

E. B. REQUA.
BOTTLE-STOPPER.

No. 186,270.

Patented Jan. 16, 1877.

Fig. 1.

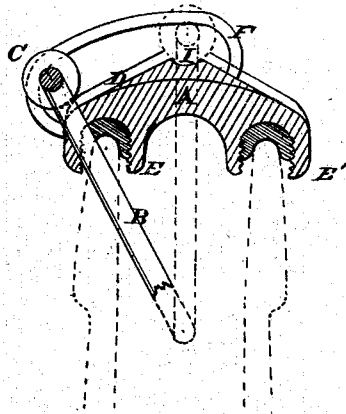
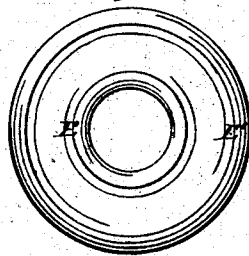


Fig. 2.



Witnesses,

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ELIAS B. REQUA, OF JERSEY CITY HEIGHTS, NEW JERSEY.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **186,270**, dated January 16, 1877; application filed October 26, 1876.

To all whom it may concern.

Be it known that I, ELIAS B. REQUA, of Jersey City Heights, Hudson county, State of New Jersey, have invented certain Improvements in Stopper-Caps for Bottles, whereof the following is a specification:

This invention relates to stoppers or caps that have a yielding packing-gasket, and are secured to bottles and other vessels, usually through the agency of a swinging bail, which is moved off the stopper when the bottle is to be opened.

My improved stopper-cap has an inclined or cam surface on the upper side, that is traversed by a wheel or roller, having part of the bail for its axis. On the under side of the cap a rim or rims are formed, preferably two, one coming inside and the other outside of the edge of the bottle's mouth, which rims are screw-threaded for holding a packing or gasket of india-rubber or other yielding or elastic substance.

Referring to the annexed drawing, Figure 1 is a vertical section of the cap or stopper, showing the part of a bottle in dotted lines, and Fig. 2 shows the under side of the cap.

A is the cap or stopper, which may be of metal or of glass. B is the bail, carrying a roller, C. D is an inclined plane or cam-surface, up and down which the roller travels when the bail B is moved back and forth. E E' are rims formed on the under side of the cap, so located that when the cap is placed on the bottle or other vessel one rim will come on the inside and the other on the outside edge of the mouth thereof, as seen in the drawing. These rims are screw-threaded, and hold a packing-gasket, usually of india-rubber, which is screwed into its place between them. It is possible to make one rim answer, but two are far preferable.

In applying the stopper it is placed on the mouth of the bottle with the gasket on the edge thereof, and with the bail B in the position indicated by the full lines. The bail is now forced to the position shown in dotted lines, the roller moving up the inclined surface D and so drawing the stopper toward the

bottle until the roller reaches and rests in a small cavity in the center of the cap, where it remains until it is desired to open the bottle.

When the cap is forced down on the mouth of the bottle, the packing-gasket is not only compressed, but is also bent over the inside and the outside of the edge of the bottle-mouth, thus insuring a tight joint in case of unevenness or irregularity of formation in the vessel.

F represents guard-wires that serve to prevent the cap from becoming detached from the bail.

In opening the bottle the bail is pushed back to the place shown in full lines, carrying the roller down the inclined plane and releasing the pressure, whereupon, the bail striking the guard-wires, tilts the cap and removes it. The bail may be moved up and back by hand without other aid.

The efficiency of the gasket in effecting a tight joint in the arrangement described does not depend on the particular mechanism specified for exerting a pressure on the cap; but other mechanism in common use may be applied for that purpose.

I claim as my invention—

1. The combination, with a stopper-cap for bottles and other vessels, of a packing-gasket held by a screw-threaded rim formed on or affixed to the under side of the cap.

2. A stopper-cap, having two screw-threaded rims, with the packing-gasket, held by the corrugations of the screw-threads on adjacent sides of the rims.

3. In a metallic stopper-cap, the holding-recess I in the center of the cap, in combination with the cam-surface, and the bail and roller.

4. A stopper-cap having a cam-surface, for use in connection with a pressing mechanism, and one or more screw-threaded rims on the under side for receiving and holding a packing-gasket.

ELIAS B. REQUA.

Witnesses:

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