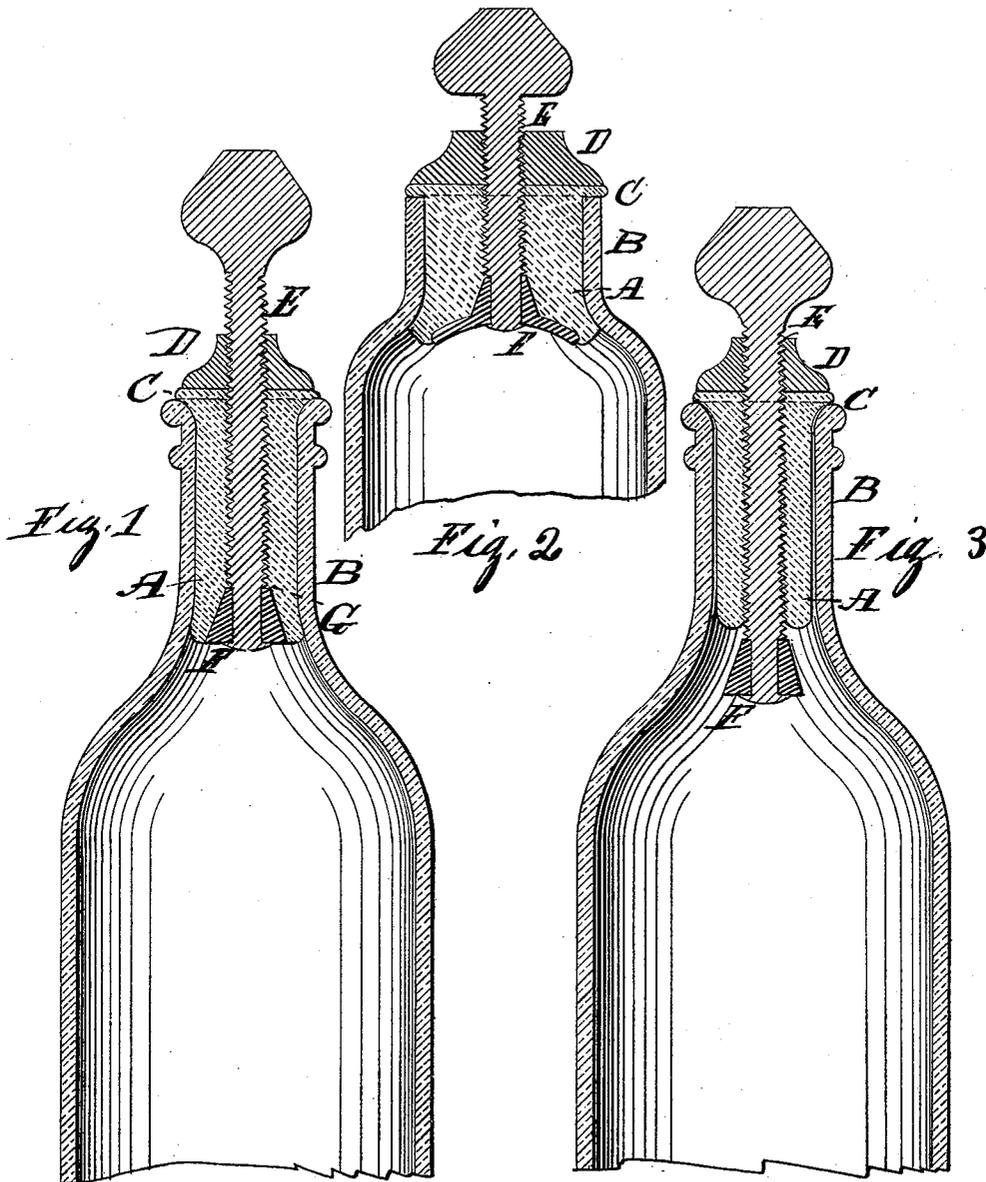


(No Model,)

E. P. HAND.
BOTTLE STOPPER, &c.

No. 251,047.

Patented Dec. 20, 1881.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWARD P. HAND, OF NEWARK, NEW JERSEY.

BOTTLE-STOPPER, &c.

SPECIFICATION forming part of Letters Patent No. 251,047, dated December 20, 1881.

Application filed November 12, 1881. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. HAND, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Bottle-Stoppers or Stoppers for Cans, &c., of which the following is a specification.

My invention relates to bottle-stoppers wherein a combination of simple devices secures a compression or expansion of an elastic stopper to perfectly fill the neck of a bottle, or it may be a fruit or other can, or any similar article requiring close stopping, and that may be released and taken out, when needful, with the least possible trouble; and it consists in the combination of devices as herein set forth.

Figure 1 is a sectional elevation, showing a stopple in a bottle and expanded and closing the bottle-neck. Fig. 2 is the same, with slight variations, as used in a fruit-can. Fig. 3 is the same, showing the stopple released or unscrewed to allow it to slip into or out of a bottle-neck.

In my construction, A is a hollow stopple, of rubber, or it may be of any other suitable elastic material, in size to go easily into the neck B of a bottle, &c. The stopple has on the top the flange C, to rest on the top of the bottle, and prevent the contact of the metal nut D with the glass; but a rubber tube may be used in place of the flanged stopple, and in that case an elastic washer on the top of it may take the place of the flange; but in cases where the neck is metal both may be dispensed with.

E is a screw-rod, fitted to work in the nut D on the top of the rubber, and also to screw down through the rubber stopper. On the lower end of this rod is riveted a cone-shaped piece, F, the upper end resting against the shoulder G; or it may be partly semicircular,

as seen in Fig. 2. When the screw-rod is turned down, as in Fig. 3, the stopple is readily inserted in the neck of a bottle, &c. When in place the rod is screwed up. This carries the piece F up into the end of the stopple and expands it even into the enlarged portion of the neck. The nut D, at the same time, pressing against the top of the stopper, assists to expand the rubber to fill the upper end of the neck; and, indeed, the pressure on the ends of the stopper will cause a lateral expansion in the middle of it, so that the whole neck of the bottle will be perfectly filled, and the bottle will be proof against the passage of fluid or gas into or out of it—by a few turns of a screw. To release the stopper the turning of the screw is reversed, when it will again assume the form as seen in Fig. 3, and may at once be withdrawn. The screw-rod, being screwed into the stopple, keeps it up against the nut D and prevents it from dropping down onto the piece F, which if it did the stopper could not be drawn out. The rod screwing into and through this stopple is essential to my invention.

By this new combination and arrangement of elements, many of which are old in other relations, I construct a cheap, simple, and effective stopper for bottles, cans, &c., which may be used at once by the more inexperienced.

I claim—

The combination of the elastic stopper A and screw-rod E, working in the nut D on the top of the stopper, and screwing through the said stopper, and terminating with the cone-piece F, substantially as and for the purpose specified.

EDWARD P. HAND.

Witnesses:

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