

(No Model.)

C. G. IMLAY.
BOTTLE STOPPER AND FASTENER.

No. 427,576.

Patented May 13, 1890.

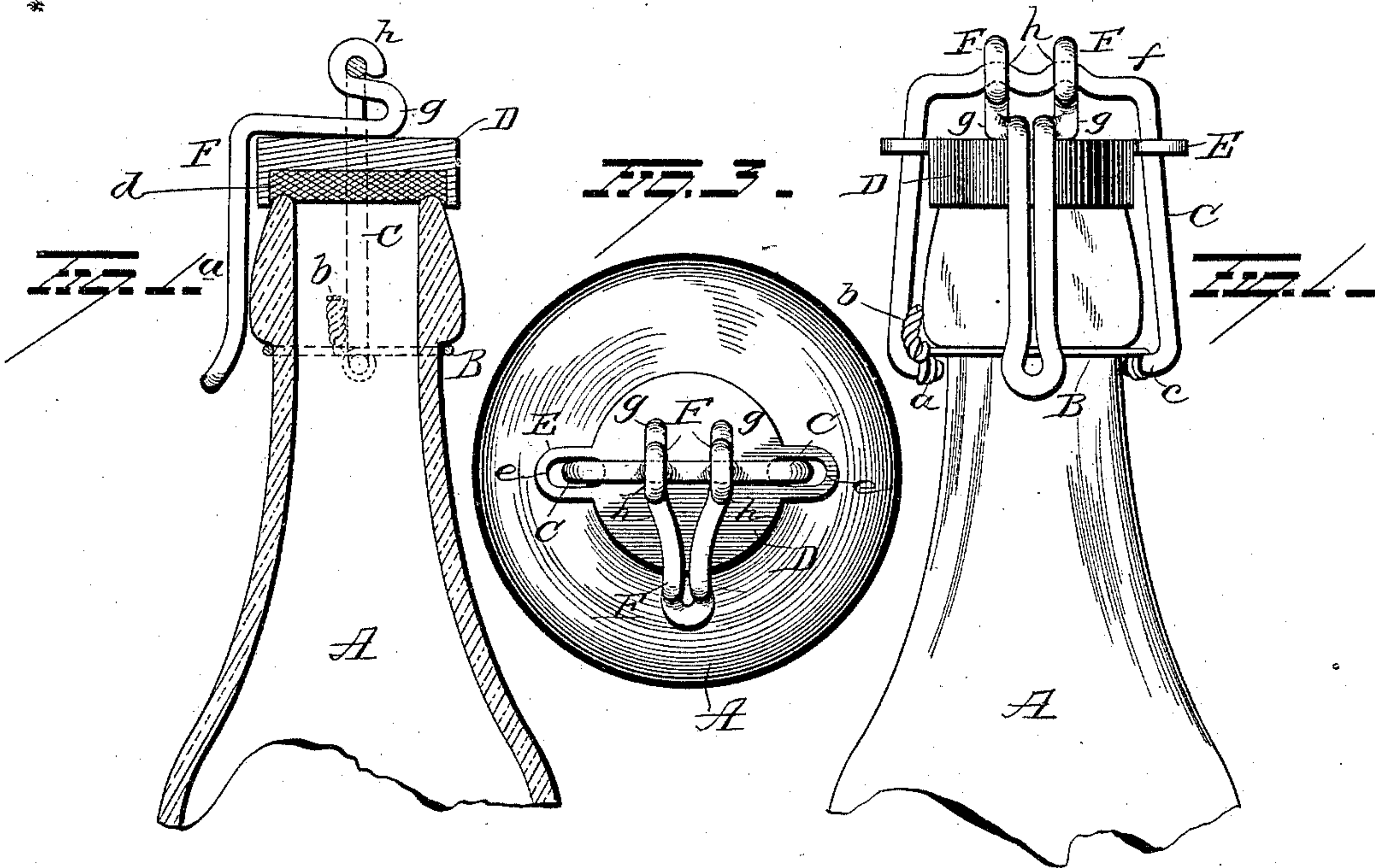


FIG. 2 -

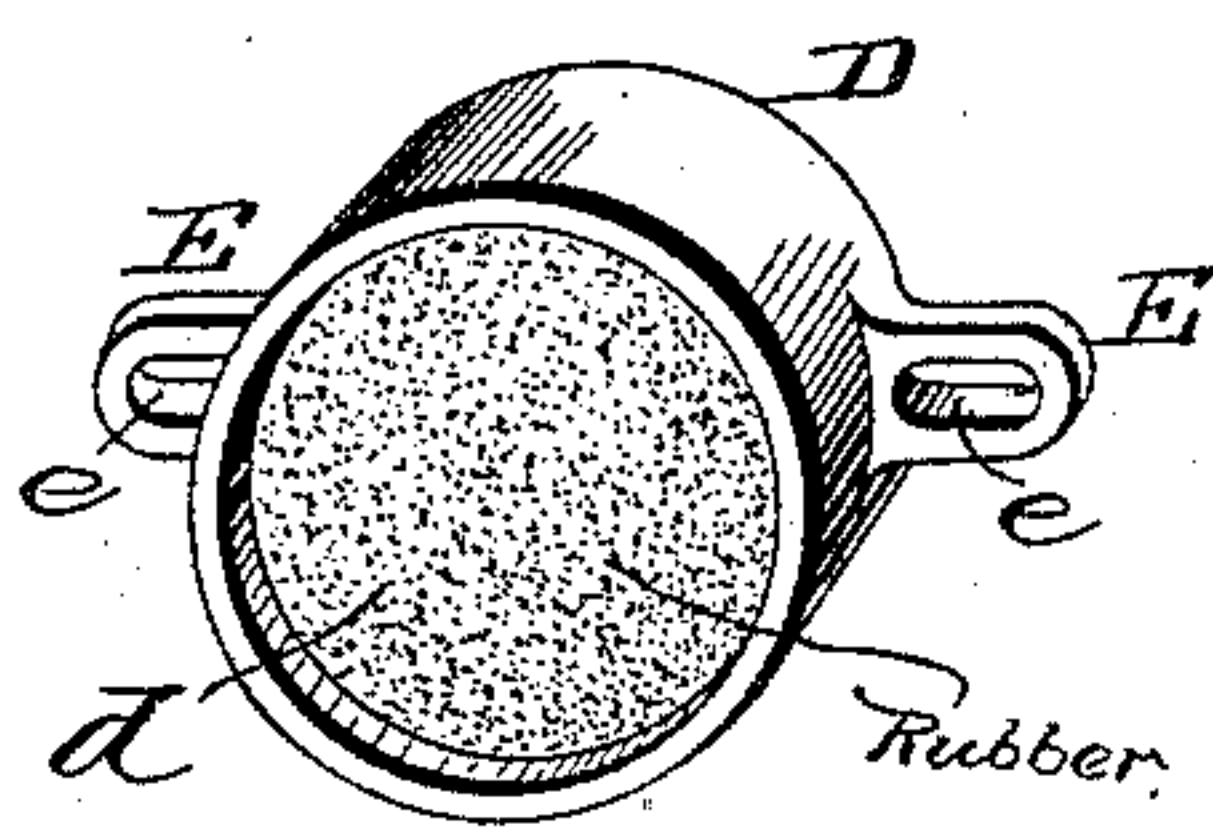


FIG. 4

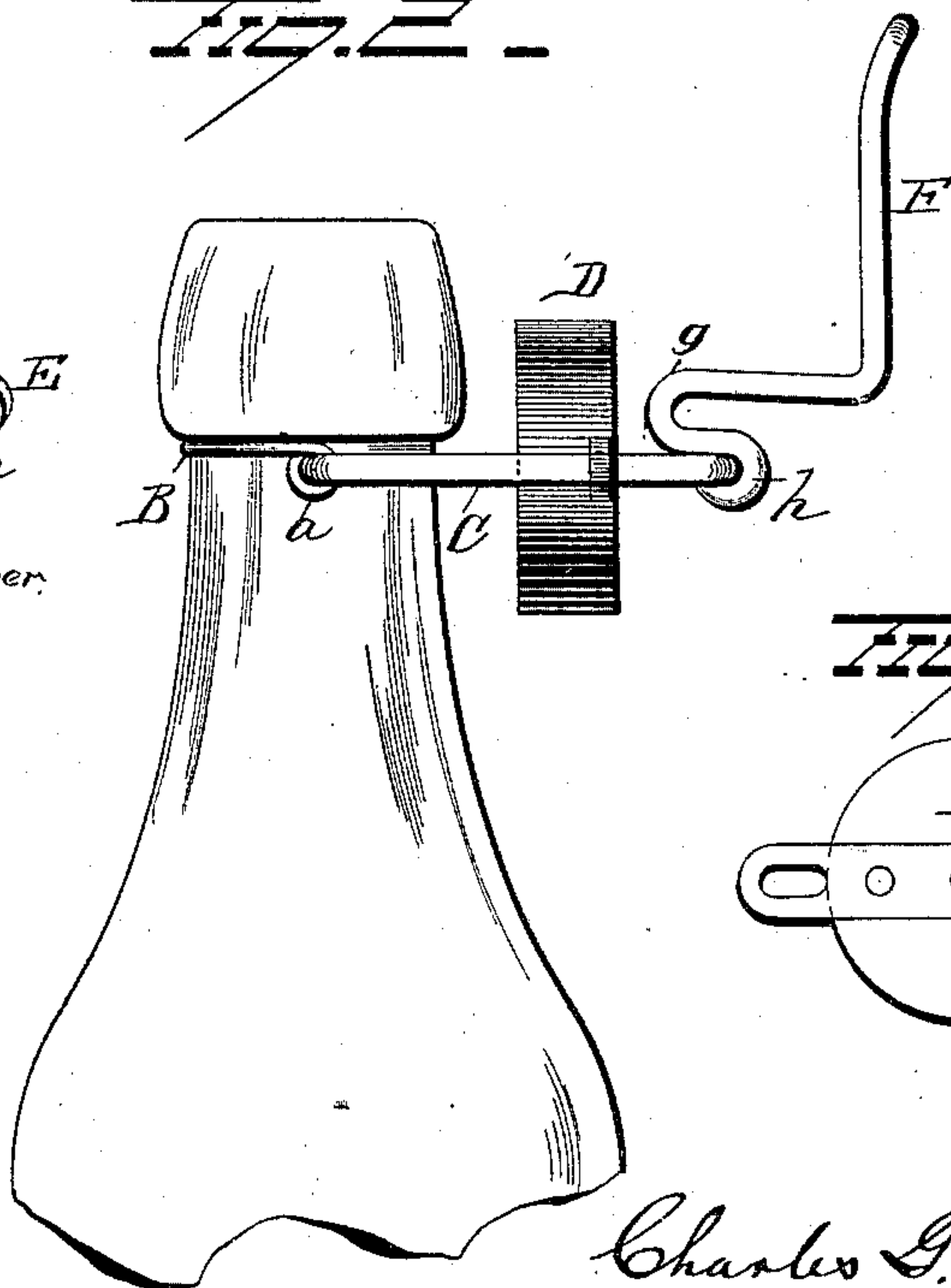


FIG. 5

Witnesses
C. F. Downing
S. G. Nottingham

Inventor
Charles G. Imlay
By his Attorney
H. A. Seymour

UNITED STATES PATENT OFFICE.

CHARLES GORDON IMLAY, OF CAMDEN, NEW JERSEY.

BOTTLE-STOPPER AND FASTENER.

SPECIFICATION forming part of Letters Patent No. 427,576, dated May 13, 1890.

Application filed February 19, 1890. Serial No. 341,009. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GORDON IMLAY, a citizen of Camden, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Bottle-Stoppers and Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in bottle-stopper fasteners, and more particularly to such as are used to seal the mouths of bottles containing carbonated liquids, the object of the invention being to provide an improved bottle-stopper and fastening therefor which can be attached to any bottle of the general character above mentioned.

A further object is to so construct a bottle-stopper fastener that the bottle may be readily filled by the use of machinery commonly employed for filling bottles without inconvenience to the operator of such machine.

A further object is to provide a bottle-stopper fastener which shall be simple, cheap, and durable in construction and effective in operation.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of my improvement applied to a bottle with the stopper in place over the mouth thereof. Fig. 1^a is a sectional view. Fig. 2 is an elevation showing the stopper removed from the mouth of the bottle. Fig. 3 is a plan view of the device. Fig. 4 is a detached view of the stopper. Fig. 5 is a view of a modification.

A represents the neck of a bottle, having a tie-wire B encircling the same immediately beneath the shoulder or enlarged portion of the mouth, said tie-wire having formed therein at diametrically-opposite sides of the neck loops *a*, the free ends of said tie-wire being twisted together at a point in close proximity to one of the loops and made to produce a stop *b*, for a purpose hereinafter explained. A U-shaped bail C is provided at its free ends

with inwardly-projecting toes *c*, adapted to enter the loops or eyes *a* and be thus pivotally connected with said tie-wire, and carried by this bail is a stopper D. The stopper D comprises a metallic disk made flat on its top surface and provided in its under face with a recess, in which a soft-rubber washer or packing *d* is inserted. Integral ears E are made at diametrically-opposite sides of the stopper and provided with elongated perforations *e*, through which the bail is adapted to loosely pass.

Instead of making the stopper D of metal and providing it with integral perforated ears E, said stopper may be made of hard rubber, glass, or other suitable material. In such case (or even when the stopper is made of metal, if desired) the stopper will be made perfectly round and provided on its top with a recess, in which a metallic plate D' will be inserted and secured to the stopper, said plate projecting at its ends beyond the stopper, and in these outwardly-projecting ends elongated slots or perforations are made for the passage of the bail C, as above explained. In this manner a very light substantial stopper will be produced, and at the same time one which will be ornamental in appearance; and, further, the slots in the ears being elongated, as above explained, it will be seen that a defective stopper can be readily removed and a new stopper substituted by simply withdrawing the toes of the bail from the loops in the tie-wire, and that this operation may be performed in a few seconds.

Connected with the horizontal portion *f* of the bail C is a clamping-lever F, preferably made of a single piece of wire. In forming the lever F a piece of suitable-size wire is first bent upon itself, and then this double wire is bent at right angles and the free ends separated, as shown in Fig. 3. The free ends of the wire are next bent backwardly to produce curved or cam faces *g*, and at the extremities both portions of the lever are formed into loops *h*, adapted to loosely embrace the horizontal portion of the bail C.

Assuming now that the parts are in the positions shown in Fig. 2 and it is desired to close the bottle, the bail will be swung upwardly until it engages the stop *b*, at which point the stopper D will drop squarely upon the mouth

of the bottle. The lever is then turned and the curved or cam faces *g* made to engage the flat top of the stopper and force said stopper down firmly upon the mouth of the bottle.

5 The lever now being further turned until a portion thereof lies parallel with the stopper, the cams *g* will have passed the portion *f* of the bail and the stopper will be tightly locked to the bottle. When the plate *D'*, above de-
10 scribed, is employed, the lever *F* will engage this plate and not the stopper proper, thus relieving the stopper from wear.

Usually a clamp-stopper swings both ways with the bail, which is troublesome and re-
15 quires time to adjust. This is avoided by the stop *b*, which allows the bail to move in but one direction and only just far enough to permit the stopper to fall over the mouth of the bottle.

20 By constructing the stopper and fastener as above described the bottles may be filled with rapidity by use of machines commonly employed for this purpose, and when filled can be quickly and securely sealed.

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

1. In a bottle-stopper fastener, the combination, with a tie-wire having loops formed
30 therein at diametrically-opposite points and

having its ends twisted together to form a stop, the latter being located near one of the loops, and a bail the ends of which extend into the loops and adapted to bear against the stop when in the proper position, of a stopper 35 having loose connection with the bail, and a clamping-lever pivoted on the bail and adapted to bear on the stopper, substantially as set forth.

2. In a bottle-stopper fastener, the combination, with a tie-wire having loops formed therein at diametrically-opposite points and having its ends twisted together to form a stop, the latter being located near one of the loops, and a bail the ends of which extend 45 into the loops and adapted to bear against the stops when in the proper position, of a stopper having an elastic lower surface and ears on its sides, with perforations or slots therein to receive the bail, and a clamping-lever pivoted 50 on the bail and adapted to bear on the stopper, substantially as set forth.

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

CHARLES GORDON IMLAY.

Witnesses:

JOSHUA E. BORTON,
WM. M. TENNISWOOD,
NEWELL IMLAY.