T. M. MOORE.

BOTTLE STOPPER.

APPLICATION FILED FEB. 21, 1917.

1,340,237.

Patented May 18, 1920.

Fig. 1.

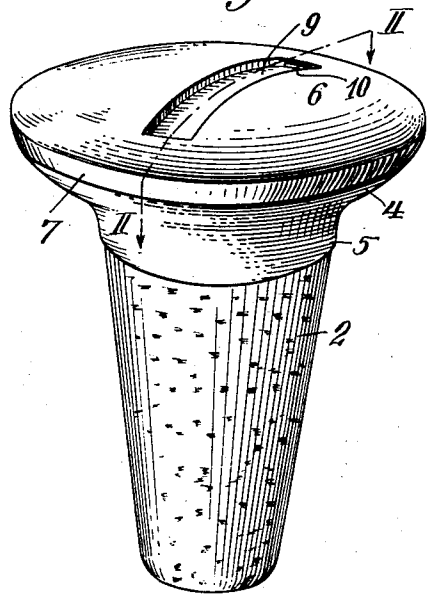


Fig. 2.

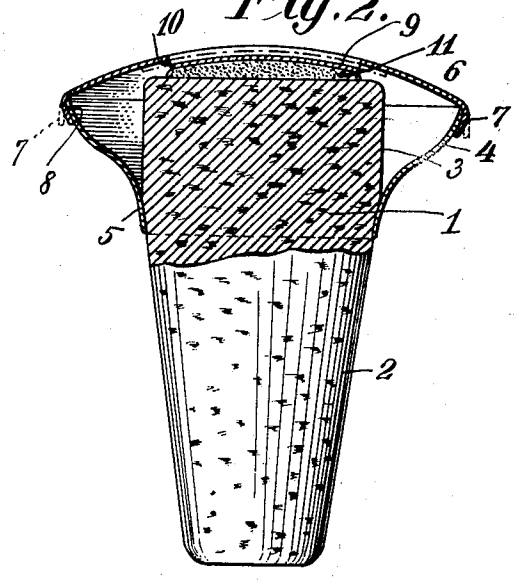
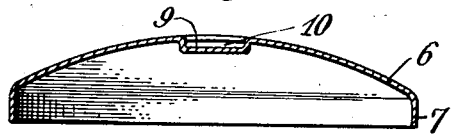


Fig. 4.



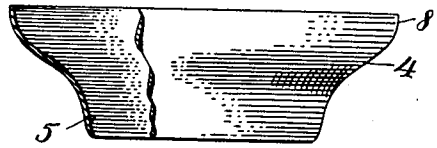


Fig. 5.

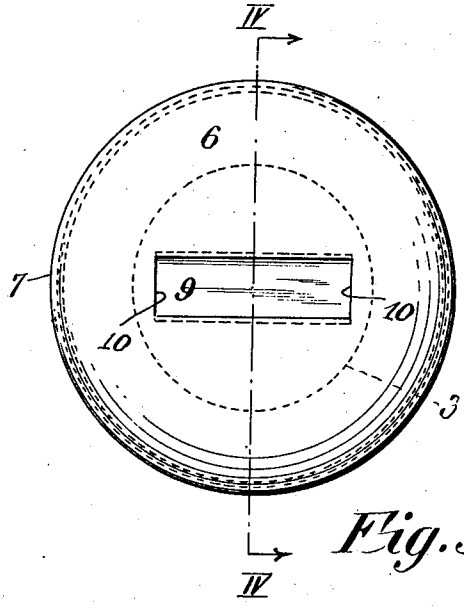


Fig. 3.

Thomas M. Moore Inventor

By his Attorney

Charles H. Wilson

UNITED STATES PATENT OFFICE.

THOMAS M. MOORE, OF NEW YORK, N. Y.

BOTTLE-STOPPER.

1,340,237. Specification of Letters Patent. Patented May 18, 1920.

Application filed February 21, 1917. Serial No. 150,064.

To all whom it may concern:

Be it known that I, THOMAS M. MOORE, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

This invention relates to an improved bottle stopper, and the process of producing the same.

One of the objects of the invention is to provide an improved bottle stopper consisting of a relatively resilient part adapted to effect the closure with a bottle and a handle part which is secured to the relatively resilient part, in such a way that the parts are held together in a firm and secure manner, whereby there is little danger of the parts becoming separated through use.

Another object of the invention is to provide improved means for positioning a label or other indicia of a stopper of the above type.

Another object of the invention is to provide a new and improved process for forming a stopper of the class described.

Other objects and aims of the invention more or less specific than those referred to above, will be in part obvious and in part pointed out in the course of the following description of the elements, combinations, arrangements of parts and applications of principles, constituting the invention; and the scope of protection contemplated will be indicated in the appended claim.

In the accompanying drawings which are to be taken as a part of this specification, and in which I have shown merely a preferred form of embodiment of the invention:

Figure 1 is a perspective view of my improved stopper.

Fig. 2 is a vertical sectional view taken on line II—II of Fig. 1.

Fig. 3 is a top plan view of the stopper.

Fig. 4 is a view in section of one of the parts which constitute the handle part of the stopper; and

Fig. 5 is a view in elevation, partly broken away, of the other part of the handle of the stopper.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Referring now to the drawings, the reference numeral 1 indicates the resilient part of the stopper, which in the present instance comprises a tapered part 2 of frusto-conical shape, and the cylindrically formed part 3. The material of this member is preferably resilient, and I have found that a high quality of cork is suitable for use in this relation. 4 indicates the lower part of the handle of the stopper, and as shown in Fig. 5, comprises a shell or ring dish-shaped, the lower and upper ends of said shell being open, and the lower end of said shell being provided with the inwardly inclined wall 5. This indicates the upper member or cap piece of the handle of the stopper, and is preferably shaped substantially as shown in Fig. 4 of the drawings. Cap piece 6 is provided with a rim 7 which is adapted to be formed about the upper end 8 of the member 4, as shown in Fig. 2 of the drawings.

In the present instance there is provided in the upper surface of the cap piece 6 a longitudinally shaped depressed portion 9, in the ends of which are formed slots, one of which is shown at 10, the purpose of which will be apparent hereinafter.

In forming the device with the parts as above described, the tapered portion 2 of the closure member 1, is pushed downwardly through the member 4, so that the cylindrical portion 3 will come into engagement with the inclined wall 5 of the member 4. In this connection it may be noted that the cylindrical part 3 of the closure member 1 is preferably made of a greater diameter than that of the lower end of the member 4, so that when the closure member 1 is pushed downwardly therethrough, as shown in Fig. 2, said closure member will be slightly compressed, as shown, whereby it will be held in fixed position by the engagement of its exterior surface with the inner wall of the member 4. Thus the closure member 1 and the member 4 are in tight frictional engagement.

A quantity of cement, indicated at 11, is then placed upon the upper end of the closure member 1, or in the depression of the cap piece 6, and these two parts are then firmly pressed together, so that the parts will take the position shown in Fig. 2, the rim 7 of the cap piece 6 occupying the position shown by the dotted lines. The pressing together of the parts, as shown in Fig. 2, will cause the cement 11 to establish a positive connection between the upper end of the

stopper of the closure member 1 and the cap piece 6. This operation will also determine the relative position of the stopper member 1 and the lower end of the member 4, as shown in Fig. 2, in which the lower end of the member 4 is shown as being in tight frictional engagement with the cylindrical part 3 of the closure member 1.

When the parts have been positioned as shown in Fig. 2, the rim 7 of the cap piece 6 is then bent about the upper end of the member 4, as shown in the full lines in Fig. 2, whereby the three parts of the stopper are firmly and positively connected together.

With the parts so positioned it will be noted that the stopper member 1 is positively connected to the cap piece 6 at its upper end, and at its intermediate portion is frictionally held and guided by the lower end of the member 4, and is therefore held positively against lateral or angular movement relative to the parts 6 and 7, which constitute the handle of the stopper.

In forming the cap piece 1 the slot or depressed portion 9 may be formed therein, also the slots 10, whereby a strip of material such as celluloid, bearing the name of the fluid which is to be dispensed from the container upon which the stopper is employed may be written or printed. It will be noted that the opposite end of this strip may be inserted in the slot 10, whereby the strip will be fixedly positioned in the stopper.

Having thus described the construction of my invention, it may be observed that the same may be produced in a very economical manner. The cap piece 6 and the dish-shaped member 4 may be made by stamped metal and fastened together by simple bending or forming operation, as shown in Figs. 1 and 2, whereby the three parts of the device are firmly attached together, assuming that the cement 11 has been positioned between the upper end of stopper member 1 and the cap piece 6.

The tapering shape of the stopper member 3 enables the device to be used with receptacles having necks of various sizes, and the resilient character of the material of the stopper member enables the stopper member to be pressed in the neck of the receptacle with such degree of pressure as will establish a tight seal.

As many changes could be made in this construction without departing from the scope of the following claim, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative only and not in a limiting sense.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

A device of the type described, including a closure comprising a cap-like member, a resilient stopper-member having a lower tapering portion, the upper portion thereof being of plane annular outline, said cap-like member being formed of a lower inwardly tapering hollow portion adapted to be compressibly engaged with the resilient stopper-member, the upper portion of said cap-like member being spaced off from the upper end of said resilient stopper member, said cap-like member having a central depressed portion, and an adhering means of connection between said cap-like depressed portion and the upper end of said resilient stopper-member.

In testimony whereof I affix my signature in the presence of two witnesses.

THOS. M. MOORE.

Witnesses:
CHARLES M. PATTERSON,
H. P. BROWNING.