

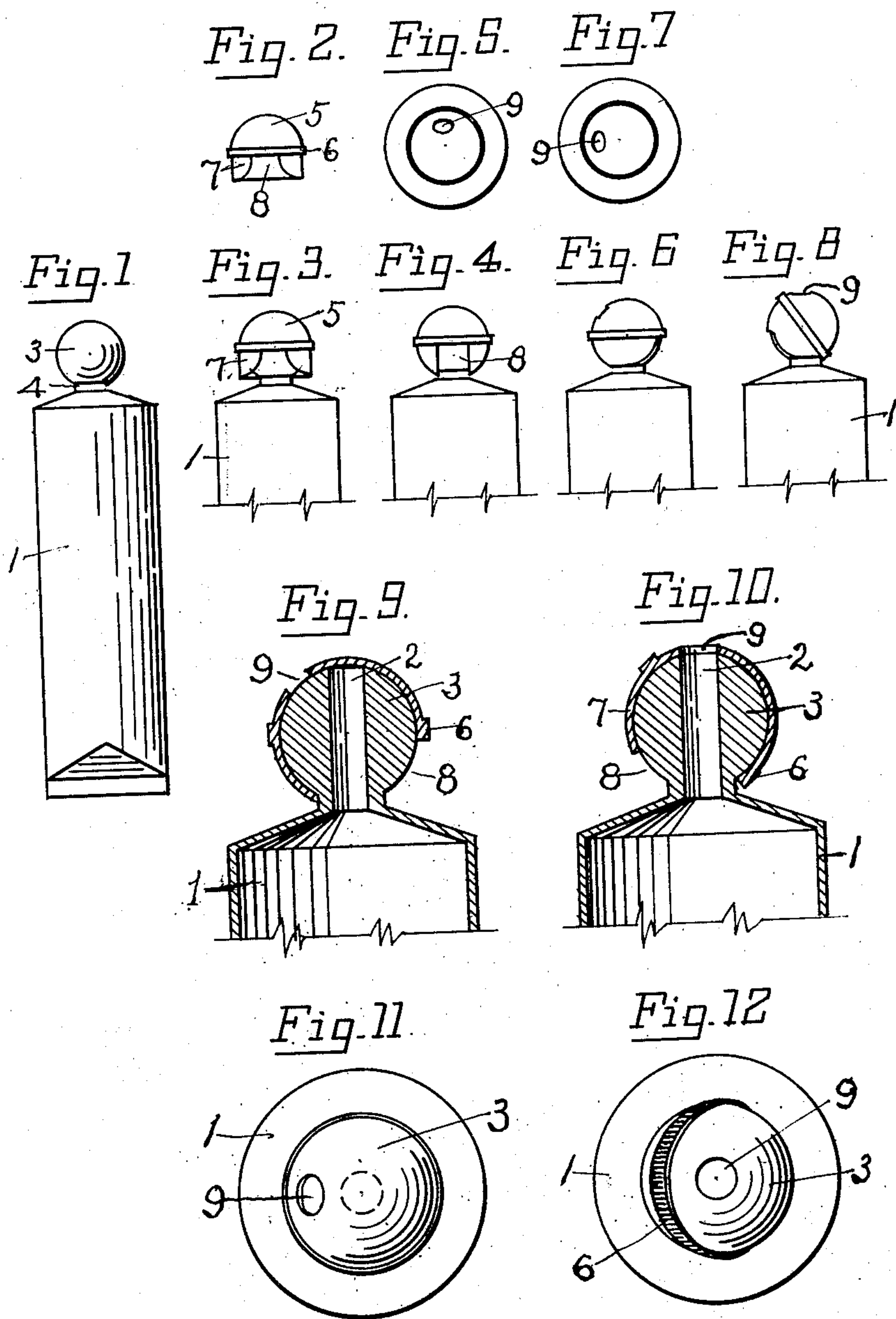
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PASTE TUBE OUTLET

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PASTE TUBE OUTLET

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1. Claim. (Cl. 221-60)

This invention relates to outlets for containers, and more particularly for collapsible tubes such as are used for marketing tooth paste, shaving cream and other cosmetics and compositions that are of a pasty consistency, and to means for closing and opening the outlets for such containers.

The object of this invention is to provide an outlet and means for closing and opening the same by a valve-like device that will take the place of the detachable screw threaded cap now generally used upon containers and collapsible tubes which are formed with a screw threaded discharge orifice of their own.

Another object of the invention is to provide an inexpensive device for closing and opening a discharge outlet which cannot be removed from the container; a device which can be quickly and easily opened and closed, which when closed will perfectly seal the outlet and which when opened, will permit the paste to be expelled from the tube easily and in a clean and convenient manner.

I attain these and other objects as hereinafter described and as illustrated in the accompanying drawing, in which:—

Figure 1 shows an ordinary form of a cream paste tube having a discharge outlet through a small globular extension head instead of the screw threaded extension now commonly used; Fig. 2 shows a dome-like cap designed to be fitted on and around the globular extension; Fig. 3 shows the cap set in place, and Fig. 4 shows the cap crimped in place on the globular extension, thus securely closing the outlet; Fig. 5 shows a top view of Fig. 4 and Fig. 6 shows a side view of Fig. 4; Fig. 7 is a top view of Fig. 6; and Fig. 8 shows the cap turned to the position for opening the discharge outlet.

Each of these figures is approximately full size.

Figures 9 and 10 are enlarged vertical central sections of Figs. 6 and 8 respectively; and Figs. 11 and 12 are enlarged top views of 6 and 8 respectively.

Similar characters refer to similar parts in each of the several views.

Referring to Figs. 1 and 9, it will be seen that the paste tube 1 is made with a discharge outlet 2 through a small globular extension head 3 and a neck connection 4 between. The dome-like cap 5 has a milled annular reinforcing rib 6 at its base as seen in the several figures. A short skirting 7 extends downward from this base rib with an opening 8 in one side sufficiently wide to freely permit a rotating movement after the cap is fitted in place on the globular extension head 3.

The dome-like cap 5 is designed to neatly fit and to be set down over the globular head 3 as shown in Fig. 3 and the skirting 7 smoothly crimped around the lower part of the head and freely about the neck 4 as shown in Fig. 4. In the cap 5 and directly opposite the opening 8 is made a hole 9 corresponding in size with the outlet opening 2 which is designed to register with the same when the cap is rotated to one side as shown in Figs. 8, 10 and 12. This position will permit the paste within the tube 1 to be easily pressed out till the desired amount is obtained and used. The cap is then rotated back to the position shown in Figs. 6, 9 and 11 and the tube is again securely closed and sealed. It is believed this clearly describes the construction and operation of the invention.

It is to be observed that there is no limit as to the form and size of the discharge outlet 2 and the hole 9. They may be round, square, oblong or rectangular in section whereby any form of discharge ribbon desired may be secured.

It is to be observed that the skirting 7 crimped around the neck 4 and the lower part of the head 3 will be sufficiently elastic to let the cap 5 be easily rotated thereon, but will also hold the same securely in place and insure a perfect seal for the tube outlet. It is also to be observed that the milled annular rib 6 will provide a grip surface whereby the cap can be easily rotated to one side and back again as described. It is to be further observed that the cap being spherically mounted on the head 3 will be self pivoted and self centered and the hole 9 will always register with the tube outlet 2 when rotated to the proper angle as shown in the drawing. And further, it will be seen that the cap in place will be spherical in form and there will be no liability of its being rotated by any ordinary contact, such as being packed in a traveling bag and the like.

The outlet head and cap may be made from any suitable metal now commonly used in the manufacture of paste tube outlets. The construction is purposely made of the most simple form so as to be cast and stamped in quantity production. The invention provides a well known need in that it will do away with the tedious screw caps now in general use for closing paste tube outlets.

I am aware that various devices have been invented to attain the objects of this invention, but I know of none that appear to be as simple and practical as the device herein described and shown.

I therefore claim:—

The combination with a collapsible paste tube

of the class described, said tube having a discharge
outlet at its upper end and in central alinement
therewith, of a short neck with a globular head
thereon incircling the said outlet, a dome-like
5 cap rotatively mounted on the said globular head,
a milled annular reinforcing rib at the base of
the said cap, a port hole at one side of the said
cap and near the said rib, said hole conforming
in size and form with the outlet opening to the
10 said paste tube, a downwardly extended skirting

below the said annular rib, said skirting loosely
crimped around the said neck and the lower part
of the said head, and said skirting having an
opening in one side thereof and opposite the said
port hole whereby the said cap is made to rotate 5
in transverse alinement with the axis of the said
discharge outlet and thus open and close the same
with perfect registration.

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