(Model.)

J. Q. HOUTS.

Bottle Stopper.

No. 234,035. Patented Nov. 2, 1880.

Fig. 1

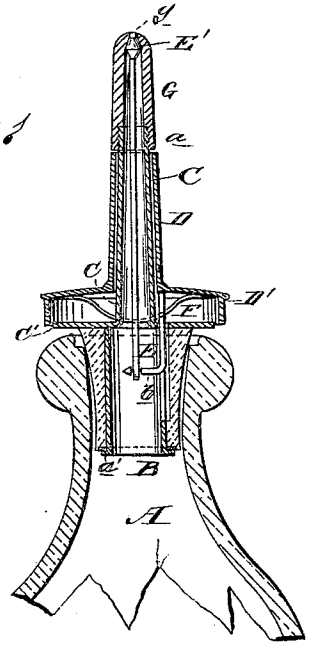
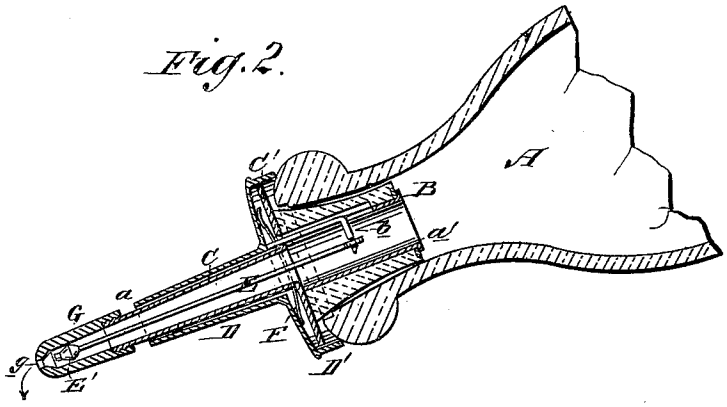


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN Q. HOUTS, OF SIOUX FALLS, DAKOTA TERRITORY.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 234,035, dated November 2, 1880.

Application filed September 21, 1880. (Model.)

To all whom it may concern:

Be it known that I, JOHN Q. HOUTS, of Sioux Falls, in the county of Minnehaha and Territory of Dakota, have invented a new and Improved Bottle-Stopper, of which the following is a specification.

The object of this invention is to provide an improved stopper that will prevent evaporation of the contents of a bottle and the access of insects or dust thereto, while it also admits of the pouring out of the said contents.

The invention consists of a flanged tube provided with a perforated screw-cap and of a larger spring-actuated flanged tube set over the first tube, and having an attached valve and valve-rod, by means of which the stopper is opened or closed.

Figure 1 is a vertical sectional elevation, showing the stopper in place in a bottle and closed. Fig. 2 is a sectional view of the stopper in a bottle, illustrating its position when the contents of the bottle are being poured out.

Similar letters of reference indicate corresponding parts.

In the accompanying drawings, B represents the cork of the stopper, having a tubular lining, *a'*; and C, a tube that is passed centrally down through the cork A, and is provided with a circular flange, C', which rests on top of the cork B. The upper end of said tube C is externally screw-threaded, as shown at *a*, for the reception of the perforated screw-cap G.

D represents the exterior tube set over the tube C, and provided at its bottom with a rimmed flange or cap, D', that fits over the flange C' and closes down on it when the stopper is open.

Projecting from the point of junction of the tube D and its flange D' downward into the hollow axis of the cork B is a rod, *b*, whose lower end is bent at right angles, and is clasped by the lower end of the vertical valve-rod E, which extends upward through the tube C to some distance above the top thereof, and carries on its upper end a conical valve, E'.

Between the flanges C' D', and resting on the former, is a spring, F, that serves to press the tube and flange D D' upward, and thereby hold the valve E' firmly closed in the opening *g* of the screw-cap G, which screw-cap G is screwed on the top of the tube C. When the said stopper is closed the spring F operates to hold the valve E' in the position shown in Fig. 1, and the upper end of the tube D against the lower end of the screw-cap G. Downward pressure of thumb or finger on the flange D' forces said flange D' and its tube D down against the action of the spring F, and the rod *b* being thereby forced downward carries with it the valve-rod E with the effect of removing the valve E' from the opening *g* of the screw-cap G, as shown in Fig. 2, and thereby permitting the contents of the bottle to be poured out.

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

As an improved article of manufacture, a bottle-stopper constructed substantially as herein shown and described, consisting of cork B, central flanged tube, C, having screw-threaded top, exterior tube, D, provided with rimmed flange D' and rod *b*, spring F, valve-rod and valve E E', and perforated screw-cap G, as set forth.

JOHN Q. HOUTS.

Witnesses:

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