H. B. ANDERSON.
Bottle-Stoppers and Fastenings.

No. 195,970. Patented Oct. 9, 1877.

Fig 1

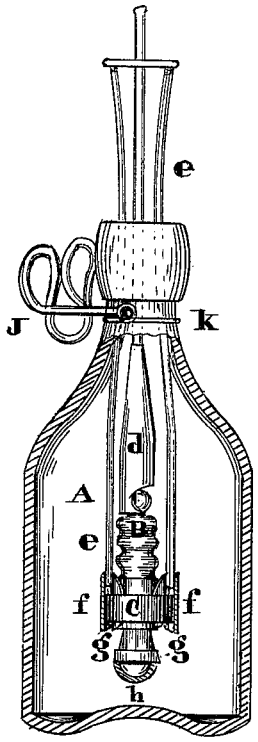


Fig.2

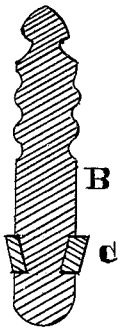


Fig 4

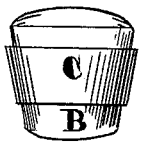
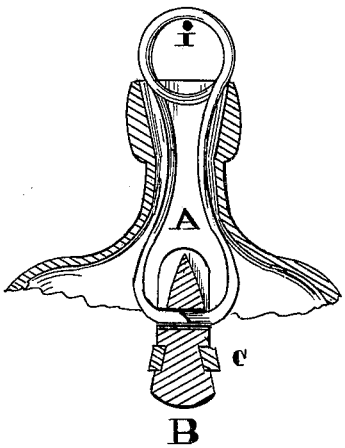


Fig.3



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UNITED STATES PATENT OFFICE.

HENRY B. ANDERSON, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN BOTTLE-STOPPERS AND FASTENINGS.

Specification forming part of Letters Patent No. **195,970**, dated October 9, 1877; application filed December 19, 1876.

To all whom it may concern:

Be it known that I, HENRY BLOSSOM ANDERSON, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement in Bottle-Stoppers and Fastenings, which improvement is fully set forth in the following specification and accompanying drawing.

This invention relates to bottle-stoppers provided with a rubber gasket or packing-ring; and it consists of certain tools for adjusting the gasket or packing-ring to its position after the stopper has been inserted in the bottle.

In the drawing, Figure 1 is a view of a bottle, partly in section, having my spring locking device secured to its neck. The stopper is shown inserted, and the tools for adjusting the ring in the position they occupy just before the elastic ring has reached its seat. Figs. 2, 3, and 4 show modified forms of my invention.

A is a bottle of the ordinary construction. B is my stopper, made preferably of glass; C, the ring of rubber or other suitable elastic material. *d* is the tool used to hold the stopper while the rubber ring is inserted in its place, and bring it to its position for closing the bottle after the bottle has been charged. *e* is a tongs, which has at the ends of its shafts fingers, which conform to the shape of the stopper. These fingers are four in number, two on each shaft, concentric, and having spaces between them, into which the rubber ring C is pushed and held in position preparatory to its being forced over the stopper. *f f* are the outer, and *g g* the inner, fingers of the tongs, the outer ones being shown in section. *h* is a buffer, of block-tin, which is struck up in dies, and turned over the end of the stopper by a suitable tool afterward, the end of the stopper being formed with a ball or a groove to receive it. It is intended to come flush with the periphery of the stopper. The purpose of this buffer is to break the fall of the stopper within the bottle, and is only used to prevent breakage when brittle substances (such as glass) are used for the stopper. J is the spring locking device, which is made of spring-wire; and *k*, a wire bent around the neck of the bottle to keep it in place.

The mode of using the form shown in Fig. 1 is as follows: The knob at the upper end of the stopper is inserted in the holder *d*, as shown, the circular fingers clasping the neck below the knob. The stopper is then lowered into the bottle. The elastic ring is then placed between the fingers of the tongs *e*, and, after passing the upper end of holder *d* through the ring, the tongs are held by one hand and the holder by the other, (the top parts of each being hooked for convenient holding,) and the ring is forced to its seat, and by a quick jerk back the tongs are removed, leaving the ring in its groove. The lower part of the holder *d* is cone-shaped, to assist in expanding the ring as it is pushed to its place. After the tongs are withdrawn the stopper is drawn into the neck of the bottle and the holder removed. In charging the bottle the stopper is clasped by holder *d*, in the same manner above described, the handle or smaller part passing through the stuffing-box of the ordinary charging-machine, and after the bottle is charged the stopper is pulled to its place by the holder, and the spring locking-wire, being forced to its place, clasps the stopper firmly around one of the smaller parts and holds it firmly in place.

The modification shown in Fig. 2 is intended for stopping bottles from the top. The ring is fitted to its seat in the same way, and the same locking-wire holds it in place.

In the modification shown in Fig. 3 the stopper B has a hole through its upper part, to receive the fingers of the spring-wire tongs *i*. A groove from the top extends down to the hole on each side, leaving a wedge-shaped guide to facilitate the introduction of the tongs through the hole of the stopper. The fingers of the tongs are made flat, so as to lap over and pass each other as the stopper is inserted in the bottle or drawn up into its neck after it is charged. The rubber band is placed on this form of stopper after it is inserted in the bottle by means of the tongs *e*. (Shown in Fig. 1.)

When the contents of the bottle are to be used, the stopper is forced down, as shown in the figure, and after the desired quantity is drawn the stopper may be returned to its place, and the gases retained in the bottle, thus preserving the liquid. This form is especially intended for the larger size bottles, and can be used without any locking device.

Fig. 4 shows another modification intended to

be used in connection with the spring locking-wire J. (Shown in Fig. 1.)

It will be seen that the slope of the seat of the rubber packing-ring is greater than the lower part of the stopper, to enable the stopper to be drawn more firmly to its place.

I claim—

The stopper-holder adapted to receive and hold the stopper B, and the tongs *e* for adjusting the ring C to its position on said stopper, arranged to operate substantially as specified.

HENRY B. ANDERSON.

Witnesses:

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ALONZO W. ANDERSON.