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CREAM AND PASTE DISPENSER

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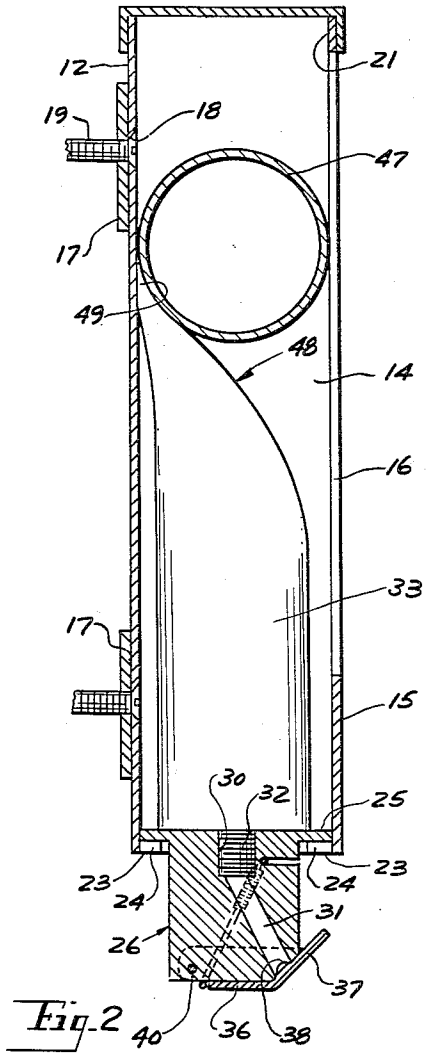


Fig. 2

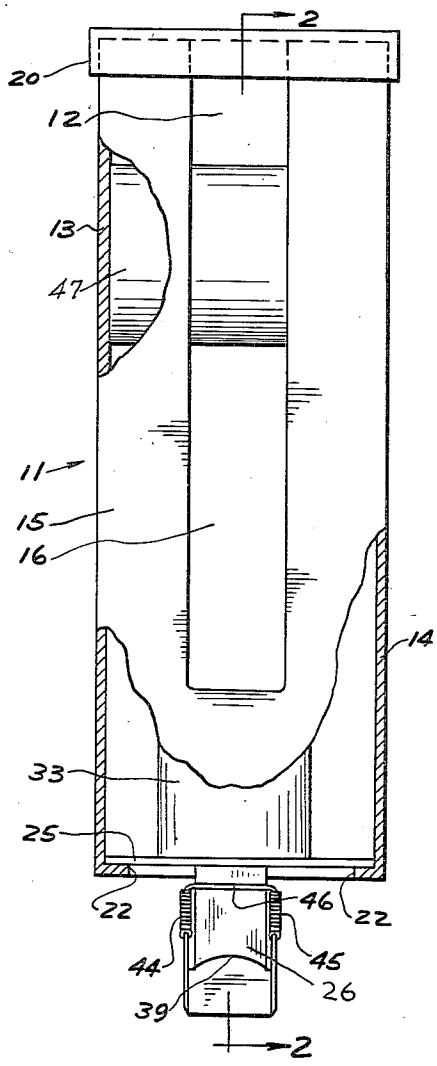


Fig. 1

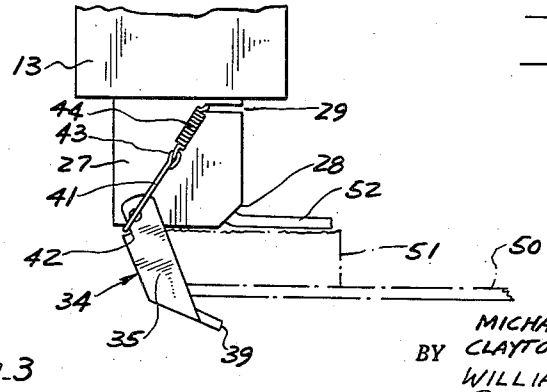


Fig. 3

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CREAM AND PASTE DISPENSER

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3 Claims. (Cl. 222—101)

This invention relates to a dispenser and more particularly to a dispenser for cream or paste stored in a collapsible tube such as tooth paste or shaving cream, etc.

Heretofore, efforts have been made to provide a simplified paste extruding device in a dispenser mountable upon a wall which will eliminate handling of the tube and the inconvenience of removing and replacing the cover therefor.

It is the object of the present invention to provide a simplified dispensing mechanism which will be fully effective in extruding paste from such a tube and which eliminates the necessity of removing and replacing the cap.

It is the still further object of the present invention to provide a novel housing construction adapted to store such a tube in an inverted upright position, together with a removable dispenser block which anchors the tube within the housing and which facilitates withdrawal of the extruded paste or cream.

It is the further object of the present invention to provide a dispensing device with a hinged cap which will resiliently return to closed position.

These and other objects will be seen from the following specification and claims in conjunction with the appended drawing in which:

Fig. 1 is a front elevational view partially broken away and sectioned showing the present dispenser.

Fig. 2 is a section taken on line 2—2 of Fig. 1; and

Fig. 3 is a fragmentary left side elevational view of the dispenser of Fig. 1 showing the cap opened during the dispensing operation.

It will be understood that the above drawing illustrates merely a preferred embodiment of the invention, and that other embodiments are contemplated within the scope of the claims hereafter set forth.

Referring to the drawing, there is provided an upright hollow housing 11 which includes the upright rear wall 12, the two side walls 13 and 14, and the front wall 15 which has an upright central slot 16 formed therein throughout a substantial portion of its height.

Rectangular mounting plates 17 are secured to rear wall 12 and transverse apertures 18 are formed through the rear wall and the said plates 17 for receiving the screws 19 whereby the said housing may be mounted in an upright position upon a room wall or similar structure.

There is provided over the upper open end of the housing a removable cover 20 with a peripheral depending flange which engages over the respective walls of the housing and which includes upon the inner surface of the front flange of said cover a rectangular strip 21 which cooperatively and snugly nests within the upper end of the front wall slot 16 when the said cover 20 is assembled over the housing to thereby snugly maintain the cover thereon.

The lower open end of housing 11 is provided with an internal flange which includes flange formations 22 projecting inwardly from the side walls and flange formations

23 projecting inwardly from the front and rear walls. The said flanges 23 are centrally slotted as indicated at 24 to provide clearance to permit insertion and removal of the dispensing block 26, hereafter described, and its hinged cap 36—37.

There is provided within the said housing a dispensing block 26 which is of rectangular shape in cross-section and which has as a part thereof across its top a horizontally disposed plate or flange 25 whose marginal edges supportably engage flange formations 22—23 whereby block 26 is suspended from the lower end of the housing and depends therebelow in a manner illustrated in Fig. 2.

Said block includes the opposed upright side walls 27 and, in addition to the upright front and rear walls, the forwardly and upwardly inclined front surface portion 28 at the lower end of the front wall of the block. Block 27 also has a transverse slot 29 formed through the forward portion thereof adjacent the upper end of said block for mounting a spring means for use in the manner hereafter described.

There is formed through block 26 a downwardly extending delivery passage 31 whose upper end is interiorly threaded as at 30 to cooperatively and retainingly receive the conventional threaded outlet 32 at the lower end of the inverted collapsible tube 33 which is positioned within said housing in the manner shown in Fig. 2.

A cap 34 is provided upon the lower end of block 26 and includes the parallel spaced upright side walls 35 which engage around the opposing upright side walls 27 of the block, and at the rear ends of side walls 35 are pivoted as at 40 to a lower portion of the block. The cap includes an intermediate bottom wall portion 36 which cooperatively engages the bottom wall of block 26. The cap wall 36 terminates in the upwardly inclined forwardly extending wall 37 which is adapted to parallel engaging relation with the inclined surface 28 formed in the block 26 and with which the lower end of passage 31 registers.

By this construction the cap formation and particularly the wall 37 thereof is adapted to close off the said passage when in the position shown in Fig. 2. To improve this closing off function there is provided upon the inner surface of wall 37 a hemispherical projection 38 of such diameter as to cooperatively project within the outlet end of passage 31 to effectively close off the lower end of passage 31 and to maintain any accumulated paste or cream therein.

The upper end of wall 37 extends forwardly and outwardly beyond block 26 to provide the operating handle 39 by which the said cap may be pivoted downwardly manually to the position shown in Fig. 3 to permit the application below block 26 of the bristles 51 on the tooth brush 50, shown in dotted lines, by which a ribbon 52 of paste or cream may be evenly applied to the said bristles as the same are manually withdrawn forwardly or to the right of Fig. 3.

There is provided around the lower end of block 26 the U-shaped stirrup 41, the central portion of which engages under the cap 34 as at point 42 forwardly of its pivotal mounting 40, as shown in Fig. 2. The upper ends of the stirrup are looped as at 43 to permit attachment thereto upon opposite sides of the block of the coiled spring elements 44 and 45, respectively. The upper ends of said springs are interconnected by a transverse bar or plain portion 46 which is supportably nested and retained within the slot 29 in the block.

Consequently, the springs are effective for maintaining the cap closed in the position shown in Fig. 2. However, manual opening of the cap will be against the tension of the springs 44 and 45, as shown in Fig. 3.

There is provided within housing 11 a transversely ar-

ranged preferably hollow cylinder 47 which is adapted for loose longitudinal sliding movement downwardly within said housing. In operation, the cylinder 47 may be manipulated through the slot 16 in the front wall and may be gradually moved downwardly by a rolling motion along the outer surface portion 48 of the tube to thereby compressively engage between the roller and rear wall 12 a portion of said tube as at 49 for gradually extruding the paste or cream from the tube and out through passage 31, as desired.

Having described our invention, reference should now be had to the claims which follow for determining the scope thereof.

We claim:

1. A dispenser for cream or paste stored in a collapsible tube comprising an upright hollow housing including front, rear and side walls, adapted for mounting upon a room wall, said front wall having an upright central slot throughout a substantial portion of its height, a dispensing block depending from the lower end of the housing and having therein a downwardly extending delivery passage, a portion of which is adapted to retainingly receive the reduced outlet of an inverted tube stored within said housing, a cylindrical roller loosely and movably positioned within the housing with its axis transverse to the longitudinal axis of the housing, retained by its walls and compressively projecting a portion of the adjacent tube against said rear wall, said cylinder being manipulatable downwardly through said slot for forcing cream or paste out of said passage, a cap to close the delivery passage including a pair of upright spaced side walls engaging opposite sides of the block and pivotally mounted therebelow, a U-shaped stirrup supportably engaging said cap extending around its side walls forwardly of the pivotal mounting, and a coiled spring element mounted upon said block with the free ends respectively joined to the free ends of the stirrup.

2. A dispenser for cream or paste stored in a collapsible tube comprising an upright hollow housing including front, rear and side walls, adapted for mounting upon a room wall, said front wall having an upright central slot throughout a substantial portion of its height, a dispensing block depending from the lower end of the housing and having therein a downwardly extending delivery passage, a portion of which is adapted to retainingly receive the reduced outlet of an inverted tube stored within said housing, a cylindrical roller loosely and movably positioned within the housing with its axis transverse to the longitudinal axis of the housing, retained by its walls and compressively projecting a portion of the adjacent tube against said rear wall, said cylinder being manipulatable downwardly through said slot for forcing cream or paste out of said passage, said block having an upwardly and forwardly inclined front surface into which said passage extends, a cap including a pair of spaced upright side walls, engaging opposite sides of the block and pivotally mounted thereon, said cap including an upwardly and forwardly extending angular wall adapted for parallel engaging registry with the inclined front surface of the block to close said passage, and spring means mounted upon said block extending under said cap forwardly of its pivotal mounting, the angular wall of the cap extending outwardly of the block providing an operating handle for the cap.

3. The dispenser of claim 1, said housing being open ended, an internal flange extending around the lower end of the housing, a horizontally disposed mounting plate forming a part of said block at its upper end of a dimension to be loosely slidable longitudinally within said housing, the edges of said mounting plate supportably engaging said flange.

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