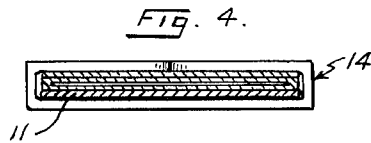
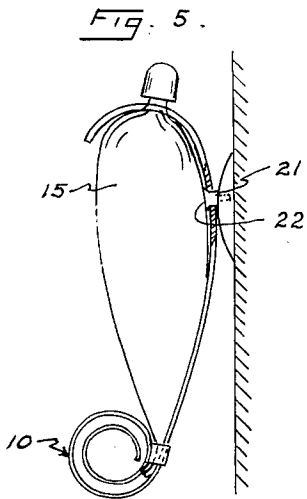
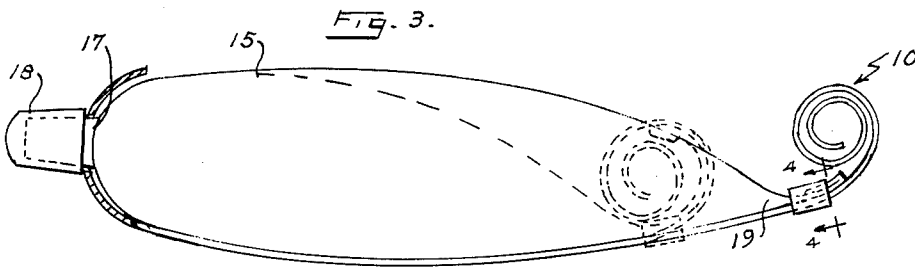
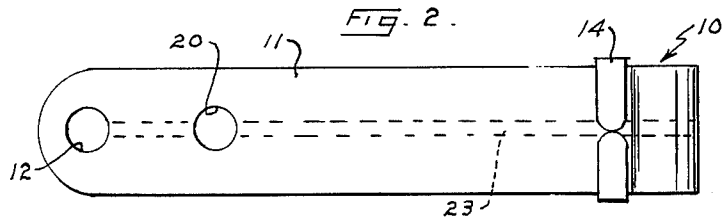
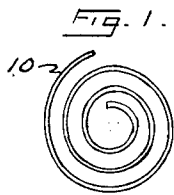


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H. H. CHASE
HOLDER-DISPENSING DEVICE FOR FLEXIBLE AND/OR
COLLAPSIBLE TUBES
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3,259,276

**HOLDER-DISPENSING DEVICE FOR FLEXIBLE
AND/OR COLLAPSIBLE TUBES**

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5 Claims. (Cl. 222-100)

This invention relates to a dispensing device for flexible and/or collapsible tubes and more particularly to a coiled strip with means to retain a flexible or collapsible tube and in which the coiling force of said strip assists in the bending and rolling of said tube to dispense the contents.

In the prior art, Patent No. 1,731,703 illustrates a coil used to hold a tube of tooth paste. The coil is simply opened to insert the tube so that the tube is held at its dispensing end by the end of the coil and the closed end of the tube fits into the meeting convolutions of the coil. This provides a bent portion of the coil adjacent the tube, but the only pressure is a clamping effect at each end of the tube. The coil cannot provide sufficient direct thrust to push the tube toward its dispensing end as this is by far the strongest position that the tube may retain. The tube fits into the bent portion of the coil and must be squeezed or rolled to produce a dispensing action. With this rolling and squeezing of the tube, it will buckle and crease because the end of the tube cannot slip to allow a complete flattening of the tube between the convolutions of the coil. The coil is simply a holder of a badly deformed squeezed tube.

It is an object of this invention to provide a resilient coiled dispenser for collapsible tubes having means to hold one end of a collapsible tube and having an adjustable slipping holding means on said coil to permit gripping the opposite end of said tube to produce the coiling force of said coil directly upon the end of the tube to start a rolling action for squeezing the tube to dispense its contents and to permit flattening the tube against the convolutions of the coil for complete dispensing and the slipping holding means at the squeezed end permitting elongation and adjustment to fit between the convolutions of the coil without creasing and buckling.

It is a further object of this invention to provide a resilient coiled dispenser for collapsible tubes of a width to match the width of the tube when collapsed and in which said coil is provided with means to hold one end of said collapsible tube and provided with an adjustable means on said coil to permit gripping the opposite end of said tube to produce the coiling force of said coil directly upon the end of the tube for squeezing the tube to dispense its contents.

It is a further object of this invention to provide a resilient coiled dispenser for collapsible tubes having means to hold one end of a collapsible tube and having a coil of much greater length than the tube to be inserted on said coil and provided with an adjustable means on said coil to permit gripping the opposite end of said tube and said coil providing a coiled formation over the end of the tube that is gripped to produce the starting coiling force directly upon the end of the tube for squeezing the tube to dispense its contents toward its dispensing end while compressing the tube evenly between the convolutions of the coil.

Other objects of this invention shall be apparent by reference to the accompanying detailed description and the drawings in which:

FIG. 1 is a side elevational view of the dispensing coil,

FIG. 2 is a plan view of the device uncoiled for mounting a collapsible tube,

FIG. 3 is a side elevational view of the device showing the collapsible tube mounted in the coil,

FIG. 4 is a cross sectional view of the slip-bar taken on line 4-4 of FIG. 3, and

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FIG. 5 is a further embodiment of this invention.

Referring to the drawings there is illustrated in FIG. 1 a coil 10. For the purpose of this invention, the coil 10 shall be in the nature of a flat strip 11 as illustrated in FIG. 2. The strip 11 at one end is provided with an aperture 12 that is provided to permit mounting the neck of a collapsible tube through this aperture. Therefore the size of aperture 12 shall vary according to the size of the neck of the collapsible tube to be inserted therein. The flat strip 11 is also provided with a slidable slip-bar 14. The slip-bar 14 is formed as illustrated in FIG. 4 to encompass the strip 11 and slide freely thereon to be adjustable to any position on strip 11. The slide bar 14 is also wide enough to encompass the end 16 of a flexible or collapsible tube 15. As illustrated in FIG. 3, the collapsible tube 15 is positioned by inserting the neck 17 of the collapsible tube through the aperture 12 of the strip 11 and to prevent dispensing its contents, the cap 18 is reattached. The opposite end of the tube 15 is pressed against strip 11 with strip 11 uncoiled as shown in FIG. 2 and the slip-bar 14 is adjusted to slip over the end 19 of the tube 15 as shown in FIG. 3 and the coil released. Thus in this position it is apparent that if the coil is provided with self-coiled pressure it will exert a predetermined pressure upon tube 15 at its end 19. Thus upon removal of cap 18, the contents will be dispensed. The coil 10 cannot have too great a force for dispensing but rather should have sufficient force to provide a normal dispensing pressure upon tube 15. It is also apparent that as the contents of tube 15 is dispensed, the end 19 of tube 15 will be flattened and become a part of the coil as it moves forward such as the dotted position illustrated in FIG. 3. The coiling of the coil 10 will progress forward continuing to dispense the contents of the tube until the coil reaches a fully dispensed position when the tube may be removed from coil 10 and a new tube inserted therein.

A further embodiment of this invention is illustrated in FIG. 5 in which the strip 11 as described in FIGS. 2 and 3 is provided with an additional aperture 20. Thus with a nail or any means of hanging the device may be readily positioned upon a wall to hang thereon as illustrated. With the device mounted in this position, the device may be pivotally moved to position the dispensing end in any desired position downward or to the side to dispense the contents in a position as desired. In this instance instead of hanging the device it is preferable to provide the mounting of strip 11 on a pivotal pin 21 having an enlarged head 22 so that the device will not come loose during any pivotal movement.

Although the device is dependent upon a coil 10 and although the coil is described as a flat strip 11, it is to be understood that the coil may be formed as a flat strip as illustrated or the coil of a thinner material may be affixed to a flat strip as illustrated in dotted lines at 23 of FIG. 2. It is also to be understood that the coil 10 may be formed of metal, plastic or any material to provide the desired coiling strength without departing from the spirit of this invention and although the strip 11 has been shown of a matching width to match the width of the collapsible tube, it may be of greater or lesser width than the tube as long as the slip-bar can be affixed to the end of the tube. Various changes may be made to the coil, that is, decorative effect to enhance its appearance and its dispensing end may be decorated or designed in any desired configuration without departing from the spirit of this invention and this invention shall be limited only by the appended claims.

What is claimed is:

1. A holding and dispensing device which includes a strip spring formed to maintain a normally coiled position and a collapsible tube, said collapsible tube being pro-

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vided with a dispensing spout at one end thereof and a flat sealed seam at the opposite end thereof, said strip being provided with means at its outer end to retain the dispensing spout, a slip bar slidably fitted on the strip adjacent the inner end opposite the outer end of said strip along an uncoiled non-dispensed tube receiving portion, said flat sealed seam end of said tube initially fitted into said slip-bar with said strip being slidably retained on said coiled strip to hold said tube against said strip to permit dispensing by moving said slip-bar from said inner end to said opposite end, said spring strip coiled portion exerting a bending and dispensing force on the undispensed portion of the end of said tube opposite to the dispensing end.

2. A device according to claim 1 in which said strip is coiled at one end prior to dispensing.

3. A device according to claim 1 in which the coiled strip is provided with an aperture at one end thereof as the means to retain the dispensing spout and said strip

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is provided with an additional aperture to permit hanging the device.

4. A device according to claim 1 in which the coiled strip is preformed with a predetermined degree of resistance uncoiling to produce a predetermined holding, bending and dispensing pressure upon the collapsible tube.

5. A device according to claim 1 in which the slip-bar may be adjusted to retain various sizes of collapsible tubes upon the coiled strip.

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