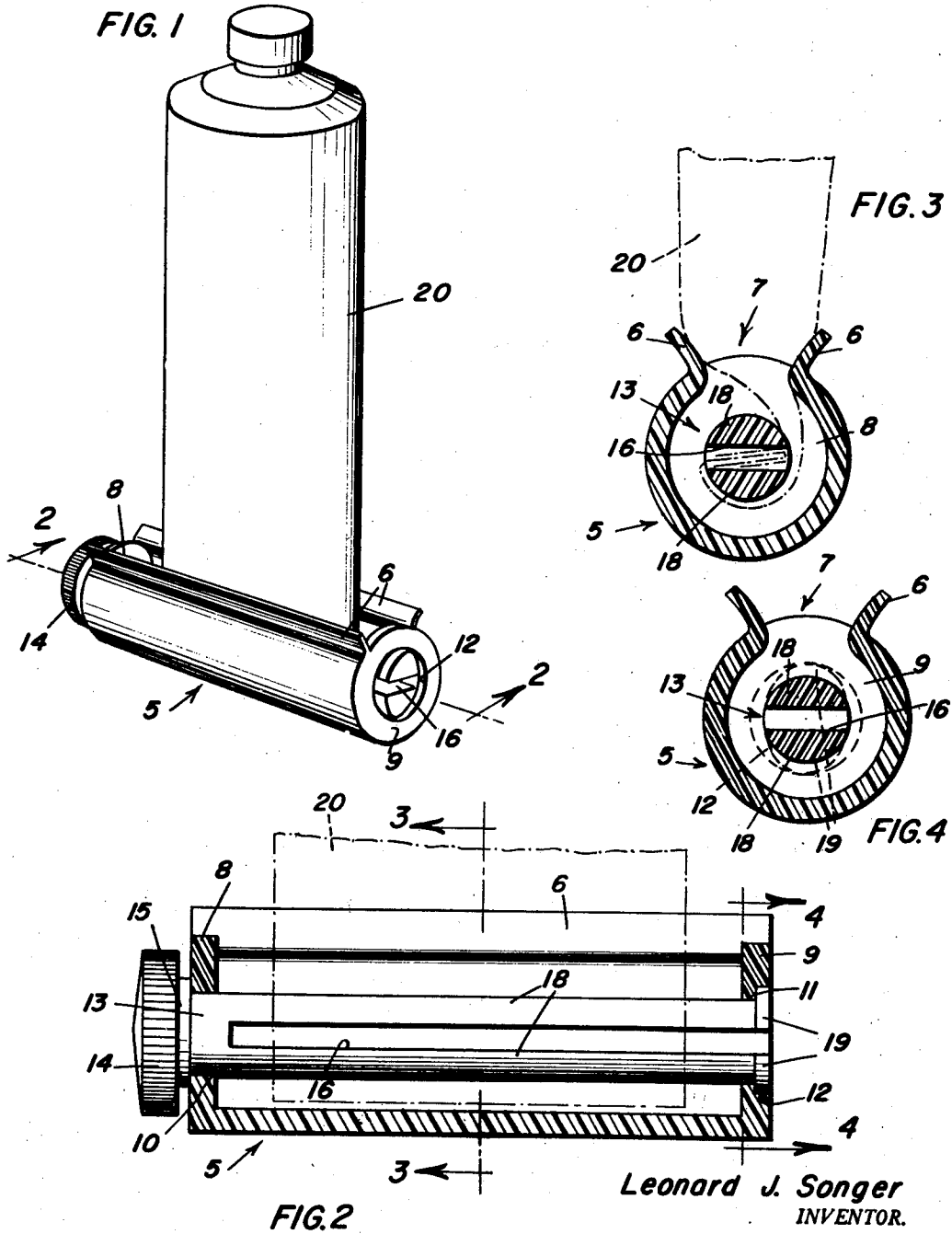


July 28, 1959

L. J. SONGER
COLLAPSIBLE TUBE ROLLER
Filed May 16, 1957

2,896,822



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2,896,822

COLLAPSIBLE TUBE ROLLER

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Application May 16, 1957, Serial No. 659,561

2 Claims. (Cl. 222-99)

The present invention relates to new and useful improvements in collapsible tube rollers and has for its primary object to provide means whereby all of the contents of collapsible tubes may be dispensed in any desired quantity as needed in a convenient, sanitary manner.

Another important object of the invention is to provide a toothpaste, shaving cream, etc., dispenser of the character described which comprises a novel construction whereby the tube, when empty, may be expeditiously removed.

Still another important object of the invention is to provide, in a manner as hereinafter set forth, a collapsible tube roller of the aforementioned character which may readily be used on tubes of various sizes.

Other objects of the invention are to provide a collapsible tube roller of the character set forth which will be comparatively simple in construction, strong, durable, compact, of light weight, attractive in appearance and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view, showing a collapsible tube roller embodying the present invention applied to a collapsible tube;

Figure 2 is a view in longitudinal section through the device, taken substantially on the line 2-2 of Figure 1;

Figure 3 is a view in transverse section, taken substantially on the line 3-3 of Figure 2; and

Figure 4 is a view in transverse section, taken substantially on the line 4-4 of Figure 2.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises an elongated housing of substantially C-shaped transverse section which is designated generally by reference character 5. The housing 5, which may be of any desired dimensions, is preferably but not necessarily made of suitable plastic material. Also, the housing 5 may be attractively colored. The longitudinal edges of the housing 5 include outwardly flared guide lips or flanges 6 defining therebetween an opening or mouth 7 for the entrance of the collapsible tube, as indicated at 20.

The housing 5 also includes integral end walls 8 and 9 having aligned circular openings 10 and 11, respectively, therein, the latter being counterbored, as indicated at 12.

A winding key 13 for the collapsible tube 20 has its end portions journaled in the openings 10 and 11. The winding key 13 is provided on one end with an operating knob 14. The key 13 also includes an enlargement 15 immediately adjacent the knob 14 which is adapted to abut the end wall 8 of the housing 5.

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Extending longitudinally into the key 13 from the other end thereof is a slot 16 for the reception of the closed lower end portion of the collapsible tube 20, said slot providing bifurcations 18. Formed integrally with the free end portions of the bifurcations 18 are outwardly extending, substantially segment-shaped flanges or lips 19 which are receivable in the counterbore 12 of the opening 11 for anchoring the key 13 in the housing 5. The winding key 13 is of resilient material whereby the bifurcations 18 thereof may be squeezed together sufficiently for the anchoring lips or flanges 19 to pass through the opening 11 when inserting or removing said key.

It is thought that the use of the device will be readily apparent from a consideration of the foregoing. Briefly, to assemble the device, the resilient bifurcations 18 are squeezed together and the key 13 is inserted in the circular openings 10 and 11 in the end walls 8 and 9, respectively, of the housing 5. When released, the bifurcations 18 spread apart and the anchoring lips or flanges 19 are received in the counterbore 12 of the opening 11 in an obvious manner. The collapsible tube 20 is then inserted in the housing 5 through the opening or mouth 7 thereof and the usual substantially flat, closed lower end of said tube is inserted in the slot 16. Through the medium of the knob 14 the key 13 is then turned in either direction for winding the collapsible tube 20 thereon. Of course, the tube 20 is drawn into the housing 5 through the mouth or opening 7 between the guide lips or flanges 6 which facilitate the entrance of said tube.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A collapsible tube roller comprising an elongated housing of substantially C-shaped transverse section, said housing having a flared open mouth for the reception of a collapsible tube, said housing including end walls having aligned circular openings therein, one of said openings including a counterbore in the outer face of one end wall, a key rotatably journaled in said openings, said key including a cylindrical body, an enlargement on one end of said body, said enlargement being in contact with the outer surface of the other end wall, a knob on said enlargement for allowing easier rotation of said body, a longitudinal slot formed in said body from the other end thereof whereby the body is bifurcated for receiving the bottom of a collapsible tube, segment-shaped flanges extending outwardly from the other end of said body and removably disposed in said counterbore whereby said flanges may be pressed together for allowing passage of said body through said openings when removal thereof is desired.

2. In a winding roller for collapsible tubes, the combination of an elongated housing having a pair of end walls provided with axially aligned circular openings, a winding key removably positioned in said housing and rotatably journaled in said openings, a hand knob provided at one end of said key in engagement with the adjacent end wall of the housing, the other end wall of the housing being provided at the outside thereof with a counterbore concentric with the opening therein whereby to form an annular shoulder at the junction of the opening with the counterbore, said key being formed from resilient material and being provided with an open slot extending longitudinally inwardly from the end of

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the key adjacent said counterbore and separating the key into a pair of complementary side members adapted to be pressed together at the open end of said slot, and a pair of segment-shaped keeper flanges provided at the extremities of the respective side portions of the key, ends of said flanges being flush with the key at the edges of said slot and intermediate portions of said flanges projecting radially outwardly from the key to a distance corresponding substantially to the diameter of said counterbore, said intermediate portions of the flanges being received in the counterbore and abutting said shoulder whereby to prevent the key from axial sliding but being

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adapted to be pressed together to facilitate their passage through the associated opening when the key is to be removed from said housing.

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