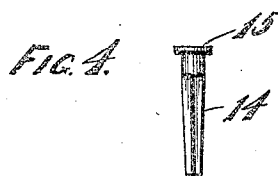
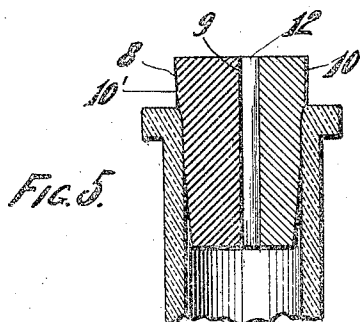
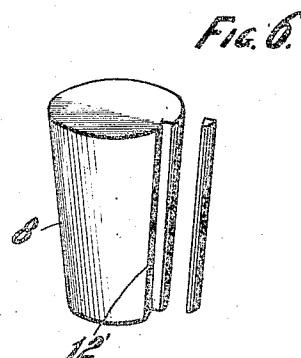
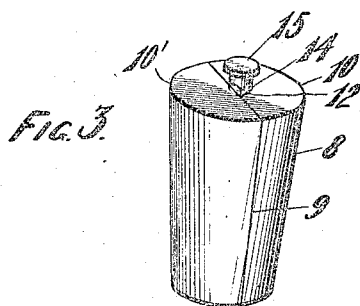
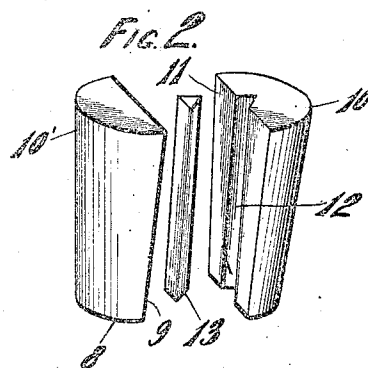
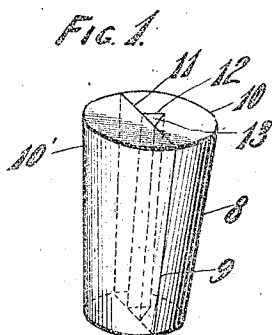


L. H. RATHKE.
BOTTLE STOPPER.
APPLICATION FILED APR. 18, 1914.

1,205,017.

Patented Nov. 14, 1916.



WITNESSES.

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LOUIS H. RATHKE, OF MILWAUKEE, WISCONSIN.

BOTTLE-STOPPER.

1,205,017.

Specification of Letters Patent.

Patented Nov. 14, 1916.

Application filed April 18, 1914. Serial No. 832,735.

To all whom it may concern:

Be it known that I, LOUIS H. RATHKE, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Bottle-Stoppers, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to improvements in bottle stoppers more particularly adapted for use in bottles containing liquid or powdered material which is dropped or otherwise discharged in small quantities from the bottles.

It is one of the objects of the present invention to provide an improved bottle stopper which is designed particularly for use in connection with bottles containing perfumery, tooth washes or powders, condiments or other materials of liquid or powder form, whereby the contents of a bottle may be discharged through the stopper in small quantities from the bottle or other receptacle after the sealing means has been removed.

A further object of the present invention is to provide a bottle stopper which is adapted to seal a bottle opening to permit the sale of the bottle in the usual manner and the stopper is so constructed that the purchaser may withdraw the stopper from the bottle and remove a certain portion thereof and upon replacing the stopper the contents of the bottle may be discharged in small quantities.

A further object of the invention is to provide a bottle stopper so constructed that when used in connection with bottles containing material which may become weakened or affected by exposure to air, the discharge opening of the stopper may be temporarily closed when the bottle is not in use.

A further object of the invention is to provide a bottle stopper which does not require any more material in its construction than is required in an ordinary cork stopper.

A further object of the invention is to provide a bottle stopper which is of simple construction, is inexpensive to manufacture and is well adapted for the purpose described.

With the above and other objects in view, the invention consists of the improved bottle stopper and its parts and combinations

as set forth in the claims and all equivalents thereof.

In the accompanying drawing in which the same reference characters indicate the same parts in all of the views: Figure 1 is a perspective view of the improved bottle stopper; Fig. 2 is a similar view thereof with portions of the stopper separated to illustrate the construction thereof; Fig. 3 is a perspective view of one of the stoppers provided with a means for plugging the discharge opening when not in use; Fig. 4 is a side view of the plug member; Fig. 5 is a vertical sectional view of the upper end of a bottle provided with the improved stopper, the stopper also being shown in section, and Fig. 6 is a perspective view of a modified form of stopper, a portion of the stopper being separated from the main body to illustrate the construction thereof.

Referring to the drawing the numeral 8 indicates the improved stopper which, while preferably formed of cork, may also be formed of any other material desired. The stopper is of the usual tapered contour and is divided medially, vertically, by a straight cut 9 into two sections 10 and 10' which, when pressed tightly together by insertion within the mouth or opening of a bottle or other receptacle, will form a liquid tight joint. The inner face portion 11 of the half section 10 is cut longitudinally to form a V-shaped groove 12 and an elongated plug 13 of triangular shape in cross section. It is obvious that grooves and plugs of other cross sectional shapes may be used without departing from the spirit and scope of the invention. The plug is formed by two clean longitudinal cuts so that when the plug is replaced in the groove and the two half sections are placed together and inserted within the mouth of a bottle, the plug will fill up and seal the groove. If desired, the triangular plug may be colored a different tint from the color of the stopper in order to indicate to the user the part to be removed.

When a bottle provided with the improved stopper is filled and placed upon the market it is only necessary for the purchaser to withdraw the cork and separate the half sections and remove the plug. The two sections are then replaced in the bottle opening and the groove provides an orifice for discharging the contents of the bottle in minute quantities, as desired.

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A metal plug 14 having an enlargement or head 15 is adapted to be inserted in the orifice to removably close the orifice when the bottle contains a material which might deteriorate by exposure to the atmosphere. The plug is tapered to form a tight joint and is of a form to fit the groove.

In the modified form shown in Fig. 6 the stopper is formed in one piece and the groove 12' is formed on the side of the stopper and the plug 13' is substantially the same as the plug cut from the medial portion of the stopper. This form of stopper is used in substantially the same manner as the form first mentioned.

From the foregoing description it will be seen that the stopper is well adapted for the purpose described.

What I claim as my invention is:

1. A receptacle stopper, consisting of a cylindrical piece of material provided with a groove extending longitudinally of its length and having a plug portion formed in cutting said groove removably filling said groove.

2. A receptacle stopper, comprising a cylindrical piece of material, and a plug of triangular shape in cross section cut from one longitudinal side portion of the piece of material to form a triangular shaped groove which is removably filled by the plug cut therefrom.

3. A receptacle stopper, consisting of a cylindrical piece of material divided longi-

tudinally into two sections, one of said sections having a longitudinally extending groove provided in its inner face to form a discharge orifice.

4. A receptacle stopper, comprising a cylindrical piece of material divided longitudinally into two sections, and a longitudinally extending plug cut from the inner face of one of the sections to form a groove which is removably filled by the plug.

5. A receptacle stopper, comprising a cylindrical piece of material divided medially, longitudinally into two sections, the inner face of one of the sections being provided with a longitudinally extending V-shaped groove to form a discharge orifice, and a plug of triangular shape in cross section removably filling said orifice.

6. A receptacle stopper, comprising a cylindrical piece of material divided medially longitudinally into two sections having abutting inner flat faces, one of said inner faces being provided with a longitudinally extending V-shaped groove to form a discharge orifice between the two sections, and a plug of triangular shape in cross section removably filling said orifice.

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

LOUIS H. RATHKE.

Witnesses:

KATHERINE HOLT.
C. H. KEENEY.