

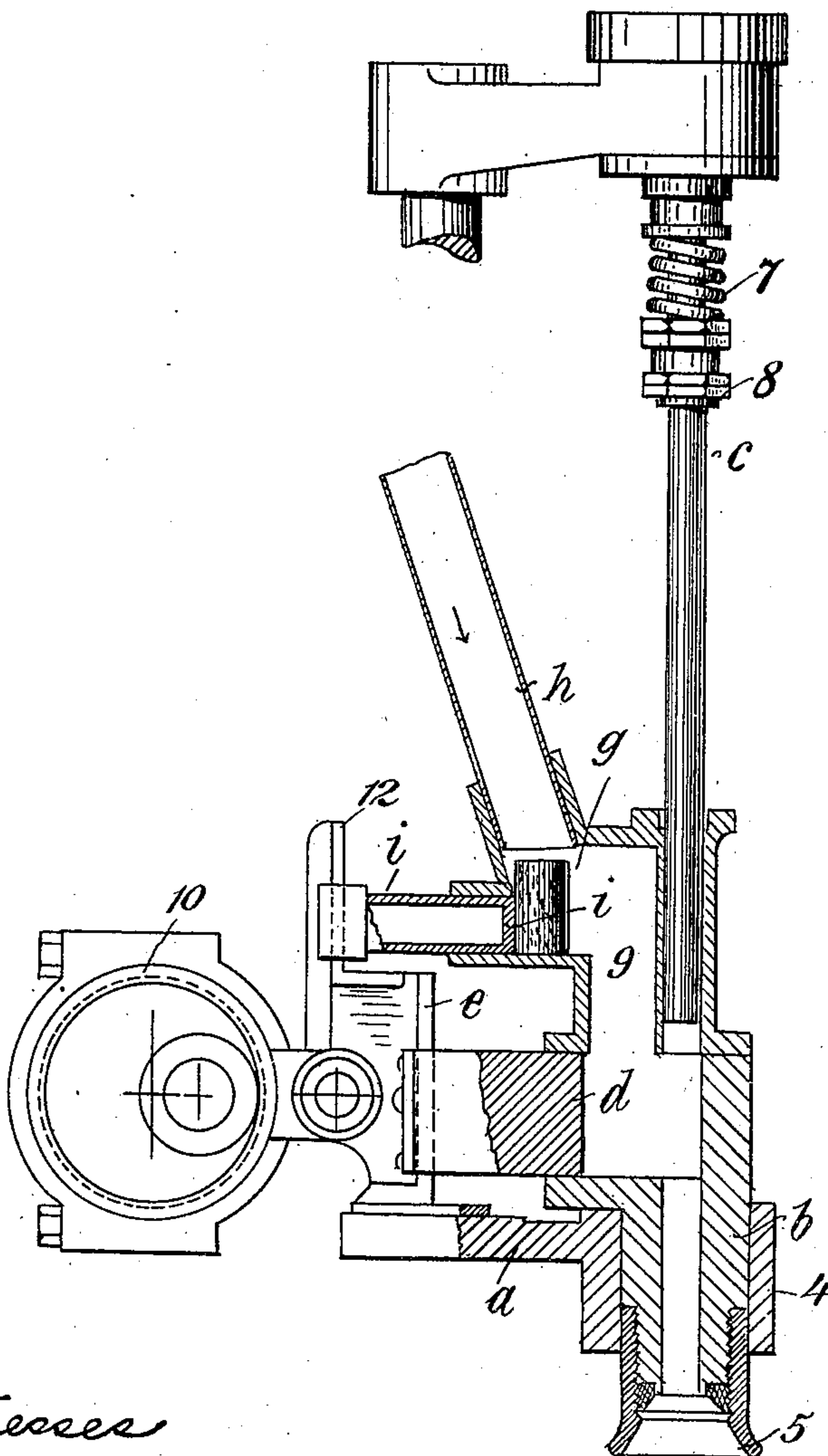
C. SELLENSCHEIDT.
 APPARATUS FOR CORKING BOTTLES.
 APPLICATION FILED APR. 5, 1907.

925,518.

Patented June 22, 1909.

3 SHEETS—SHEET 1.

Fig. 1.



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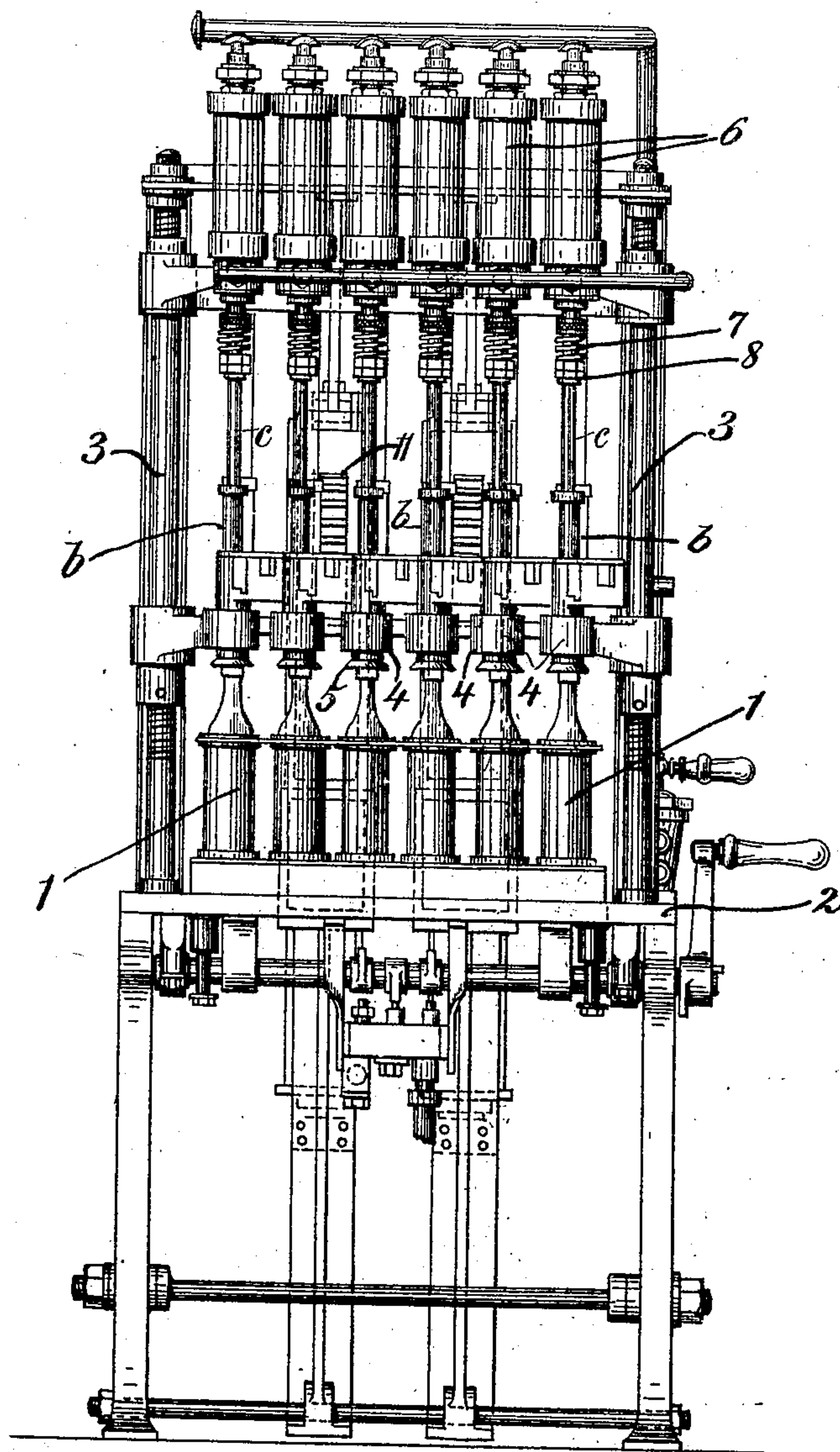
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3 SHEETS—SHEET 2.

Fig. 2.



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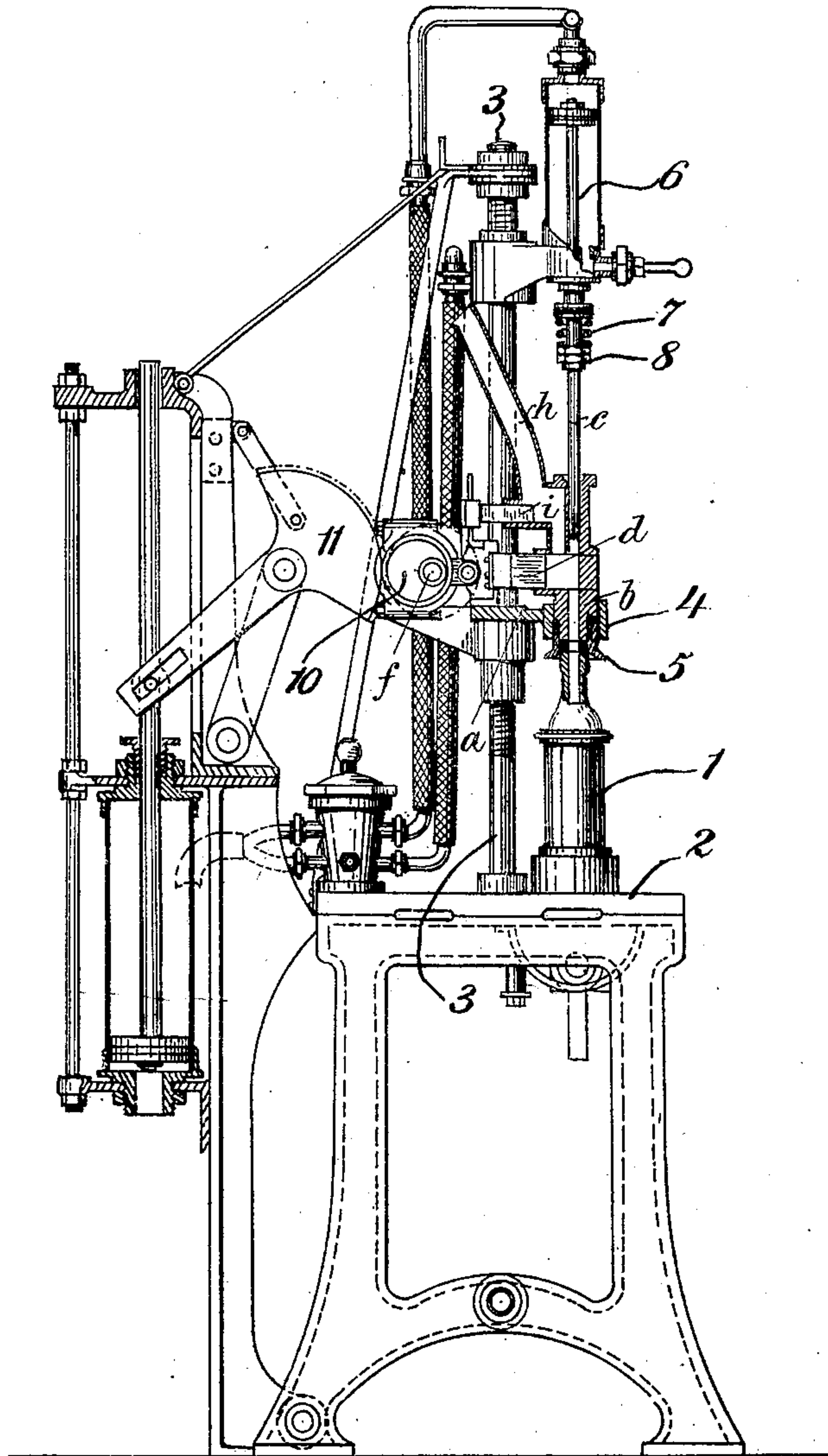
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3 SHEETS—SHEET 3

Fig. 3.



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UNITED STATES PATENT OFFICE.

CARL SELLENSCHEIDT, OF BERLIN, GERMANY.

APPARATUS FOR CORKING BOTTLES.

No. 925,518.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed April 5, 1907. Serial No. 366,475.

To all whom it may concern:

Be it known that I, CARL SELLENSCHEIDT, director, citizen of Germany, residing at Berlin, Germany, have invented new and useful Improvements in Apparatus for Corking Bottles, of which the following is a specification.

This invention is an improvement in bottle-corking machines and relates to an improved corking mechanism for such machines which will rest upon the bottles during operation so as to accommodate variations in the heights of the same, and compress and drive the corks to a uniform distance therein without subjecting the bottles to additional pressure or shock liable to break them.

To this end the invention provides an arrangement of parts as hereinafter fully described, wherein the bottle engaging casings are automatically held from further movement toward the bottles during the time that the driving plungers are disengaging and ejecting the corks from the compressor jaws.

In the drawings forming a part of this specification, Figure 1 is a vertical section with parts in elevation of the corking mechanism of this invention; Fig. 2 is a front elevation on a smaller scale of a machine embodying a number of such corking mechanisms; and Fig. 3 is a side elevation of Fig. 2 with the said mechanism and certain other of the parts shown in vertical section.

Referring to the drawings, the bottles to be corked are held in suitable receptacles or sockets 1 on a rigid bed 2 of the machine, and the several corking mechanisms therefor are carried by the upright frame-posts 3, being supported thereon by means of a cross-member *a* adjustably fixed to said posts and provided on its forward side with a series of supporting lugs or guides 4. The plunger casings *b* of the corking mechanisms are confined to slide within the said guides, having sufficient vertical movement therein to accommodate different heights of bottles. At its lower extremity, each plunger casing *b* is furnished with a flaring rim 5 for the purpose of fitting over and centering the bottle upon which it rests. The driving plunger *c* reciprocates within the vertical bore of the casing *b*, being connected with its actuating mechanism, such as the cylinder and piston 6, by means of a spring 7 or other resilient connection, by which it may be operated in both directions. The plunger is adapted to drive a cork contained in the casing *b* into the mouth

of the bottle in a well understood manner, and is provided with an adjustable abutment nut 8 adapted to engage the top of the socket and thereby limit its penetration into the casing and consequently into the bottles, so that the corks may be driven into the bottles to a predetermined and uniform extent. The corks are supplied to the driving plunger by the compressing mechanism which is carried by the vertically movable casing *b* and comprises a compressing jaw *d* mounted in a rearward cavity therein and adapted to reciprocate transversely toward and from the plunger bore. The compressor jaw receives the cork from a feed-channel 9 and carries it forwardly and compresses it against the front wall of the socket directly in the path of the descending plunger *c*. The compressor jaw *d* is actuated from an eccentric 10 or any other suitable gearing through the intervention of a cross-head *e* to which the jaw is connected and upon which it may slide, as the casing *b* which carries it is raised or lowered in accommodating different heights of bottles. The cross-head *e* may be conveniently supported upon the cross-member *a* as shown, and the compressor jaw may be operatively connected to it in any desired manner which will permit the vertical movement of the jaw with the casing.

In the drawings hereto, the means for actuating the cross-head comprises a sector-gear 11 engaging a pinion on the shaft of the eccentrics and driven by a cylinder and piston, which parts will not require detailed description. The casing *b* is also supplied with means for delivering corks, one at a time, to the feed-channel 9 leading to the compressor mechanism, such means comprising a feeding plunger *i* mounted to reciprocate transversely in the casing *b* above the compressor jaw and adapted to push the lowest cork of the column in the feed-chute *h* into the channel 9 where it may drop upon the top of the compressor jaw and subsequently fall in front of it as the said jaw returns to its rearward position. The feeding plunger *i* being carried by the vertically movable casing, is likewise supplied with means for actuating it independently of its vertical movement, being for this purpose connected to an auxiliary vertical slideway 12 planted on the top of the crosshead *e*.

With the parts arranged as above described, the compressor jaw reciprocates in a plane somewhat above the plane of the

guides which support the cork-receiving casings and in operation carries the cork into the path of the driving plunger and compresses it against the front wall of the casing while the latter rests by gravity upon the top of the bottle as above described. The pressure of the cork and jaw forces the casing unequally against the walls of its guiding support, causing it to cramp or bind therein so that it thereby becomes locked against further movement toward the bottle, and the pressure exerted by the driving plunger in ejecting the compressed cork is thus taken up by the frame of the machine and the bottle is saved from danger of breaking from this cause, being subjected only to the pressure actually required for inserting the cork.

Having described my invention, what I claim and desire to secure by Letters Patent of the United States is:

1. In a bottle corking machine, a bottle-engaging cork-conducting casing and means for ejecting a cork therefrom, a guiding support in which said casing is vertically movable according to the height of bottles, in combination with means for locking said casing against movement in its support during the ejection of the cork therefrom.

2. In a bottle corking machine, a bottle-engaging plunger casing, a guiding support therefor in which said casing is vertically movable according to the height of bottles, in combination with compressor jaw acting upon said casing and functioned to lock the same in its said support.

3. In a bottle-corking machine, a bottle engaging plunger casing, a support therefor in which said casing is vertically movable according to the height of bottles, in combination with a compressor jaw carried by said casing and means for operating said jaw independently of the vertical position of said casing.

4. In a bottle corking machine, a vertically movable bottle-engaging casing, means for compressing a cork therein comprising a compressor jaw carried by said casing and means for feeding corks to said jaw comprising a reciprocating pusher also carried by said casing, in combination with means for actuating said jaw and pusher independently of the vertical movement of the said casing.

5. In a bottle-corking machine, a verti-

cally movable cork-receiving casing and a vertically movable jaw adapted to compress the cork therein, in combination with an actuator for said jaw having an operative connection therewith permitting relative vertical movement therebetween.

6. In a bottle corking machine, a vertically movable cork-receiving casing, a vertically movable compressor jaw and means for actuating the same, comprising a reciprocating cross-head provided with a vertical slide-way operatively connected to said compressor jaw, whereby the latter is operated independently of its vertical movement.

7. In a bottle corking machine, a vertically movable casing and feed and compressor members mounted for transverse reciprocation thereon, in combination with a transversely reciprocating cross-head provided with actuating connection with said members permitting vertical movement of the same with respect to said cross-head.

8. In a bottle-corking machine, a bottle-engaging plunger casing and a vertically movable compressor jaw disposed to compress the cork against the casing and force the latter into locking engagement with a fixed part, in combination with means for actuating said compressor jaw independently of its vertical movement.

9. In a bottle corking machine, a vertically movable casing, a guide therefor, a jaw adapted to compress a cork against the casing in a different plane from said guide, whereby the said casing is cramped therein, in combination with an actuator for said jaw having a connection therewith permitting its said vertical movement.

10. In a corking machine, in combination, a vertically movable casing adapted to rest on the top of the bottle, a cork compressor jaw movable therewith, a driving plunger reciprocating in said casing and having a yielding connection with its operating member and an abutment on said plunger adapted to limit its penetration into the casing.

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

CARL SELLENSCHIEDT.

Witnesses:

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