T. S. SMITH.
Bottle Stopper-Fastenings.

No. 210,438. **Patented Dec. 3, 1878.**

Fig. 1

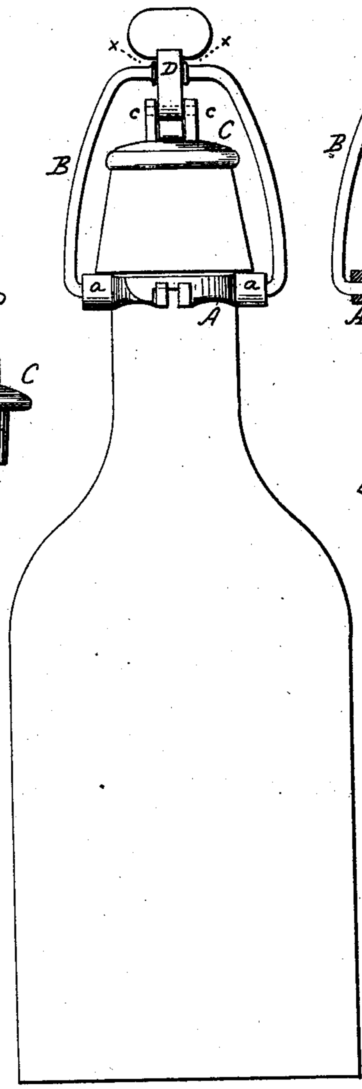


Fig. 3.

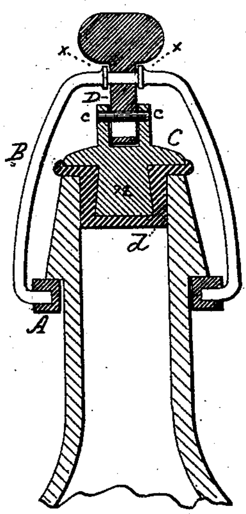


Fig. 2

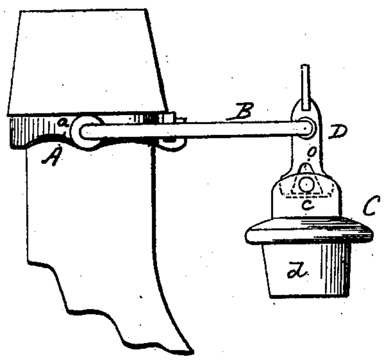


Fig. 4

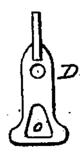
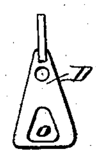


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

THOMAS S. SMITH, OF FAIR HAVEN, CONNECTICUT.

IMPROVEMENT IN BOTTLE-STOPPER FASTENINGS.

Specification forming part of Letters Patent No. **210,438**, dated December 3, 1878; application filed October 29, 1878.

To all whom it may concern:

Be it known that I, THOMAS S. SMITH, of Fair Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Bottle-Stopper Fasteners, of which the following is a specification:

My improvements consist in a triangular slot in the lever used, and in a combination of which the lever having a triangular slot forms a member.

In the accompanying drawing, which forms a part of this specification, Figure 1 is an elevation of a bottle furnished with my improved stopper-fastener, showing the position of the parts when in use, and also showing the mode of fastening the ends of the band which surrounds the neck of the bottle. Fig. 2 shows the position of the parts when not in use. Fig. 3 is a vertical section of the lever, cap, stopper, and the upper portions of the neck of the bottle. Figs. 4 and 5 are views of the lever, slightly differing in form and showing the triangular slot.

In Fig. 1 the band A is shown around the neck of the bottle. The band is elliptical in form, which makes it fit the necks of bottles varying in size. Its ends are locked together in the manner shown in Fig. 1, and are easily sprung apart to remove the band. It has the two like lugs *a*. The bail B has its ends bent into proper form for insertion in the holes in the lugs *a* of the band A. It passes through the upper portion of the lever, and has the enlargements *x* to hold the lever in place, the lever being free to turn on the bail.

The cap C has a circular part, flat on the under side, from which side the projection *n* extends, on which the elastic stopper *d* is placed, as shown in section in Fig. 3. It also has the two similar lugs *c*, Figs. 1 and 2, between which a pin passes through the triangular slot in the lever.

The lever D has its upper end flattened, is wide at its lower end, has the triangular slot *o*, one side of which is parallel with the lower end of the lever, as shown in Figs. 3 and 4, and is pivoted to the bail, as before described.

The construction may be varied. Slots may be made in the lugs *c*, and a pin put in the lever with the same results.

The fastener will work without a hole in the lower part of the lever, or with a round hole of sufficient size, but works in the most satisfactory manner with the triangular slot, as described, the function of the slot being to connect the cap to the lever, and, its upper end being narrow, to bring the lever, bail, and lugs *a* on the band A in the same vertical plane when the stopper is in the bottle.

The operation of my fastener is as follows: The parts are turned over from the position shown in Fig. 2, and, the stopper being placed in the mouth of the bottle, the thumb is firmly pressed against the lower part of the lever and the lever is turned to a vertical position by the forefinger, the thumb and finger pressing in opposite directions, where it is firmly held on its lower and wide end, firmly pressing and holding the stopper in the bottle.

My improvements differ from the improvement patented to C. O. Hammer, May 14, 1878, No. 203,615, in that my lever is not pivoted to the cap by a pin passing through a projection on one of the sides of the lever, as is Hammer's, which lever can only move in one direction to remove the stopper; but my lever may be moved in opposite directions to remove the stopper—a very great advantage. It also differs in having enlargements on the bail to hold the lever in its proper position.

Having described my improvements, what I claim as new, and desire to secure by Letters Patent, is—

1. The lever D, pivoted to the bail B between the enlargements *x x*, and having the triangular slot *o*, in combination with the band A, bail B, and cap C, connected to the lever by a pin passing through the triangular slot in the lever, all the said parts constructed and combined as and for the purposes shown and set forth.

2. In a bottle-stopper fastener, the lever D, having the triangular slot *o*, as and for the purpose described.

THOMAS S. SMITH.

Witnesses:
GEORGE TERRY,
WILLIAM HOPSON.