

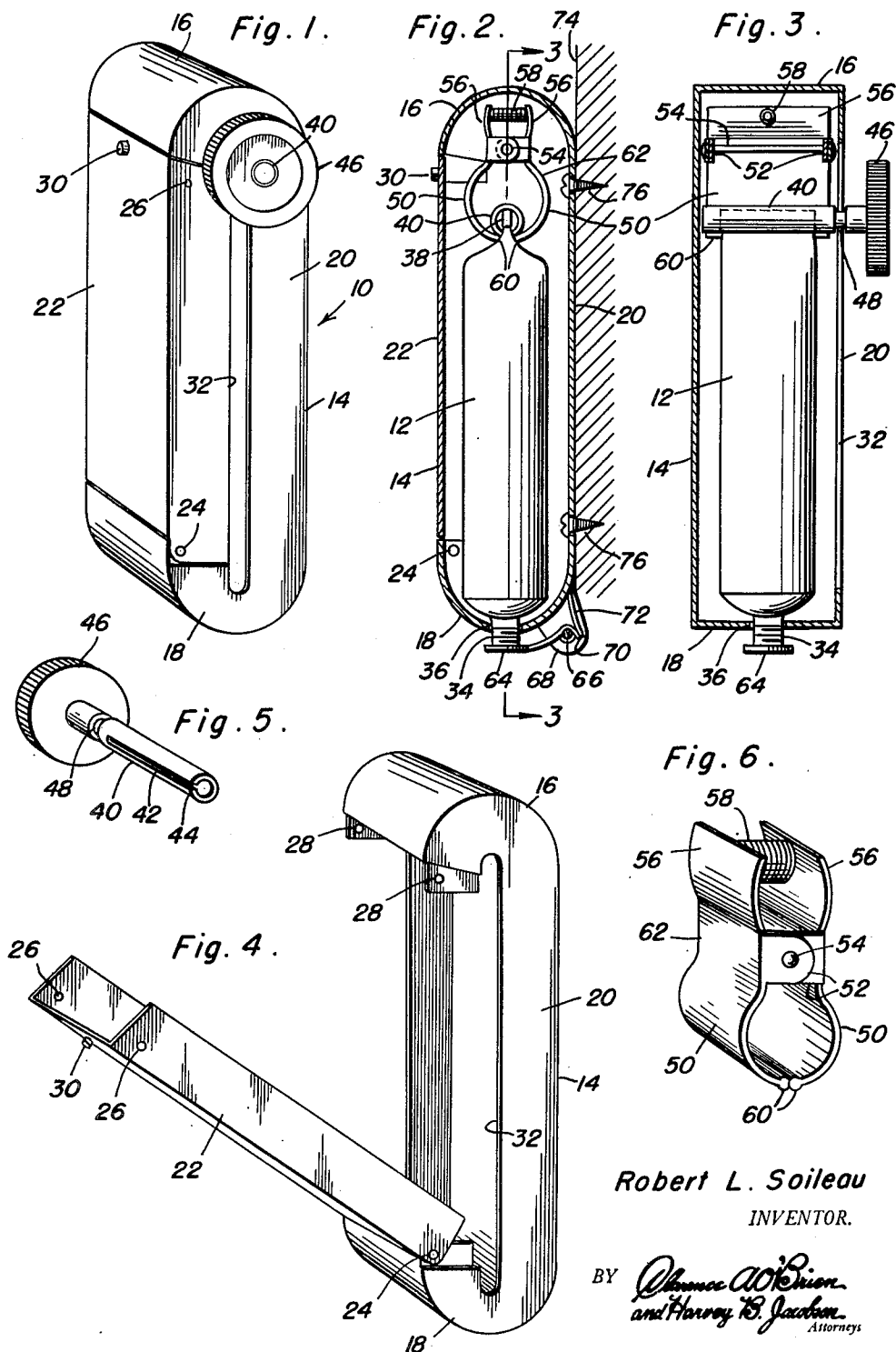
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DISPENSER FOR COLLAPSIBLE TUBES

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DISPENSER FOR COLLAPSIBLE TUBES

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This invention relates to new and useful improvements and structural refinements in dispensers for collapsible tubes, such as for example, tubes of shaving cream, tooth paste, and the like, and the principal object of the invention is to facilitate dispensing of the contents of such tubes in a convenient and a highly expeditious manner.

This object is achieved by the provision of a dispenser which includes in its construction means for enclosing and supporting a collapsible tube, together with further means, actuated by rotating a convenient knob, for winding the tube upon itself so as to eject the contents thereof.

An important feature of the invention resides in the provision of means for "squeezing" the collapsible tube while it is being wound upon itself, so that the contents of the tube are discharged in a thorough manner and wastage is thereby substantially minimized, if not altogether prevented.

Another feature of the invention resides in the particular construction of the tube winding key, as it may be called, this being so arranged that the tube may be quickly and easily applied thereto or removed therefrom, as required.

An important advantage of the invention lies in its simplicity of construction, in its pleasing appearance, and in its adaptability to economical manufacture.

With the above more important objects and features in view, and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of the invention in its closed position;

Figure 2 is a longitudinal cross-sectional view thereof;

Figure 3 is a cross-sectional view, taken substantially in the plane of the line 3—3 in Figure 2;

Figure 4 is a perspective view of the dispenser housing per se, the same being shown in its open position;

Figure 5 is a perspective view of the tube winding key used in the invention, and

Figure 6 is a perspective view of the tube squeezing member used therein.

Like characters of reference are employed to designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, the invention consists of a dispenser designated generally by the reference character

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10, the same being intended for use in association with collapsible tubes containing shaving cream, tooth paste, or the like, designated by the reference character 12.

The dispenser 10 embodies in its construction a vertically elongated housing 14 provided with rounded upper and lower end portions 16, 18, respectively, and including a back portion 20 and a front portion 22.

In effect, the front portion 22 constitutes what may be referred to as an openable cover for the housing 14, being hinged or pivoted to the lower end portion 18 of the housing as shown at 24. The upper end portion of the cover 22 is provided with suitable indentations 26 adapted to be engaged by coacting detents 28 with which the upper end portion 16 of the housing is equipped (see Figures 1 and 4), whereby the cover 22 is releasably retained in its closed position, as will be clearly apparent. If desired, the upper end portion of the cover 22 may also be equipped with a suitable knob 30, so that opening of the cover will be facilitated.

The back portion 20 of the housing 14 is relieved at one side thereof so as to provide a longitudinally extending slot 32 when the cover 22 is closed, the slot 32, of course, being "open-sided" when the cover 22 is opened, as shown in Figure 4. The purpose of the slot 32 will be hereinafter more fully described.

A collapsible tube 12, the contents of which is to be dispensed, is receivable in the housing 14 in an inverted position as shown in Figures 2 and 3, the outlet neck portion 34 of the tube 12 protruding downwardly from the housing through an aperture 36 with which the lower end portion 18 of the housing is formed. In this manner, the aperture 36 effectively functions to "center" the lower end portion of the tube 12 in the housing, while the upper end portion 38 of the tube is engageable by a winding key 40.

This key is constructed from a tube formed along a portion of its length with a longitudinally extending slot 42, the latter being open at one end thereof as at 44 (see Figure 5) so that the key may be applied to the flattened end portion 38 of the tube 12, as will be clearly apparent. The key 40 is also provided at one end with an actuating knob 46 and is formed adjacent this knob with an annular groove 48, substantially as shown. When the key 40 is applied to the tube 12 and the tube is inserted in the housing 14, the key, more specifically, the knob carrying end portion of the key, projects outwardly from the housing through the slot 32, the lon-

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itudinal edges of the slot engaging the groove 48 and the groove being of such a size as to fit snugly yet slidably and rotatably in the slot, so that longitudinal shifting of the key 40 in the housing 14 is prevented.

However, it will be readily apparent that by simply turning the knob 46, the collapsible tube 12 will be wound upon the key 40, and as the key rotates it will, of course, be drawn downwardly in the housing, this movement being facilitated by the provision of the slot 32.

The essence of novelty in the invention resides in the provision of means for "squeezing" the collapsible tube while it is being wound upon the key 40, this squeezing means consisting of a pair of coacting, arcuate jaws 50 provided with angulated lugs 52 which are pivotally connected together by means of a suitable pin 54, the jaws 50 being extended to form a pair of coacting handles 56 between which is interposed a suitable compression spring 58 for urging the jaws together. It is to be noted that the jaws 50 terminate in beaded edges or squeezing beads 60 (see Figure 6), and the entire squeezing member 62, as it may be called, is intended to be freely and movably positioned in the housing 14 with the jaws 50 thereof surrounding the key 40 as well as the end portion of the tube 12 which is wound or windable upon the key. This arrangement is best shown in Figure 2, wherein it will be noted that as the key 40 is turned to eject the contents of the tube 12, the jaws 50, responding to the resiliency of the spring 58, will effectively squeeze the tube immediately in advance of the winding key, so that the contents of the tube will be properly exhausted.

If desired, a suitable closure 64 may be provided under the housing 14 to engage the outlet neck 34 of the tube 12, the closure 64 being pivotally mounted upon a pin 66 extending through a pair of brackets 68 secured to the lower portion 18 of the housing (see Figure 2) the closure 64 simply assuming the form of a plate or strip, the end portion of which mounted upon the pin 66 terminates in a tongue 70 engaged by a leaf spring 72 secured to the housing 14. Matters are so arranged that the spring 72, by engaging the tongue 70, normally urges the closure 64 in engagement with the outlet neck 34 of the tube 12, thereby preventing the contents of the tube from drying. Needless to say, the closure 64 may be opened whenever the contents of the tube 12 are being dispensed.

Finally, it may be explained that the entire dispenser 10 is intended for mounting upon suitable structure such as a wall 74 (see Figure 2), this being accomplished by passing a plurality of

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mounting screws 76 through the rear portion 20 of the housing 14 into the wall 74, substantially as shown.

It is believed that the advantages and use of the invention will be clearly apparent from the foregoing disclosure and accordingly, further description thereof at this point is deemed unnecessary.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

Having described the invention, what is claimed as new is:

1. A dispenser comprising: a housing provided with a slot, a tube winding key provided in said housing and having a portion extending out through said slot for manual manipulation, a tube squeezing member in said housing and including a pair of coacting arcuate jaws, said jaws being pivotally mounted with respect to each other, resilient means for urging said jaws toward each other, and said key having a second portion positioned within said arcuate jaws and having a slot therein for receiving the end of the tube to be squeezed.

2. In a dispenser for collapsible tubes, a housing formed with a slot, a tube winding key provided in said housing and extending outwardly through said slot, and a tube squeezing member slidable in said housing and including a pair of coacting arcuate jaws pivotally connected together and surrounding said key, a pair of coacting handles provided on said jaws, said jaws having mutually opposed tube engaging edges, and resilient means for urging said edges together.

3. The device as defined in claim 2, together with tube squeezing beads provided on said edges.

4. The device as defined in claim 2, wherein said key includes a tubular body formed with a longitudinally extending slot.

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