(No Model.)

J. F. WITTEMANN.

CAPPING MACHINE.

No. 481,626. Patented Aug. 30, 1892.

FIG. 1.

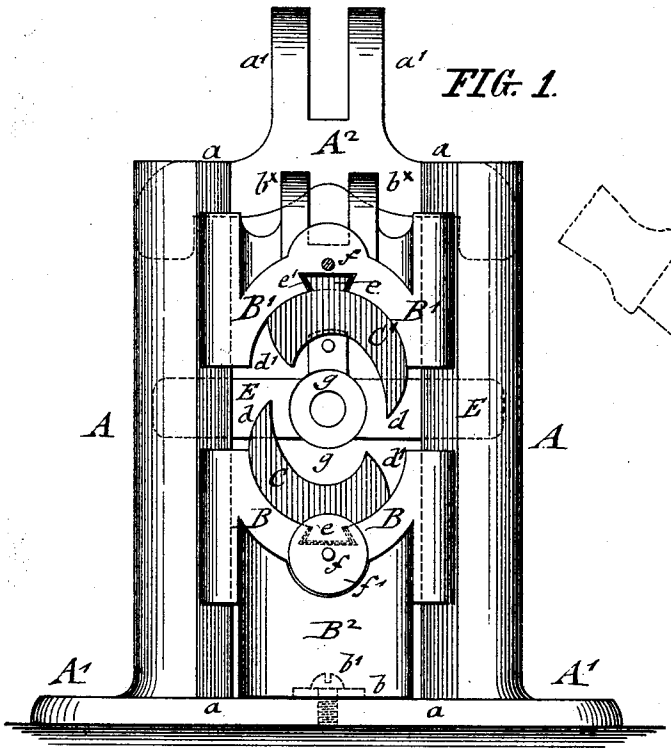


FIG. 2.

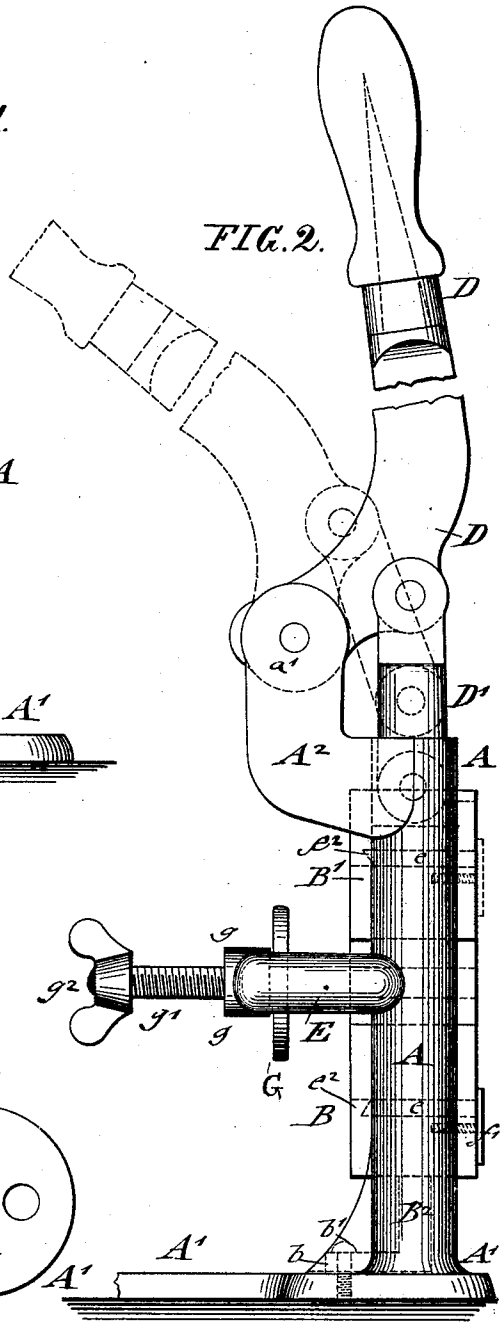
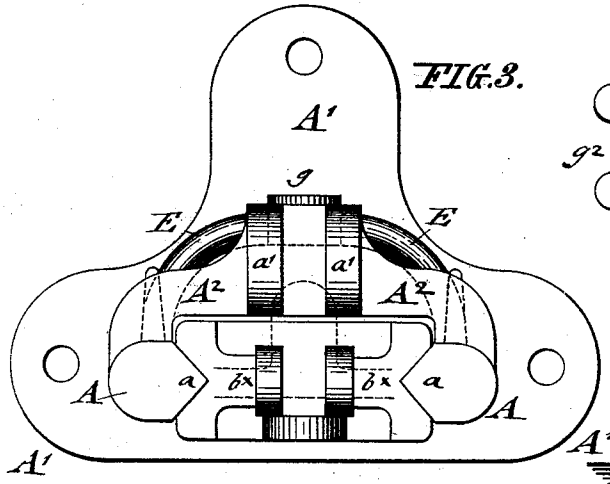


FIG. 3.

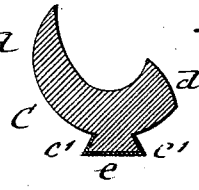


WITNESSES:

Charles Bleo

Charles Schroeder.

FIG. 4.



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UNITED STATES PATENT OFFICE.

JACOB F. WITTEMANN, OF FORT HAMILTON, NEW YORK.

CAPPING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 481,626, dated August 30, 1892.

Application filed October 31, 1891. Serial No. 410,478. (No model.)

To all whom it may concern:

Be it known that I, JACOB F. WITTEMANN, a citizen of the United States, residing at Fort Hamilton, in the county of Kings and State of New York, have invented certain new and useful Improvements in Bottle-Capping Machines, of which the following is a specification.

This invention relates to certain improvements in bottle-capping machines of that class in which elastic jaws are arranged for applying the cap to the head of the bottle, said jaws being readily inserted in the supporting-blocks and provided with tapering ends, so that the jaws hug the cap on the bottle-head and apply it tightly to the same.

The invention consists of a bottle-capping machine formed of upright standards having ways at their inner edges, a lower stationary block provided with an elastic jaw, an upper slide-block, also provided with an elastic jaw, and a lever fulcrumed to a yoke at the upper end of the standard and connected by a pivot-link with the upper slide-block. A horizontal yoke connects the standards intermediately between the elastic jaws, said yoke being provided with an adjustable disk, against which the head of the bottle is placed. The compressing-jaws are made of elastic material and provided with dovetailed shanks that are inserted into the blocks, one end of the jaws being tapered, while the other blunt end is made convex, so that the tapering end of one jaw is guided on the convex end of the other jaw, so that the tight hugging of the cap and bottle-head by the jaws is produced.

In the accompanying drawings, Figure 1 represents a front elevation of my improved bottle-capping machine. Fig. 2 is a side elevation of the same. Fig. 3 is a plan with the operating-lever removed, and Fig. 4 is a detail section of one of the compressing-jaws.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents two upright standards, which are cast integral with a base-plate A′, that is attached by screw-bolts to a suitable support. The upright standards A A are provided with V-shaped inner edges *a*, which form ways for the sides of the supporting-blocks B B′ of the compressing-jaws C C′. The lower block B is made stationary, its shank B^2 being attached by a projecting lug *b* at its base and a screw *b*′, to the base-plate A′ of the machine. The enlarged sides of the stationary block B are provided with V-shaped grooves, by which the stationary block B is firmly supported in the ways *a a* of the standards A A.

The compressing-jaws C C′ are made of soft rubber or other suitable material, of nearly semicircular shape, one end being provided with a tapering extension *d*, while the opposite shorter end *d*′ is made convex, as shown in Figs. 1 and 4. The upper block B′ is made to slide on the supporting-standards and operated by means of a hand-lever D, which is pivoted to lugs *a*′ at the upper part of a transverse yoke A^2, that connects the upper ends of the standards A A and is made integral therewith, as shown in Figs. 1 and 2. The lever D is connected in front of its pivot with lugs $b^\times$ at the middle portion of the slide-block B′. The lower stationary block B and the upper slide-block B′ are provided at their center at points facing each other with dovetailed grooves, into which the correspondingly-shaped shanks *e* of the compressing-jaws C C′ are inserted, said shanks being preferably reinforced by means of sheet-metal sheaths *c*′, which are rigidly cemented to the shanks in the process of forming the rubber jaws in the molds. The shanks *e* are retained into the recesses of the blocks B B′ by means of solid portions or stops e^2, against which the rear ends of the shanks *e* abut, and by threaded pins having disk-shaped heads *f*, which bear on the front ends of the shanks and which are screwed into the blocks B B′, as shown in Fig. 2. The upright standards A A are connected at their rear parts intermediately between the compressing-jaws by a horizontal yoke E, which is cast like the supporting-yoke A^2 of the lever D, preferably in one piece with the standards A A. The yoke E is provided with a central and interiorly threaded hub *g*, through which a screw-bolt *g*′ is passed, that is provided at its outer end with a lock-nut g^2 and at its inner end inside of the yoke E, with a solid disk G, which serves as a gage against which the head of the bottle to be capped is placed. The gage-disk G is adjusted nearer to or far-

ther away from the compressing-jaws C C′, according to the size and shape of the bottle-head to be capped. When the cap is placed on the bottle, the head is inserted between the jaws until it abuts against the gage-disk G. The lever D is then lowered, so that the upper compressing-jaw is forced in downward direction by its slide-block, whereby both the compressing-jaws tightly hug the lower part of the cap, so as to compress the same around the neck of the bottle. The tapering ends of the jaws C C′ move along the blunt convex ends of the same, so that the inner edge of both jaws is tightly pressed around the cap and neck of the bottle and the tight and reliable compression of the cap around the bottle-neck is produced.

My improved bottle-capping machine is of comparatively simple construction and can be manufactured at small expense, as there are no springs, weights, or eccentrics required for actuating the compressing-jaws or returning the lever into its normal position, while a perfect hugging and compressing of the cap around the neck of the bottle is produced by the improved construction of the jaws.

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

1. The combination, in a bottle-capping machine, with a lower stationary block and an upper slide-block, both having dovetailed recesses and overhanging stops or abutments at the rear ends of said recesses, of elastic compressing-jaws having dovetailed shanks inserted into said recesses, said shanks being of less length than the jaws and beveled at their rear ends, and threaded pins having enlarged heads for retaining the jaws in the blocks, substantially as set forth.

2. A compressing-jaw for a bottle-capping machine, formed of elastic material and approximately of semicircular shape and provided with a dovetailed shank having an exterior sheet-metal reinforcing-sheath, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JACOB F. WITTEMANN.

Witnesses:
PAUL GOEPEL,
CHARLES SCHROEDER.