

March 8, 1949.

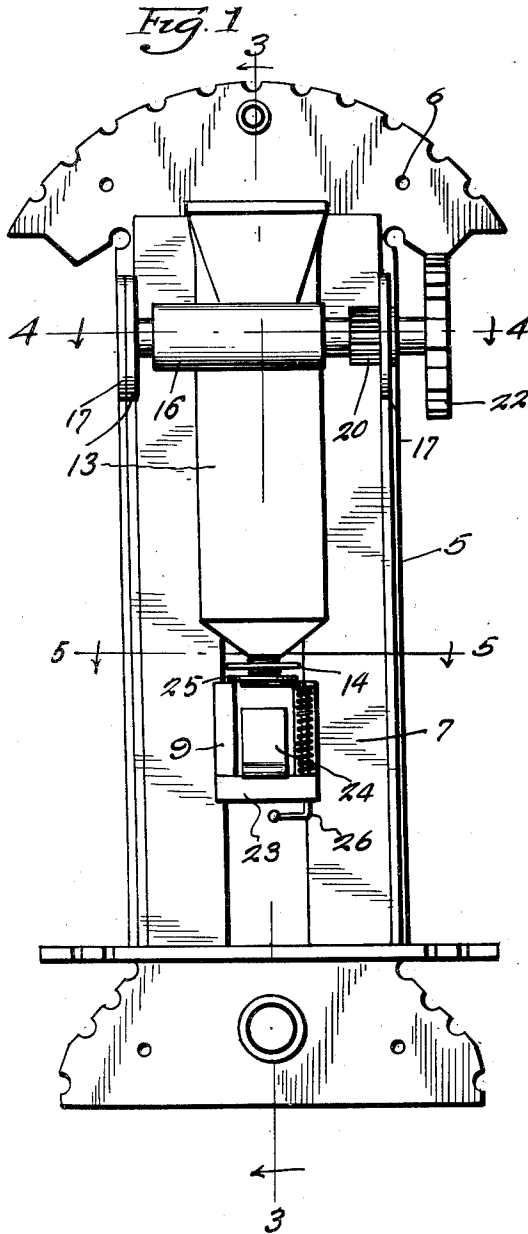
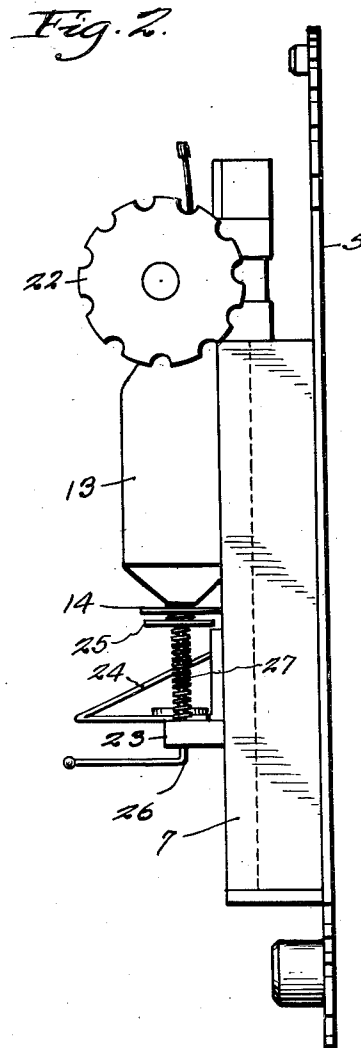
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2,463,764

PASTE DISPENSER FOR COLLAPSIBLE TUBES

Filed Jan. 23, 1946

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 3.

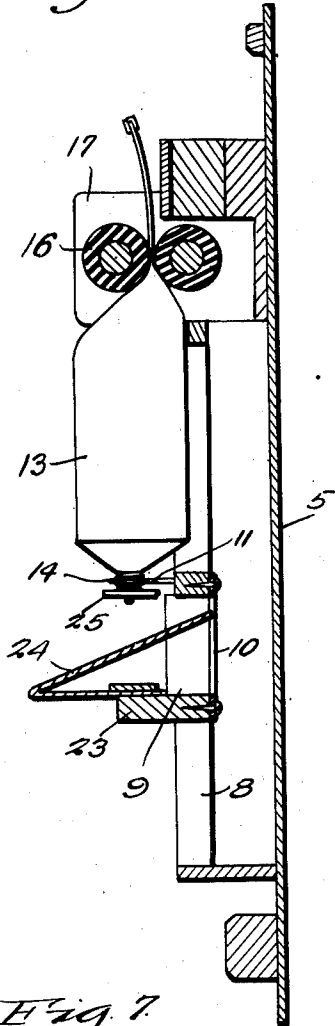


Fig. 4.

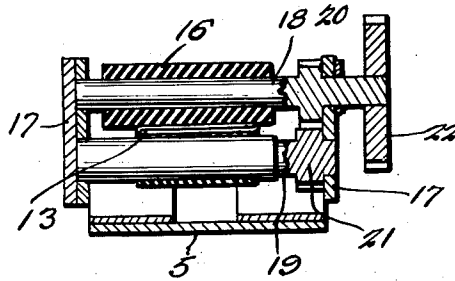


Fig. 5.

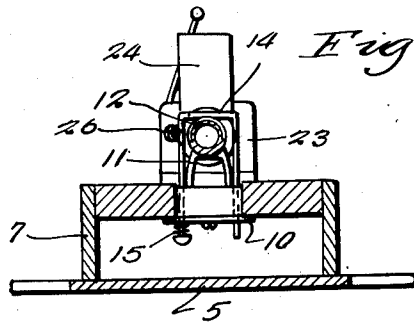


Fig. 6.

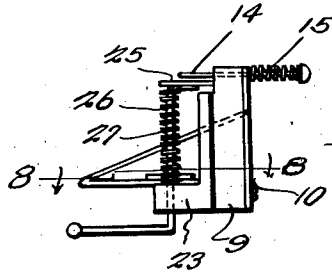


Fig. 7.

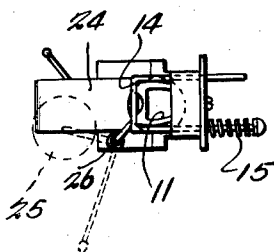
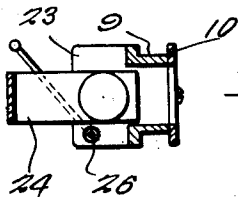


Fig. 8.



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UNITED STATES PATENT OFFICE

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PASTE DISPENSER FOR COLLAPSIBLE
TUBES

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Application January 23, 1946, Serial No. 642,863

1 Claim. (Cl. 222-102)

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The present invention relates to new and useful improvements in dispensing devices for the paste of collapsible tubes, such as tooth paste and similar tubes and the invention has for its primary object to provide a pair of cooperating squeeze rollers between which the rear end of the tube is drawn for extruding the paste from the front end thereof.

An important object of the present invention is to provide a device of this character mounted on a backing plate for attaching to the wall of a room or other supporting structure and also providing a tooth brush support adapted for connection with the neck of the tube for traveling therewith as the tube is drawn between the rollers and on which a tooth brush may be placed for receiving the paste from the tube.

A still further object of the invention is to provide a spring held closure for the neck of the tube and carried by the tooth brush holder and adapted for movement into and out of position against the neck of the tube to prevent loss of the paste therefrom when the device is not in use.

Another object of the invention is to provide a tooth brush holder embodying resilient means for urging the brush upwardly against the neck of the tube to receive the paste therefrom and in which the resilient means is adapted to compensate for various sizes in the brush.

Another object of the invention is to provide a device of this character of simple and practical construction, which is efficient and reliable in operation, relatively inexpensive in manufacture and otherwise well adapted for the purpose for which the same was intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a front elevational view.

Figure 2 is a side elevational view.

Figure 3 is a vertical sectional view taken substantially on a line 3-3 of Figure 1.

Figure 4 is a transverse sectional view taken substantially on a line 4-4 of Figure 1.

Figure 5 is a transverse sectional view taken substantially on a line 5-5 of Figure 1.

Figure 6 is a side elevational view of the slide for the tooth brush holder.

Figure 7 is a top plan view thereof, and

Figure 8 is a sectional view taken substantially on a line 8-8 of Figure 6.

Referring now to the drawings in detail where-

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in for the purpose of illustration I have disclosed a preferred embodiment of the invention. The numeral 5 designates a backing plate having openings 6 in the upper and lower portions thereof for attaching to a wall or other suitable supporting structure. The attaching plate 5 includes a box-like structure 7 projecting forwardly therefrom and having a vertical slot 8 in its front wall in which a slide 9 is mounted for vertical sliding movement. The slide 9 includes a rear plate 10 having its side edges positioned behind the front wall of the box-like structure 7 as shown to advantage in Figure 5 of the drawings to form channels at the sides of the slide to ride on the edges of the slot 8.

The slide 9 also includes a forwardly projecting prop 11 against which the neck 12 of the collapsible tube 13 is clamped by a U-shaped clamping member 14 with which the prop 11 is coplanar and which is positioned horizontally and having its legs slidably mounted in the slide 9 and projecting rearwardly through the plate 10 with one of the legs provided with a coil spring 15 to retract the clamping member into clamping engagement with the neck of the tube, the tube thus being held in an inverted position forwardly of the box-like structure 7.

The upper or rear end of the tube 13 is fed between a pair of friction rubber covered rollers 16 rotatably mounted in forwardly projecting spaced apart wings 17 carried at the upper end of the box-like structure 7.

The rollers 16 includes shafts 18 and 19 connected to each other for opposite rotation by gears 20 and 21, the shaft 18 being provided with a manipulating wheel 22.

The slide 9 includes a shelf 23 at its bottom portion to which one end of a V-shaped leaf-spring 24 is attached, the spring having its narrow end projecting horizontally forwardly and with its upper end inclined upwardly and rearwardly under the neck 12 of the tube. The upper surface of the spring 24 is adapted to support the back of a tooth brush thereon for urging the brush upwardly against the lower end of the neck of the tube, the resiliency of the spring permitting brushes of various sizes to be yieldably held against the neck of the tube for receiving the paste therefrom.

When the device is not in use, the neck 12 is adapted to be closed by a cover plate 25 suitably secured to the upper end of a rod 26 which projects upwardly through the shelf 23 for vertical sliding movement therein. A coil spring 27 is mounted on the rod 26 and bears against the

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shelf 23 for urging the plate 25 upwardly against the neck 12 to close the tube.

The plate 25 is positioned eccentrically on the upper end of the rod 26 and is swung outwardly from under the neck 12 through a rotary movement of the rod by means of a handle 28 projecting horizontally from the lower end of the rod.

The neck 12 of the tube 13 is clamped against the prop 11 by the clamp 14 with the tube extending upwardly and its rear end fed between the rollers 16 as shown in Figure 3. The plate 25 is swung away from the neck 12 and a tooth brush placed on the upper surface of the spring 24 and held against the neck. The knob 22 is then turned in a direction to squeeze the tube between the rollers, thereby extruding the paste from its lower end onto the brush.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the construction, operation and advantages of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claim.

What I claim is:

A paste dispenser for collapsible tubes comprising an attaching plate having a guide formed

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with a vertical slot, a slide mounted for movement in the slot, clamping means carried by the slide adapted for clamping the neck of a tube thereto, a V-shaped leaf spring attached horizontally to the slide with one end of the spring free and inclined toward the clamping means in spaced relation thereto and forming a rest for a tooth brush to urge the brush upwardly against the neck of the tube, a pair of squeeze rollers carried by the plate for receiving the rear end of a tube therebetween to extrude the paste from the tube, a closure plate for the neck of the tube, and a rod on which said plate is eccentrically mounted and which is journaled in said slide at one side of said leaf spring, said rod being manually rotatable to swing said plate over said leaf spring into closing relation to said neck.

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