April 12, 1932. H. N. ALLINSON 1,853,652

PASTE FEEDER

Filed Feb. 27, 1930

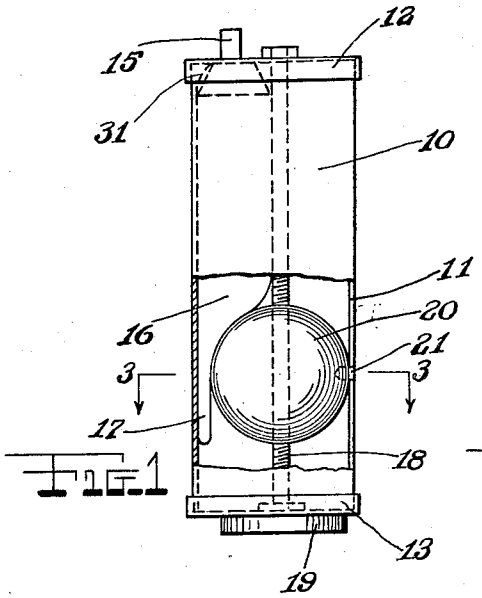

FIG. 1

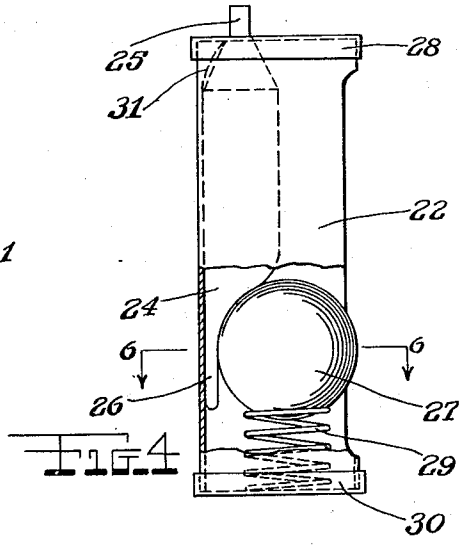

FIG. 4

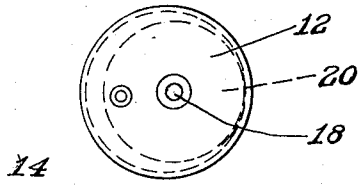

FIG. 2

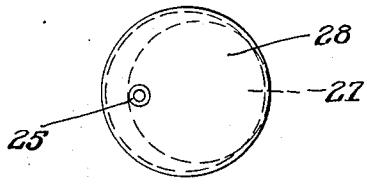

FIG. 5

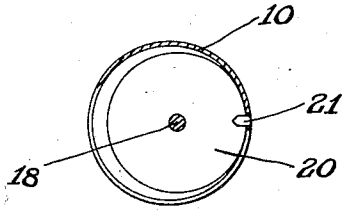

FIG. 3

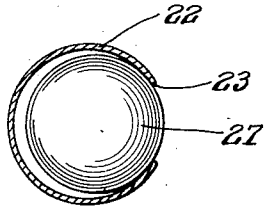

FIG. 6

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UNITED STATES PATENT OFFICE

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PASTE FEEDER

Application filed February 27, 1930. Serial No. 431,658.

The main object of this invention is to provide a preferred type of dispenser using a tubular cylinder in which a screw is mounted, the screw reciprocating a ball in said cylinder in such manner that a portion of the periphery of the ball will expel a quantity of paste from a tube located in the body.

Another object of the invention is to provide a modified type of paste dispenser, comprising a cylinder body in which a ball is projected against a filled tube of paste by a spring, so that a quantity of paste may be expelled from the tube.

The above and other objects will become apparent in the description below in which characters of reference refer to like-named parts in the drawings.

Referring briefly to the drawings, Figure 1 is a longitudinal partially sectioned front elevational view of the preferred type of dispenser.

Figure 2 is a top plan view of Figure 1.

Figure 3 is a cross sectional view taken on line 3—3 of Figure 1.

Figure 4 is a longitudinal partially sectioned front elevational view of the modified type of dispenser.

Figure 5 is a top plan view of Figure 4.

Figure 6 is a cross sectional view of the modified type of dispenser taken on line 6—6 of Figure 4.

Referring in detail to the drawings, the numeral 10 indicates a longitudinal hollow body. A straight longitudinal slot 11 extends the length of the body for a purpose which will be more fully hereinafter described. At the upper end, the body is closed by a cap 12 and at its opposite end a similar cap 13 covers the lower opened end of said body. The upper cap 12 is provided with an aperture 14, through which a spout 15 of a tube of toothpaste or shaving cream 16 extends. The tube 16 is entirely housed within the tubular body and the lower end thereof is normally in flattened condition as indicated by the nunumeral 17.

The threaded stem 18 extends axially throughout the entire length of the body 10 and has its ends rotatably anchored in the caps 12 and 13. The lower end of the threaded stem 18 extends out of the cap 13. To this end a knurled manipulating disc 19 is secured.

A ball 20 is provided with a threaded diametrical opening and engages the threaded stem 18. This ball is of sufficient diameter to exert a pressure against the filled portion of the tube 16, when said tube is to be expelled of its contents. A guide pin 21 juts outwardly from the periphery of the sphere or ball 20 and registers in the slot 11 heretofore mentioned as extending longitudinally in the body 10.

In the modified form of device shown in Figures 4, 5 and 6, a sphere 27 is yieldably mounted upon a spring 29 which rests upon a cap 30. This cap closes the lower end of a tubular body 22. At the upper end of the body 22, a second closure cap 28 is mounted. This cap 28 is also provided with an aperture so that the spout 25 of a tube of toothpaste or shaving cream 24 may project. The flattened end 26 of the tube 24 of the paste rests beneath the surface of the ball 27.

A longitudinal channel 23 is formed lengthwise in the body 22 of the modified form of device and permits a portion of the surface of the ball 27 to project out thereof so that this ball may be rolled over the filled tube of paste. At one position near the upper end of each of the tubular bodies 10 and 22 in the preferred and modified types of dispensers respectively, a shoulder 31 is formed which has a substantially curved surface. This curved surface has a limiting member for preventing displacing a tube of paste 16 or 24.

The devices illustrated in the drawings are adapted to expel a quantity of shaving cream, toothpaste or condiment in paste form from a tube. These tubes, indicated by the numerals 16 and 24 in the preferred and modified types of dispenser respectively, are housed within the bodies 10 and 22. These tubes have their lower closed ends substantially flattened and are sold in this condition. In the preferred type of device, shown in Figures 1, 2 and 3, a ball 20 is adapted to be reciprocated by a threaded stem 18, said ball threadedly engaging a knurled disc 19. The stem

18 being secured to this disc is rotated and said stem engaging said ball 20, moves this ball upwardly against the filled portion of the tube 16. This expels a quantity of paste from the spout 15. In the modified type of device, a ball 27 also abuts the filled portion of the tube 24 but in this type the ball is urged against the filled portion of the tube 24 by manipulation of said ball by the fingers through the channel 23. As the ball is moved upwardly in the body 22, a spring 29, upon which the ball is seated supports the latter and prevents the same from falling.

It is to be noted that certain changes in form and construction may be made without departing from the spirit and scope of the invention.

I claim:

1. In a dispenser, a hollow body adapted to receive a paste tube therein, a ball movable in said body, said body having a channel therein, a portion of said ball protruding thru the said channel and a coil spring supporting said ball, for lifting said ball into extruding contact with said tube.

2. In a dispenser, a hollow body adapted to receive a paste tube therein, a ball movable in said body, said body having a channel therein, a portion of said ball protruded thru the said channel and a yieldable spring supporting said ball, said ball being raised by said spring to contact position with said paste tube.

In testimony whereof I affix my signature.

HERBERT N. ALLINSON.