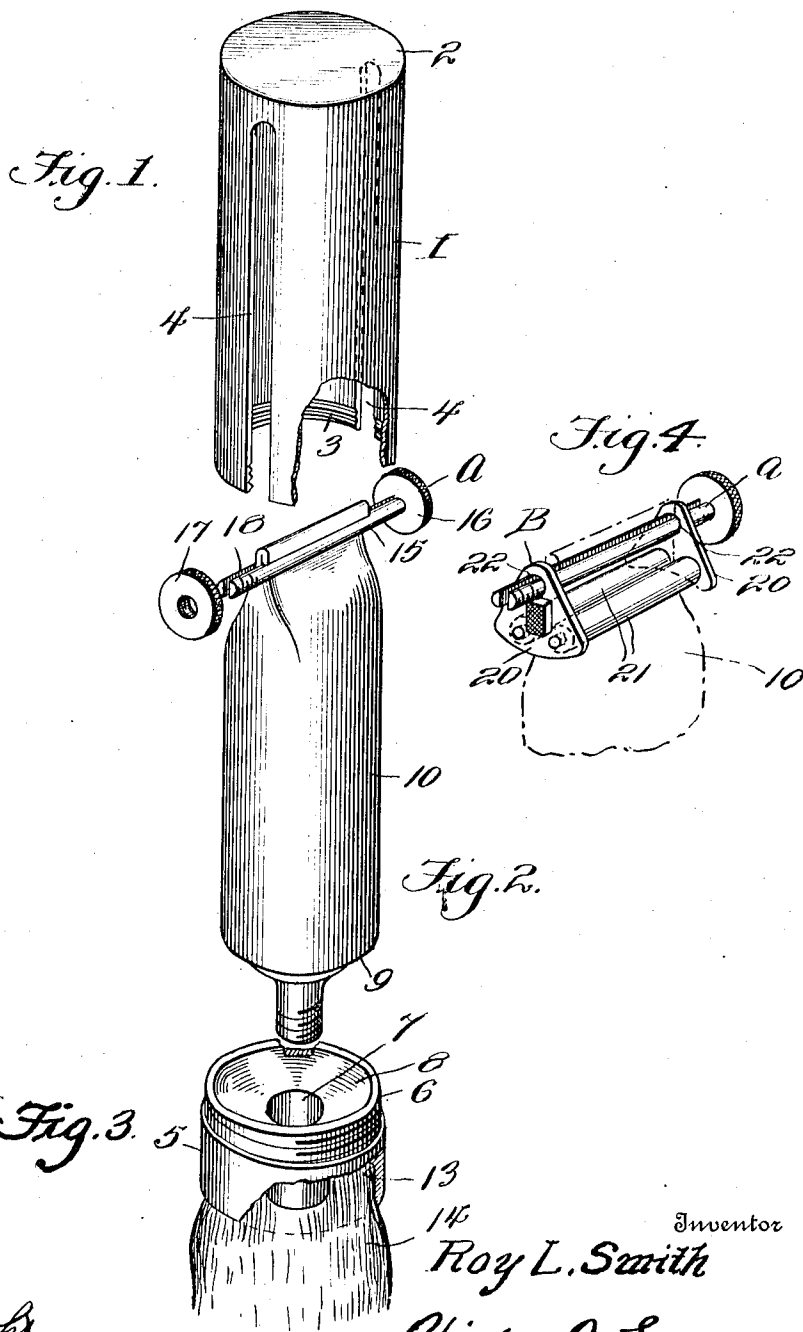


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 APPARATUS FOR DISCHARGING COLLAPSIBLE TUBES.
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1,020,321.

Patented Mar. 12, 1912.



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APPARATUS FOR DISCHARGING COLLAPSIBLE TUBES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROY L. SMITH, a citizen of the United States of America, residing at Lexington, in the county of Fayette and State of Kentucky, have invented new and useful Improvements in Apparatus for Discharging Collapsible Tubes, of which the following is a specification.

This invention relates to devices for discharging collapsible tubes, and it has particular reference to a device of this class adapted to be used in connection with shaving brushes for the purpose of discharging the contents of a collapsible tube containing a soap preparation in paste or cream form directly into the shaving brush, the discharging apparatus being associated with the brush handle.

With this and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claim.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claim may be resorted to when desired.

Figure 1 is a perspective view of a tubular brush handle forming part of the invention, a portion having been broken away. Fig. 2 is a perspective view of the container used in connection therewith, showing one form of the device for collapsing the container applied thereto. Fig. 3 is a perspective view, showing the brush head detached. Fig. 4 is a perspective view illustrating the preferred form of the collapsing device for the container.

The brush handle which forms a part of the improved device consists of a cylindrical tube 1, one end of which is closed, as shown at 2, the opposite open end being internally threaded for a short distance, as seen at 3. The tube 1 is provided with diametrically opposite slots 4 extending from the open end in the direction of the closed end.

The brush head 5 has a reduced portion 6 externally threaded to engage the internally threaded portion 3 of the handle mem-

ber, the parts being so proportioned that the external portions of the handle and the brush head will lie flush with each other. The brush head has a central aperture 7, beveled at one end, as shown at 8, to accommodate the shoulder 9 of an ordinary collapsible tube container 10. The opposite end of the aperture 7 is internally threaded at 11 to be engaged by the threaded portion 12 of the collapsible tube which ordinarily receives a cap or closure, the latter, however, being not shown in the drawing. The brush head 5 is also provided with an annular groove 13 in which the bristles 14 may be secured in any suitable convenient and well known manner.

A brush collapsing device or key A is provided, the same consisting in its simplest form of a key member including a shank 15 having at one end a stationary or integral head 16 and at the opposite end a detachable head 17 which may be threaded upon the shank. The latter is also provided with a slot 18 extending from the stationary head 16 through the entire length of said shank.

In the operation of this form of the invention, the collapsible tube 10 containing a suitable soap preparation in paste or cream form is threaded into the brush head which is meanwhile detached from the handle. The tube is now inserted into the handle with which the brush head is connected by the reduced threaded portion 6 engaging the internally threaded portion 3 of the handle, a few turns of the brush head being sufficient to make the connection. The key from which the head 17 has been detached is now inserted through the slot 4 of the handle in such a manner as to straddle the compression end of the collapsible tube, after which the head 17 is restored to the key which is thus secured in position. It will now be obvious that by slightly turning or rotating the key about its axis the collapsible tube will be gradually wound upon the key, thereby expelling the contents of the tube while collapsing the latter, the contents being expelled within the bristle portion of the brush which may now be used for lathering purposes. It is obvious that a very slight turn of the key will suffice to expel the requisite portion of the shaving preparation, and the amount of turning necessary to effect this result may be very soon ascertained by practice. In

this manner the soap preparation may be utilized in a cleanly, sanitary and economical manner, and the brush after using may be thoroughly washed without injuriously affecting the remaining contents of the collapsible tube.

The preferred form of the collapsing device consists in providing a compressing member consisting of a frame B having curved side members 20 of approximately triangular shape which afford bearings for two compression rollers 21 which are mounted for rotation in said side pieces. The latter are provided adjacent to their apices or upper ends with apertures 22 for the passage of the key or compression member A which is of the exact construction hereinbefore described. The collapsing end of the tube or container 10 is inserted between the rollers of the compression frame prior to its insertion into the tubular handle member 1, after which the key is applied to the collapsible tube through the apertures 22 of the compression member with which it is thus connected. The rollers 21, when the key is rotated, will assist in compressing the collapsible tube and in expelling the contents of the latter.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood.

The device may be made of any suitable material, such as metal or hard rubber, and of any proper dimensions to receive or to

operate in connection with collapsible tubes or containers of standard size. When the collapsible tube is empty, the parts may be readily disassembled, after which the empty tube may be removed and replaced by a new container.

The device is simple, convenient for home or traveling use and absolutely clean and sanitary.

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

A tubular member having longitudinal slots in opposite sides thereof, a collapsible container within the tubular member, a collapsing device including a frame comprising approximately triangular side members which are curved to fit within the tubular member and having apertures near their upper ends, a pair of compression rollers supported for rotation at the lower ends of said side members, and a key including a bifurcated shank adapted to engage the apertures of the side members through the slots in the tubular member and to straddle the collapsible container, said key being provided at one end with a fixed head and at the other end with a detachable head threaded upon the bifurcated end of the key.

In testimony whereof I affix my signature in presence of two witnesses.

ROY L. SMITH.

Witnesses:

MAY SUTPHIN,
BETTIE BAKER.