Feb. 29, 1944. J. M. SHAW 2,342,976

DEVICE FOR DISPENSING PASTELIKE COMMODITIES

Filed Jan. 9, 1941

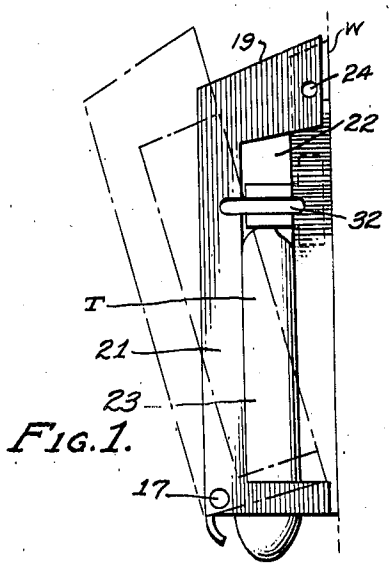
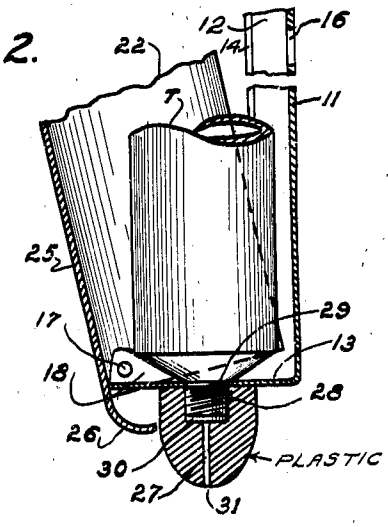


FIG. 1.

FIG. 3.

FIG. 2.



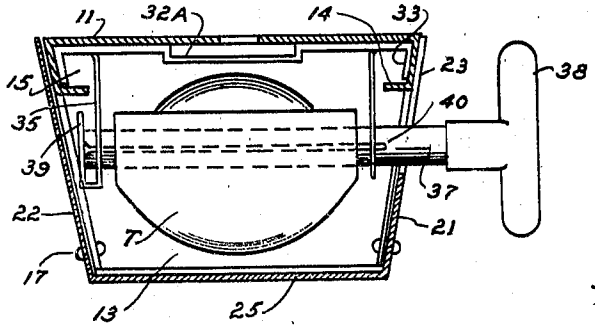


FIG. 4.

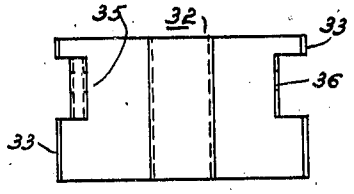


FIG. 5.

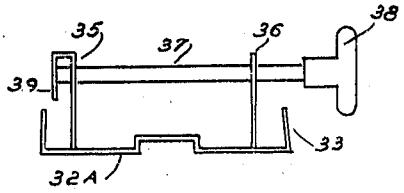
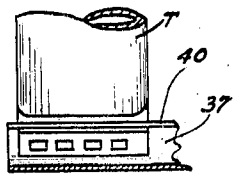


FIG. 6.



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DEVICE FOR DISPENSING PASTELIKE COMMODITIES

James Marvin Shaw, Toronto, Ontario, Canada

Application January 9, 1941, Serial No. 373,819
In Canada January 13, 1940

2 Claims. (Cl. 221—60)

My invention relates to a device for dispensing toothpaste, shaving cream, and similar paste-like commodities.

More particularly the invention relates to a device for dispensing a paste-like commodity out of the conventional collapsible tube in which the paste is contained.

The object of the invention is to provide a device by which a paste, such as is contained in a conventional collapsible tube, may be gradually forced out of the tube as required, so that the paste may be kept, and dispensed, in as sanitary a condition as possible, while it may also be dispensed easily and conveniently.

Another object of the invention is to so design the device that little or no waste of the paste will occur.

Other objects and advantages of the invention may be found to exist upon reading the following description.

In the drawing, wherein like numerals of references indicate corresponding parts in the various figures,

Figure 1 is a side elevation of a device made in accordance with my invention;

Figure 2 is an enlarged, fragmentary longitudinal section of the device;

Figure 3 is an enlarged section taken on line 3—3 in Figure 1;

Figure 4 is a front elevation of the paste tube carrier;

Figure 5 is a front elevation of Figure 4;

Figure 6 is a fragmentary section of the device used for rolling or collapsing the paste tube.

Referring now by numerals to the drawing, 10 is a supporting or bracket member having a rear wall 11, side walls 12 and a bottom wall 13. The side walls 12 are formed with turned-in portions 14 to define channels or guideways 15 (see particularly Figure 3). In order that the complete device may be conveniently hung from, or fastened to, a vertical wall W, apertures 16 may be provided in the rear wall 11 of the base member 10.

Hinged as at 17 to the base member 10, or more particularly to side lugs 18 forming part of the bottom wall 13, is a cover or lid 19 which is intended to complete, with the base member 10, a casing housing the paste tube T of conventional design. The cover may thus be swung away from the base member in order to enable the paste tube to be applied in operative position, or to be removed when the contents is used.

The lid 19 is open at the bottom but closed at the top, and has two side walls 21 and 22 and a front wall 25. One of the side walls, namely 21, is cut off or partly removed to provide a slot or opening 23. In order that the lid may be releasably locked in closed position, over the base member 10, a detent device may be provided, such as a boss 24, impressed into the side walls 21 and 22 of the lid, adapted to engage in suitably located recesses (not shown) impressed into the walls 12 of the base member. The front wall 25 of the lid is extended at the bottom into a curved lug 26, adapted to engage a removable cap or nozzle 27 when the lid is swung open, the lug thus forming a convenient means of determining the open position of the lid.

The bottom wall 13 of the base member 10 is formed with a circular opening 28 adapted to receive the threaded neck portion or mouth 29 of the tube T when the same is in an upright, upside-down position within the casing, or more particularly when in operative position in the base 10 of the device. The cap or nozzle 27 aforesaid, which may be made of some plastic composition, has a threaded bore or cavity 30 adapted to thread on the neck portion 29 of the tube T, and an ejection channel or passage 31 extends through the cap from the cavity 30, so that the paste may be dispensed; that is, ejected out of the tube and out of the dispensing device.

Mounted to slide on the base member 10 is a carriage 32, this carriage being adapted to both hold the tube T in its upright, upside-down operative position, and to gradually roll or collapse one end of the tube to thereby eject the paste. The carriage may be formed as shown, having a base or wall 32A adapted to slide on the wall 11 of the base member, and turned-in lugs 33 formed to engage and slide in the channels 15 aforesaid and therefore guide the carriage up and down in or on the base member 10. Lugs 35 and 36 are struck up from the wall 32A of the carriage and apertured to provide journals for a sleeve or tube 37, on one end of which is secured a suitable thumb screw or handle 38. The lug 35 may be conveniently formed with a turned-down or depending member 39 which serves to limit the movement of the sleeve 37 in a direction away from the lug 36. The sleeve 37 is slotted inwardly from the end opposite the handle 38, as at 40, to slidably receive the lower portion of the tube T, all as best suggested in Figure 6, so that the sleeve or key device 37 may be turned or operated to gradually roll or collapse the tube and thereby eject the paste.

When a fresh tube T is to be placed in the dispensing device, the lid 19 is swung outwardly

from the base member 10, the sleeve or key device 37 partly removed from the carriage 32, that is, shifted laterally to clear the same from the lug 35, the tube placed next to the base member 10, and the key device or sleeve 37 shifted back to receive in its slot 40 the end of the tube T and to again become supported or journalled in the lug 35. The key or sleeve 37 is now partially turned to very slightly collapse the end of the tube T. The carriage is next lowered to cause the neck of the tube to protrude through the opening 28 in the bottom wall 13 of the base member 10, and the cap 27 threaded on to the neck portion. The lid is now closed, and the device is ready to operate. By turning the handle 38, the tube is collapsed or rolled and the paste is ejected out of the cap or nozzle 31.

When the contents of the tube T has been used, and a fresh tube is to be placed in position, the operation just described is reversed, except that after the carriage has been raised a short distance, the used tube may be removed without turning the key or sleeve 37.

I claim:

1. A device for dispensing tooth paste and the like from a collapsible tube having a body and a neck through which the paste may be extruded comprising a supporting member having a generally horizontally extending portion, said portion having an aperture adapted to receive the threaded neck of a paste tube, a carriage having a base portion slidably mounted on said supporting member, the base portion of said carriage having outwardly extending lugs, said lugs having aligned openings, a winding key having an operating handle at one end mounted to rotate in and to slide longitudinally through said openings, the portion of said key normally lying between said lugs having means for gripping the closed end of a paste tube, so that when said portion of the key grips the closed end of a paste tube and is rotated the carriage will be caused to slide bodily along said supporting member and paste will be forced from the open end of the tube, an extrusion nozzle member adapted to be removably secured to the neck portion of the paste tube which protrudes through the aperture in the supporting member and to engage the supporting member to releasably lock the paste tube to the supporting member, and a cover member for the body of the paste tube pivoted to a forward part of the generally horizontally-extending portion of the supporting member, said cover member having a rearwardly protruding portion adapted to engage one of said aforementioned members and to limit the swinging movement of said cover member about its pivot.

2. A dispensing device for tooth paste and the like comprising a supporting member having a generally horizontally extending position, said portion having an aperture adapted to receive the threaded neck of a paste tube, a carriage having a base portion slidably mounted on said supporting member, the base portion of said carriage having outwardly extending lugs, said lugs having aligned openings, a winding key having an operating handle at one end mounted to rotate in and to slide longitudinally through said openings, the portion of said key normally lying between said lugs having means for gripping the closed end of a paste tube, so that when said portion of the key grips the closed end of a paste tube and is rotated the carriage will be caused to slide bodily along said supporting member and paste will be forced from the open end of the tube, one of said lugs having an extension bent back at the outer side thereof and lying opposite the aperture therein to act as a stop to limit movement of the key in that direction, and an extrusion nozzle adapted to be removably secured to the neck portion of the paste tube which protrudes through the aperture in the supporting member and to engage the supporting member to releasably lock the paste tube to the supporting member.

J. MARVIN SHAW.