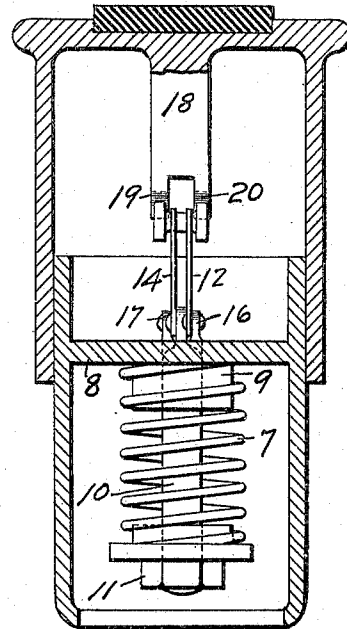
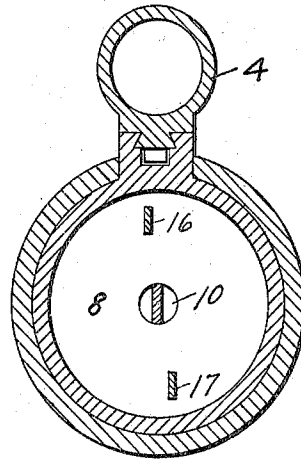
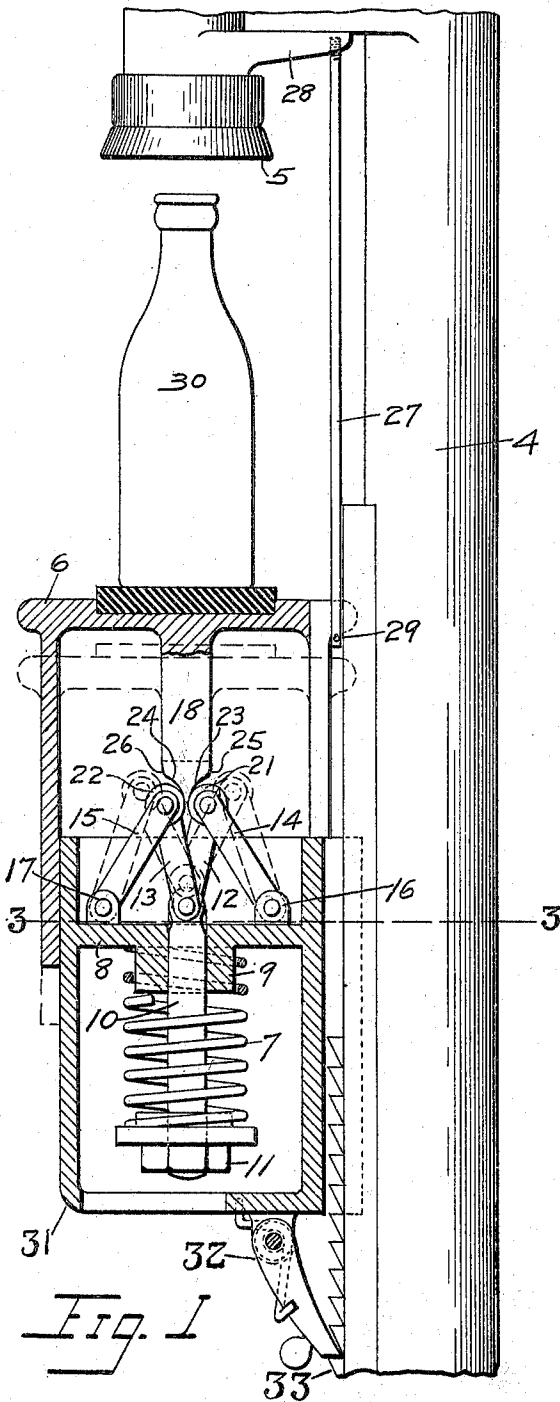


L. BARTLETT.
COMPENSATING DEVICE FOR BOTTLE CAPPING MACHINES.
APPLICATION FILED APR. 1, 1909.

957,928.

Patented May 17, 1910.



Witnesses:
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UNITED STATES PATENT OFFICE.

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COMPENSATING DEVICE FOR BOTTLE-CAPPING MACHINES.

957,928.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed April 1, 1909. Serial No. 487,344.

To all whom it may concern:

Be it known that I, LEONARD BARTLETT, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Compensating Device for Bottle-Capping Machines, of which the following is a specification.

This invention relates to machines for applying seals to bottles; and especially that kind of seals known as "Crown" seals; and the object of the invention is to provide means to insure the proper pressure being applied to the seal when it is being secured in position, and, at the same time, prevent the increase of the pressure beyond the required amount should the bottle be greater in length than the normal or average bottle.

The invention is illustrated in the accompanying drawing, in which—

Figure 1, is a side elevation of a part of a bottle capping machine, a part being in section to show my improved compensating device applied thereto; Fig. 2, is a sectional view of a part of the machine, the compensating device being shown at right angles to the view shown in Fig. 1; and, Fig. 3, is a sectional view on the line 3—3, of Fig. 1.

In the drawing, like numerals of reference refer to the same parts in each of the views; and in practice I provide a bottle capping machine of any improved construction, a portion of the upright, or standard of one being indicated by 4, and the capping head by 5. The compensating device controlling the bottle platform 6, is similar to that shown in my application for patent filed March 1, 1909, Serial Number 480,625; but in the present construction the movement of the bottle platform 6, is controlled by a compressible spring 7, the upper end of which bears against the plate 8, around the hub 9. Passing through this hub is a shaft 10, on the lower end of which is an adjusting nut 11, by which the tension of the spring 7, can be regulated, as will be understood.

Pivottally connected with the upper end of the shaft 10, are two levers 12, and 13, which are respectively connected with two levers 14, and 15, which are pivottally connected with the plate 8, at 16, and 17, respectively; and the plate 8, being rigid, any movement of the levers 14, and 15, toward the perpendicular will cause the lifting of the levers 12,

and 13, and with them the shaft 10, against the action of the spring 7.

Attached to the bottle platform 6, is a bifurcated stem 18, the arms 19, and 20, of which, engage rollers 21, and 22, and the lower ends of the arms are provided with outward curved portions 23, and 24, which, engaging the wheels 21, and 22, will cause the rapid spreading of these wheels, and the quick application of the tension of the spring to the bottle platform.

At 25, and 26, the curvature of the arms 19, and 20, change to the perpendicular, so that after the wheels, or rollers have passed these points, the compound levers will not be forced farther apart; and the tension of the spring 7, will not be increased. Consequently, should the length of the bottle be abnormal, after the tension of the spring 7 has reached the normal for capping, it will not be increased. Should, however, a long bottle carry the bottle platform down so that the rollers will engage the vertical sides of the stem, I have provided means to secure the return of the bottle platform, consisting of a rod 27, one end of which is mounted in the arm 28, of the capping head 5, and the other end passes through an opening in the top of the bottle platform, and is provided with a pin 29, which will engage the under side of the bottle platform, and draw the platform upward should it not be returned by the spring 7 and rollers.

As shown, the bottle platform 6, is slidably mounted on a cylinder 31, to the bottom of which is secured a spring-controlled pawl 32, which is adapted to engage a rack bar 33, mounted on the standard 4, so that the platform may be readily adjusted; and the plate 8, forms the head of the cylinder 31.

The operation is as follows: When a bottle, as 30, is placed in the machine to be capped, the capping head 5, and arm 28, are brought down to secure the cap in place, while the rod 27, slides down through the top of the bottle platform 6. When the head comes in contact with the bottle, the pressure will cause the platform to descend, as indicated in dotted lines, causing the stem 18, to separate the compound levers thereby lifting the shaft 10, against the action of the spring 7, until the proper capping tension has been reached; but if the bottle is longer than usual, the rollers will

pass the points 25, and 26, when the levers will no longer be spread, and the tension of the spring 7, will not be increased; and the breakage of the long bottles will be prevented. When carried down by long bottles, on the return of the capping head, the rod 27, will draw the bottle platform up until engaged by the curved portion of the stem, and the levers, as will be understood.

10 Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is—

1. The combination with a bottle capping machine of a compensating device comprising a movable bottle platform, an adjustable support for same, two levers pivoted on said support and normally held at an angle thereto whereby the upper ends of said levers are adjacent to each other, a compression spring mounted beneath said support, a shaft mounted therein and carrying a nut adapted to adjust the tension thereof, a connection between each of said levers and said shaft, said bottle platform being supported on the upper ends of said levers and having means to separate said levers during the descent thereof to a predetermined distance, and having means to descend a further distance without further separating said levers.

2. The combination with a bottle capping machine of a compensating device comprising an adjustable support, a movable bottle platform mounted thereon, levers mounted on said support and having their upper ends adjacent, a spring normally holding the ends

of said levers against separation, said bottle platform being supported by said levers and having means to separate the ends thereof to a fixed point, and also having means to descend after the levers have been separated a fixed distance without further separating the same.

3. The combination with a bottle capping machine of a compensating device comprising an adjustable support cylindrical in shape, a bottle platform mounted thereon, said support having a fixed partition or head with an opening in the center thereof, a shaft passing through said opening, a compression spring mounted on the lower end of said shaft, two levers hinged to said head and carrying friction wheels on the upper ends thereof which are held adjacent to each other whereby the levers are held inclined to said head, or partition, levers, or links connecting the free ends of said levers with said shaft, and a shaft mounted on the bottle platform and resting on said wheels, said shaft having outwardly and upwardly curved surfaces on the lower end which engage said wheels whereby in the descent of the bottle platform said wheels are forced apart equal in distance to the width of said shaft, and said wheels being adapted to travel on the sides of said shaft.

Signed this 23rd day of March, 1909.

LEONARD BARTLETT.

Witnesses:

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