout the various drawings.

a is the hook-shaped part, the upper end of which is adapted to engage the cover *c*. The member *b* is linked with its lower end to a wire or like ring *d*, encircling the neck of the bottle, and is provided at its upper end with a shoulder *b'*. In this member a slot *b²* is provided, within which is guided a pin *f*, connecting the hook part *a* with the lever part *e*. This latter can be turned up or down about the said pin. Upon the eccentric part *e'* of the lever *e* rests the shoulder *b'* of the member *b*, as is clearly shown, for instance, by Fig. 3, and it is obvious that by turning the lever *e* downward from the position shown the member *b* by means of its shoulder *b'* will offer a resistance to the eccentric *e'* and cause the pin *f*, and with it the hook part *a*, to descend, the pin gliding in the aforementioned slot *b²*. In the lowermost position of the lever *e* the flattened portion *e²* of the lever-eccentric will bear against the shoulder *b'* and prevent the parts from inadvertently being released again. A nose *e³* prevents the lever from being turned too far. During this down motion the hook part *a* engages the front end of the cover *c* and presses the latter firmly upon an elastic washer *g*, interposed between the cover-plug and the upper edge of the neck of the bottle, as is shown in Fig. 2.

The rear part of the cover *c* is provided with a transverse bore for receiving the rectangularly-bent ends *k'* of two wires *k*, which are twisted about each other and are provided with eyes *k²* at the other end. By means of these eyes the wire link is linked to the projecting ends *d'* of the wire ring *d*, encircling the neck of the bottle, as shown in Figs. 2 and 5.

In Fig. 6 a modification of the lever arrangement is shown, inasmuch as two lever parts *e* are provided turning upon a common pin *f* in opposite directions, as indicated by the

arrows, and both bearing against the shoulder b' of the member b .

In Fig. 7 the locking device is represented in connection with a bottle-neck having a ground upper edge and a correspondingly ground cover-surface, so that the use of an elastic washer is obviated. A wire ring i is laid around the cover c within a groove and is provided at its front part with a bent-out portion i' and at its rear part with two eyes i^2 . The wire-hinge ends k' engage these eyes i^2 , as is shown in Figs. 7 and 9, and the hook part a upon being pulled down by the down motion of the lever part e engages the said bent-out portion i' of the ring i and presses the two ground faces firmly together, as at h in Fig. 7.

Fig. 10 shows the locking device in combination with a different style of cover. In this case the cover is pressed out of sheet metal and contains a disk or plate m of elastic material—such as cork, for instance. The front and rear parts, respectively, of this cover are provided with doubly-rectangularly-bent extensions $c'c^2$, which are engaged by the hook part a and by the ends k' of the wire link, respectively. A modification of this kind of cover is shown in Fig. 12, in which the extension c^2 of the cover c is extended downwardly and encircles with its free end the wire ring d , placed around the neck of the bottle.

The other working parts of the locking device are not shown, as they do not differ from the parts described with reference to the other figures.

What I claim, and desire to secure by Letters Patent, is—

1. In a locking device for bottle and the like stoppers the combination of the locking

member b having a slot b^2 and at one end the shoulder b' and being linked with the other end to a wire ring encircling the neck of the bottle, the hook-shaped locking part a , the lever part e having an eccentric portion e' adapted to bear against the said shoulder b' and a pin f guided in the said slot b^2 and connecting the parts a and e , the parts being arranged and working substantially as set forth.

2. In a locking device for bottle-stoppers the combination of the locking member b having a slot b^2 and at one end the shoulder b' and being linked with the other end to a wire ring encircling the neck of the bottle, the hook-shaped locking part a , the lever part e having an eccentric portion e' adapted to bear against the said shoulder b' , a flattened portion e^2 and a projection or nose e^3 , and a pin f guided in the said slot b^2 and connecting the parts e and a as and for the purpose set forth.

3. In a locking device for bottle-stoppers the combination of the locking member b having a slot b^2 and at one end the shoulder b' and being linked with the other end to a wire ring encircling the neck of the bottle, the hook-shaped locking part a , two lever parts e , each having an eccentric portion e^2 adapted to bear against the said shoulder b' , a flattened portion e^2 and a projection or nose e^3 , and a pin f guided in the said slot b^2 and connecting the parts e and a , substantially as set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ADOLF DÄMITZ.

Witnesses:

WALDEMAR HAUPT,
HENRY HASPER.