A. E. BARTHEL.

Bottle-Stopper Fastener.

No. 202,137. Patented April 9, 1878.

Fig. 1.

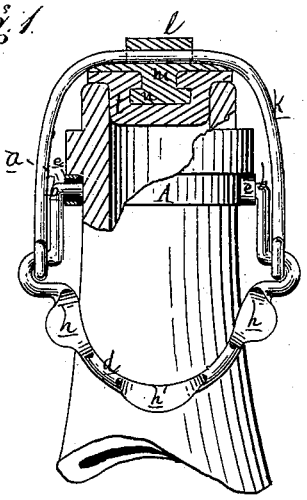


Fig. 2.

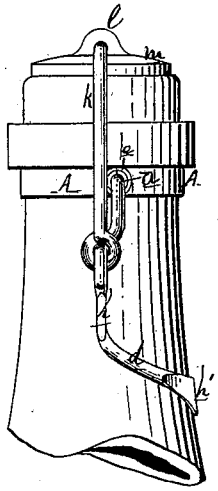


Fig. 3.

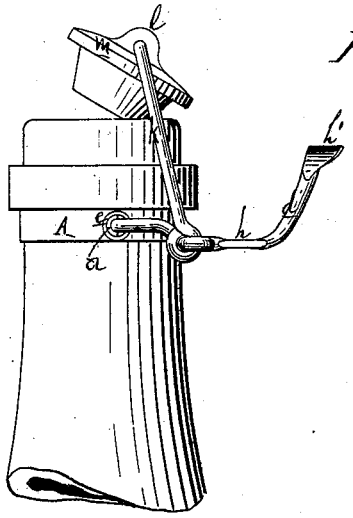
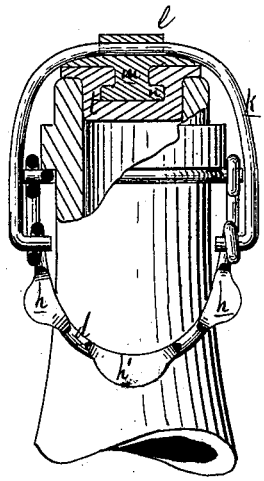


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALBRECHT E. BARTHEL, OF DETROIT, MICHIGAN.

IMPROVEMENT IN BOTTLE-STOPPER FASTENERS.

Specification forming part of Letters Patent No. **202,137**, dated April 9, 1878; application filed February 7, 1878.

To all whom it may concern:

Be it known that I, ALBRECHT E. BARTHEL, of Detroit, in the county of Wayne, State of Michigan, have invented an Improvement in Bottle-Stoppers, of which the following is a specification:

The nature of my invention relates to new and useful improvements in bottle-stoppers of the class usually employed to contain liquids charged with carbonic-acid gas, where it is necessary to secure the stopper to the bottle and provide means for preventing the accidental opening of the bottle; and the invention consists in the peculiar arrangement and construction of the various parts, as more fully hereinafter set forth.

Figure 1 is a vertical section of the neck of a bottle, showing my device, partially in section, secured thereto from the front. Fig. 2 is a side elevation, showing the stopper locked in the neck of the bottle. Fig. 3 is a similar elevation, showing the stopper presented to the mouth of the bottle and ready to be locked. Fig. 4 is a modification of Fig. 1.

Like letters indicate like parts in each figure.

In the drawings, A A represent two segments of a circle, each of equal length, made of strips of metal of the length required. Each of the ends of these two segments terminate in a semicircular flange, *a*, so that when the ends are placed together the flanges will form a circular bearing for the journals *b* of the locking-lever *d*. After this neck-band, made of the two equal segments A, as described, is placed around the neck, a thimble, *e*, is slipped over the semicircular flanges, and holds the parts together. The locking-lever *d* is made substantially of the form shown, pivoted at each end to the neck-band, and is provided with bearing-surfaces *h h'*, the former being below the pivotal point where the stopper-yoke *k* is pivoted to said locking-lever to obtain a leverage by means of which to unlock the stopper; and these flattened surfaces prevent bruising the fingers by presenting bearing-surfaces broader than the diameter of the wire of which the lever is usually made. The stopper being locked in place, a slight pressure of the fingers against the rear of these surfaces will readily unlock it. The other flattened bearing-surface, *h'*, on the lever, being thrown down, forms a rest for the thumb. The stopper-yoke *k* is pivoted to the locking-lever, as shown, and passes through the stud *l* of the metallic part *m* of the stopper. The lower side of this part *m* is provided with a T-shaped stud, *n*, by means of which to secure to it the rubber part *t* of the stopper, as shown in Figs. 1 and 4.

I am aware of the Patent No. 158,406, issued to Charles De Quilfeldt, dated January 5, 1875, and disclaim any part of the invention therein described; but

I claim as my invention, and desire to secure by Letters Patent—

1. In a bottle-stopping device, and in combination with a yoke hinged to a locking-lever, the neck-band of two pieces, the ends of which are secured by thimbles, which, with the curved flanges in the ends of the segments of the neck-band, form bearing-surfaces for the pivotal connection of the locking-lever to said band, substantially as described.

2. The locking-lever *d* of a bottle-stopping device, having the flattened bearing-surfaces *h h'*, substantially as and for the purposes set forth.

ALBRECHT E. BARTHEL.

Witnesses:

H. S. SPRAGUE,

R. A. SPRAGUE.