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SANITARY HOLDER FOR COLLAPSIBLE TUBES

Filed April 16, 1930

Fig. 1

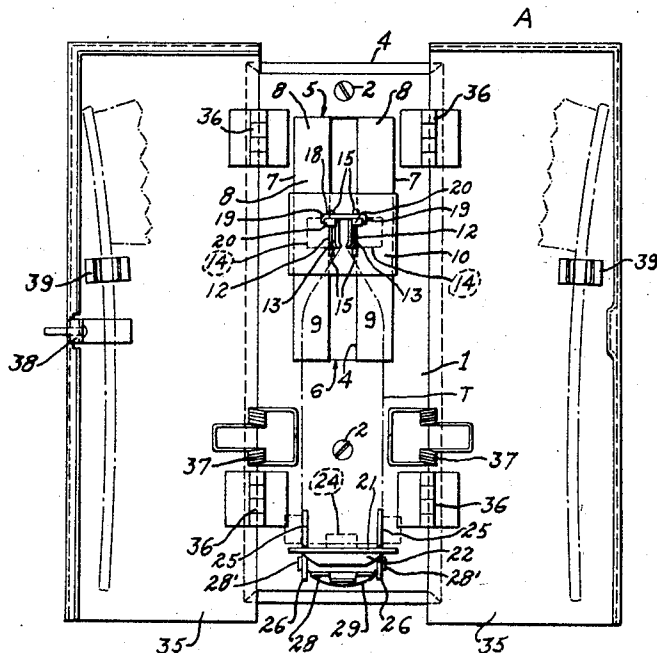


Fig. 2

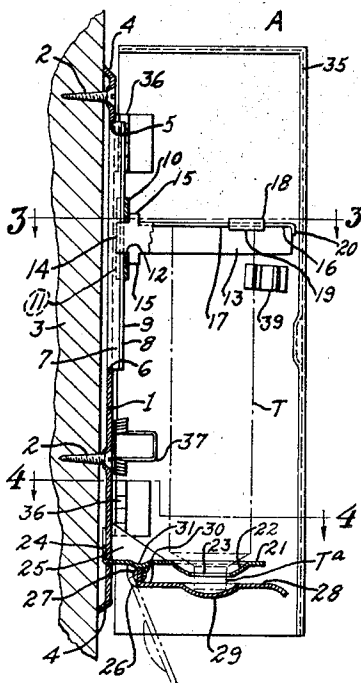


Fig. 3

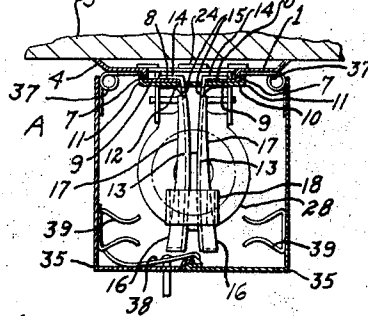
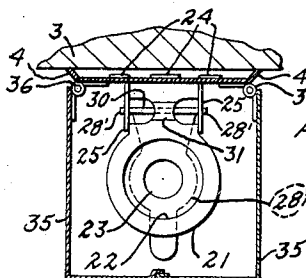


Fig. 4



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SANITARY HOLDER FOR COLLAPSIBLE TUBES

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This invention relates generally to sanitary holders for collapsible tubes containing toothpaste, shaving cream, and like material, one object of the invention being the provision of a device of this character by which the tube is supported with the outlet end downward, and which includes novel and improved means for clamping the tube in place, and improved hinged means for closing the lower open end of the tube.

Prior to this invention a number of patents have been issued on devices of the general type of the one disclosed herein, but in so far as I am aware, all of these devices are deficient to such extent that they are not capable of practical use. For instance, some of these devices are of such construction that the manufacturing cost thereof is too great, and in other cases the devices are provided with numerous moving parts and hence are likely to get out of order. Also, some of the former devices referred to required the use of special tubes, and this condition complicated the use thereof.

My improved device is of extremely simple construction whereby the cost thereof is prevented from being excessive, and also said device includes very few movable parts. In addition to the foregoing, my device is capable of use with standard tubes containing toothpaste and shaving cream produced by various manufacturers, hence no complications in this connection are encountered.

Fig. 1 is a front elevation of my improved device.

Fig. 2 is a vertical section through the device illustrated in Fig. 1, showing a part of the housing in a closed position.

Fig. 3 is a horizontal section on line 3—3 of Fig. 2.

Fig. 4 is a horizontal section on line 4—4 of Fig. 2.

In the drawing, wherein is shown for the purpose of illustration, merely, one embodiment of the invention, A designates the improved device generally, said device including a base member 1 secured by means of screws, or other suitable fastening devices 2, to a support 3. The base member 1 is preferably provided with a marginal flange 4 which

serves to give said base member an improved appearance. The base member 1 is provided with a vertically extended slot 4, said base member preferably being slit horizontally at 5 and 6 and the material of the base member at opposite sides of the slot 4 being bent forwardly at 7 and horizontally at 8, as shown in Fig. 3, to provide raised portions 9.

10 designates a rigid strap which extends transversely of the oppositely disposed raised portions 9, said strap being provided with inwardly extended flanges 11 at its opposite ends which embrace the forwardly extended portions 7 of the base member 1. The strap 10 is movable vertically with respect to the raised portions 9, and because the flanges 11 contact with the forwardly extended portions 7 of said raised portions, the strap is guided thereby in its vertical movement.

The strap 10 is provided with a pair of vertically extended slots 12 through which the rearward end portions of a pair of clamping elements 13 extend. Each of the clamping elements 13 at the inner end thereof is provided with an outwardly bent portion 14, said portions 14 being extended parallel with the horizontal portions 8 of the raised portions 9 and being adapted to be drawn into close frictional contact with the inner faces of said horizontal portions 8 (Fig. 3). The clamping elements are each provided with a pair of upwardly and downwardly projected extensions 15 (Figs. 1 and 2), which are arranged in contact with the forward face of the strap 10 adjacent to the slots 12 so as to prevent rearward movement of the clamping elements with respect to the strap. The clamping elements 13 are curved slightly when viewed in plan, as illustrated in Fig. 3, and said clamping elements are provided with outwardly extended flange portions 16, the outer edges 17 of which are likewise curved slightly in plan. 18 designates an adjusting member which is slidably mounted on the clamping elements 13, the opposite end portions of said adjusting member being turned under as indicated at 19 in a manner to cause said end portions to embrace the flange portions 16 of the clamping elements 13. The flange portions 16 are turned downwardly at their forward ends, as

indicated at 20 in Figs. 1 and 2, so as to prevent the adjusting member 18 from being disengaged from the clamping elements.

The outwardly extended portions 14 of the clamping elements are normally under slight tension, which tends to move the outer ends of the clamping elements 13 outwardly, or away from each other. However, the position of the adjusting member 18 with respect to the lengths of the clamping elements regulates the degree of separation permitted to said clamping elements, it being plain that because of the curved edges 17 of the flange portions 16 of said clamping elements with which the adjusting member cooperates, said clamping elements may be moved toward and from each other by sliding the adjusting member longitudinally thereof. It is likewise plain that when the adjusting member 18 is located at the rear portions of the clamping elements so as to permit the forward end portions of said clamping elements to be separated from each other, the frictional grip between the portions 14 of said clamping elements and the rear faces of the portions 8 of the base 1 will be lessened, so as to permit the clamping elements together with the strap 10 to be moved vertically with respect to the base 1, whereby said parts may be located at various elevations. Also, when the parts referred to have been properly positioned with respect to the elevation thereof, they may be clamped in such position by moving the adjusting member 18 outwardly relative to the clamping elements, whereby the outer end portions of said clamping elements will be drawn toward each other and the outwardly extended portions 14 are drawn into close frictional contact with the rear faces of the base portions 8. It will be noted that during such adjustment the clamping elements 13 pivot about a point which is located substantially at the slots 12 in the strap 10.

Arranged adjacent to the lower end of the base 1 is a horizontally disposed member 21 which is provided with a cup-shaped portion 22 in which an aperture 23 is found. The member 21 is secured to the base 1 of the device by means of portions 24 which are extended through apertures formed through said base, and are bent over in contact with the rear face of the base, whereby the wall of the base is interposed between said bent over portions and portions of said member 21, which contact with the forward face of the base. The member 21 is provided with strengthening webs 25 and with a pair of spaced apart, downwardly extended ears 26. The ears 26 are provided with apertures 27, and 28 designates a closure element which is pivoted to the ears 26 through the instrumentality of oppositely extended portions 28' thereof which are disposed in the apertures 27 in the spaced apart ears 26. The closure element 28 is provided with a depressed por-

tion 29 which when the closure element is in its elevated position is disposed immediately beneath the aperture 23 in the member 21, and said closure element is provided with a portion 30 which is adapted to contact with a downwardly curved portion 31 formed on the member 21. The member 21 is formed of material which is possessed of some spring and therefore, when the closure element is moved to the elevated position in which it is shown by full lines in Fig. 2, the edge of the portion 30 of said closure element will contact very closely with the curved face of the portion 31 of the member 21, so that said edge of said portion 31 will be frictionally gripped and the closure element held in its elevated position. However, when it is desired to lower the closure element to the position in which same is shown by dotted lines in Fig. 2, it is necessary merely that said closure element be moved downwardly about its pivots with sufficient force to overcome the frictional grip between the edge of the portion 30 of the closure element and the curved face of the portion 31.

In the use of my improved device, a tube T of toothpaste or shaving cream is inverted so as to locate the discharge end thereof at the bottom after removing the cap of said tube. The neck portion T^a of the tube T is passed through the aperture 23 in the member 21, and the upper, closed end of the tube is clamped between the clamping elements 13, this latter operation being performed by sliding the adjusting member 18 rearwardly relative to the clamping elements, so as to permit the separation thereof, and after introduction of the upper end of the tube between the clamping elements moving the adjusting member forwardly to draw the clamping elements together so as to clamp the end of the tube therebetween. With the tube clamped in place as described and the closure element 28 in its elevated position so as to close the discharge end of the tube, the device is ready for use, and the contents of the tube may be withdrawn therefrom by lowering the closure element 28, and, after arranging a toothbrush or a shaving brush below the open, discharge end of the tube, squeezing the desired amount of material from the tube by pressing same with the fingers.

If desirable, the improved device disclosed herein may include a housing which is produced by a pair of elements 35, which are hinged to the base 1 by means of suitable hinges 36. These hinged elements are preferably provided with springs 37, which tend to move same to their open positions, and a suitable catch mechanism 38 is employed to retain the hinged elements in their closed positions against the action of the springs 37. Also, if desired the hinged elements 35 may be provided with clips 39 adapted to receive toothbrushes or shaving brushes.

When the hinged elements 35 are in their closed positions, as shown in Figs. 3 and 4, they provide a housing which entirely encloses the various parts of the device, and when it is desired to use the device the catch mechanism 38 may be actuated to permit the springs 37 to move the hinged elements to the open positions in which they are illustrated in Fig. 1, whereupon access may be had to the tube T associated with the device.

I claim:

1. A collapsible tube holder comprising a base, means for clamping a collapsible tube in place comprising a pair of movable clamping elements, and means for drawing said clamping elements toward each other to perform the clamping operation, the last-mentioned means comprising a member slidably supported by said clamping elements, and faces on said clamping elements which lie at an angle with respect to the line of movement of said member and with which said member slidably contacts.

2. A collapsible tube holder comprising a base, means for clamping a collapsible tube in place comprising a pair of movable clamping elements, means for rendering said clamping elements capable of substantial pivotal movement with respect to said base, the last-mentioned means comprising a member supported by said base, and extensions on said clamping elements extended through apertures formed through said member, means associated with said clamping elements for moving same in a direction away from each other, and means slidably mounted on the clamping elements for drawing same toward each other.

3. A collapsible tube holder comprising a base, means for clamping a collapsible tube in place comprising a pair of movable clamping elements capable of substantial pivotal movement with respect to said base, means associated with said clamping elements for moving same in a direction away from each other, said means comprising resilient extensions on said clamping elements which contact with said base, and means slidably mounted on the clamping elements for drawing same toward each other.

4. A collapsible tube holder comprising a base, means for clamping a collapsible tube in place comprising a pair of movable clamping elements, a support for said clamping elements movable with respect to said base, means comprising resilient extensions on said clamping elements adapted to contact with said base in a manner which tends to move said clamping elements apart, and means slidably mounted on said clamping elements for drawing same toward each other.

5. A collapsible tube holder comprising a base, means for clamping a collapsible tube in place comprising a pair of movable clamping elements, a support for said clamping ele-

ments movable with respect to said base, said clamping elements being capable of substantial pivotal movement with respect to said support, means comprising resilient extensions on said clamping elements adapted to contact with said base in a manner which tends to move said clamping elements apart, and means slidably mounted on said clamping elements for drawing same toward each other.

6. A collapsible tube holder comprising a base, means for clamping a collapsible tube in place comprising a pair of movable clamping elements, means whereby said clamping elements are slidably supported by said base, means slidably mounted on the clamping elements for drawing said clamping elements toward each other to perform the clamping operation, a supporting element for the end of the tube opposite to the end thereof which is engaged by the clamping elements, said supporting element being fixed immovably to said base and being provided with an aperture through which the neck portion of the tube extends, and a closure for closing the outlet of the tube at the neck thereof.

7. A collapsible tube holder comprising a base, means for clamping a collapsible tube in place comprising a pair of movable clamping elements, means whereby said clamping elements are slidably supported by said base, means slidably mounted on the clamping elements for drawing said clamping elements toward each other to perform the clamping operation, a supporting element for the end of the tube opposite to the end thereof which is engaged by the clamping elements, said supporting element being fixed immovably to said base and being provided with an aperture through which the neck portion of the tube extends, and a pivoted closure for closing the outlet of the tube at the neck thereof.

In testimony that I claim the foregoing I hereunto affix my signature.

EDMUND J. FABER.