

July 29, 1958

W. H. J. DOWNEY
TOOTHPASTE DISPENSER
Filed Oct. 31, 1956

2,845,202

FIG. 1

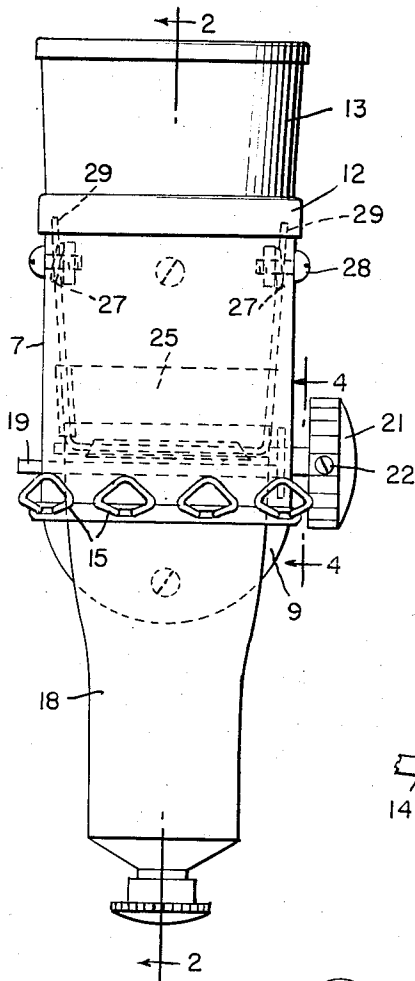


FIG. 2

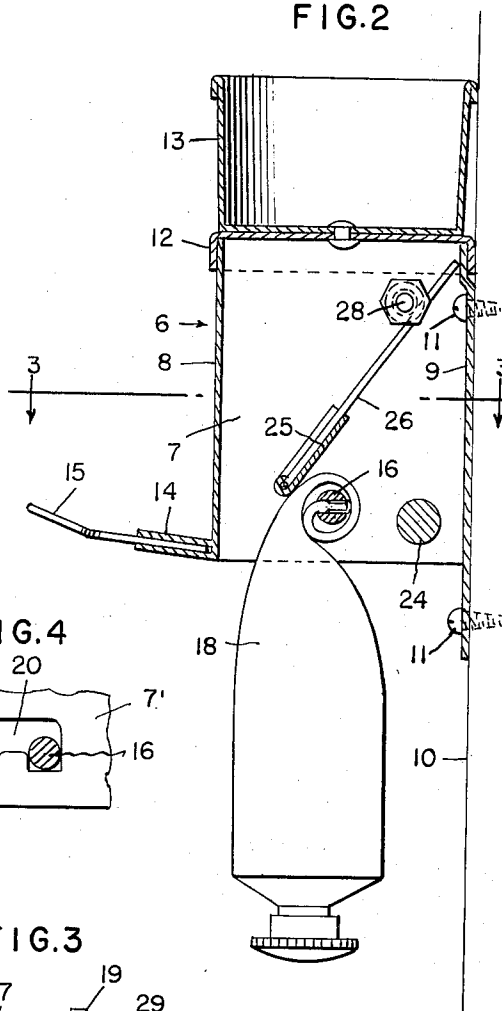


FIG. 4

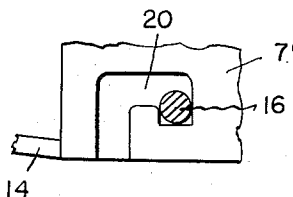


FIG. 3

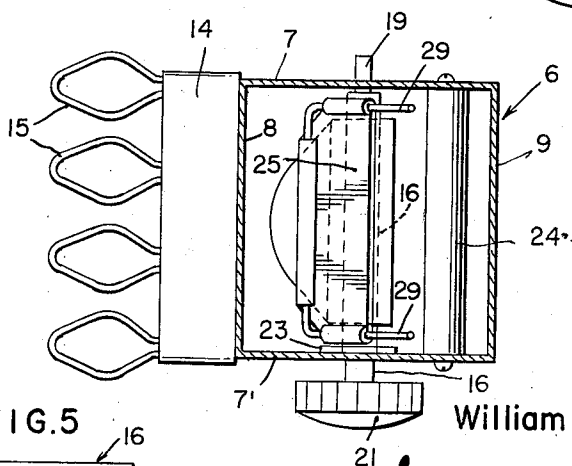
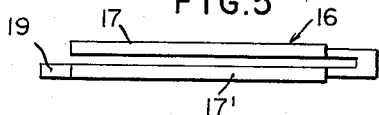


FIG. 5



Inventor
William H. J. Downey

Harvey & Harvey
ATTYS

1

2,845,202

TOOTHPASTE DISPENSER

William H. J. Downey, Wilmington, Del.

Application October 31, 1956, Serial No. 619,598

2 Claims. (Cl. 222-97)

This invention is a toothpaste dispenser for holding and extruding toothpaste from a tube.

It is an object of this invention to provide a toothpaste dispenser for holding a tube of toothpaste in a ready position for dispensing, exerting pressure on opposed sides of the tube to squeeze the toothpaste towards the open end of the tube, thereby collapsing the tube, and, advancing the collapsed portion of the tube to a shaft upon which it is wound.

Another object is to provide a toothpaste dispenser adapted to be mounted on a wall and comprising a few simple parts which are detachably engaged to facilitate the removal of an empty tube from the dispenser and the insertion of a new tube.

A further object of the invention is to provide a multipurpose shaft which supports a toothpaste tube in a frame; collapses the closed end of the tube; urges the tube outwardly from the frame into dispensing position; rotates the closed end of the tube and effects dispensing of the toothpaste by urging the tube against a part of the frame or frame attachment to the exclusion of all other extraneous parts, such as rollers.

Other objects of the invention will be manifest from the following description of the invention, taken in connection with the accompanying drawings, wherein:

Fig. 1 is a front elevational view of a toothpaste dispenser illustrating its application;

Fig. 2 is a vertical sectional view taken along the lines 2-2 of Fig. 1, looking in the direction of the arrows and illustrating the present invention mounted on a wall;

Fig. 3 is a horizontal sectional view taken along the lines of 3-3 of Fig. 2, looking in the direction of the arrows;

Fig. 4 is a fragmentary sectional view taken along the lines 4-4 of Fig. 1, looking in the direction of the arrows; and

Fig. 5 is a plan view of the winding shaft forming a part of the present invention.

Referring now in greater detail to the present invention, the dispenser comprises a frame 6, having side sections 7 and 7', a front section 8 and a rear section 9, the latter being preferably secured to a wall 10 by suitable means 11. Frame 6 is further provided with a detachable cover 12, the margins of which are bent to frictionally engage the upper portions of side sections 7 and 7', front section 8 and rear section 9. The device of the present invention particularly lends itself to support a drinking glass and a plurality of toothbrushes for which purpose a circular glass holder 13 is secured to cover 12 in any suitable fashion and the lower margin of front section 8 is bent outwardly to form a flange 14 to which is secured a plurality of spaced wire members 15 between which the toothbrushes are held.

For supporting the tube of toothpaste between side sections 7 and 7' of frame 6, there is provided a bifurcated shaft 16 shown to advantage in Fig. 5. Shaft 16 includes furcations 17 and 17', between which the closed end of tube 18 is inserted and pinchingly engaged there-

2

by to permit winding of the collapsed portion of the tube upon the shaft. Furcation 17' is extended beyond the terminal of furcation 17 to provide a pintle 19 adapted to be rotatably mounted in an opening in the lower portion of side section 7. To facilitate removal of shaft 16 from the frame, side section 7' is provided with a bayonet slot 20 through which the free end of the shaft passes. Rotation of shaft is effected by a finger-operated knob 21 fixed to shaft 16 by a setscrew 22. A conventional washer 23 is mounted on shaft 16 between the inner wall of side section 7' and tube 18. A brace 24 connects side sections 7 and 7' at a point adjacent shaft 16.

In addition to its function of winding the collapsed portion of tube 18 thereon, shaft 16 coacts with a presser plate 25 to squeeze the toothpaste towards the open end of the tube. Presser plate 25 is of flat rectangular shape and is coextensive with the width of the tube. Plate 25 is supported in tensioning relation to the tube by a substantially U-shaped spring wire 26, the intermediate portion thereof being secured to the plate. The free terminals of spring wire 26 extend upwardly and rearwardly of the frame to a point adjacent the upper limit of the latter, where they are coiled at 27 around screws 28 affixed to side sections 7 and 7'. The terminals 29 of spring wire 26 engage rear section 9 of frame 6 thereby tensioning presser plate 25 into squeezing engagement with tube 18.

In use, shaft 16 is disengaged from frame 6 by first moving shaft 16 through bayonet slot 20 in a well known manner, which action disengages pintle 19 from side section 7. The closed end of tube 18 is inserted between furcations 17 and 17', which members pinch the opposed sides of the tube to prevent accidental displacement of the tube from the shaft. Shaft 16 is then reinserted into the frame in a manner that, upon rotation of shaft 16, tube 18 will pass between shaft 16 and presser plate 25, as shown to advantage in Fig. 2. Tube 18 hangs from shaft 16 in inverted position to facilitate application of toothpaste to a toothbrush. To dispense the toothpaste, knob 21 is rotated, as a result of which, the open end of the tube moves outwardly away from wall 10 until it abuts the lower margin of frame front section 8. Continued rotation of the knob advances the tube upwardly towards shaft 16, thereby training the latter between plate 25 and shaft 16. These members exert a squeezing action on opposed sides of the tube to direct the toothpaste through the open end of the tube by collapsing the tube. Rotation of knob 21 effects simultaneous winding of the collapsed portion of the tube on shaft 16.

While the use of the dispenser of the present invention has been described as being for extruding toothpaste from a tube, such has been done for purposes of illustration only, and it is to be understood that other tube-contained substances, e. g. shaving cream, etc., may be dispensed therefrom in a like manner.

While I have herein described a preferred embodiment of my invention, it is nevertheless to be understood, that various changes may be made therein, without departing from the spirit and scope of the claims hereto appended.

What I claim is:

1. A dispenser for a tube of toothpaste including a frame having an opening and a bayonet slot in opposed walls thereof, the bayonet slot being in communication with one edge of the wall, a bifurcated shaft, between the furcations of which the closed end of the tube is inserted, one furcation extending beyond the terminal of the other furcation to provide a pintle adapted to be received in the opening in the dispenser frame, the opposite end of said shaft being adapted to be received in the bayonet slot, a winding member connected to one terminal of said bifurcated shaft for rotating the latter,

3

and means carried by said frame in engagement with the tube to collapse the portion of the tube upon which it bears, to force the toothpaste out of the open end of the tube, when the winding member is operated.

2. A dispenser for a tube of toothpaste, as set out in claim 1, wherein said means comprises a presser plate 5 hingedly mounted in the frame and normally engaged with that portion of the tube connected to the shaft, and a spring carried by the frame and secured to the presser

4

plate for urging the latter against the tube for effecting positive dispensing of the toothpaste during rotation of the shaft.

References Cited in the file of this patent**UNITED STATES PATENTS**

2,536,867	Barnett	Jan. 2, 1951
2,709,023	Royals	May 24, 1955