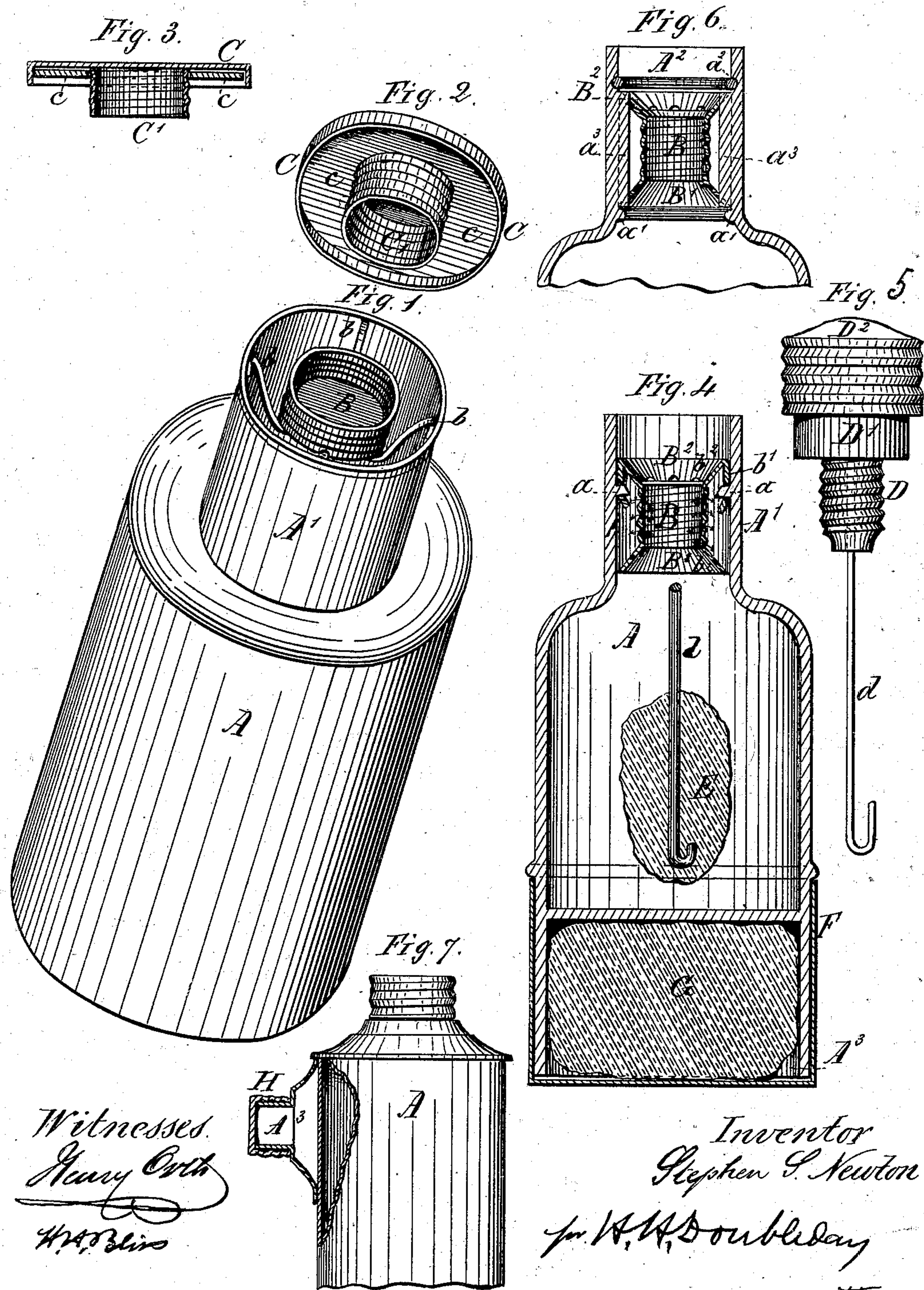


S. S. NEWTON.  
STOPPERS FOR MUCILAGE-HOLDERS.

No. 193,025.

Patented July 10, 1877.



Witnesses.  
Henry Orth  
H. A. Bliss

Inventor  
Stephen S. Newton  
per W. H. Doubleday  
att'y.



# UNITED STATES PATENT OFFICE

STEPHEN S. NEWTON, OF BINGHAMTON, NEW YORK.

## IMPROVEMENT IN STOPPERS FOR MUCILAGE-HOLDERS.

Specification forming part of Letters Patent No. 193,025, dated July 10, 1877; application filed March 29, 1877.

*To all whom it may concern:*

Be it known that I, STEPHEN S. NEWTON, of Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Bottle-Stoppers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of a vessel embodying the first part of my invention. Fig. 2 is the cover of the same. Fig. 3 is a vertical section of the cover. Fig. 4 is a vertical section of a bottle embodying the same part of the invention with other features. Fig. 5 shows a stopper intended for use in the bottle represented in Fig. 4; and Figs. 6 and 7 show modifications of a part of the devices found in Fig. 4.

One part of my invention consists in securing the covers of vessels by means of a screw-thread projecting from the central part of the cover, and engaging with a corresponding thread arranged centrally within the mouth of the vessel.

Another part of the invention consists in providing the vessel with a chamber or receptacle adapted to receive a sponge.

The invention further consists in certain details of construction, which will be explained.

A is the body of a bottle or other vessel adapted to contain liquids. A<sup>1</sup> is the neck. B is a female screw-thread arranged centrally within the neck. In Fig. 1 this screw-thread is formed in a socket having a closed bottom, and is secured in position by means of the rods or brackets *b*, in such manner as to leave a substantially unobstructed annular space between the socket and the neck of the vessel.

The upper edge of the socket B and the upper edge of the mouth of the vessel are in the same horizontal plane.

The cover is represented in Figs. 2 and 3, and consists of a cap, C, having a narrow flange or rim projecting downwardly, and a central screw-thread, C', which engages with the thread of socket B, and presses the cap firmly upon the edges of both the socket and the neck A<sup>1</sup>. I usually prefer to arrange an

elastic packing or gasket, *c*, to fill the space between the thread C' and the flange of the cover.

It will be seen that this construction is especially desirable for cans containing varnish and similar substance, because the packing *c* will not only prevent leakage from the can, but will prevent the varnish from entering the screw-threads, even though the can be inverted during transportation; hence the stopper can be readily removed at any time, and the varnish can be poured out through the annular space around the socket B without getting into the screw-thread; hence the stopper is especially adapted for use by painters or other consumers.

In Fig. 4 I have shown another method of securing the female thread in a bottle, in which the neck is provided, during the process of making, with lugs or spurs *a*, the thimble or socket B being made of sheet metal, and having straps or ears *b*<sup>1</sup>, which have holes near their lower ends. These ears are elastic, so that they will yield readily to pass over the lugs *a* until the lugs enter the holes, and thus support the thimble in place. The flanges B<sup>1</sup> B<sup>2</sup> on this thimble also assist in keeping it in position, the lower flange B<sup>1</sup> being notched at the proper points to pass over the spurs *a*.

In Fig. 6 the neck has an inwardly-projecting rib, *a*<sup>1</sup>, and a groove, *a*<sup>2</sup>. The lower flange B<sup>1</sup> rests upon the rib *a*<sup>1</sup>, and an elastic ring, A<sup>2</sup>, is sprung into the groove *a*<sup>2</sup> above the flange B<sup>2</sup>. A vertical rib, *a*<sup>3</sup>, projects from one or more sides of the neck, and engages with notches in the flanges B<sup>1</sup> B<sup>2</sup>. Thus, the thimble is rigidly held in position against motion in either direction.

The shank D of the stopper, Fig. 5, is screw-threaded to fit the thimble B, and the plug D<sup>1</sup> enters the neck of the bottle until the lower face of the top part D<sup>2</sup> rests upon the neck.

The construction shown in Figs. 4, 5, and 6 is intended more particularly for bottles containing liquid blacking, in which a shank, *d*, and sponge E are attached to the stopper-plug D D<sup>1</sup> D<sup>2</sup>, and when so used the thimble and its flanges should be provided with openings *b*<sup>2</sup>, to permit the return to the body of the bottle of such blacking as may be squeezed from the sponge during the passage of the sponge



through the thimble, as is more fully explained in my Patent No. 185,693.

Another part of my invention relates to the combination, with a bottle or other vessel for containing liquids, of a supplemental sponge contained within a receiver formed in one piece with the vessel, as shown at A<sup>3</sup> in Figs. 4 and 7. In Fig. 4 the sponge G is concealed from view by means of a cap, F, and in Fig. 7 by a screw-cap, H. This feature is also intended more particularly for blacking-bottles, and the dry sponge or supplemental sponge G is to be used for cleaning the articles before applying the blacking; but I do not wish to be limited to such use.

The male screw might be formed upon and project upward from a block or link secured in the position occupied by the socket B in Fig. 1; or a block might be secured at that point, and the cap C attached thereto by one or more screws passing through the cap and into the block, without departing from the spirit of my invention; hence I do not wish to be limited to the precise construction shown.

What I claim is—

1. In combination with the neck or discharge-opening of a vessel adapted to contain liquids, a stopper and a stopper-support ar-

ranged centrally of the opening, and to which the stopper is screwed, substantially as set forth.

2. A stopper-support arranged substantially as described, in combination with a stopper which packs or fits closely both the mouth of the vessel and the stopper-support, and prevents the liquid from passing either between the stopper and the mouth of the bottle, or between the stopper and its support, substantially as set forth.

3. A bottle-neck provided with an irregularly-formed inner surface, in combination with a screw-threaded thimble secured by said irregularly-formed surface, and a stopper having a screw-thread adapted to engage with the screw-threaded thimble.

4. A bottle provided with a chamber having a contracted throat or opening, adapted to receive and retain a supplemental cleaning-sponge, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

STEPHEN S. NEWTON.

Witnesses:

JEROME DE WITT,  
WM. DAVIS.