

No. 697,672.

Patented Apr. 15, 1902.

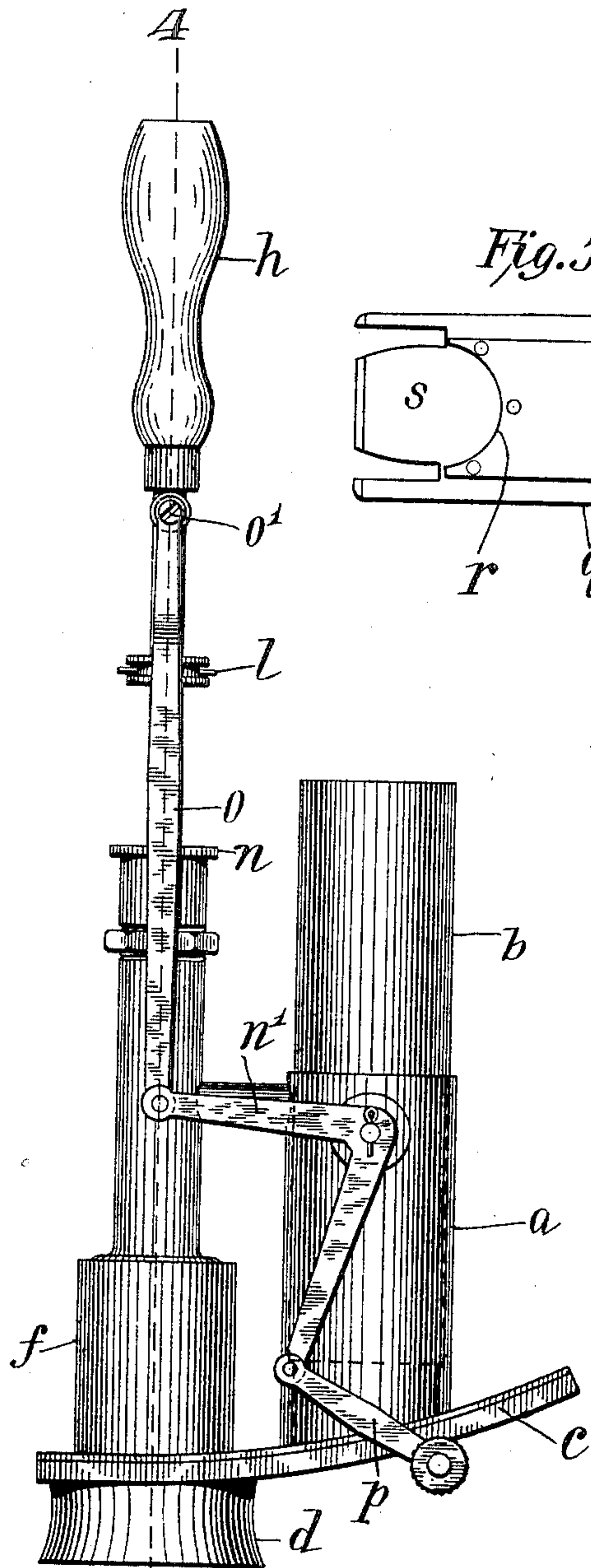
W. H. SCOTT.
BOTTLE CAPPING MACHINE.

(Application filed Nov. 23, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



Witnesses
Edgworth Irvine
W. T. Jester

Fig. 5.

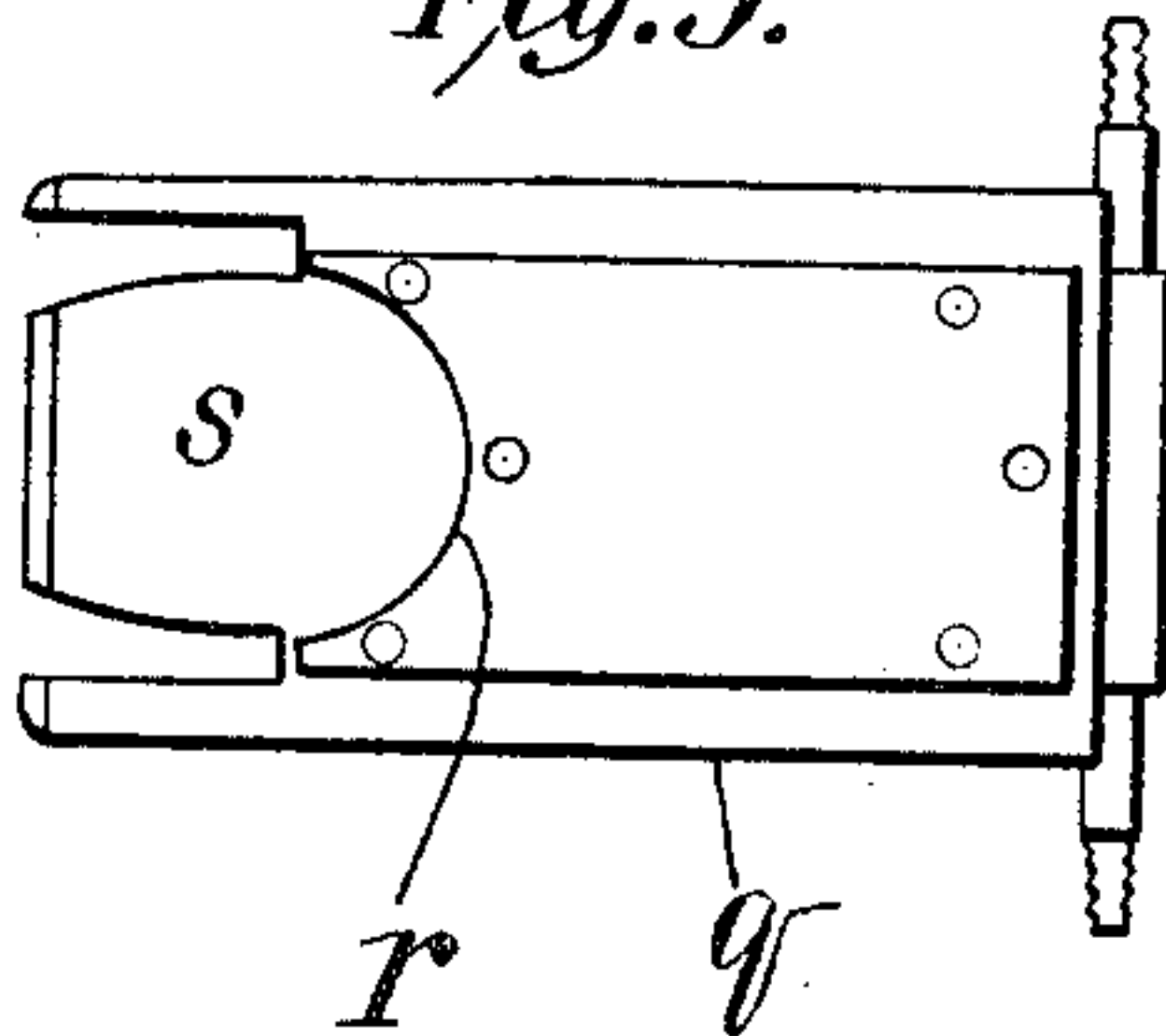
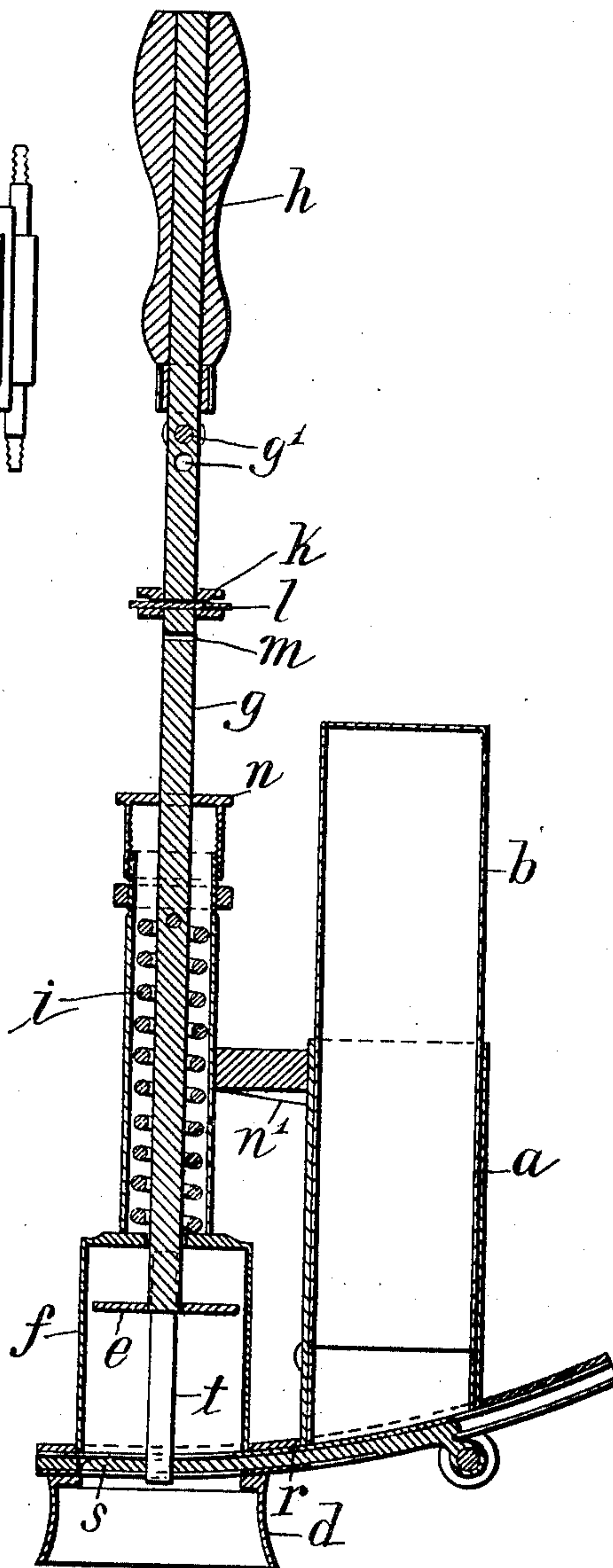


Fig. 2.



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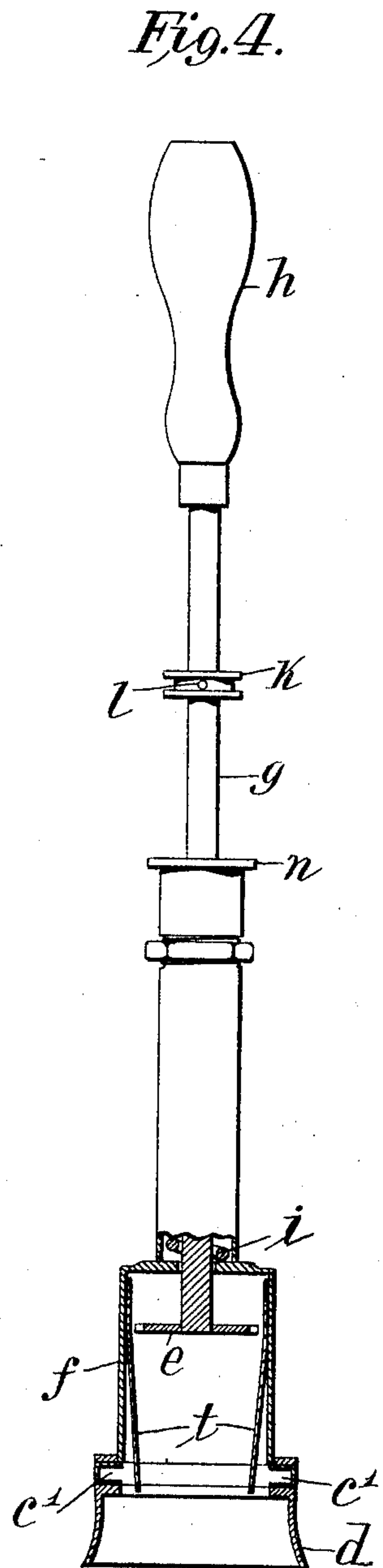
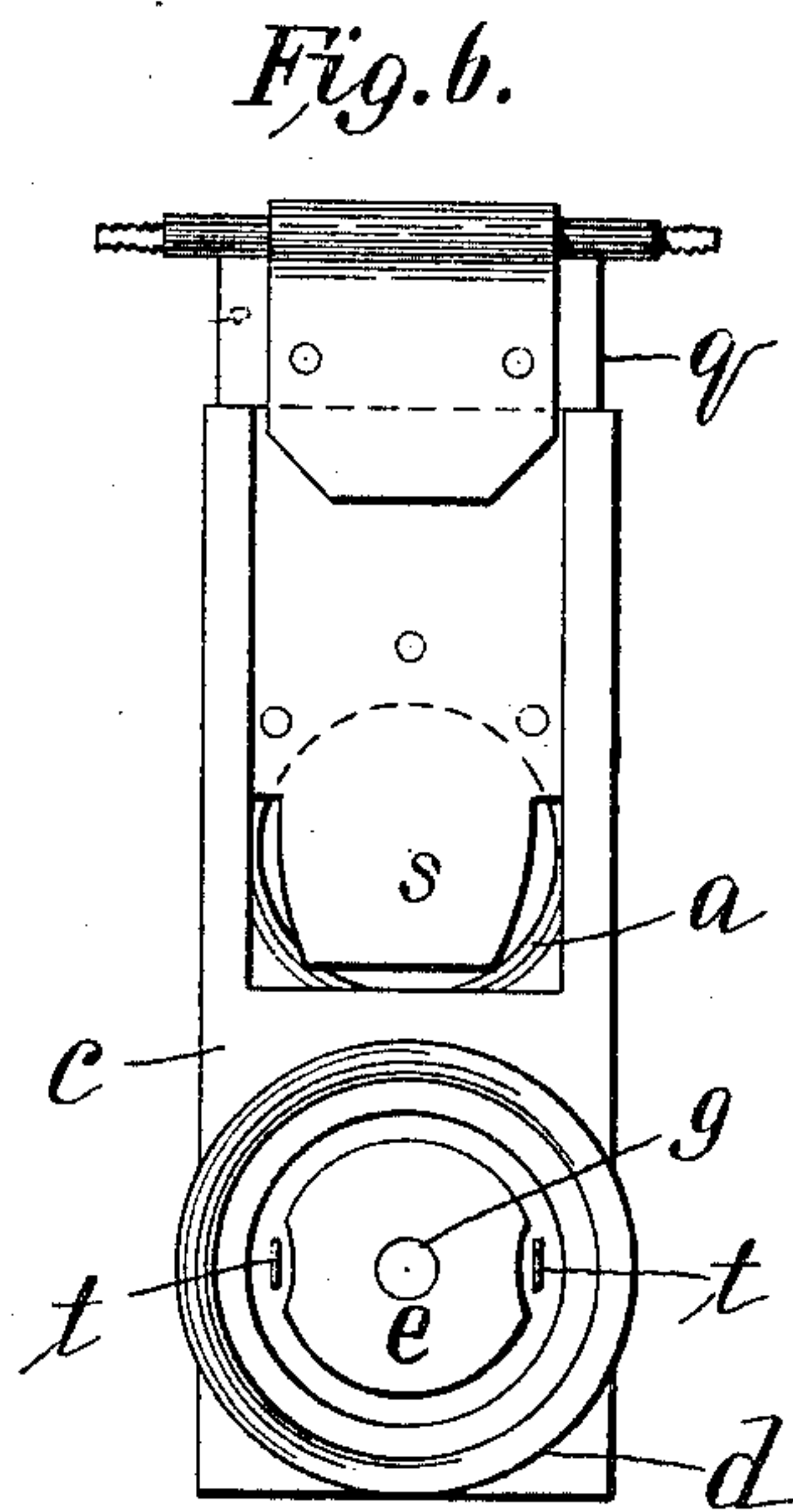
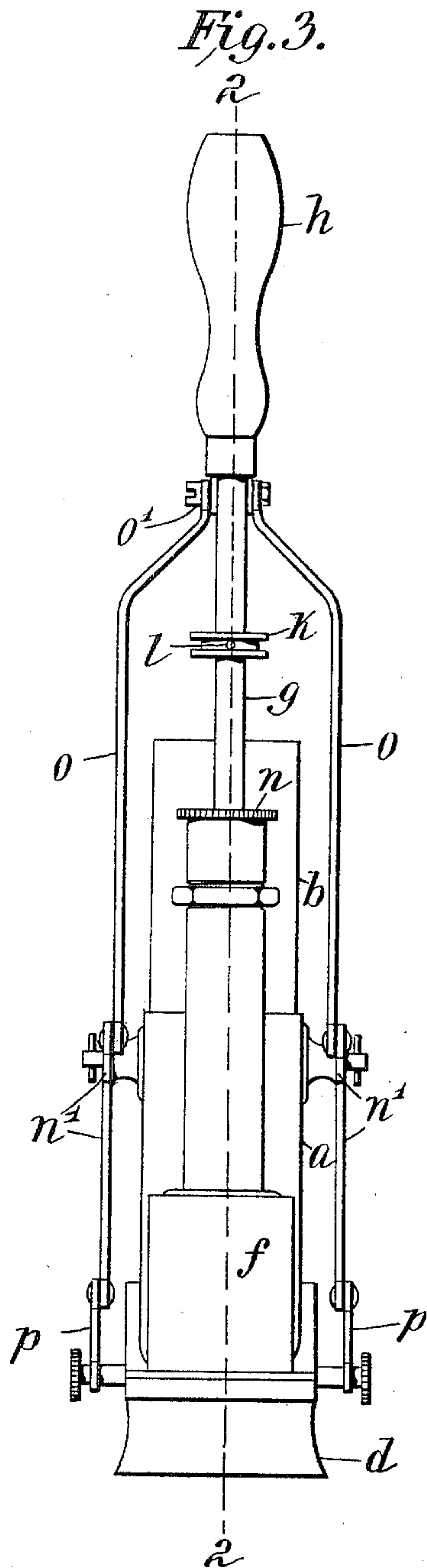
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

WILBER HUNTER SCOTT, OF OTTAWA, CANADA.

BOTTLE-CAPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 697,672, dated April 15, 1902.

Application filed November 23, 1901. Serial No. 83,366. (No model.)

To all whom it may concern:

Be it known that I, WILBER HUNTER SCOTT, a citizen of the Dominion of Canada, residing in Ottawa, Province of Ontario, Dominion of
5 Canada, have invented certain new and useful Improvements in Bottle-Capping Machines, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

10 The object of this invention is to provide an improved machine for applying caps to bottles or other similar vessels, and especially to render such machines more convenient and certain in operation, so that bottles can be
15 more easily and rapidly capped than heretofore.

The invention will be more fully described hereinafter with reference to the accompanying drawings, in which the improvements are
20 illustrated, and in which—

Figure 1 is a view in side elevation of the improved bottle-capping machine. Fig. 2 is a vertical central section on the plane indicated by the dotted line 2 2 of Fig. 3. Fig. 3
25 is a front elevation. Fig. 4 is a view, partly in elevation and partly in vertical section, on the plane indicated by the dotted line 4 4 of Fig. 1, the feed-slide, with its operating links and levers, being removed. Fig. 5 is a detail
30 view of the feed-slide. Fig. 6 is an under side view of the machine, the links being removed.

In the machine represented in the drawings, which is adapted to apply pasteboard
35 caps to milk-bottles, the caps to be applied are supported one upon another in a receiver *a*, which may be provided with a telescoping section *b*. The receiver is supported upon a base *c*, which is preferably curved upward,
40 substantially as represented, so there shall be no interference with bottles in close proximity to the one which is being capped. Upon the under side of the base *c* is secured a conical or flaring flange *d* to engage the mouth
45 of the bottle to be capped and to center the same with reference to the plunger-head *e*, which moves within a suitable casing *f*, supported upon the upper side of the base *c* and in close proximity to the receiver *a*. The
50 plunger-head *e* is carried by a rod *g*, having a suitable handle *h*, the plunger being lifted after operation by a spring *i* within the cas-

ing. A stop *k* is adjustably secured to the rod *g* by any suitable means, as by a pin *l* engaging one of several holes *m* in the rod, 55 for the purpose of limiting the movement of the plunger. The cap *n*, which closes the top of the casing *f* and retains the spring *i*, may be threaded onto the casing and adjustable for the purpose of limiting the movement of 60 the plunger.

Pivoted upon the receiver *a* are bell-crank levers *n'*, one arm of each of which is connected by a link *o* with the plunger-rod *g*, being preferably connected therewith adjustably, as by 65 a pin *o'* engaging one of several holes *g'* in the rod *g*, so that the throw of the bell-crank levers *n'* can be adjusted with reference to the throw of the rod *g* and plunger. The other arm of each bell-crank lever *n'* is connected 70 by a link *p* with the feed-slide *q*, which is formed as a plate, having a shoulder *r* and a forwardly-projecting tongue *s*. The slide *q* moves in ways *c'*, formed in the under side of the base *c*. 75

The plunger-head *e* is flat on its under side and slightly smaller than the cap to be applied, moving in an enlarged portion of the casing *f*. Within such enlarged portion are secured two yielding fingers *t*, preferably flat 80 springs, one at each side of the casing, on opposite sides of the path of the tongue *s*, the latter being somewhat narrower than the space below the two yielding fingers when in their normal positions, so that the fingers are 85 not disturbed by the movement of the slide.

In the operation of the machine when it has been placed upon the mouth of the bottle, which is centered by the conical or flaring flange *d*, the plunger is moved downward, forcing into the mouth of the bottle a cap which 90 has been placed by a previous movement of the parts between the fingers *t*, which serve to hold such cap in proper position beneath the plunger, so that it shall be carried downward 95 by the plunger in true position into the mouth of the bottle. During the downward movement of the plunger the slide *q* is moved by the links *o*, levers *n'*, and links *p* to the rear, so that the shoulder *r* stands in the rear of 100 the lowermost cap of the pile within the receiver. When the plunger is released and is moved upward by the spring *i*, the shoulder moves forward, carrying with it, by reason of

the shoulder *r*, the lowermost cap of the pile, such cap being supported by the tongue *s*. This cap is carried forward between the yielding fingers *t*, by which it is grasped and held
 5 when the slide retires. The machine is then moved to the next bottle to be capped and the operations above described are repeated, the cap in each instance being supported by the fingers *t* in true position to be driven into
 10 the mouth of the bottle by the plunger after the feed-slide *q* has been withdrawn.

The advantages of the improved machine in certainty, rapidity, and convenience of operation will be readily understood and appreciated without further description.
 15

I claim as my invention—

1. In a bottle-capping machine, the combination of a base, a cap-receiver mounted upon said base, a plunger, a casing mounted upon
 20 said base to support the plunger, a feed-slide supported by said base and operatively connected with the plunger to transfer the lowermost cap in the receiver into position beneath the plunger and two flat, spring-fingers
 25 vertically disposed within said casing on op-

posite sides of the path of the feed-slide to receive and yieldingly hold the cap transferred by the feed-slide, substantially as shown and described.

2. In a bottle-capping machine, the combination of a base, a cap-receiver mounted upon
 30 said base, a plunger, a casing mounted upon said base and supporting the plunger, a feed-slide supported by said base and operatively connected with the plunger to transfer the
 35 lowermost cap in the receiver into position beneath the plunger, said slide having a forwardly-projecting tongue to support the cap, and two flat, spring-fingers vertically disposed
 40 within the casing on opposite sides of the path of the feed-slide to receive and yieldingly hold the cap when the slide and tongue are withdrawn, substantially as shown and described.

This specification signed and witnessed this
 45 20th day of November, A. D. 1901.

WILBER HUNTER SCOTT.

In presence of—

HORACE PRATT,
 MARY H. KANE.