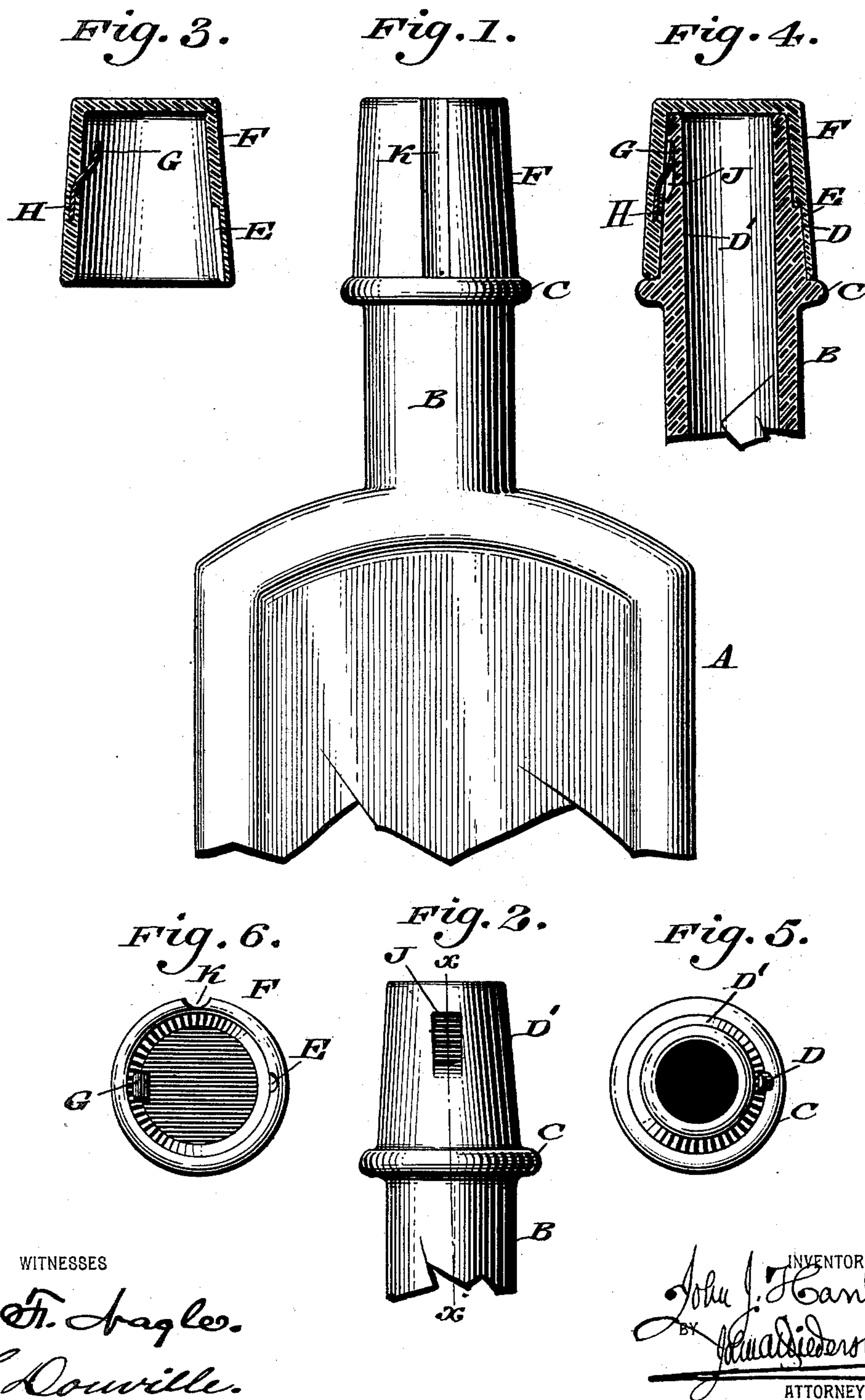


(No Model.)

J. J. HANLON.
NON-REFILLABLE BOTTLE.

No. 592,491.

Patented Oct. 26, 1897.



UNITED STATES PATENT OFFICE.

JOHN J. HANLON, OF ALLENTOWN, PENNSYLVANIA.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 592,491, dated October 26, 1897.

Application filed January 4, 1897. Serial No. 617,876. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. HANLON, a citizen of the United States, residing at Allentown, in the county of Lehigh, State of Pennsylvania, have invented a new and useful Improvement in Non-Refillable Bottles, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an improved construction of non-refillable bottle in which a novel construction of cap and interlocking devices common thereto and the neck of the bottle are employed, it being necessary to break the cap of the bottle in order to obtain access to the interior of the latter.

It further consists of novel details of construction, all as will be hereinafter set forth, and specifically pointed out in the claims.

Figure 1 represents a side elevation of the upper portion of a non-refillable bottle and its adjuncts embodying my invention, the parts being shown in assembled position. Fig. 2 represents a side elevation of the neck of a bottle, showing the cap removed. Fig. 3 represents a vertical sectional view through the cap, the latter being shown in detached position. Fig. 4 represents a vertical sectional view through the neck of the bottle, showing the position the cap assumes relative thereto when the parts are assembled and interlocked, the section being taken on line *x x*, Fig. 2. Fig. 5 represents a plan view of the top of the bottle. Fig. 6 represents an inverted plan view of the cap seen in Fig. 3.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the body of the bottle, having the neck B, which latter is provided with the bead C.

D designates an upwardly-extending ridge which extends from the bead C about halfway the upper portion D' of said neck, said ridge being adapted to engage the groove E, which is located in a side of the cap F, said cap being provided with a covered top whereby the bottle is effectively closed when the cap is in position.

G designates a spring of suitable resilient material which has one end seated in a pocket or cavity H, while its free end is adapted to project inwardly and, when the parts are assembled, to engage the recess J, located in

the upper portion of the neck B, the said spring G and the recess E of the cap being located oppositely to each other in the present instance, although it is of course evident that this is not essential.

K designates a groove or recess located in the outer periphery of the cap F, the same being of any desired number.

The operation is as follows: The parts are assembled by placing the cap on the upper portion D' of the neck and turning the same until the groove E in the cap engages the ridge D, after which the cap can be pushed into position until it is substantially in contact with the bead C, the spring G snapping into the recess J, as indicated in Fig. 4, whereby the removal of the cap will be prevented by the engagement of the free end of said spring with said recess J.

When it is desired to empty the bottle, it is only necessary to grasp the cap with a cloth, towel, or glove and rotate the same, whereupon said cap will be broken by reason of the groove K therein, and the bottle cannot be again used without indicating to subsequent users that it has been once emptied and refilled.

It will of course be understood that the object of the groove K is to enable the cap F to be readily broken when it is desired to empty the bottle, it being only essential that said cap be of reduced thickness at some point, and consequently the same may be of different shape or in a different location so long as the function thereof is attained. It will also be apparent that a space will be provided inside the cap for the insertion of marked paper or other matter that will give any information desired to be sent out with the bottle, said paper being capable of being read through the glass, but being accessible only by breaking the cap.

It will be evident that my invention is applicable to bottles, ballot-boxes, barrels, demijohns, and all packages of similar character which require protection from being opened only by the rightful owner.

The package or bottle is preferably made of glass or brittle material, so that it will break easily, and it will be evident that the groove in the cap for the purpose of weakening the latter to enable it to be readily broken

may be placed in any desired position, while the spring may be of any resilient material, which can be readily secured in the cap and capable of springing into the recess in the neck of the bottle.

It will of course be evident, if desired, that the top of the cap can have blown or otherwise indicated therein the name, trade-mark, or brand of the owner.

It will of course be evident that changes may be made by those skilled in the art which will come within the scope of my invention, and I do not therefore desire to be limited in every instance to the exact construction I have herein shown and described.

It will of course be apparent that, if desired, the upper portion of the neck of the bottle, as also the cap, can be made oval and the ridge D in the neck of the bottle and the contiguous recess in the cap omitted, the function of said ridge and recess, as well as the oval shape of said cap or neck, being to assist the placing of the cap in position and to prevent it being turned without breaking.

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

1. A non-refillable bottle having a peripheral bead on the neck thereof, a ridge on said neck above said bead and a recess in said neck above said bead, a cap having a vertically-extending groove in the inner face of one side

thereof, to receive said ridge, and a spring connected at one end to the inner side of said cap and having its free end projecting upwardly and adapted to enter the recess in said neck, said cap being seated on said bead and closing the upper end of said neck.

2. A non-refillable bottle having the peripheral bead C on the neck thereof, a vertically-extending ridge D on the outer side of said neck above said bead and a recess in the outer wall of the opposite side of said neck above said ridge, the cap F adapted to be seated on said bead, closing said neck and provided with a groove E to receive said ridge, and a spring G to engage the walls of said recess T, and having a vertically-extending groove K in its outer wall between said spring and said groove.

3. A non-refillable bottle having a peripheral bead on the neck thereof, a ridge and a recess on said neck above said bead, a cap having a longitudinally-extending groove in the inner face of a side thereof to receive said ridge, a spring intermediate said cap and the neck of said bottle and adapted to lock said cap in position, the latter being seated on said bead and closing the upper end of said neck.

JOHN J. HANLON.

Witnesses:

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