

L. BLUMENTHAL.
MACHINE FOR CLAMPING COVERS ON RECEPTACLES.
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983,117.

Patented Jan. 31, 1911.

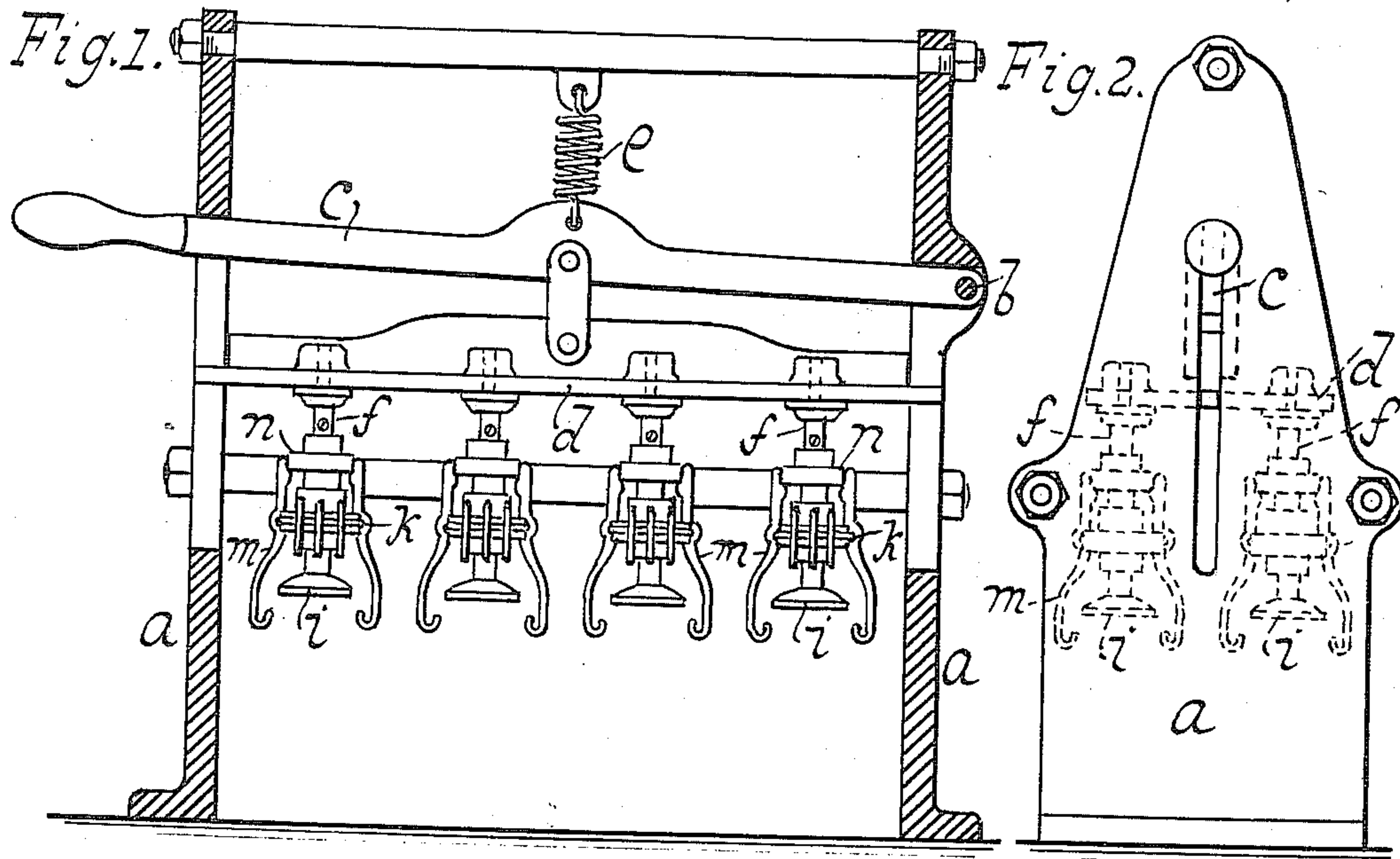
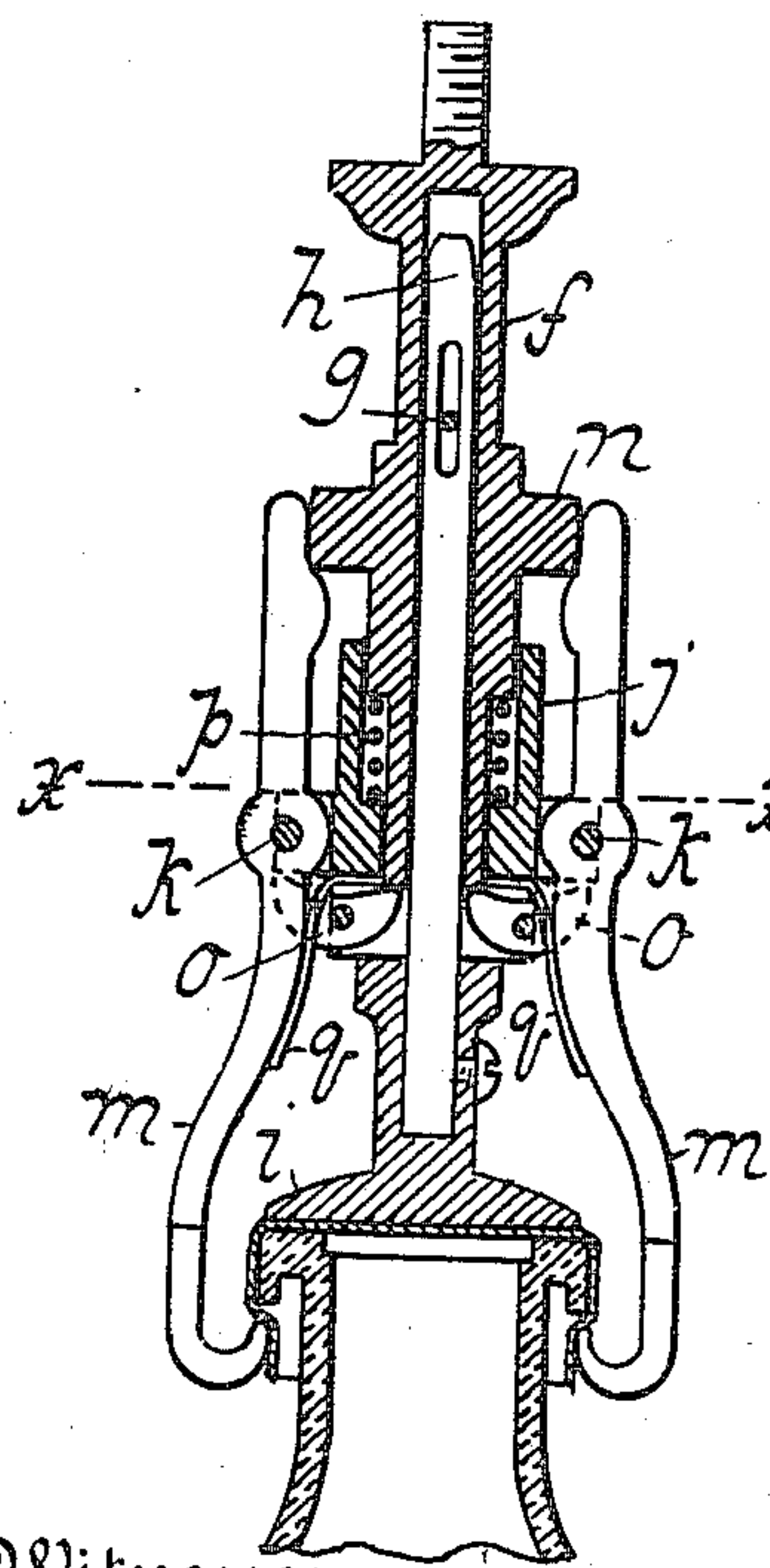
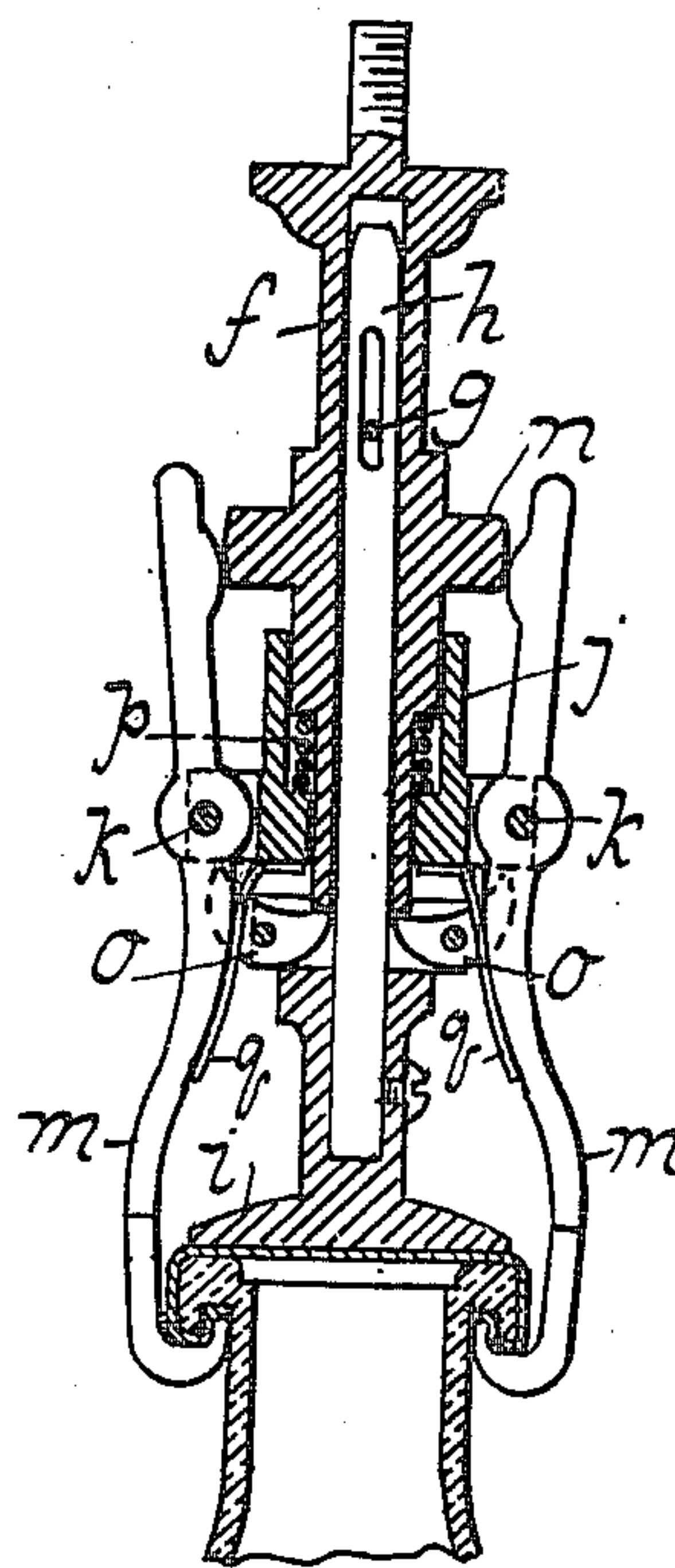


Fig. 3.



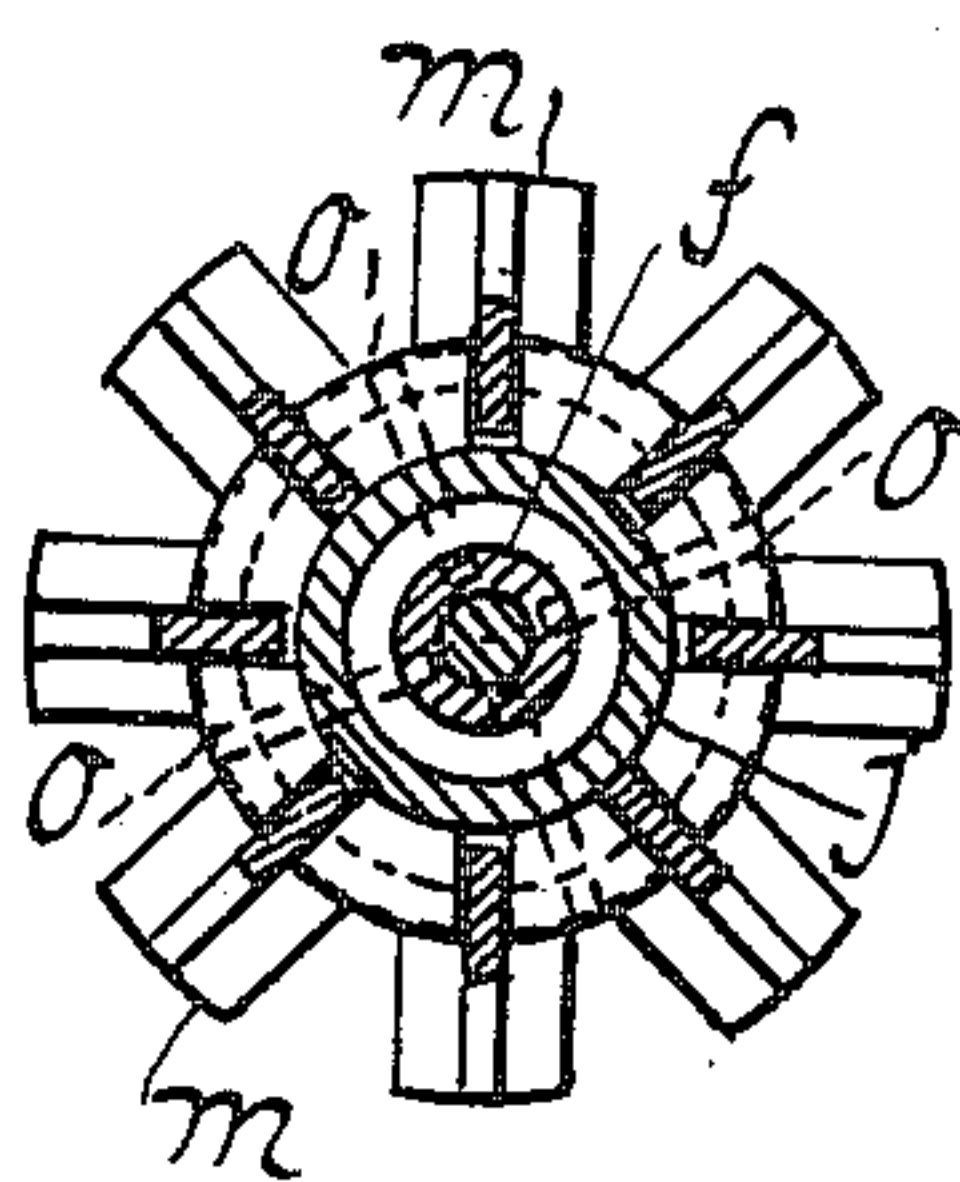
Witnesses:
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Fig. 4.



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Fig. 5.



UNITED STATES PATENT OFFICE.

LOUIS BLUMENTHAL, OF BROOKLYN, NEW YORK.

MACHINE FOR CLAMPING COVERS ON RECEPTACLES.

983,117.

Specification of Letters Patent.

Patented Jan. 31, 1911.

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To all whom it may concern:

Be it known that I, LOUIS BLUMENTHAL, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Machines for Clamping Covers on Receptacles, of which the following is a specification.

This invention relates to a machine for fastening covers to bottles, jars and receptacles and it consists essentially of a series of levers which are adapted to be operated to clamp the lower portion of the cover into a groove located at the outer part of the mouth of the bottle.

The levers are swingingly mounted on a sliding sleeve which is operated by means of a series of detents. These levers are actuated by means of a cam disk fastened to the plunger. The plunger when operated swings the lower ends of the levers toward the neck of the bottle, and at the same time the detents are oscillated to lift the levers into engagement with the annular groove formed in the neck of the bottle.

The novel features of the invention are more fully described in the following specification and claims and illustrated in the accompanying drawings, in which:

Figure 1 represents a sectional front elevation of a machine embodying this invention. Fig. 2 is a side elevation thereof. Fig. 3 is a vertical section of a plunger. Fig. 4 is a similar section showing the plunger pressed down and the levers in action. Fig. 5, is a horizontal section in the plane $x-x$ Fig. 3.

In this drawing the letter a designates a frame to which is fulcrumed at b a lever c having a handle whereby the lever can be operated. To this lever is linked a cross-head d of suitable construction to slide within the frame when the lever is operated.

A spring e moves the cross-head and the lever back to their original position. This cross-head has fastened to it a series of plungers f and these plungers are all operated simultaneously by means of the said lever c . To each of these plungers is connected, by means of a pin and slot g , a stem or rod h and to the lower end of this rod is fixed a buffer i .

On the lower end of the plungers is mounted a sleeve j to which is fulcrumed at k a series of levers m . These levers have cam shaped upper ends and their lower ends

are preferably hook shaped to fit into the groove formed in the bottle neck. The cam shaped upper ends of the levers are adapted at certain times to co-act with a disklike concentric cam n fixed to the plunger.

On the upper part or stem portion of the buffer i is pivoted a series of detents o . The noses of each detent being in engagement with the lower end of the plunger and with the bottom portion of the sliding sleeve. A spring p is housed between the sliding sleeve and the stem of the plunger. A series of springs q are fastened to the lower part of the sliding sleeve j and their free ends engage the levers m . These springs tend to press the upper part of the levers against the disk cam n and thus spread the lower hook shaped portion of the levers.

It will be seen that when the device is in operation as shown in Fig. 4, and the plunger is pressed downward the detents o will be actuated by the downward movement of the plunger and the outer nose of each detent will strike on to the lower portion of the sleeve j and lift the same. At the same time cam n engages the upper cam portion of the levers m and swings the lower ends of the levers inwardly to contact with the side of a bottle, the downward movement of the plunger then actuates the detents to lift the levers and the hook shaped portions will engage the groove formed in the bottle. When the plunger is released as shown in Fig. 3, the spring p will move the sleeve j downwardly, thus oscillating the detents o to their initial positions. The pin and slot connection between the buffer i and the plunger, allows the plunger to be moved independently and the spring p forms a yielding connection between these parts.

I claim:—

1. In a bottle capping machine, the combination with a plunger of a sleeve slidably mounted thereon, a series of levers pivoted to the sleeve, mechanism for operating the plunger, and a device on the plunger for swinging the levers, a buffer connected to the plunger, devices carried by the buffer and operated by the plunger for lifting the levers.

2. In a bottle capping machine, the combination with a plunger of a sleeve mounted thereon, a series of levers pivoted to the sleeve, mechanism for operating the plunger and a device on the plunger for swinging the

levers, a buffer connected to the plunger, devices carried by the buffer and operatively connected to the plunger mechanism for lifting the levers.

5 3. In a bottle capping machine, the combination with a plunger of a sleeve slidingly mounted thereon, a series of levers pivoted to the sleeve, mechanism for operating the plunger, and a cam fixed to the plunger for
10 swinging the levers, a buffer connected to the plunger and devices pivoted to the buffer and oscillated by the plunger for lifting the sleeve with the levers.

4. In a bottle capping machine, the combination with a plunger of a sleeve slidingly

mounted thereon, a series of levers fulcrumed to the sleeve, a buffer movably connected to the plunger, a series of detents pivoted to the stem of the buffer, mechanism for operating the plunger, and devices co-acting with the 20 plunger for swinging the levers and oscillating the detents to lift the levers.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

LOUIS BLUMENTHAL.

Witnesses:

CHRISTIAN H. ALMSTAEDT,
WILLIAM MILLER.