

(No Model.)

F. B. THATCHER.
BOTTLE STOPPER.

No. 574,013.

Patented Dec. 29, 1896.

Fig. 1.

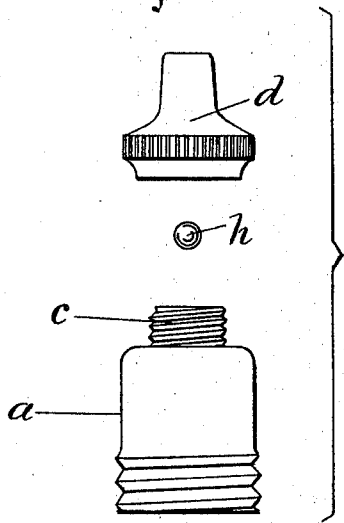


Fig. 4.

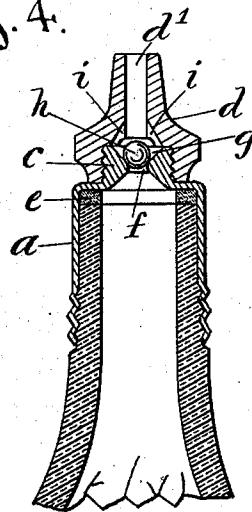


Fig. 2.

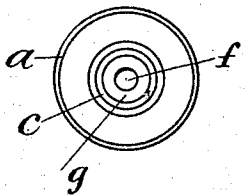


Fig. 3.

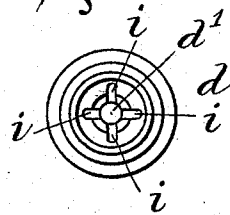
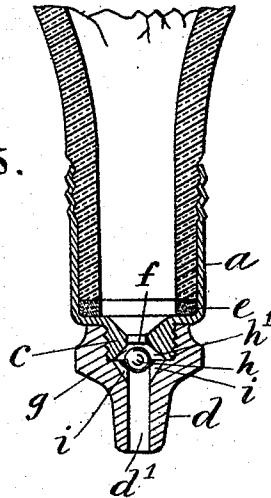


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

FREDERICK B. THATCHER, OF PAWTUCKET, RHODE ISLAND.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 574,013, dated December 29, 1896.

Application filed September 1, 1894. Serial No. 521,920. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK B. THATCHER, a citizen of the United States, and a resident of Pawtucket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

The object of my invention is to provide an improved stopper for use more especially on table utensils which are adapted to contain pepper-sauce or like condiments or sauces, provision being made for the automatic closing of the vent or outlet and also for a thorough cleaning of the stopper as a whole.

To this end my invention consists in details of the several parts making up the stopper as a whole and in the combination of the parts, as more particularly hereinafter described, and pointed out in the claim.

Referring to the drawings, Figure 1 is a detail view showing the several parts of the stopper located one above the other. Fig. 2 is a detail top view of the lower portion of the stopper. Fig. 3 is a detail bottom view of the upper section of the stopper. Fig. 4 is a detail view, in central section, of the stopper in place on a bottle. Fig. 5 is a detail view, in central section, of the same with the bottle and its stopper turned upside down.

In the accompanying drawings the letter *a* denotes the body-section of the stopper, having a thread by means of which it may be secured to a thread on the neck of a bottle, and also at the upper part a projecting stem *c*, provided with an exterior thread, to which the cap-section *d* of the stopper is secured. An annular packing *e*, preferably of cork, is located within the body-section, and it is compressed upon the edge of the bottle at the mouth by screwing the body-section onto the bottle in such manner as to thoroughly pack the joint between the parts. There is an outlet *f* formed through the stem, and it has a funnel-formed mouth or recess *g*, preferably shaped to fit the surface of a sphere or globe valve *h*, which rests within it. The cap-section *d* of the stopper has a recess in the lower surface and an interior thread fitting the thread on the stem, the interengaging parts

forming means for securely holding the two sections of the stopper together. The recess within the stopper forms a valve-chamber *h'*, the bottom surface of the top section having a spherical recess in which the spherical valve is adapted to rest when the stopper is reversed. Ports *i* are formed beyond the edge of the spherical valve, and they communicate with an outlet *d'* through the upper section of the stopper *d*. The valve-chamber *h'* is larger in diameter than the valve, so that when the bottle is inverted the fluid contents of the bottle can pass around the valve and out through the ports already described. The quantity of fluid which will pass in any given time is of course determined by the size and number of the ports. As soon as the bottle is again turned right side up the ball-valve falls into place and closes the outlet.

The stopper may be secured to the bottle-neck by any convenient means to prevent removal except when it is desired to get it off for the purpose of cleaning it. The several parts composing the stopper are so constructed as to particularly adapt the structure as a whole to be readily and thoroughly cleaned, and that forms one of the main advantages of the construction.

I claim as my invention—

In combination in a bottle-stopper consisting of a lower section secured to the neck of a bottle by means of interengaging screw-threaded parts and having a shoulder overlying the top of the bottle, an annular packing located between said shoulder and the top of the neck of the bottle, an upper section secured to the lower section by means of interengaging screw-threaded parts, a valve-chamber located between the sections, an opening extending through each section into the valve-chamber, projections located on the upper section and extending into the valve-chamber and forming ports therebetween, and a valve located in the valve-chamber and adapted to securely close the opening in the lower section and to rest against the end of the projections in the upper section when the bottle is inverted, all substantially as described.

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Witnesses:

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