E. D. MOYER.

Bottle Stopper.

No. 48,300. Patented June 20, 1865.

Fig: 1.

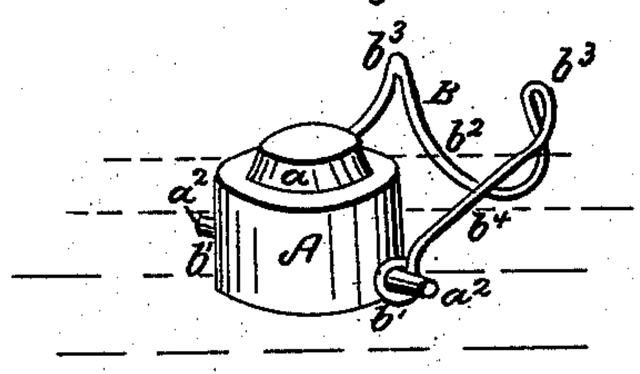


Fig: 2.

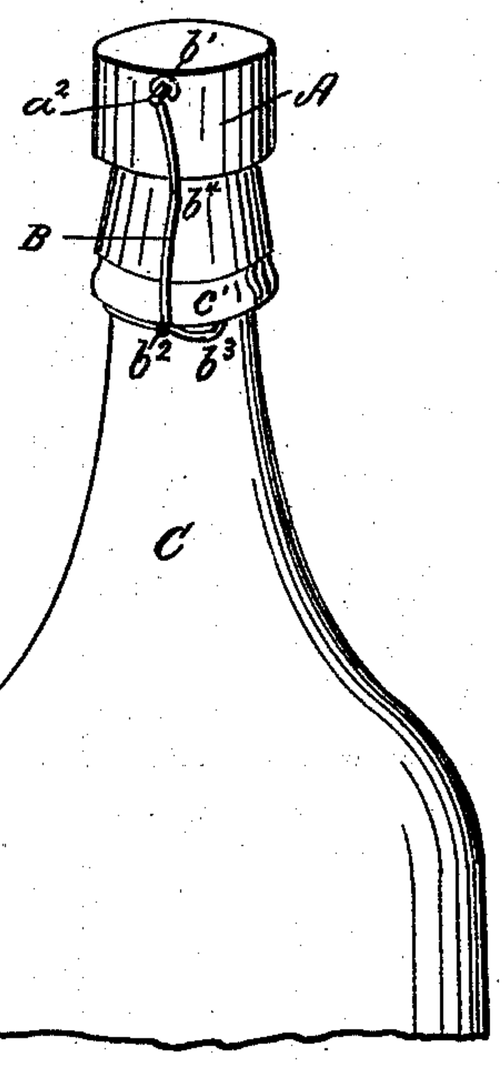
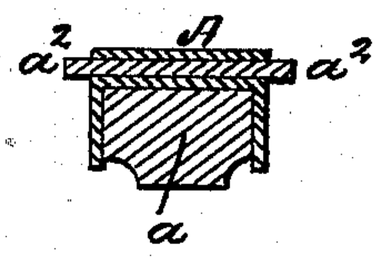


Fig: 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

E. D. MOYER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED BOTTLE-STOPPER.

Specification forming part of Letters Patent No. **48,300**, dated June 20, 1865.

To all whom it may concern:

Be it known that I, E. D. MOYER, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Bottle-Stoppers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the improved stopper detached and inverted; Fig. 2, a like view of the same applied to a bottle, and Fig. 3, a vertical central section of the cap or stopper proper, like letters of reference indicating the same parts when in the different figures.

The present price and scarcity of cork-bark and the inevitable destruction of the corks made of it, in using them for stopping beer and mineral-water bottles, renders a demand for a substitute that will be cheap and will continue to be applicable as a perfect stopper for such bottles for an indefinite number of times without repairs, one of considerable inquiry and importance to the public; and the object of my improvement is to satisfy this demand by affording a stopper for such and other bottles that will be effective, durable, and cheap.

The nature of my invention consists in providing a hollow metallic cap with an elastic water-proof filling and attaching to its outer side a swinging frame of stiff wire, so bent and fitted that when the elastic end of the cap is placed over the open mouth of the bottle and pressed firmly down thereon by hand the lower end of the said swinging frame can be readily sprung under the lip of the bottle by one's fingers, so that it will clasp itself to the neck of the bottle, remain in that position without other fastening, and thus hold the cap firmly and tightly down on the mouth of the bottle against the pressure of the contained fermenting or expansive nature of beer, mineral-water, or other similarly expansive beverages usually put up in bottles for sale, and also allow the quick removal of the said stopper when required without breaking, deranging, or otherwise injuring any of its parts for subsequent use in like manner.

In the drawings, A is the cap, and a' the elastic filling therein; B, the swinging spring-frame, and C the bottle.

The cap A, in this instance, is cylindrical in form, and consists of pewter. It is cast hollow, has one end open, and has also a piece of stiff wire fixed diametrically through its solid end, so as to project about a quarter of an inch, more or less, as journals a^2 a^2, at opposite sides of the cap A, as shown in the drawings.

The filling a' consists of a solid piece of vulcanized caoutchouc fixed tighly in the hollow part of the cap A, so as to present a smooth even surface, which will fit accurately upon the upper edge of the mouth of the bottle when applied thereto, and also a slightly projecting and tapering central part, which will enter the said mouth, serving as a guide in applying the said cap to the bottle.

The swinging frame B is made in one piece, of stiff galvanized or tinned wire, by looping its ends b' b', so that they will fit over the journals a^2 a^2 of the cap A, and bending its intermediate portion substantially in the form shown in Figs. 1 and 2, wherein the middle portion, b^2, constitutes a regular curve, with a short counter curve, b^3, at each end, from which latter the wire is bent upward, so as to form the arms b^4 b^4 at nearly right angles to the plane of the said curves.

The largest curve b^2 has its diameter made a little less than the external diameter of that part of the neck of the bottle C which is directly below the under edge of its lip c', while its length is a little less than two-thirds (more or less) of the circumference of this part of the neck of the bottle; and the length of each of the arms b^4 b^4 is such that when their loops b' b' are applied, respectively, over the journals a^2 a^2 of the cap, and the whole device thus completed for use, they will just allow the curve b^2 of the frame B to be pressed or sprung around directly beneath the lip c' of the bottle, when the cap A is pressed firmly down in juxtaposition over the mouth of the former. This position is clearly shown in Fig. 1.

Operation: It will be readily understood that when the whole device is constructed and applied as described and shown the elastic filling a' of the cap A will be compressed and held firmly and closely down over the mouth

of the bottle, while the curved portion b^2 of the swinging frame B will spring-clasp its neck, so as to keep the said curved clasp in that position until pushed away from it by one's fingers or other applied power, which operation releases the stopper. It will also be seen that this stopper answers the demand previously alluded to, because it forms a perfect substitute for the bark corks in its effectiveness as a stopper for bottles which can be used repeatedly for the purpose; and, moreover, that is cheap and simple of construction and not liable to get easily out of order by such repeated use.

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

The bottle-stopper described and shown, the same consisting of the cap A, the elastic water-proof filling a', and the swinging spring-frame B, the whole being constructed, arranged, and combined together, so as to operate, when applied to the mouth and neck of a bottle, substantially as described, for the purposes specified.

ELIAS D. MOYER.

Witnesses:

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