Jan. 13, 1925. 1,522,975

C. O. PHILLIPS

CONTAINER FOR PASTES, ETC

Filed June 6, 1922

Fig. 2,

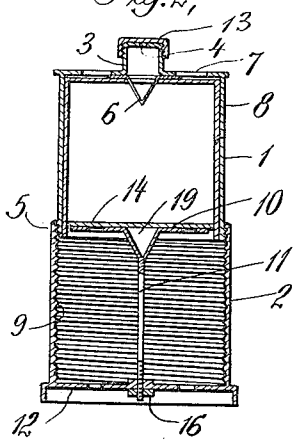


Fig. 1,

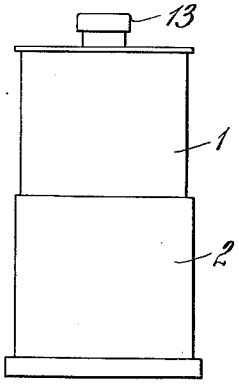


Fig. 5,

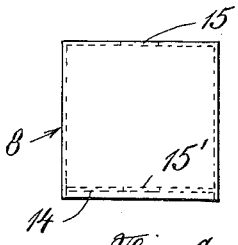


Fig. 6,

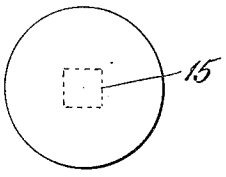


Fig. 3,

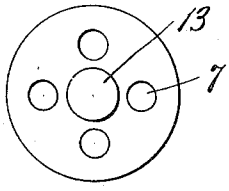


Fig. 9,

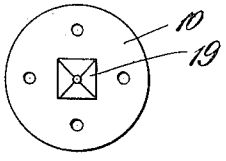


Fig. 7,

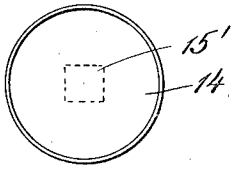


Fig. 4,

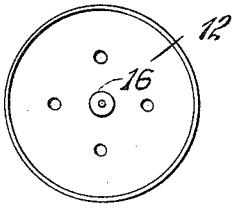


Fig. 8

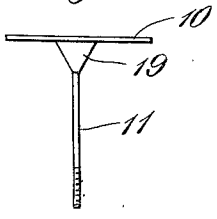


Fig. 10,

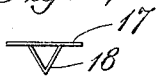
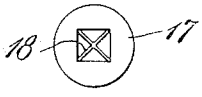


Fig. 11



INVENTOR

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BY

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ATTORNEY

Patented Jan. 13, 1925. 1,522,975

UNITED STATES PATENT OFFICE.

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CONTAINER FOR PASTES, ETC.

Application filed June 6, 1922. Serial No. 566,382.

To all whom it may concern:

Be it known that I, CECIL O. PHILLIPS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Containers for Pastes, Etc.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to composite containers, and more particularly to containers comprising an outer casing adapted to receive a removable carton. The principal object of the invention is to provide an improved container for pastes, creams, or other semi-fluid substances having a thick consistency. A further object is to provide a container for semi-fluid substances, by means of which the substance may be forced out of the container as desired.

The improved container comprises an outer casing consisting of a top portion, and a bottom portion engaging the top portion by means of screw threads, and a removable carton which may be inserted in the outer casing. The top portion of the outer casing comprises a cylindrical shell closed at the top and having a neck or projection extending outwardly therefrom. An orifice is provided in the end of the neck portion, through which the substance in the container may be forced. Threads are provided on the outside of the top portion near the bottom edge thereof. The bottom portion of the outer casing comprises a cylindrical member having threads on the inner surface thereof adapted to engage the threads on the outer surface of the top portion. A suitable piston or plunger is provided within the bottom portion, the rod or stem of the plunger being supported by the lower end of the bottom portion of the casing.

The removable carton, which is adapted to be inserted into the outer casing, comprises a cylindrical container made of waxed paper, cardboard, or other suitable material. This carton is just large enough to fit snugly inside the top portion of the outer casing. Each end of the carton is provided with a portion which may be easily perforated. A means is provided in the upper portion of the outer casing for perforating the top of the carton. The piston or plunger, above referred to, fits against the bottom of the carton, and when the bottom portion of the outer casing is turned relative to the top portion, the piston advances with the bottom portion and forces the paste, or other similar substance, out of the carton through the perforation in the top thereof and through the orifice.

The present invention provides a container having an outer casing which may be made of metal, or other suitable rigid material, and this outer casing may be expensive in comparison with the material contained therein, since the outer casing may be used indefinitely. Furthermore, the cost of the paste, or other similar compound, is materially reduced since it may be sold in a comparatively cheap carton made of paper, or other similar material.

The above advantages, including the feature of providing a means whereby the paste is readily accessible at all times, and numerous other advantages will be apparent from the following description which is to be taken in conjunction with the accompanying drawing.

In the drawing:

Fig. 1 shows a side elevation of the improved container;

Fig. 2 shows a vertical section of the container;

Fig. 3 shows a top plan view of the container of Fig. 2;

Fig. 4 shows a bottom view of the container of Fig. 2;

Figs. 5, 6 and 7 show, respectively, a side elevation, top view, and bottom view of the carton;

Fig. 8 shows an elevation of the piston or plunger;

Fig. 9 shows a top view of the plunger shown in Fig. 8;

Fig. 10 shows a side view of the open

cone or pyramid which is provided for the purpose of perforating the top of the carton; and

Fig. 11 shows a top view of the cone shown in Fig. 10.

By referring to the drawings it will be noted that the outer casing of the container comprises a top portion 1, and a bottom portion 2, the top portion having a neck 3 in the upper end thereof, this neck being provided with an orifice 4. Threads 5 are provided near the lower edge of the upper portion 1. An open cone 6 is provided near the neck 3 of the upper portion 1 of the container. If it is so desired, a plurality of holes 7 may be provided around the neck 3, these holes being normally closed by the top surface of the carton 8 which fits snugly on the inside of the portion 1.

The bottom portion 2 of the outer casing comprises a cylindrical shell having screw threads 9 on the inside thereof, these threads being adapted to engage the threads 5 on the upper part 1 of the outer casing.

A plunger or piston 10 is provided, the stem 11 of the plunger being mounted in the bottom 12 of the lower portion 2 of the outer casing. The stem 11 may be rigidly secured to the bottom 12, as by the threaded nut 16, or it may be loosely mounted so that it may remain stationary when the lower portion of the casing 2 is turned. The face of the plunger 10 contacts with the bottom surface of the carton 8, and when the lower portion 2 of the outer casing is turned relative to the upper portion 1, this plunger 10 displaces the bottom of the carton 8, thus forcing the contents of the carton out through the open cone 6 and orifice 4. As shown in the drawings, a cap 13 is provided on the top of the neck 3, covering the orifice 4. This cap is, of course, removed when the container is used.

The removable carton 8 comprises a cylindrical container which may be made of waxed paper, fibre material, or other suitable material. The shell or body of the carton may be made of metal, if it is so desired, and a portion of each end may also be made of metal. The bottom portion of the carton is preferably located at a point above the lower edge of the body portion or shell of the carton, this being clearly shown in Figs. 2 and 5. The portions 15 and 15′ of the carton are made of material which may be easily punctured by a blunt instrument. For example, the center of the top of the carton, or of the bottom, may be cut out and a thin piece of paper, or other like material, may be pasted over the opening; or these portions may be partially cut so that they may be easily punctured.

As shown in Figs. 10 and 11, the open cone 6 comprises a piece of thin sheet metal 17, having the center cut out, and having a plurality of members 18 projecting down and converging to a point to form the open cone by means of which the upper end of the carton may be punctured. This cone structure may be fastened to the upper part 1 of the outer casing by rivets, or by solder, or in any other ordinary manner.

In order to use the improved container, it is merely necessary to turn the bottom portion 2 relative to the top portion 1, and the paste material issues through the orifice 4. As the bottom portion 2 is turned, the piston 10 advances and forces the bottom 14 of the carton upward, thus forcing the paste material out of the orifice. It will be noted that a depression 19 is provided in the center of the piston 10, the purpose of this depression being to provide a means whereby the piston may be forced upward until the bottom 14 of the carton touches the top of the carton, thus forcing out all of the contents of the carton. The open cone 6 pierces the bottom 14 of the carton and projects into the depression 19 when the piston 10 is brought into close proximity to the upper end of the casing 1.

It will be noted that a thin or weakened portion is provided at both the top and bottom of the carton 8, these portions being indicated by the reference characters 15 and 15′. The purpose of this construction is to avoid the possibility of inserting the carton into the casing 1 in such a manner that the upper end of the carton cannot be punctured, and also to permit the depression 19 of the plunger 10 to receive the cone 6 of the plunger when it is in its upper extreme position.

From the above description it will be apparent that the invention provides a means whereby substances of a pasty or thick consistency, such as tooth paste and shaving cream, may be kept in a substantially moisture tight container of a permanent character and possessing a pleasing appearance, and by means of which the paste material may be supplied in the proper quantities as it is desired.

It is to be understood that the size and proportions of the various parts may be varied without departing from the principle of the invention which is not limited to the particular embodiment shown and described, but is intended to include such modifications thereof as fall within the scope of the appended claims.

I claim:

1. In a container of the type described, the combination of an outer casing consisting of a cylindrical top shell and a cylindrical bottom shell engaging screw threads on said top shell, said shells being adapted to be telescoped by turning one shell relative to the other, a plunger mounted in said bottom shell and having a conical depression in the center thereof, an opening in the upper end

of the top shell and an open downwardly projecting cone at the center of the upper end of said top shell.

2. In a container of the type described, the combination of a cylindrical shell adapted to receive a cylindrical carton having a portion of each end adapted to be perforated, said shell having a small opening in the top thereof, an open cone near said opening and adapted to perforate one end of said carton, a second shell engaging screw threads on the outside of the lower edge of said first named shell and a plunger supported by said second shell, said plunger having a conical depression in the center thereof.

In testimony whereof I affix my signature.

CECIL O. PHILLIPS.