Nov. 3, 1936. F. PEDDIE ET AL 2,059,391

TOOTH PASTE DISPENSING DEVICE

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Fig. 1.

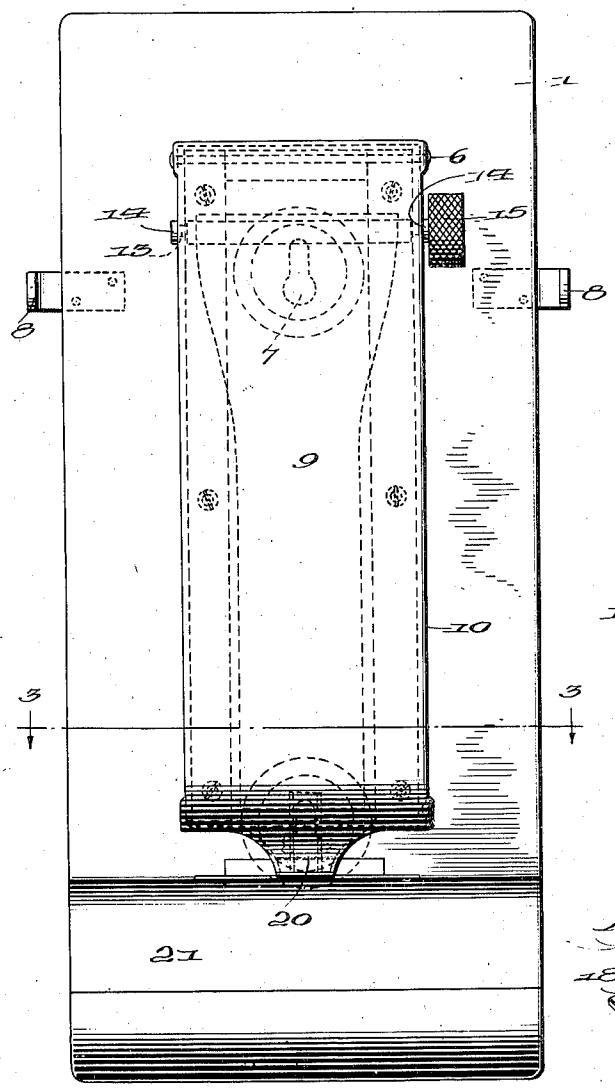


Fig. 2.

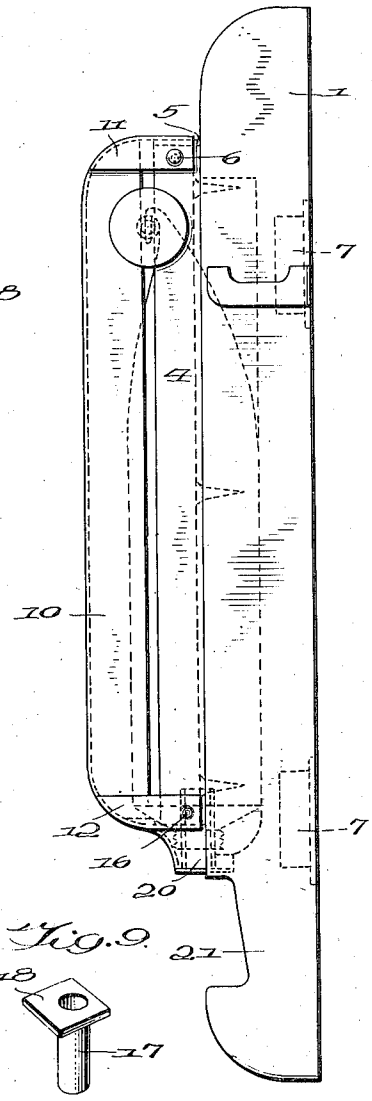


Fig. 3.

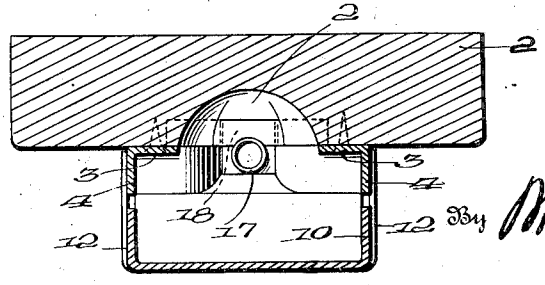


Fig. 9.

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Fig. 4.

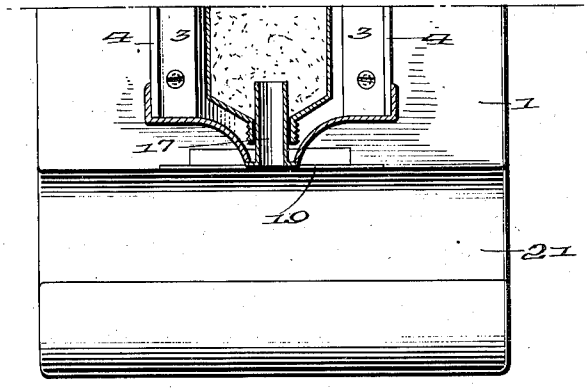


Fig. 5.

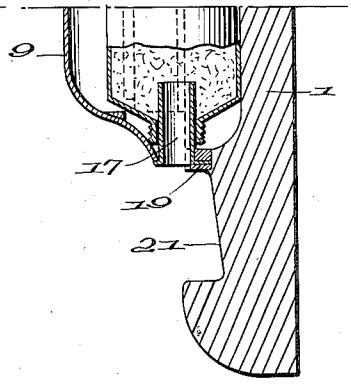


Fig. 6.

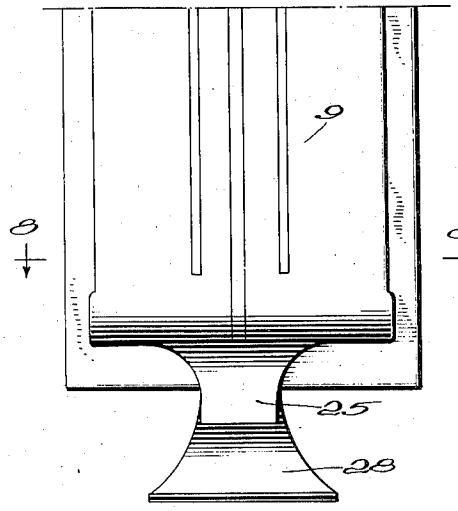
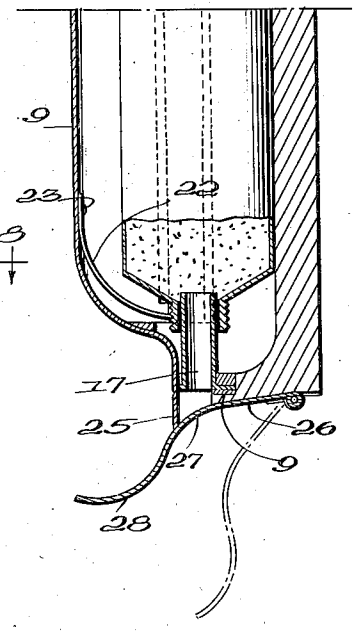


Fig. 7.



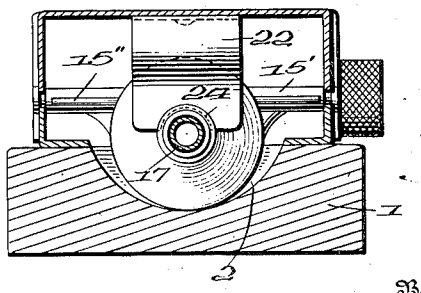


Fig. 8.

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UNITED STATES PATENT OFFICE

2,059,391

TOOTH PASTE DISPENSING DEVICE

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Application December 18, 1935, Serial No. 55,096

10 Claims. (Cl. 221—60)

The present invention relates to dispensers for pastes, creams, and the like, and is directed to a device for holding and assisting in the dispensing from a collapsible tube small quantities of tooth paste, shaving cream, etc., onto a brush or into a receptacle.

An object of the invention is to provide a portable tooth paste dispenser.

Another object is to provide a container in which the collapsible tube may be readily inserted and easily removed after the contents thereof have been discharged.

Another object of the invention is to provide a container constructed and adapted to support in dispensing position tubes of various sizes.

Still another object of the invention is to so support the collapsible tube that it need not be screwed into the base of the container, but is held in a position preventing the unintentional discharge of its contents, and from moving upwardly as the contents are discharged.

Another object of the invention is to provide a tube holder which will so support the tube that its contents may be easily discharged without waste of said contents by offering no obstruction to the discharge of the contents.

A further object is to provide a pivoted member which acts as a closure when the contents of the tube are not being dispensed, and as a support for a brush when the contents are being dispensed.

A further object of the invention is to provide an attractive tube-holding device having a minimum number of parts, and which is not liable to become out of order.

Other objects and advantages will appear hereinafter throughout the specification.

In the drawings:—

Figure 1 is a front elevation of one application of our invention;

Figure 2 is a side elevation of the device shown in Figure 1;

Figure 3 is a horizontal section taken on the line 3—3 of Figure 1;

Figure 4 is a view partly in front elevation and partly in vertical section of the lower end of the device shown by Figure 1;

Figure 5 is a vertical section of the device illustrated in Figure 4;

Figure 6 is a front elevation of a modified form of our invention;

Figure 7 is a vertical section of the device shown in Figure 6;

Figure 8 is a horizontal section taken on the line 8—8 of Figure 6, and

Figure 9 is a detailed view of the removable pipe shown in Figure 7.

Referring to Figures 1 to 5 of the drawings, the numeral 1 indicates a back plate having a hollowed-out portion 2 for the reception of a tube of tooth paste, shaving cream, or the like. Fixedly attached to the back plate 1 are a plurality of right-angle members 3 having side flanges 4. There is a top flange 5 attached to the back plate. Located adjacent the upper ends of the side flanges is a pintle 6. The back plate has on its rear side one or more key-hole slots 7, indicated by dotted lines, for attaching the same to a wall or other support, and the sides of the back plate are shown as provided with a number of supporting members 8 for holding tooth brushes. Pivotally mounted on the pintle 6 so as to swing thereon is a front plate 9 having side flanges 10 and upper extensions 11, there being also lower extensions 12. These extensions provide an arrangement whereby the front plate may be pivotally attached to the back plate and held in closed position, as indicated in the several figures, as well as to allow slots between the side flanges of the back plate and the side flanges of the front plate. These slots retain in a position so as to be vertically movable, a shaft 13 having heads 14 and a knurled roller 15. Located between the slots is a roller 15' having slots 15'', as shown in Figure 8, through which the end of a collapsible tube is adapted to be inserted. The lower extensions 12, which are preferably of sheet metal, are provided with stud members 16 which, being of sheet metal, spring into depressions, not shown, in the lower portions of the side flanges 4.

As shown in Figure 5 there is a pipe 17 over which the nozzle of the collapsible tube is adapted to be placed. The lower end of this pipe has a squared plate 18 and a plurality of the sides of this plate are adapted to fit within a slot 19 in the back plate. It will be noted by reference to Figure 9 that the pipe is eccentrically attached to the plate. The larger area of this plate is adapted to be inserted within the slot 19, while the smaller area is located below the end 20 of the front plate in Figures 1 to 5, or is embraced by a squared portion 25 comprising the lower end of the front plate, in Figures 6 to 8. The purpose of making the squared end eccentric with relation to the pipe is to provide a firm anchoring place within the slot to prevent turning of the pipe or other movement, while the smaller ends fit snugly against the squared portion 25 of the front plate, in that form shown by Figures 6 to 8.

The roller upon which the knurled head 14 is mounted may have gears which run upon flat toothed portions attached preferably to the interiors of the side flanges of either the front plate or back plate so that as the knurled member is turned the gears mesh with the tracks or toothed portions and are caused to follow along the same as the end of the tube is gradually wound up upon the roller, as the contents of the tube are dispensed. This construction has not been shown, as it is more or less conventional and has been disclosed in many prior patents, and is not claimed herein. There is a transverse groove 21 located adjacent the bottom of the back plate for the reception of a tooth brush during the dispensing of the contents of the collapsible tube.

In Figures 6, 7 and 8, which disclose a slightly modified form, it will be noted that the interior of the front plate is provided with a curved spring plate 22 which is rigidly attached at one end to the rear side of the front plate as at 23. The opposite end of this spring plate is of semi-circular curvature, as indicated at 24 so as to embrace the screw-threaded nozzle of the collapsible tube and prevent upward movement of the same as the contents are dispensed from the tube, which takes place when the knurled head 15 is rotated to wind up the tube on the roller to which it is attached. An additional feature disclosed in Figures 6 and 7 will be seen from an inspection of these figures, wherein the front plate is provided with an extension 25 which embraces three sides of the squared plate 18 of the pipe. This extension is continued on down to form a continuation of the pipe 17. The lower portion of the back plate 1 has been removed and there has been substituted a pivoted valve and support 26 which is of general S shaped curvature in cross section as indicated in Figure 7. A convex portion 27 forms a tight closure at the base of the front and back plates, and the concave portion 28 of this plate forms a suitable receptacle for a tooth brush when the valve has been swung to an open position. It will be noted that this concave portion is located immediately underneath or in vertical alignment with said tube 17 when it has been swung down to the dotted line position. The advantages of the construction shown by Figures 6 and 7 are three-fold. The extension 25 of the front plate securely embraces the squared portion on three sides of the plate 18, and its lower end forms an abutment against which the pivoted valve abuts in closed position. The valve, due to the convex portion, forms a fairly tight closure, as shown in the full line position, and when in open position, forms a holder and positioning means therefor, for a tooth brush. While the pipe 17 may be immovably attached to the back plate, we have shown said pipe as being removable. When the pipe is constructed so as to be removable it may be replaced by a larger or smaller diametered pipe so that a larger or smaller tube may be used. It will be apparent that a larger tube will have a larger nozzle than a smaller tube.

The roller 15' must be substantially one-half inch in diameter or of larger diameter in order to provide free rolling movement when the knurled roller is turned. This will prevent binding and insure freer movement of the roller as it moves the length of the slots defined by the side flanges of the front and back plates.

Among the advantages to be obtained from our improvements over those of the prior art will be noted the small number of parts employed; the use of a removable pipe 17 which may be cleaned regularly and replaced with larger or smaller ones to accommodate different sized tubes; the spring plate having a curvature such that when engaged with the end of the tube will prevent the tube moving upward to any extent during the dispensing of the contents thereof; the pivoted valve having the function of closing the space leading to the interior of the tube and providing a supporting means for a brush located directly below the tube during the dispensing of the contents and while the valve is open; the provision of a comparatively flat front plate having upper and lower extensions and the side flanges of the front and back plates so as to provide a plurality of slots and form a supporting means for pivotally supporting said front plate, and a holding means for holding said front plate in its closed position. It is to be understood that this specification and the drawings are intended for illustrative purposes only and not to be used in a limiting sense, and that we desire to vary the details of construction and arrangement of parts without departing from the spirit of our invention, only to the extent as defined in the appended claims.

We claim:—

1. In a device for holding collapsible tubes and the like, a casing consisting of a plurality of parts hinged together at one end and providing slots on opposite sides thereof, one of said parts providing a backing, means on said backing for attaching the same to a suitable support, a discharge opening formed at the bottom of another of said parts, and means attached to the interior of another of said hinged parts for engaging the neck of a collapsible tube to hold the tube in place during the discharge of the contents thereof.

2. In a device for holding collapsible tubes and the like, a casing consisting of a plurality of parts hinged together at one end and providing slots on opposite sides thereof, one of said parts providing a backing, means on said backing for attaching the same to a suitable support, a discharge opening formed at the bottom of another of said parts, and a spring means attached to the interior of another of said hinged parts for engaging the neck of a collapsible tube to hold the tube in place during the discharge of the contents thereof.

3. In a device for holding collapsible tubes and the like, comprising a two-part casing, and a hinge connecting said parts together near the upper ends thereof, one of said parts having a slot and the other of said parts having a squared opening located adjacent to said slot when the parts are in closed position, and a pipe member having an end adapted to be inserted in the end of a collapsible tube, the opposite end of said pipe having a squared plate attached thereto whereby certain of the sides of said squared plate may be inserted in said slot and the other sides may be embraced by the squared opening of said other member.

4. In a device for holding collapsible tubes and the like, comprising a two-part casing, and a hinge connecting said parts together near the upper ends thereof, one of said parts having a slot and the other of said parts having a squared opening located adjacent to said slot when the parts are in closed position, and a pipe member having an end adapted to be inserted in the end of a collapsible tube, the opposite end of said pipe having a squared plate attached in eccentric relation thereto, whereby certain of the sides of said squared plate may be inserted in said slot of

said slotted part and other sides may be embraced by the squared opening of said other part.

5. In a device for holding collapsible tubes and the like, comprising a two-part casing, and a hinge connecting said parts together near the upper ends thereof, one of said parts having a slot and the other of said parts having a squared opening located adjacent to said slot when the parts are in closed position, and a pipe member having an end adapted to be inserted in the end of a collapsible tube, the opposite end of said pipe having a squared plate attached thereto whereby certain of the sides of said squared plate may be inserted in said slot of said slotted part and the other sides may be embraced by the squared opening of said other part, and a second plate having one of its ends attached to said last named part and another of its ends adapted to engage the neck of a collapsible tube when the other part is in closed position.

6. In a device for holding collapsible tubes and the like, comprising a two-part casing, and a hinge connecting said parts together near the upper ends thereof, one of said parts having a slot and the other of said parts having a squared opening located adjacent to said slot when the parts are in closed position, and a pipe member having an end adapted to be inserted in the end of a collapsible tube, the opposite end of said pipe having a squared plate attached thereto whereby certain of the sides of said squared plate may be inserted in said slot of said slotted part, and the other sides may be embraced by the squared opening of said other part, and a curved plate having one of its ends attached to said last named part, and another of its ends adapted to engage the neck of a collapsible tube when the other part is in closed position.

7. In a device for holding collapsible tubes and the like, comprising a casing including a back plate, a front plate having rearward extensions at its upper and lower ends, said upper extensions having means for pivotally connecting the same to said rear plate, said lower extensions having pressed-out portions for engaging recesses adjacent the lower end of said back plate, said extensions providing slots, a shaft having opposite ends mounted within said slot, and a roller mounted on said shaft, and means attached to the inside of said front plate for engaging the discharge end of a collapsible tube when said plates are in closed position only.

8. In a device for holding collapsible tubes and the like, comprising a casing including a back plate, a front plate having rearward extensions at its upper and lower ends, said upper extensions having means for pivotally connecting the same to said rear plate, said lower extensions having pressed-out portions for engaging recesses adjacent the lower end of said back plate, said extensions providing slots, a shaft having opposite ends mounted within said slots and a roller mounted on said shaft, and means comprising a curved spring plate attached to the inside of said front plate for engaging the discharge end of a collapsible tube when said plates are in closed position.

9. In a device for holding collapsible tubes and the like, comprising a casing including a back plate, a front plate having rearward extensions at its upper and lower ends, said upper extensions having means for pivotally connecting the same to said rear plate, said lower extensions having pressed-out portions for engaging recesses adjacent the lower end of said back plate, said extensions providing slots, a shaft having opposite ends mounted within said slots and a roller mounted on said shaft, and means attached to the inside of said front plate for engaging the discharge end of a collapsible tube when said plates are in closed position, said front plate having a squared opening, a pipe having means for supporting the same to said back plate and having a squared end adapted to be embraced by the squared opening in said front plate when the parts are in closed position.

10. In a device for holding collapsible tubes and the like, comprising a back plate having means for attachment to a suitable support, a hollowed interior for housing a collapsible tube, straight side walls and a top wall extending forwardly from said plate, a pintle located adjacent the upper end of said side walls, a front plate having side wall extensions and top wall and bottom wall extensions extending beyond said side wall extensions, said top wall extensions having means for supporting said front plate on said pintle, said bottom wall extensions having a plurality of spring catches extending upwardly from said bottom wall extension and adapted to engage recesses adjacent the bottoms of said straight side walls, and means attached to said front plate for engaging the neck of a collapsible tube to prevent upward movement thereof during the dispensing operation, the forward ends of said straight side walls of the back plate and the rearwardly extending walls of said front plate providing slots, a shaft located in said slots, and a roller mounted on said shaft.

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