

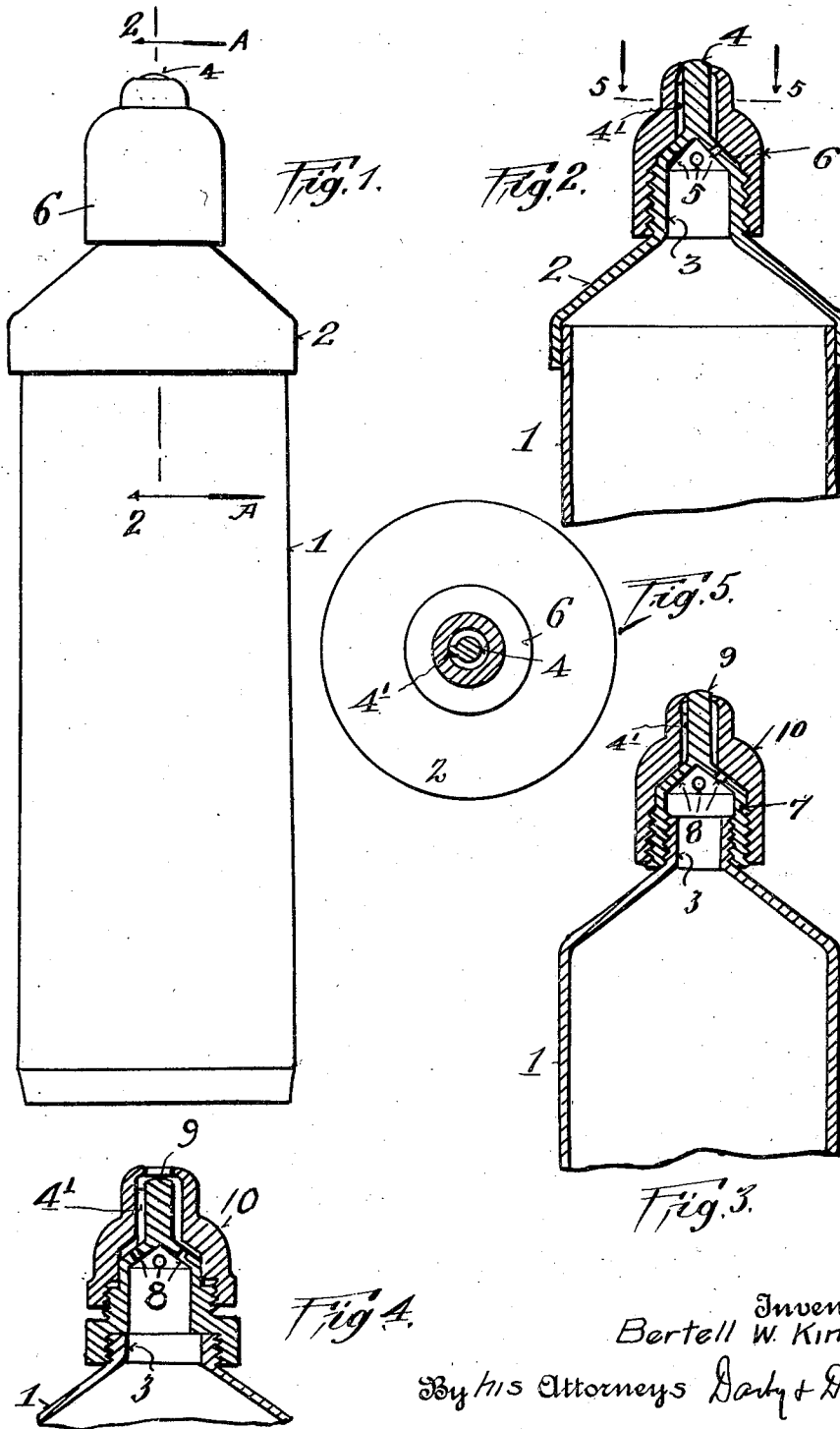
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B. W. KING

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CLOSURE

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UNITED STATES PATENT OFFICE.

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CLOSURE

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This invention relates broadly to a novel closure means for containers.

One of the objects of this invention is the production of a closure or cap of novel construction for containers which is relatively simple in construction and in operation.

A still further object of this invention is the provision of closures for containers which are adapted to prevent the material in the container from hardening so that the passages are stopped up during the period when the structure is closed.

These and many other objects as will appear from the following description are obtained by means of this invention.

This invention resides substantially in the combination, construction, location and relative arrangements of parts, as will appear from the following disclosure.

Referring to the drawings in which the same reference numerals will be used throughout the several views to indicate the same or similar parts,

Fig. 1 is a side elevational view of a container employing closure means;

Fig. 2 is a cross-sectional view taken on the line 2—2 of Fig. 1, looking in the direction of the arrows.

Fig. 3 represents a vertical cross-sectional view in a modified form of closure device.

Fig. 4 represents a cross-sectional view of the same form showing the cap partially removed, and

Fig. 5 is a cross-sectional view of the cap structure taken on the line 5—5 of Fig. 2 looking in the direction of the arrows.

My novel construction is particularly adapted for use on containers for holding paste and other semi-fluid materials, such as shaving soap, tooth paste, skin lotions, creams, glue, etc. By means of this construction it is possible to prevent the hardening of the material in the passages of the closure means during the inoperative period of the container.

In the drawings the container is shown at 1 with a suitable cap member secured thereto in any suitable manner having a threaded integral extension 3 which is hollow and which is provided with a series of openings 5 through the walls thereof. An extension 4, which may be of any suitable cross-section, preferably circular, projects from the end of the hollow portion 3. The extension 4 has a projecting wing or spline

4' extending throughout a portion of its length above its surface a sufficient distance so as to provide a sliding contact with the surface of the bore extending through the cap 6. By this construction, when the cap 6 is rotated, the spline or wing 4' tends to scrape the surface of the bore clean, so as to remove any of the pasty material which may have become hardened within the passage. This provides a convenient construction for preventing any stoppage of this passage. An internally threaded cap 6, having a central passage therein, is adapted to engage the threads on the hollow portion 3, and when it is closed, the projection 4 extends into the opening in the cap to seal it off. The portion of the walls through which the holes pass is conical and a similar conical surface on the inside of the cap engages with it to secure the holes 5. The cap when rotated permits the ejection of the contents of the tube without being removed.

A slightly modified arrangement is shown in Figs. 3 and 4, where the container 1, as is usually sold, has the hollow threaded projection 3, on which the usual cap is secured. By means of this modification, this cap is removed and discarded and a hollow internally and externally threaded member 7 is screwed thereon. This member has a series of holes 8 through the wall thereof and has the integral extension 9. An internally threaded cap 10 screws on to the external threads of the member 7, and has a passage extending therethrough into which the projection 9 protrudes when the cap is seated. This same construction is shown in Fig. 4, where the cap has been loosened, so that the material in the container may be forced out through the hollow member 7 and its holes into the passage in the cap 10, and out through the opening at the top thereof. In constructions shown in Figs. 3 and 4 the contents of the tube cannot reach the threads because of the cylindrical contact between the cap 10 and the hollow member 7.

It will be evident from the foregoing description that I have provided a new and novel closure cap employing novel principles which I consider to be the essence of my invention.

I do not, therefore, desire to be limited to the particular construction shown for purposes of illustration but rather to the inven-

tion, as it is defined in the appended claims:
What I seek to secure by United States
Letters Patent is:

1. The combination with a tube container
5 for pastes having a threaded projection with
a conical seat and holes in said seat, an ex-
tension on said projection and cleaning
means forming part of said extension, of a
hollow cap for engaging said projection and
10 extension, said cap seating on said conical
seat and said cleaning means being arranged
to wipe the interior of said cap clean.

2. The combination with a paste container,
of a closure for said container having a plu-

15 rality of openings in a seat formed thereon
and a cylindrical projection on said closure,
of a hollow cap having an opening at one
end smaller than the passage therein to re-
ceive said projection and means on said pro-
jection for cleaning the interior of said cap 20
during the closing operation, said projec-
tion closing the hole on said cap when it is
moved to closed position.

In testimony whereof I have hereunto set
my hand on this 25 day of October, A. D. 25
1926.

BERTELL W. KING.