

L. BARTLETT.
COMPENSATING DEVICE FOR BOTTLE CAPPING MACHINES.
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957,927.

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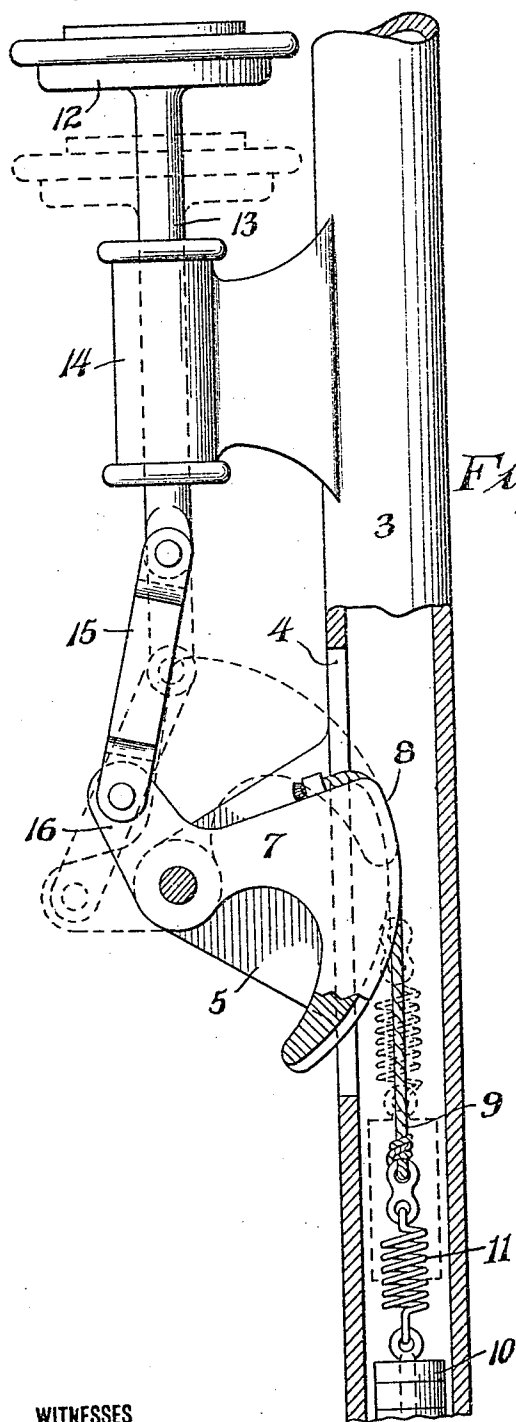


Fig. 1.

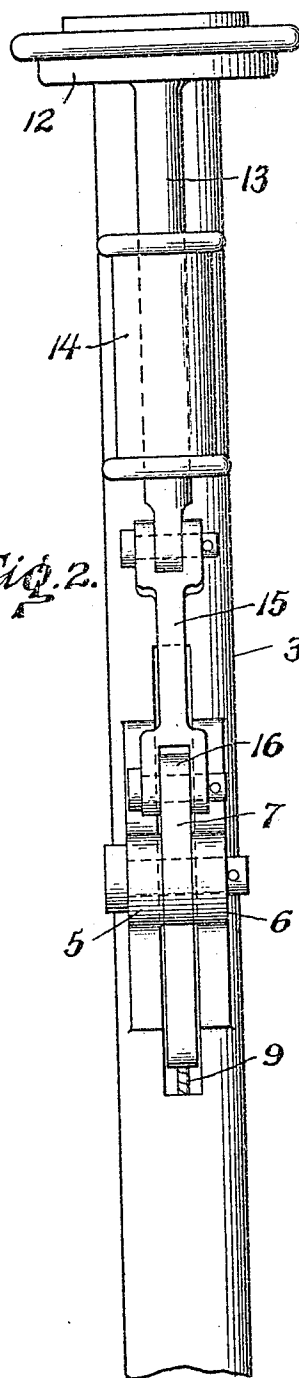


Fig. 2.

WITNESSES

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COMPENSATING DEVICE FOR BOTTLE-CAPPING MACHINES.

957,927.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed March 1, 1909. Serial No. 480,626.

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 used in applying seals, or caps, to bottles; and has for its object to provide means to prevent the breakage of bottles that are longer than the normal length.

In capping machines used to apply what are commonly known as "Crown" seals, a capping head descends upon the bottle and seal, a spring-controlled contact block engaging the seal to hold it securely in place while the other parts of the head are forcing the skirt of the seal into locking engagement with the bottle. As considerable pressure must be applied to the seal to hold it in place while the skirt is being forced into locking contact, the springs controlling the contact block can not have a wide range of action, the range of action being limited; and if the bottle be of greater than normal length, so much pressure will be applied that the bottle is usually broken. All of these features are so well known to persons skilled in the art that the parts have not been illustrated here.

It is the object of this invention to provide means to prevent any pressure upon the bottles above normal so as to prevent the breakage of the bottle of abnormal length.

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

Figure 1, is a side elevation of a part of a bottle capping machine, partly in section, and a side elevation of the bottle support, with my invention applied thereto; and, Fig. 2, is a face view of the same.

In the drawing, like numerals of reference refer to the same parts in each of the views; and in practice I provide a compensating device of the following construction: Preferably a capping machine is used having a tubular standard 3, one side of which is slotted, as shown at 4, adjacent to which are formed brackets 5, and 6, in which is pivotally mounted a lever 7, with a segmental portion 8, on which rests a cable 9, carrying a weight 10, within the tube 3,—the seg-

ment insuring the vertical lifting of this weight within the tube 3, and a spring 11, to act as a shock absorber, intervenes between the cable and weight.

The bottle platform 12, is of the usual construction; but the stem 13, thereof, passes through the guide 14, and the lower end thereof is pivotally connected with a link 15, the other end of which is pivotally connected with the short arm 16, of the lever 7.

The operation is as follows:—When the capping head, not shown, descends on the bottle and seal, the link 15, and short arm 16, of the lever 7, stand nearly perpendicular so that the full power of the capping head is exerted upon the seal as the platform 12 will yield but slightly at first: but should the bottle be longer than the normal bottle, the platform 12 will yield under the pressure, carrying the parts to any position between the normal and that indicated by dotted lines in Fig. 1; and as the leverage of the arm 16, will increase as the arm approaches the horizontal, it is evident that the pressure on the bottle will not be so much at the end of the stroke as at the beginning. However, as the seals are secured in place very quickly, the sealing operation will have been practically completed before the weight 10, will have risen to any appreciable extent so that the decrease in pressure will have no other effect than to quickly relieve the pressure on the bottle.

The weight 10, may be as heavy as desired to accomplish the secure capping of the bottle; and the spring 11, yielding readily under pressure, will act as a shock absorber to prevent the breakage of the bottle.

It will thus be seen that I have provided a simple and efficient compensating device for a machine of this kind, and one that can be manufactured at small cost.

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

1. In combination with the bottle platform of a bottle capping machine, a bell crank lever pivotally mounted on the standard beneath said platform, a pivotal connection between one arm of said lever and said platform, a weight mounted on the other arm of said lever, and a coil spring mounted between said lever and said weight, for the purpose set forth.

2. In combination with the bottle platform of a bottle capping machine, a bell crank lever pivotally mounted on the standard beneath said platform, a link pivotally
5 connecting one arm of said lever and said platform, the other arm of said lever having a segmental portion, a cable secured to said segmental arm and resting on the curved surface thereof, and a weight mounted
10 on said cable, for the purpose set forth.

3. In combination with a bottle capping machine having a slotted standard, and a movable bottle platform, a bell crank lever
15 pivotally mounted on said standard beneath said bottle platform, a link pivotally con-

necting said platform and one arm of said lever, the other arm of said lever being segmental in form, a cable mounted on the curved surface thereof which extends within said standard, a weight within said standard secured to said cable, and a coil spring between said cable and weight, as and for the purpose set forth.

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

LEONARD BARTLETT.

Witnesses:

FRANK WRIGHT,
G. P. VAN WYE.