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L. E. WAITERS

2,466,628

TOOTH PASTE DISPENSING APPARATUS

Filed Aug. 31, 1945

2 Sheets-Sheet 1

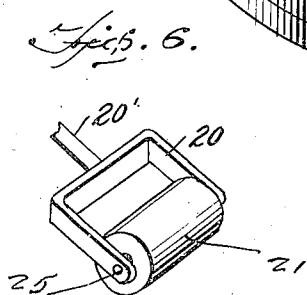
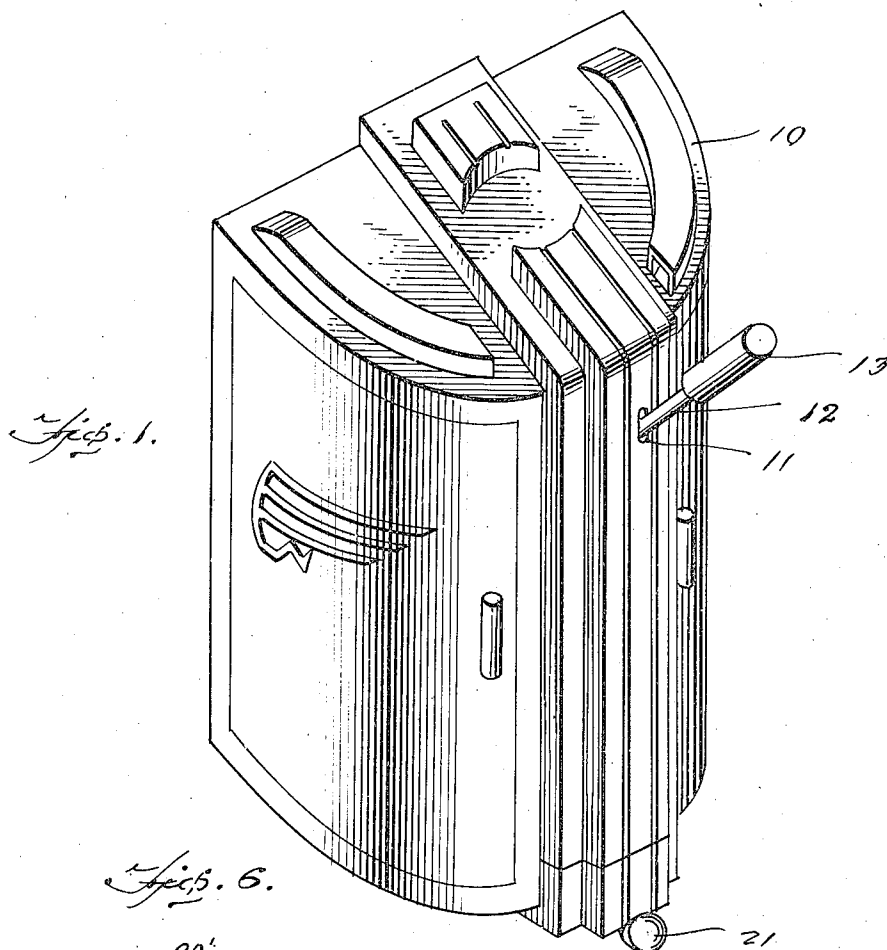
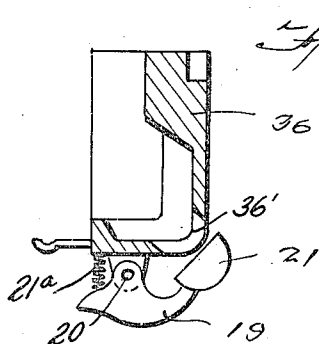
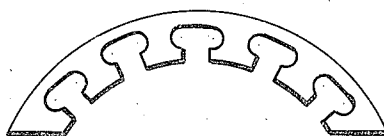


Fig. 7.



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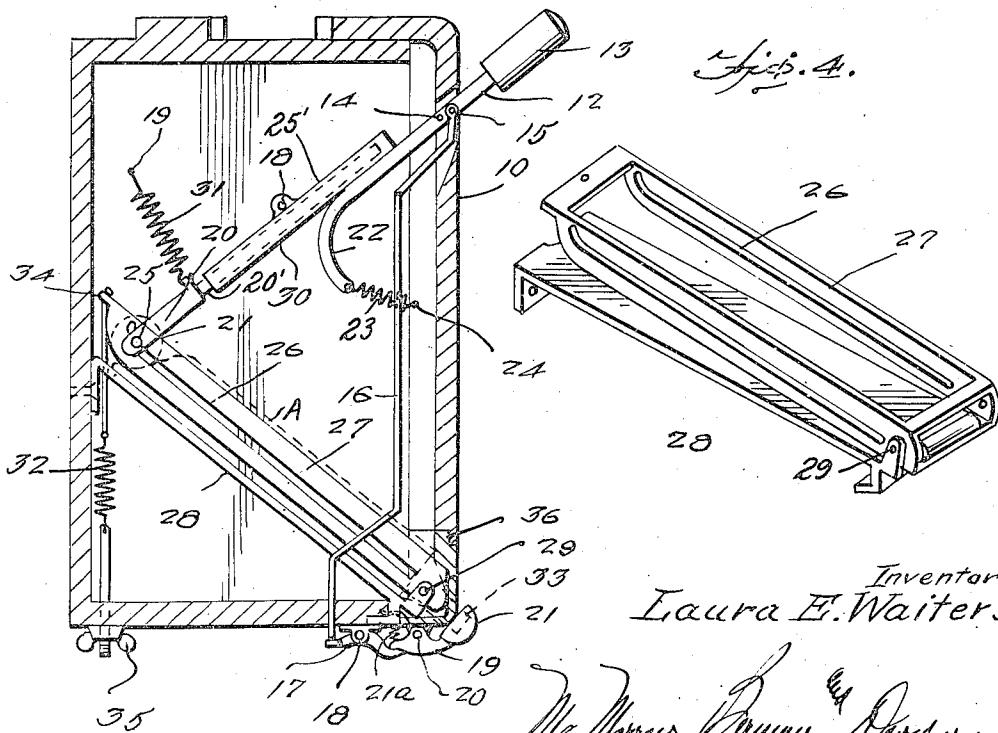
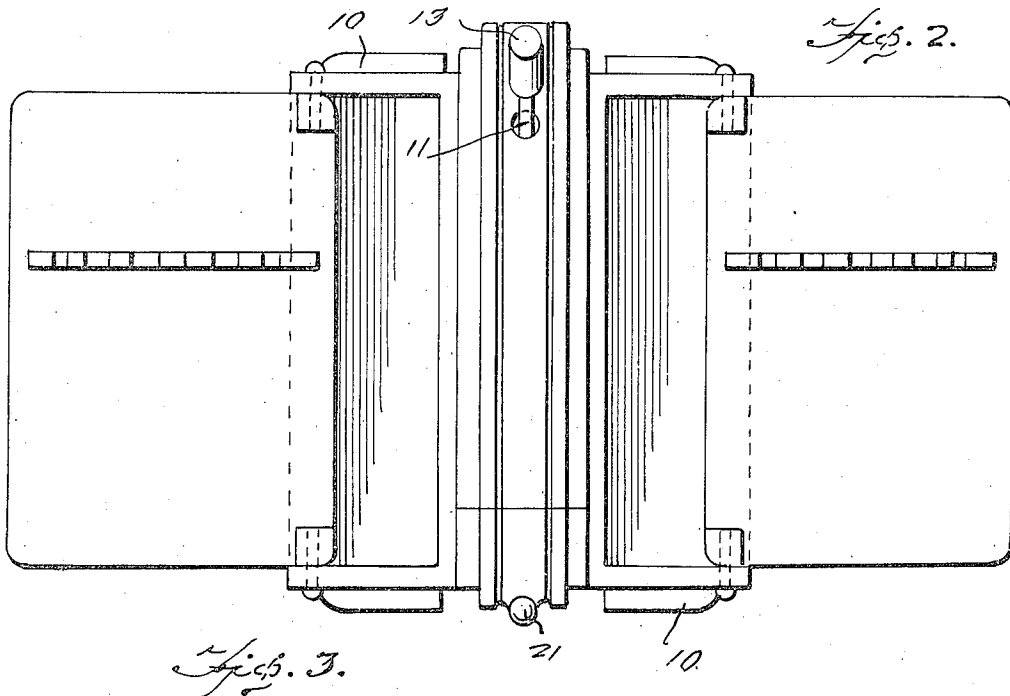
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2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

2,466,628

TOOTHPASTE DISPENSING APPARATUS

Laura E. Waiters, Arroyo Grande, Calif.

Application August 31, 1945, Serial No. 613,873

2 Claims. (Cl. 222-101)

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This invention relates to a device for dispensing tooth paste or the like from a flexible tube.

An important object of the invention is to provide means for exerting pressure upon the side of the tube, which pressure is moved longitudinally of the tube while the tube is held relatively stationary.

A further object of the invention is to provide means whereby a single manually operated element may be employed to exert pressure upon the tube and to cover and uncover the tubular neck of the tube.

In its broadest aspects, this invention comprises the use of a dispensing handle and a roller for dispensing the wanted amount of tooth paste on a brush.

The invention will be better understood from the following description thereof with reference to the accompanying drawings in which:

Figure 1 is an oblique view of tooth paste dispenser and toothbrush cabinet;

Figure 2 is a frontal view of the invention with the doors open;

Figure 3 is a middle section showing mechanics thereof;

Figure 4 is an isometric view of the roller box and pressing table thereof;

Figure 5 is an enlarged fragmentary longitudinal sectional view showing the structure of the cabinet cap in association with the discharge orifice in the container;

Figure 6 is a perspective view of a fork and roller; and

Figure 7 is a plan view of a rack.

A cabinet 10 of plastic or other suitable material is provided to house the dispensing device in an attractive container.

Protruding from a slot 11 in front of cabinet 10 is a dispensing handle 12 having a grip 13 on the side thereof. As best seen in Figure 3, the dispensing handle 12 is pivotally attached to container 10 at 14. Pivotaly attached on the outward end of dispensing handle 12, as at 15, is a valve rod 16 extending downwardly to actuate a rocker arm 17 which is pivotally attached to the container 10, as at 18. The other end of rocker arm 17 rests on a cap arm 19 which is also pivotally attached to container 10, as at 20. On the other end of cap arm 19 is held a cap 21 for engaging the top of a tooth paste tube.

The inner end of dispensing handle 12 has a curved portion 22, to the end of which is attached a spring 23, said spring having its outer end attached to the front wall of container 10, as at 24.

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The curved portion 22 of the dispensing handle 12, when pivoting at 15, is brought to bear on hollow tube 25' pivotally attached at 18, pushing the upper end of the tube 25' upward and the lower end downward. A spring 31, the outer end of which is attached to container 10 at 19, is attached at the upper end of fork 20. Fork 20 is attached to roller 21 by means of axle 25. The fork 20 is carried by a rod 20', slideably mounted within the tube 25'. The protruding ends of axle 25 are inserted in slots 26 on both sides of roller box 27. Roller box 27 is hinged onto a stationary incline table 28 at 29.

A spring 32 has one end attached to upper end of roller box 27 at 34 and the lower end is attached to cabinet 10 by means of a thumb screw 35.

The flexible tube A containing the tooth paste or the like has its tubular neck inserted through the opening 36' of a cabinet cap 36 which is removably mounted upon the cabinet and which carries the cap arm 19. This cabinet cap is now mounted upon the cabinet and the tube A is supported by the stationary incline table 28 and is held in place by the sides 27. The spring 31 now retains the roller 21 in the raised position adjacent to the upper closed end of the tube A. The cap carried by the tubular neck 33 of the tube A has been removed and the cap 21 is now covering this tubular neck. When the outer end of the lever 12 is depressed, the link 16 and associate elements will shift the cap 21 from over the tubular neck 33. When the lever 12 is depressed its inner round end engages the upper end of the tube or lever 25', swinging the same upwardly and swinging its lower end longitudinally of the tube A. The roller 21 is therefore moved downwardly and longitudinally of the table 28 and tube A. The axle 25 is guided in the slots 26, and the spring 22 forces the roller 21 into pressing engagement with the tube A. As the fork 20 is shifted longitudinally of the table 28 the rod 20' slides longitudinally within the tube 25' and remains connected with this tube. It is thus apparent that the upper portion of the flexible tube A is compressed or flattened and the paste forced from the tubular neck 33. When the lever 12 is released, the parts return to the normal position as shown in Figure 3. The slots 26 are curved upwardly at their upper ends so that the roller 21 may rise when it reaches the upper ends of the slots 26. This will insure the roller being above the upper end of the tube.

Having described the invention, what I claim is:

1. In a paste dispenser, a cabinet provided with

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an opening, an inclined table positioned within said cabinet for supporting a flexible tube provided with a tubular neck and containing paste, the tubular neck on said tube being arranged so as to extend through the opening in said cabinet for the egress therethrough of the paste, cap means mounted for opening and closing movement relative to said neck, and means operatively connected to said table and actuable from without said cabinet for discharging the paste through said tubular neck, said last-named means comprising a tube mounted for pivotal movement about a horizontal axis, a rod mounted for slidable movement within said movably-mounted tube, a roller carried by the free end of said rod engaging said flexible tube, and a handle mounted for pivotal movement about a horizontal axis and bearing against said movably-mounted tube.

2. In a paste dispenser, a cabinet provided with an opening, an inclined table positioned within said cabinet for supporting a flexible tube provided with a tubular neck and containing paste, the tubular neck on said tube being arranged so as to extend through the opening in said cabinet for the egress therethrough of the paste, cap means mounted for opening and closing movement relative to said neck, and means operatively

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connected to said table and actuable from without said cabinet for discharging the paste through said tubular neck, said last-named means comprising a tube mounted for pivotal movement about a horizontal axis, a rod mounted for slidable movement within said movably mounted tube, a roller carried by the free end of said rod engaging said flexible tube, a handle mounted for pivotal movement about a horizontal axis and bearing against said movably mounted tube, and resilient means operatively connected to said rod for maintaining the latter in normal position.

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