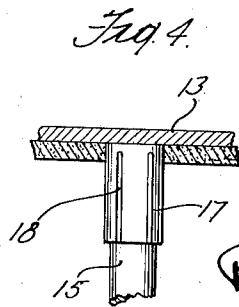
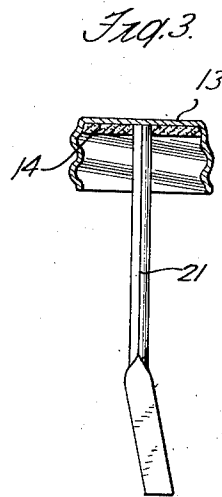
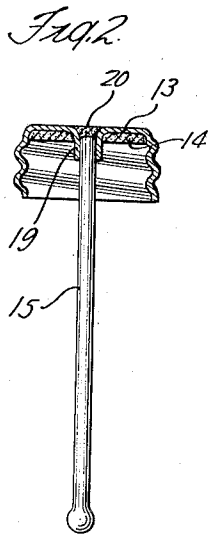
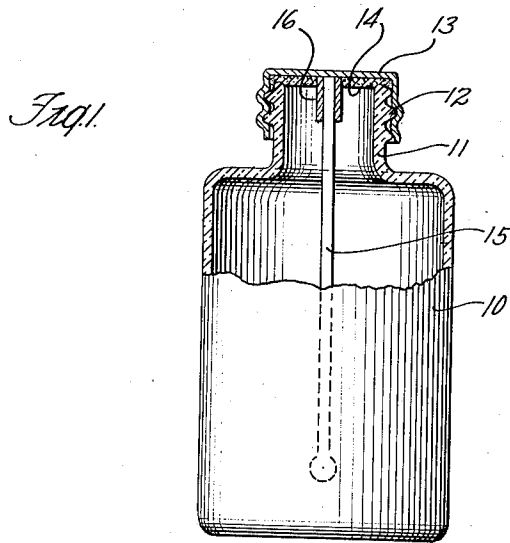


May 14, 1929.

T. A. HART
APPLICATOR

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INVENTOR
Thomas A. Hart
BY
Robert S. Blair ATTORNEY

UNITED STATES PATENT OFFICE.

THOMAS A. HART, OF DANBURY, CONNECTICUT.

APPLICATOR.

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This invention relates to applicators and more particularly to a closure for a bottle or the like combined with an applicator for applying the contents of the bottle.

5 One of the objects of the invention is to provide a device of the above nature which is practical and efficient. Another object is to provide a device of the above nature which affords a highly satisfactory and dependable
10 seal for a bottle or other container combined with a convenient means for applying the contents of the bottle. Another object is to provide a device of the above nature which is simple and very inexpensive. Other ob-
15 jects will be in part obvious or in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts as will be
20 exemplified in the structure to be hereinafter described and the scope of the application of which will be indicated in the following claim.

In the accompanying drawing showing various possible embodiments of this inven-
25 tion,

Figure 1 shows a glass bottle with closure and applicator, the upper portion being shown in section;

30 Figures 2 and 3 show modified constructions, and

Figure 4 shows in larger detail parts which may be employed in a form similar to that shown in Figure 1.

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

Referring now to Figure 1 of the drawing in detail, there is shown a container 10 which
40 is a glass bottle or jar. The neck 11 of the bottle is provided on its outer surface with threads 12 to receive a screw cap 13. This cap 13 is of metal and is preferably stamped from sheet metal, the threads to coact with
45 the threads 12 being formed in the stamping process. Against the inner surface of the cap 13 is a packing member 14 which may be of cork or paper or the like, and which comes snugly against the upper edge of the
50 bottle neck when the cap is threaded into place.

The bottle 10 is adapted to hold a liquid, such as a medicinal preparation, for example, collodion or iodine or the like. The
55 metal screw cap 13 with its packing 14 af-

fords a very satisfactory and dependable seal for the bottle. Moreover, this form of cap is very convenient to use and is always easily removable for use of the contents of the bottle. The dependable seal which is effected
60 by this cap prevents evaporation and loss of the bottle's contents. The cap will not stick and adhere to the bottle in case the contents are of an adhesive nature, and it is hence much more satisfactory and serviceable than
65 a cork or other form of stopper which enters the neck of the bottle and frequently adheres so tightly that it cannot be removed without being broken.

Still referring to Figure 1, projecting
70 downwardly into the bottle from the cap 13 is an applicator 15 for applying the contents of the bottle. This applicator is preferably made of glass, taking the form of a glass
75 rod. The upper end portion of this glass rod is embraced and gripped by a metal tube 16 which depends from the inner surface of the metal cap 13. This tube 16 may be se-
80 cured to the metal cap conveniently by soldering. Its inner walls closely fit the glass rod 15, and the applicator is thus dependably fastened to the cap. The packing 14 resting
85 against the inner surface of the cap extends about the tube 16 and thus takes the form of a ring or washer. The outer surface of the tube 16 assists in holding this packing ring or washer in place.

It will be seen that this construction just described is distinctly advantageous. A closure of the most efficient type is provided
90 for the bottle and at the same time there is had a most convenient means for using or applying the liquid contents of the bottle. When the cap is removed a small quantity
95 of the liquid adheres to the applicator and may be applied as desired. When the cap is replaced and threaded down into position, the bottle is effectively sealed and the contents thereby protected from loss by evaporation.
100

Instead of a solid tube, such as shown in Figure 1, the tube may take the form shown
105 in Figure 4. The tube 17 shown in Figure 4 is soldered or otherwise secured at its end to the metal cap 13, and the major portion thereof is split by longitudinal slots 18. The tube may be so shaped that the portions between the slots tend to spring inwardly toward each other, and hence they securely grip
110 the end portion of the glass applicator 15.

If the applicator should become broken, a new one could be slipped in place within the gripping fingers of the tube 17.

In Figure 2 there is shown a modification of this construction. The tubular portion which grips the upper end of the glass applicator 15 is shown at 19 and, in this instance it is made integral with the sheet metal cap 13. The depending tubular part 19 may be formed when the cap is stamped out. After the glass applicator 15 has been inserted in the part 19 and gripped thereby, the upper end thereof is preferably covered by solder 20, or a suitable wax may be employed for this purpose. The solder or wax 20 insures that the closure made by the cap will be tight, and at the same time the upper surface of the cap is left smooth and even.

In Figure 3 there is shown a metal screw cap adapted for use upon a bottle or jar containing glue. In this instance a metal applicator 21 is employed. The upper end of this metal applicator is preferably secured directly to the inner side of the cap 13 as by soldering. With this construction, the glue is always conveniently accessible for use and the screw top affords a tight seal which protects the glue from drying up. The applicator, being fastened to the screw top and removed from the bottle therewith, is very convenient to use and the glue may be applied without danger of its coming into contact with the hand.

From the foregoing, it will be seen that there are herein provided, constructions which achieve the objects of this invention and accomplish advantages of real practical value. The constructions are very simple

and inexpensive and may, therefore, be supplied with each bottle or jar without adding appreciably to the cost.

As many possible embodiments may be made of the above invention and as many changes might be made in the embodiment above set forth, it is to be understood that all matter hereinbefore set forth or shown in the accompanying drawing, is to be interpreted as illustrative and not in a limiting sense.

I claim as my invention:

A device of the class described comprising, in combination, a metal cap for a bottle or the like consisting of a substantially flat and imperforate top portion and a depending peripheral flange adapted to embrace an upper portion of the bottle neck and having means for cooperating with a projection thereon to hold the cap in place, a non-corrosive applicator for the contents of said bottle comprising a rod of glass, a tubular metal part connected to the middle portion of and projecting downwardly from the inner side of said top portion of the cap and embracing and gripping an end portion of said glass rod, said tubular part rigidly holding said rod by its gripping action, and a packing washer separate from said cap and from said tubular metal part resting against the inner side of the top portion of said metal cap between said tubular part and said peripheral flange and held in place thereby.

In testimony whereof, I have signed my name to this specification this 7th day of January, 1927.

THOMAS A. HART.