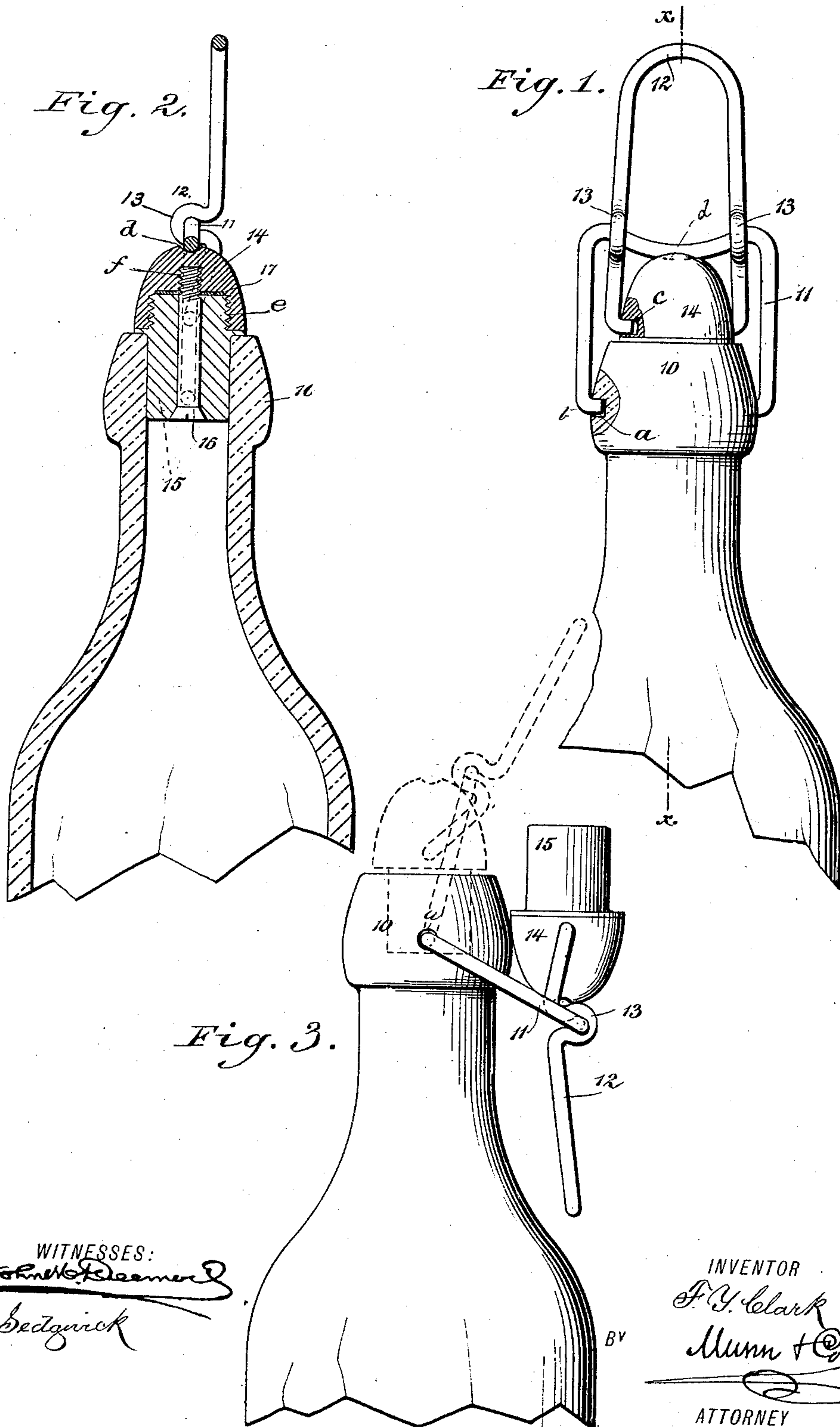


(No Model.)

F. Y. CLARK.
BOTTLE STOPPER.

No. 409,924.

Patented Aug. 27, 1889.



WITNESSES:
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FINLEY Y. CLARK, OF SARATOGA, NEW YORK.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 409,924, dated August 27, 1889.

Application filed January 16, 1889. Serial No. 296,479. (No model.)

To all whom it may concern:

Be it known that I, FINLEY Y. CLARK, of the village of Saratoga, in the county of Saratoga and State of New York, have invented a new and Improved Bottle-Stopper, of which the following is a full, clear, and exact description.

This invention relates to bottle-stoppers, the object of the invention being to provide a safe, secure, and convenient stopper for mineral-water bottles, lager-beer, soda-water, wine, or other bottles designed to contain aerated waters or liquids of any kind.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of a portion of a bottle, representing the same as it appears when provided with my improved bottle-stopper, parts being broken away. Fig. 2 is a sectional view on line *x x* of Fig. 1; and Fig. 3 is a view of the bottle and stopper, the parts being represented as they appear when the bottle is open, and also when the cork is being withdrawn from the bottle.

In the drawings, 10 represents a bottle-head, in the side faces of which there are formed recesses *a*, adapted to receive inwardly-extending lugs *b*, that are formed upon a spring bail or loop 11, which serves to hold the cork in the bottle, and also as a support or fulcrum for a lever 12, which said lever is bent to form loops 13, that fit closely over the bail 11, the lower ends of the lever-arms being bent inward to enter recesses *c*, that are formed in the side faces of a hard or metallic stopper head or cap 14, the upper portion of said head or cap being recessed, as shown at *d*, to receive the bail 11.

In connection with the hard stopper head or cap above described I employ a cork or stopper 15, through which there is passed a screw 16, the extending end of the screw engaging a washer 17.

I make the cap or head part 14 of the cork preferably of metal, although any other suitably-hard substance might be used in place of metal.

The stopper head or cap 14 is internally

threaded at *e* and at *f*, the thread *f* being arranged to engage the thread upon the projecting end of the screw 16, while the thread *e* is arranged to engage the peripheral face of the extending portion of the cork or stopper 15. The object of the hard or metallic stopper head or cap 14 is to protect and preserve the upper part of the cork or stopper 15, and the object of connecting them by screw is to permit their ready separation when used in connection with bottling-machines, also the replacement of the parts when required.

In operation, after the bottle in connection with which the stopper is to be employed has been filled, the cork 15, at this time removed from the head or cap 14, is forced to place, the disk or washer 17 at this time preventing the displacement of the screw 16. After the cork 15 has been forced to place to close the bottle the cap 14, which carries the lever 12, is screwed upon the end of the cork and the extending end of the screw. The bail or fulcrum bar 11 is then sprung over the bottle-head 10 and adjusted so that the lugs *b* will enter the recesses *a*, the lever 12 being forced to a position such that the bail will rest within its loops 13. The bail 11 now rests upon the top of the stopper head or cap 14, which there has a slight indentation *d* to receive the bail, and the cork is thus firmly held to place; but if it should be desired to open the bottle the lever is moved laterally, which pulls the bail 11 off from the top of cap 14; but the lever still bears upon the bail 11 as a fulcrum, and the downward pressure upon the lever 12 carries the cork upward and out of the mouth of the bottle, as shown in dotted lines, Fig. 3.

From the above description it will be seen that by means of my improved bottle-stopper I obviate the necessity of using a corkscrew, and I also obviate the necessity of tying the cork to place by twine or wire and of having bands around the bottle-neck, as is usually done.

A further advantage of my construction is that after the cork has been removed from the mouth of the bottle it is held by the head or hard part of the stopper, from which, however, the cork may be readily removed in order that it may be used again.

A further advantage of my improvement is

that the lever 12 constitutes a handle by means of which the bottle may be carried from place to place.

5 In practice I prefer to make the bail 11 higher at its sides than in the center—that is, I prefer to make its connecting member so that it bends downward between the parallel side lengths or members—as by so doing I provide for an extremely tight grip 10 upon the stopper-head 14 when the lever is subjected to lateral pressure, the tendency of the lever-arms at this time being to approach, and the greater the pressure upon the lever the greater will be its grip upon the stopper-head, and the same is true in regard to the 15 bail and the bottle-head.

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

20 1. The combination, with the stopper-head and the bottle-head, of a bail pivotally

mounted at the bottle-head to swing above and against the top of the stopper-head to hold the stopper in place, and a lifting-lever pivotally engaging the stopper-head and the 25 bail, substantially as herein shown and described.

2. The combination of the cork and a screw passed through it, a head engaging the screw and the cork, a lever connected to the head 30 and formed with loops, and a bail resting within the lever-loops, said bail being constructed for connection with a bottle or neck band, substantially as and for the purposes herein shown and described. 35

The foregoing specification of my new and useful improvement in bottle-stoppers signed by me this 11th day of January, 1889.

FINLEY Y. CLARK.

Witnesses:

C. SEDGWICK,
EDWD. M. CLARK.