United States Patent [19]

Funke

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[54] **COMPRESSION PASTE TUBE DISPENSER**

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[52] **U.S. Cl.** **222/103**, 222/105

[51] **Int. Cl.** **B65d 35/28**

[58] **Field of Search** 222/103, 105, 95

[56] **References Cited**

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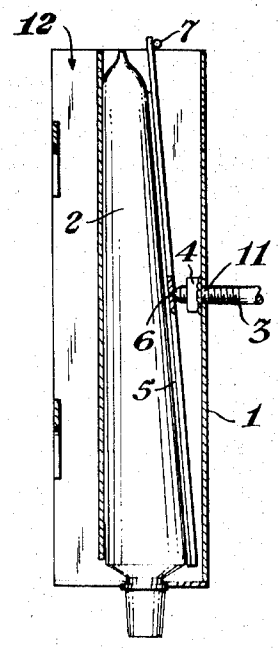
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[57] **ABSTRACT**

This disclosure relates to a compression paste tube dispenser especially adopted for tooth pastes. This dispenser has an open-end housing suitable for enclosing a paste tube and positioned therein is an inclined pressure plate which is in contact with the paste tube. Affixed to the open-end housing is a drive means which is in further contact with a cavity seat on the incline pressure plate and this cavity seat is off-center. When pressure is applied by the drive means, the incline pressure plate equalizes itself at the top of the open-end housing and forces the contents of the paste tube out at the bottom.

3 Claims, 4 Drawing Figures



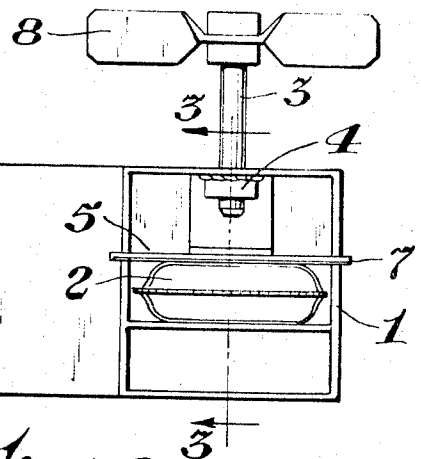


Fig. 2

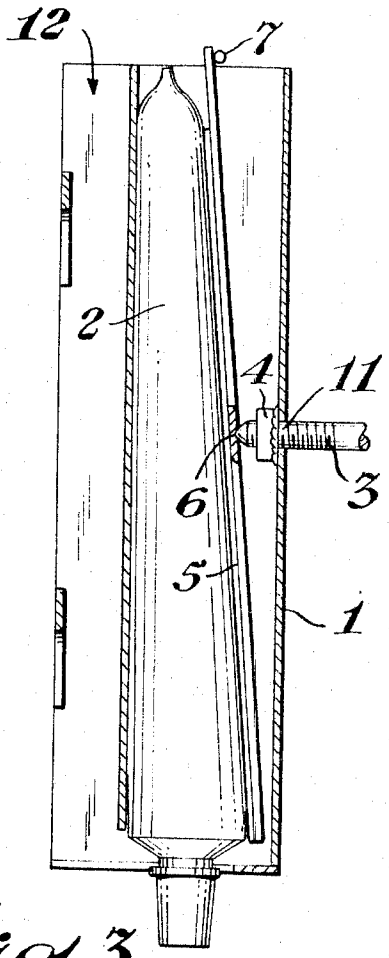


Fig. 3

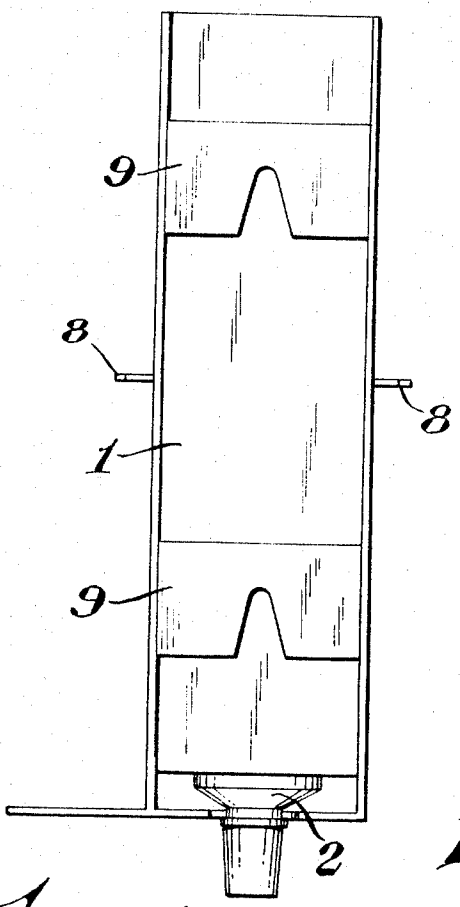


Fig. 1

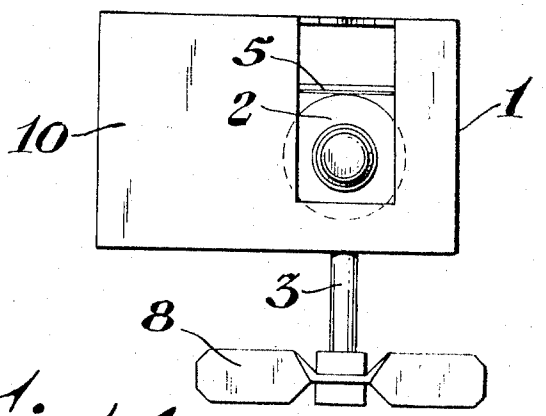


Fig. 4

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COMPRESSION PASTE TUBE DISPENSER

This invention relates to an apparatus for dispensing materials from a tube. More particularly, this invention relates to an apparatus for dispensing materials from a tube by means of compressing the materials, such as tooth paste, out of the tube.

Certainly it has been recognized by the consumer of lotions, pastes and other similar materials that a struggle exists to effectively, efficiently and effortlessly obtain these materials out of the tubes in which they are sold. This struggle is compounded as the materials are depleted. The struggle reaches its climax with the attempt to retrieve the "last drop" of material out of the tube. Various methods have been employed to retrieve this "last drop" of material, but with little or no success. There always remains this small amount of material which is totally inaccessible to the consumer.

After the struggle to retrieve this "last drop" of material, the paste tube is totally misshapen and messy and a non-delightful object to behold.

Consequently the need has arisen, especially in the bathroom, to provide some means to effectively, efficiently and effortlessly retrieve a consumer paste, i.e., tooth paste, from the dispenser in which it is sold. Pursuant to this, it is desirable to further provide a convenient storage container for the paste dispenser when not in use.

In view of the foregoing, it is an object of the present invention to provide for a compression paste tube dispenser which can, with facility, be conveniently set up in the bathroom or wherever desired to dispense paste from a tube by the practice of this invention.

In accordance with certain of its aspects this invention relates to a compression paste tube dispenser which compresses: an open-end housing suitable for enclosing paste tubes; a slotted base plate affixed to the open end of the open-end housing; a fastener mounted to the open-end housing; an aperture centered in the open-end housing and corresponding to the fastener; a paste tube enclosed within the open-end housing and supported by the slotted base plate; an incline pressure plate interposed within the open-end housing and juxtaposed with the paste tube; a compression device extended through the aperture, the fastener and in contact with the incline pressure plate; and, a cavity seat positioned above center on the incline pressure plate and engaged with the compression device.

These and other features, capabilities and advantages of the invention will appear from the subjoined, detailed description of one specific embodiment thereof illustrated in the accompanying drawing wherein:

FIG. 1 is a back elevation of the compression paste tube dispenser;

FIG. 2 is a top elevation of the compression paste tube dispenser;

FIG. 3 is a transverse section on the line 3—3 of FIG. 2; and,

FIG. 4 is a bottom elevation of the compression paste tube dispenser.

In the embodiment shown, there is provided an open-end housing 1 suitable for enclosing paste tubes. The open-end housing 1 preferably is a rectangular shaped open-end housing 1. Preferably this open-end housing 1 has side extensions 12 extending beyond the back of the open-end housing 1. These side extensions 12 permit the past tube 2 to expand as the incline pressure plate 5 is compressed. Also, these side extensions 12 permit the wall mounting means 9 to be fixed to the open-end housing 1.

To this open-end housing 1 is attached by suitable means a slotted base plate 10. The slot of the slotted base plate 10 is wide enough to permit the top of the paste tube 2 to protrude through. The slotted base plate 10 would conform to the shape of the open-end housing 1. The paste tube 2 is positioned in an inverted manner in the open-end housing 1 so the top of the paste tube 2 is extended through the slot of the slotted base plate 10. The size and/or configuration of the paste tube 2 is totally discretionary with the purchasing consumer.

As shown, the open-end housing 1 has mounted therein and centered vertically to the open-end housing a fastener 4. This fastener 4 is positioned directly over an aperture 11 in the open-end housing 1. Preferably, this fastener 4 is a nut, but other means may be totally acceptable, such as a clamp, hook, keeper, key, latch, lock, nail, pin, rivet or screw.

Interposed within the open-end housing 1 and in juxtaposition to the paste tube 2 is the incline pressure plate 5. This incline pressure plate 5 extends substantially beyond the length of the open-end housing 1 but only at the top open-end of the open-end housing 1 and substantially conforms to the configuration of the open-end housing 1.

Extending through aperture 11 fastener 4 is a compression device 3 which is in contact with the incline pressure plate 5. On the incline pressure plate 5 is in off-center position is a cavity seat 6. This contact of the incline pressure plate 5 with the compression device 3 is at this cavity seat 6. Affixed to the top of the incline pressure plate 5 which extends beyond the top of the open-end housing is a rib 7 which supports the incline pressure plate 5 within the open-end housing 1. The open-end housing 1 having a top housing surface edge 1 which supports rib 7 and allows rib 7 to move laterally back and forth over the top housing surface edge 1. In the present instance the compression device 3 has a drive means 8 to turn the compression device 3. Preferably, this drive means 8 is a "wing nut." Alternatively, there is provided wall mounting means 9 fixed to the back of the open-end housing 1.

As an instance of this invention, a paste tube 2 is inverted in the open-end housing 1. The paste tube 2 extends through the slot in the slotted base plate 10. An incline pressure plate 5 is supported within the open-end housing 1 and in contact with the paste tube 2 on one side. On the other side is an off-centered cavity seat 6 which is in contact with a compression device 3 that has a drive means 8 mounted thereto. This compression device 3 is mounted to the open-end housing 1 by a fastener 4. The drive means 8 is turned, exerting pressure onto the incline pressure plate 5 which will equalize itself at the top of the incline pressure plate 5 and force the contents of the paste tube 2 out.

It is obvious that various changes and modifications may be made to the details of construction without departing from the general spirit of the invention as set forth in the appended claims.

That which is claimed is:

1. A compression paste tube dispenser which comprises: An open-end housing suitable for enclosing paste tubes and having thereon a top housing surface edge; a slotted base plate affixed to the bottom of the open-end housing; a fastener mounted to the open-end

housing; an aperture centered in the open-end housing and corresponding to the fastener; a paste tube enclosed within the open-end housing and supported by the slotted base plate; an incline pressure plate interposed within the open-end housing and juxtaposed with the paste tube; a rib affixed to the incline pressure plate and supported by the top housing surface edge so as to allow lateral movement of the incline pressure plate within the open-end housing; a compression device extended through the aperture, the fastener and in contact with the incline pressure plate; and a cavity seat positioned above center on the incline pressure plate and engaged with the compression device.

2. A compression paste tube dispenser as claimed in claim **1** wherein the compression device is a wing-threaded bolt.

3. A compression paste tube dispenser as claimed in claim **1** wherein the incline pressure plate is moved laterally within the open-end housing by the compression device.

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