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2,515,440

PASTE DISPENSER

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Fig. 1

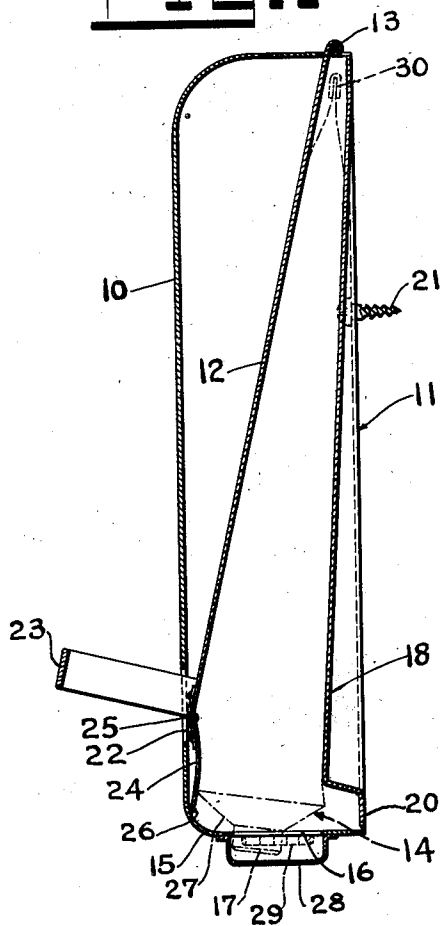


Fig. 2

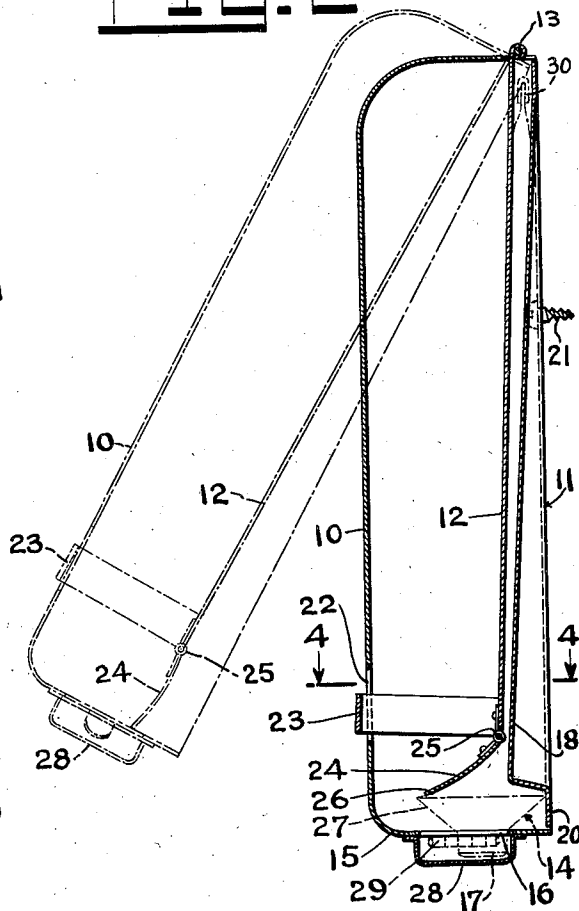


Fig. 3

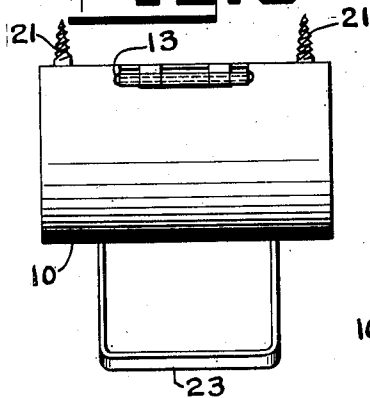


Fig. 5

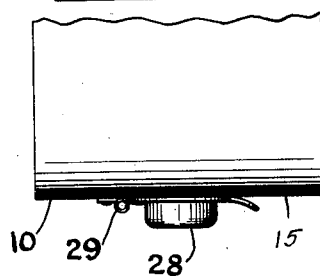
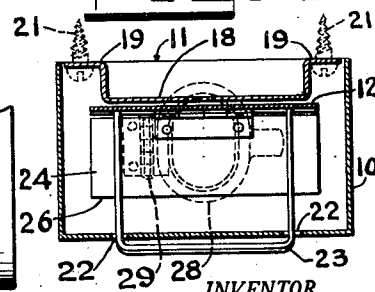


Fig. 4



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PASTE DISPENSER

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6 Claims. (Cl. 222-103)

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This invention relates to paste dispensers, and more particularly to means for housing a flexible tube containing a plastic or semi-plastic material and for permitting the dispensing of said material from said tube in regulated quantities.

One object of this invention is to provide a housing for a conventional paste tube which is manually operable to extrude the paste through the neck of the uncapped tube.

Another object is to provide a paste dispenser of the above nature which will be simple in construction and operation, inexpensive to manufacture, light in weight, compact, easy to install and manipulate, and very efficient and durable in use.

With these and other objects in view, there has been illustrated in the accompanying drawing (consisting of one sheet of five figures, numbered Figs. 1 to 5, inclusive), one form in which the invention may conveniently be embodied in practice.

In the drawing:

Fig. 1 is a longitudinal cross-sectional view of the paste dispenser with a full tube of paste shown in operative position.

Fig. 2 is a longitudinal cross-sectional view of the same, showing the appearance of the device after the paste tube has been collapsed.

Fig. 3 is a rear end view of the same.

Fig. 4 is a transverse cross-sectional view of the same taken along the line 4-4 of Fig. 2, looking in the direction of the arrows, and

Fig. 5 is a fragmentary side view of the cap end of the device.

Referring now to the drawings in which like reference characters designate corresponding parts throughout the several figures, the numeral 10 indicates a cover, the numeral 11 a base plate, and the numeral 12 a presser plate, all of which are hinged together at one end upon a common pintle 13, to form an elongated housing of suitable length, width and depth, to conveniently enclose a conventional flexible paste-containing tube 14.

The front end wall 15 of the paste dispenser is provided with a centrally-disposed elongated transverse opening 16, adapted to loosely receive a dispensing neck 17 of the flexible paste tube 14.

The central portion of the base plate 11 throughout the length thereof is offset inwardly to provide a wedge-shaped back rest 18 for the flexible tube 14. The marginal edges of the base plate 11 project outwardly to form lateral flanges 19-19 and an end flange 20.

The paste dispenser may be supported in any

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suitable manner, as by means of wood screws 21-21 passing through holes formed in the lateral flanges 19-19 and into a suitable support or mounting such as a bathroom wall.

5 The cover 10 is provided with a pair of slots 22-22 to afford free passage for a U-shaped operating handle 23 which is rigidly attached to the presser plate 12 in any suitable manner.

10 A short curved flap 24 is hinged at 25 to the presser plate 12 adjacent the operating handle 23 and has a free outer end 26 designed to engage the yieldable portion of the tube 14 behind the relatively rigid conical end 27 thereof, as the flexible wall of said tube collapses (see Fig. 2).

15 A closure cap 28 is hinged at 29 to the end wall 15, and is adapted when open to afford access to the dispensing neck 17 and when closed covers the elongated opening 16 and the dispensing neck 17.

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Operation

The dispenser will first be mounted upon a suitable support, as by means of the wood screws 21-21. The cover 10 and the presser plate 12 will then be arranged in the open position substantially as shown by the dot and dash lines in Fig. 2. A conventional flexible paste-containing tube 14 will then be inserted in the cover 10 so that the dispensing neck 17 of the flexible tube 14 is disposed in the elongated laterally-extending opening 16 of the end wall 15, and with the presser plate 12 located adjacent the cover 10.

25 The cover is then snapped against the base plate 11 whereupon the several parts will assume the position substantially as shown in Fig. 1.

To dispense the paste, the closure cap 28 is opened about its hinge 29, and the operating handle 23 pressed inwardly until the presser plate 12 flexes the wall of the tube 14 sufficiently to dispense the desired portion of the contents of the tube in ribbon or round form.

30 As the tube empties, the wall of flexible tube 14 will flatten and the presser plate 12 gradually will approach the sloping back rest 18 to collapse the walls of the flexible tube 14 with a substantially uniform pinching action. As the walls of the flexible tube thus collapse, the dispensing neck 17 will move laterally in the elongated opening 16, and the flexible tube 14 will mold itself to the inwardly-offset contour of the base plate 11 until the movement of the head end 27 is arrested by the end flange 20 (Fig. 2).

35 In the region of the dispensing neck 17, the flexible wall of the paste containing tube 14 will be held open by the relatively rigid outwardly

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flaring conical skirt 27 which merges with the dispensing neck 17. The flap 24 will pivot upon its hinge 25, thus increasing the amount of paste which can be dispensed and avoiding injury to the rigid conical end section of the tube.

The presser plate 12 will, however, continue to move towards the back rest 18, progressively flattening the paste containing tube 14 from its sealed flat end 30 to the rigid conical section until the presser plate 12 and base plate 11 come into abutment throughout their entire length, as shown in full lines in Fig. 2, at which time the tube 14 will be substantially empty.

The cover 10 may now be opened and the collapsed paste tube 14 removed and replaced by a new one.

While there has been disclosed in this specification one form in which the invention may be embodied, it is to be understood that this form is shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosure, but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claims.

Having thus fully described the invention, what is claimed as new, and for which it is desired to secure Letters Patent, is:

1. In a paste dispenser, an elongated base plate having an inwardly-offset section near one end, an elongated cover, an elongated presser plate disposed between said base plate and said cover, means for hinging together the other end of said base plate to said cover and presser plate, a paste tube being removably insertable between said base plate and said presser plate with its flat sealed end parallel to the axis of said hinging means and its cap end supported by the free end of said cover, said cover having an opening formed in the free end thereof adapted to receive the dispensing neck of the paste tube, a handle attached to said presser plate and protruding through said cover member, said handle being operable to move said presser plate toward said base plate to flatten said paste tube and force paste from said dispensing neck through said cover opening, and a flap hinged to said presser plate in substantial alignment with said offset section and adapted to engage the paste tube adjacent the stiff conical portion of the tube end without danger of crushing it.

2. The invention as defined in claim 1, wherein a closure cap is hinged to the end wall of the cover to enclose the end of said neck.

3. The invention as defined in claim 1 wherein the cover is provided with a plurality of slotted openings, and in which said handle is U-shaped and passes through said slotted openings to form a finger loop.

4. The invention as defined in claim 1, wherein said base plate is offset inwardly at the dispensing end to avoid injury to the stiff conical end of said tube and reduce the amount of paste left in said tube.

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5. In a paste dispenser, an elongated base plate having an offset section adjacent one end thereof, an elongated cover, an elongated presser plate disposed between said base plate and said cover, means for hinging together the adjacent ends of said base plate, cover and presser plate, a paste tube being removably insertable between said base plate and said presser plate with its flat sealed end parallel to the axis of said hinging means and its cap end supported by the free end of said cover, said cover having an opening formed in the free end thereof adapted to receive the dispensing neck of the paste tube, a handle attached to said presser plate and protruding through said cover member, said handle being operable to move said presser plate towards said base plate to flatten said paste tube and force paste from said dispensing neck through said cover opening, and a flap hinged to the end of said presser plate in alignment with said offset section to prevent crushing of the conical portion of said tube.

6. In a paste dispenser, an elongated base plate having an offset section adjacent one end thereof, an elongated cover, an elongated presser plate disposed between said base plate and said cover, means for hinging together the other end of said base plate, cover and presser plate, a paste tube being removably insertable between said base plate and said presser plate with its flat sealed end parallel to the axis of said hinging means and its cap end supported by the free end of said cover, said cover having an opening formed in the free end thereof adapted to receive the dispensing neck of the paste tube, a handle attached to said presser plate and protruding through said cover member, said handle being operable to move said presser plate towards said base plate to flatten said paste tube and force paste from said dispensing neck through said cover opening, and a convex flap hinged to said presser plate opposite the offset section of said base and adapted to engage the paste tube adjacent the stiff conical tube end without danger of crushing it.

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