

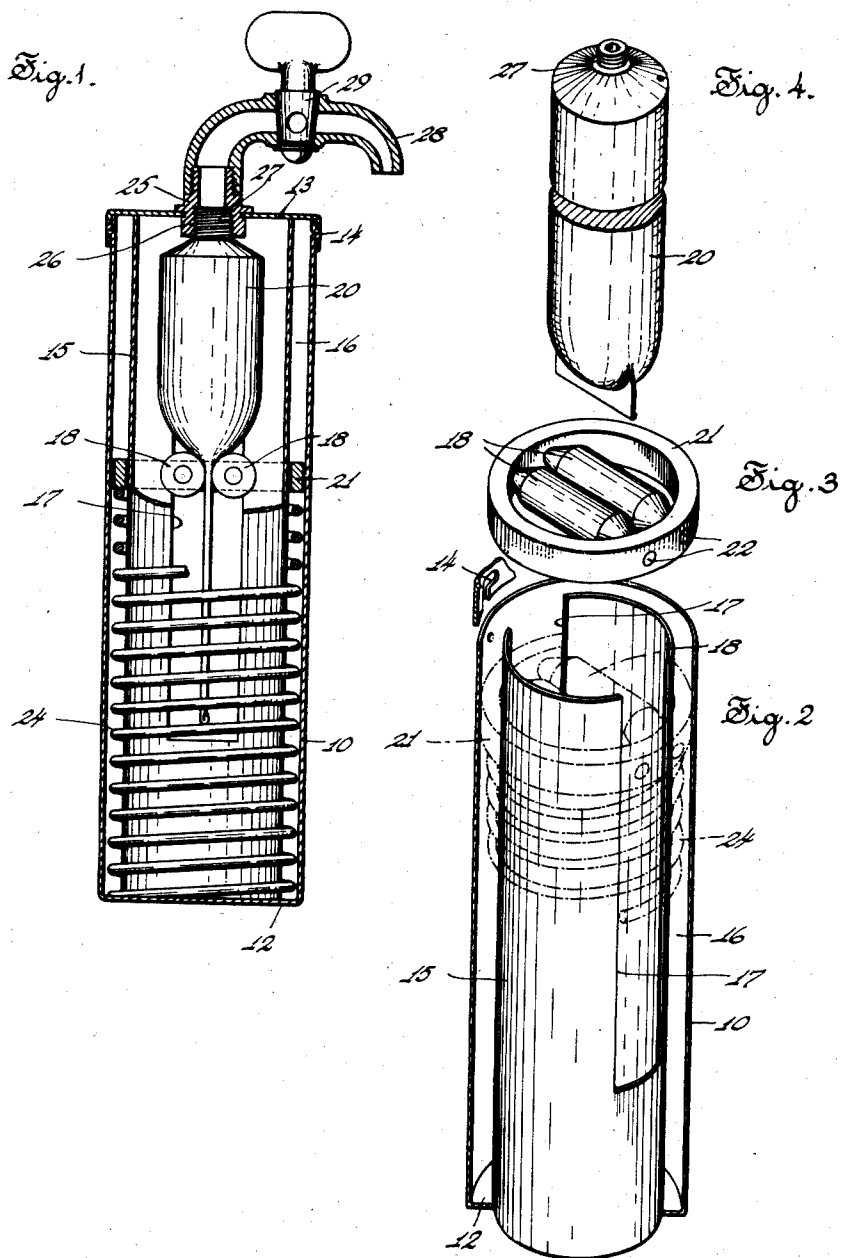
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DEVICE FOR DISPENSING THE CONTENTS OF COLLAPSIBLE TUBES

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DEVICE FOR DISPENSING THE CONTENTS OF COLLAPSIBLE TUBES.

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This invention relates to a device by means of which shaving cream, tooth paste or the like may be ejected from collapsible containers or tubes in the desired amounts.

5 The invention has as its aim to provide a device of this sort having various features of novelty and advantage.

More particularly an aim of the invention is to provide an extremely simple and inexpensive device by means of which the contents of collapsible tubes may be very conveniently and expeditiously supplied only in such amounts as are actually needed.

10 In accordance with the present invention I provide a relatively cheap and durable device wherein the ejection of the contents of the tube is controlled by means of a readily operable valve, the contents of the tube being maintained under pressure so that when the valve is opened the tube will be partially collapsed so as to squeeze the desired amount of the paste or cream from the tube. Thus the cream is dispensed in a very convenient and sanitary manner and waste is avoided.

15 Other objects will be in part obvious and in part pointed out more in detail hereinafter.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the appended claims.

20 In the accompanying drawings wherein I have shown for illustrative purposes one embodiment which the present invention may take;

Figure 1 is a view showing my improved device in longitudinal vertical section;

40 Fig. 2 is a perspective view showing the outer casing or container and inner shell or cylinder in full lines, and other parts in broken lines;

Fig. 3 is a perspective view of the squeezing rollers and a ring carrying the same; and

Fig. 4 is a perspective view of a collapsible tube of well known type.

Referring to the drawings in detail, 10 designates a container or receptacle which of course may be of any suitable shape and design, it here being shown as being generally cylindrical and as having a closed end 12. The upper end of the container is closed by a removable cap or cover 13 which may be secured in place in any suitable manner as by means of

bayonet locks 14. Any other suitable means may be employed whereby the cover may be readily attached to and detached from the casing 10. Within the casing 10 is a guide member which in the present instance is in the form of a cylinder or shell 15 of smaller diameter than the casing 10 so as to form between the shell and the casing a guide way which is in the form of an annular or cylindrical channel 16. The member or shell 15 is slotted for the major portion of its length at diametrically opposite sides, and these slots, designated by the numeral 17, accommodate the ends of the squeezing members which are in the form of rollers 18. The rollers are mounted for movement in the direction of the length of the collapsible tube the contents of which is to be dispensed or ejected. The tube is designated by the numeral 20. The rollers are mounted on a carrier which may be in the form of a ring 21 located in the channel or guide-way 16. Obviously the ends of the rollers themselves may be journaled in the ring 21. In the present instance I have shown the rollers as being journaled on pins 22 carried by the ring. Means are provided for urging the rollers in a direction to squeeze the contents from the tube, and while this means may be variously arranged, it is here shown as comprising a coiled spring 24 positioned between the casing 10 and the shell 15 below the ring 21.

For the purpose of controlling the discharge of the paste from the dispenser, there is provided valve means which is operatively connected to the tube. In the present instance there is carried by the cover 13 a coupling or nipple 25 having an internal thread 26 adapted to receive threaded necks or nipples 27 with which collapsible tubes are usually provided. Carried by the connection 25 are valve means of any suitable sort, in the present instance this valve means being in the form of a cock having a spout 28 and a ground valve 29.

The operation of the device will be readily understood from the drawings. The rollers 18 are so spaced apart as to form a narrow space or slot between them which receives the tube. The spring 24 normally urges the rollers upwardly but so long as the valve 29 is closed the contents of the tube is not squeezed out or ejected. When it is desired to dispense a portion of the paste or cream within the tube, the valve 29 is turned to open

position whereupon the pressure exerted by the spring will cause the rollers 18 to advance. The amount of paste or creams dispensed will depend, of course, upon the length of time the valve remains in open position.

From the foregoing description taken in connection with the accompanying drawing, it will be seen that I provide a very simple and effective structure by means of which the paste or cream may be economically and sanitariously dispensed. The device may be very readily operated.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention herein described and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

What I claim as my invention is:—

1. In a device of the character described, means for holding a collapsible tube, valve means for controlling the discharge of the contents of the tube, a pair of rollers adapted to straddle the tube and collapse the same, and a spring normally urging said rollers in a direction to collapse the tube.

2. In a device of the character described, means for holding a collapsible tube, valve means for controlling the discharge of the contents from the tube, a pair of rollers adapted to straddle and collapse the tube, a

carrier for said rollers, means for guiding said carrier, and means normally urging said carrier in a direction to cause said rollers to collapse the tube.

3. In a device of the character described, means for holding a collapsible tube, valve means for controlling the discharge of the contents therefrom, a carrier, a pair of rollers journaled on said carrier and adapted to straddle the tube and to collapse the same, and a spring normally urging said carrier in a direction to cause said rollers to collapse the tube.

4. In a device of the character described, a container and a member therein forming an annular channel or guide-way, a collapsible tube within said member, valve means for controlling the discharge of fluid from said tube, a ring located for longitudinal movement in said guide-way, rollers carried by said ring and straddling the tube, and means behind said ring and constantly exerting pressure thereon.

5. In a device of the character described, a container, a sleeve therein having diametrically opposite slots, a ring between said sleeve and container, rollers carried by said ring and accommodated by said slots, a spring about said member and engaging said ring, a removable cover for said container, and valve means carried by said cover.

6. In a device of the character described, a container adapted to house a collapsible tube, valve means for controlling the discharge of fluid therefrom, a pair of squeezing members mounted for movement longitudinally of said tube and arranged to collapse the same, and means normally urging said squeezing members longitudinally in a direction to collapse the tube.

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