

No. 630,286.

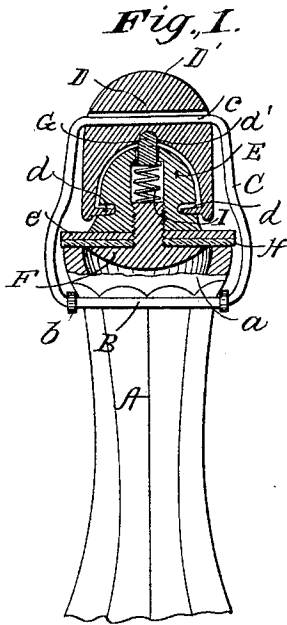
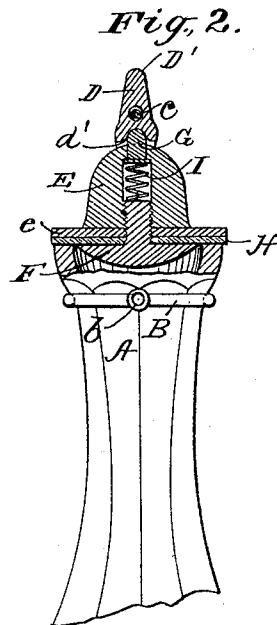
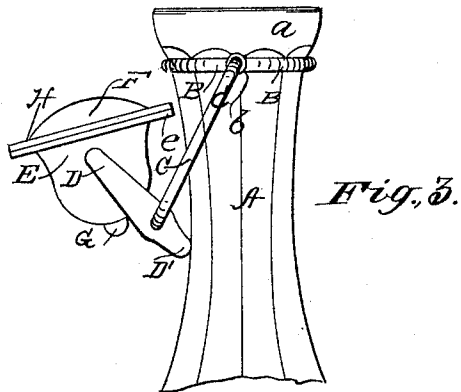
Patented Aug. 1, 1899.

J. CEDERSTROM.
BOTTLE FASTENING DEVICE.

(Application filed Mar. 7, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses.
H. R. Edgson
R. W. Lusk,

Inventor
John Cederstrom
by Philip Lusk
his attorney

No. 630,286.

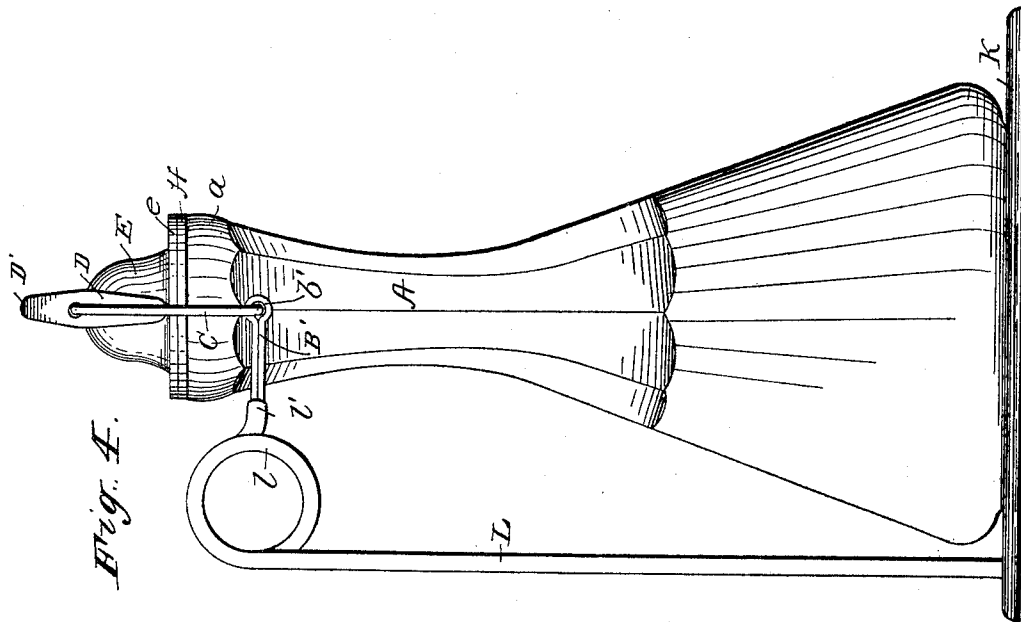
Patented Aug. 1, 1899.

J. CEDERSTROM.
BOTTLE FASTENING DEVICE.

(No Model.)

(Application filed Mar. 7, 1899.)

2 Sheets—Sheet 2.



Witnesses.
H. R. Egelen.
Geo. Lewis.

Inventor.
John Cederstrom
by Philip Mauro.
his attorney

UNITED STATES PATENT OFFICE.

JOHN CEDERSTROM, OF NEW YORK, N. Y., ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE UNITED STATES AERATING FOUNTAIN COMPANY, OF SAME PLACE.

BOTTLE-FASTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 630,286, dated August 1, 1899.

Application filed March 7, 1899. Serial No. 708,091. (No model.)

To all whom it may concern:

Be it known that I, JOHN CEDERSTROM, residing in the city of New York, State of New York, have invented a new and useful Bottle-Fastening Device, which is fully set forth in the following specification.

This invention relates to fastening devices for bottles, and is more particularly devised for bottles containing aerated liquids, where the requirements are that the stopper be held closely against the mouth of the bottle, so as to form a joint absolutely tight for resisting the expansive force of the gas, while at the same time the device can be readily unlocked, so that a woman or child may open the bottle without any great muscular effort. Moreover, the attachment must be sure and positive in its operation; simple, so that it is not liable to get out of order; inexpensive, to bring it within the reach of all, and attractive in appearance.

In fastening devices where a lock-lever is employed, in which class the present invention falls, it is common to arrange two pivoted toggle members in such a manner that the device is locked or unlocked by throwing the joint to one side or the other of its "dead-center"—past the dead-center. It is a matter of every-day observation that a considerable exertion is sometimes necessary to force the parts over the dead-center. In my invention these pivoted members are so arranged that when the device is locked the members are balanced, as it were, exactly in their dead-centers, so that a minimum pressure from either side suffices to unlock the fastening. Again, in the ordinary fastening after the device is unlocked it is then necessary to move the stopper away from in front of the mouth of the bottle, and if the contained liquid is highly charged a considerable part of the gas escapes during the interval between the operations of unlocking and removing. In my device the same movement serves both to unlock the device and to swing it free from the mouth of the bottle.

To describe my invention more precisely, it consists of a stopper or plug fitting against the mouth of the bottle and two members pivoted together and also pivoted, respec-

tively, to the stopper and the bottle in such a manner as to form a lock, that may be designated a "reëntrant toggle." When the device is locked, the two toggle members extend above the bottle, lying one within the other in the same plane and in the line of resistance against the expansive force of the gas in the bottle. The greater the pressure from within the more firmly is the device held locked, while a very slight pressure in either direction against the elbow of the toggle members suffices to unlock the device, and the same motion swings the whole stopper clear away from the mouth of the bottle.

In order to make the fastening as secure as possible normally while easy to unlock when desired, there may be employed in addition a positive catch to hold the two members in their locked position, the catch being provided with a rounded or cam surface, so that when the toggle is pushed to one side the catch will readily disengage.

Instead of locating the bearings for pivoting one member of the toggle upon the bottle itself such bearings may be carried on an arm that rises from a stand upon which the bottle rests, or I may have a stand for holding a number of bottles, the bearings for the toggle members of each bottle being carried on an arm that branches out from the top of the central standard. In either case the bottle itself has no attachment fixed to it, but when removed presents the appearance of a carafe.

To illustrate a preferred embodiment of my invention, I refer now to the drawings annexed hereto and made a part of this specification, in which—

Figure 1 is a vertical section through the fastening device, showing the upper part of the bottle. Fig. 2 is a section at right angles to Fig. 1. Fig. 3 is a side elevation showing the stopper thrown open. Fig. 4 shows my invention applied to a stand for one bottle.

A is the neck of the bottle, having an enlargement *a* to provide a shoulder against which rests collar B, provided with bearings *b*. Bail C has lugs or inturned ends that take into bearings *b*, pivoting C so as to turn freely in either direction. The upper portion *c* of C is straight and passes through a substan-

tially crescent-shaped block D, which turns freely on *c*. In the concave part of block D are intumed lugs *d*, that take into bearings of a substantially hemispherical block E. The latter has a longitudinal passage-way screw-threaded at the lower part and contracted at its upper extremity. In the upper part of the passage-way is fitted the bullet-shaped plug G, having a flange that prevents it from passing entirely out of the passage-way. On the bottom of block E is plate *e*, which may be integral therewith, and against the under side of plate *e* is a washer H, of rubber or similar material, held in place by a block F, screwed into block E. The inner end of screw F serves as a bearing for spring I, that holds plug G projected into a seat *d'* in D, formed to receive it, which serves to lock D and E together. The head of F swells out, as shown, to form a boss that fits accurately into the top of the bottle and serves to center the stopper properly over the bottle.

The operation is as follows: Press to one side the upper portion D' of piece D. The cam action of seat *d'* forces plug G down against spring I, releasing D from E. The same movement, having unlocked the parts, swings bail C (carrying parts D and E) to one side, so as to uncover the mouth of the bottle entirely.

It is to be noticed that only a slight pressure is necessary, that piece D may be pressed in either direction, and that a single movement both unlocks the fastening and instantly carries the closure entirely away from the mouth of the bottle.

It is obvious that many changes may be made in the details of construction without departing from the spirit of my invention—as, for instance, instead of the intumed lugs on bail C any other means for pivoting C may be employed. Instead of employing a bail, as shown, I may provide two separate arms pivoted in any desirable manner to block D. Instead of lugs *d* on block D there may be lugs on E taking into bearings on D, or the two blocks D and E may be pivoted together in any other manner, and spring-catch G may be located in D, or I may provide simply a slight knob on one surface to be forced into a corresponding seat in the

other, or one (or both) of the meeting surfaces may be flattened to hold the two together by friction.

While I have described my fastening device as pivoted directly upon the neck of the bottle, it is obvious that this is not the only way, as the device may be pivoted to a separate bearing independent of the bottle.

The metal parts may be of ornamental finish and nicked or of silver, a cut-glass bottle with silver mountings being an attractive addition to the sideboard or bar.

Having thus described my invention, what I claim is—

1. In a bottle-fastening device, the combination with the substantially hemispherical block having a longitudinal threaded bore reduced at its upper end, of the crescent-shaped toggle member pivoted thereto, and the spring-pressed catch seated in the said bore and adapted to catch into a seat in the crescent-shaped block, substantially as described.

2. In a bottle-fastening device, the combination with the bottle, of pivoted bail C, crescent-shaped block D pivoted thereon, and hemispherical block E pivoted in the concavity of block D, said block E being provided with a catch adapted to engage in a seat in block D, substantially as described.

3. The combination with a bottle having two opposite bearing-seats therein of cylindrical shape, of a bail having intumed ends pivoted in said seats, a crescent-shaped block having a transverse cylindrical opening in which said bail is seated, and a hemispherical block seated in the concavity of said crescent-shaped block and having two opposite bearing-seats therein of cylindrical shape that receive lugs upon the lower ends of said crescent-shaped block, said hemispherical block being adapted to fit over the mouth of the bottle, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN CEDERSTROM.

Witnesses:

C. A. L. MASSIE,
ELISHA K. CAMP.