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To all whom it may concern:  

Be it known that L. ISADORE MESSINGER, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Collapsible Foil Tubes, of which the following is a specification.

The present invention relates to collapsible foil tubes and more particularly of the type in which the body of the tube is formed of tin foil or similar material and has a reduced neck through which the contents of the tube are discharged. An object of this invention is to provide a cap for the tube, so constructed, that it may be fitted to the reduced discharging neck by forcing said neck into the cap, thus requiring only one hand for fitting the cap on the tube when the cap lies upon a horizontal surface with its mouth uppermost, this construction being particularly desirable when the tube is used for tooth paste, shaving soap and the like, where the other hand is usually employed for holding a tooth brush or shaving brush.

To these and other ends, the invention consists of certain parts and combinations of parts, all of which will be hereinafter described, the novel features being pointed out in the appended claim.

In the drawings:

Fig. 1 is a side view of a tube constructed in accordance with this invention:

Fig. 2 is a fragmentary view of a tube showing a cap thereon in section:

Fig. 3 is a sectional view of the cap:

Fig. 4 is a view of the mouth of the cap; and

Fig. 5 is a view showing the manner in which the cap is fitted to the tube.

In the drawings, 1 indicates the body of a foil tube having a reduced neck 2. This reduced neck has a tapered end 4 and is provided with an annular depression 5 forming an annular shoulder 6. The cap 7 has a flat top surface 8 which permits it to lie on any suitable support with its mouth uppermost. This cap has adjacent its mouth resilient means adapted to be expanded by the tapered portion of the reduced neck and to contract into engagement with the shoulder 6 formed by the depression 5 in order to hold the cap on the reduced neck.

The resilient means, in this instance, is in the form of a split ring 9 received loosely within an internal annular groove 10 formed adjacent the mouth of the annular tube 7.

When the reduced end 2 of the tube 1 is forced into the cap, the tapered portion will expand the ring 9 and this expansion will be maintained until the depressed portion 5 is reached when the split ring 9 contracts into engagement with the annular shoulder 6 and maintains the cap 7 against accidental removal.

From the foregoing it will be seen that there has been provided a collapsible foil tube which has a cap so constructed that the latter may lie on a flat surface to be engaged by the reduced neck of the tube in order to expand a resilient retaining means which afterwards contracts into engagement with an annular shoulder on the reduced neck. This retaining means is in the form of a split ring arranged loosely within an internal annular groove on the cap. The construction is inexpensive to manufacture and the cap cooperates with the reduced neck in such a manner as to preserve the contents against the action of air. The reduced end has between its tapered portion 4 and its shoulder 6 cylindrical walls which cooperate with the inner cylindrical walls of the cap to form a substantially tight joint.

What I claim as my invention and desire to secure by Letters Patent is:

A collapsible foil tube having a reduced neck formed with a tapered end, a surrounding depression and a cylindrical portion between said tapered end and the surrounding depression, and a cap for the reduced neck of the tube having a flat top, cylindrical inner walls cooperating with the cylindrical wall of the reduced neck, and a groove adjacent the mouth of said cap, said cap being provided with a split ring arranged in said internal annular groove to cooperate with the tapered end to be expanded by the latter and to contract into engagement with the walls of the depression to hold the cap on the reduced neck.

ISADORE MESSINGER.