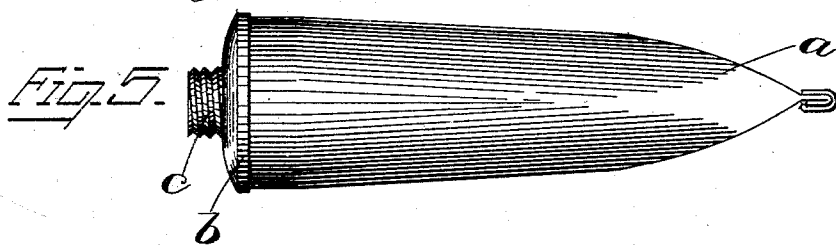
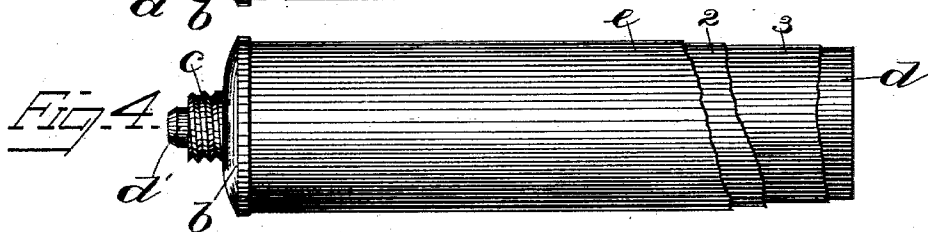
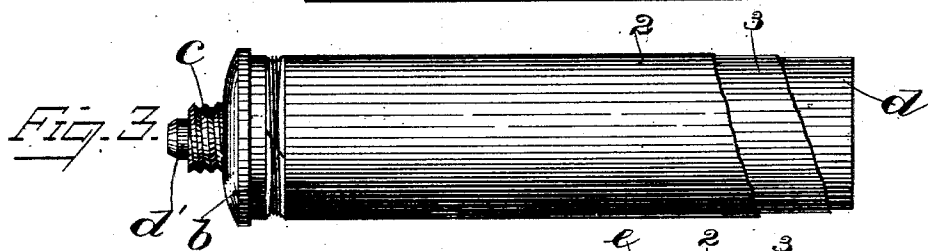
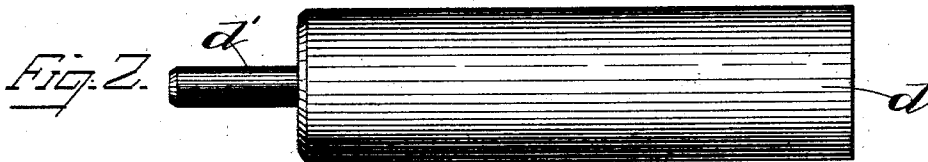
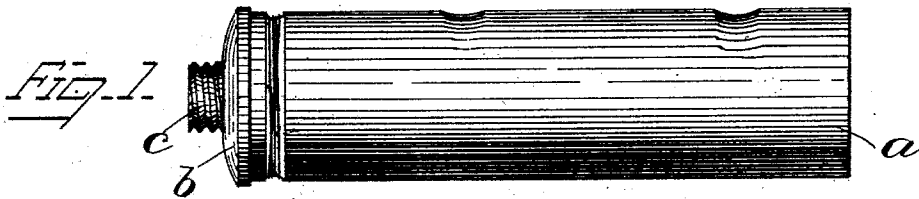


(No Model.)

W. S. SCALES.
METHOD OF LABELING COLLAPSIBLE TUBES.

No. 548,661.

Patented Oct. 29, 1895.



WITNESSES.
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WILLIAM S. SCALES, OF EVERETT, MASSACHUSETTS.

METHOD OF LABELING COLLAPSIBLE TUBES.

SPECIFICATION forming part of Letters Patent No. 548,661, dated October 29, 1895.

Application filed June 11, 1894. Serial No. 514,142. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM S. SCALES, of Everett, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Methods of Labeling Collapsible Tubes, of which the following description, in connection with the accompanying drawings, is a specification, like letters and numerals on the drawings representing like parts.

Collapsible tubes as now commonly made consist of a collapsible tubular body with a head or end piece at one end having a hole through it and an externally screw-threaded projecting nipple which receives upon it a screw-threaded cap. These tubes are usually shipped with their lower ends open, in order that they may be filled at that end, after which said lower ends are flattened and closed by folding the material thereof upon itself or otherwise. Prior to being filled these tubes are easily indented, particularly when made of lead foil, and oftentimes considerable time is required to remove such indentations. Furthermore, much difficulty is experienced in applying labels to the tubes, for the reason that if the labels are applied to the tubes before they are filled said tubes must be handled with the greatest of care, as they are so easily crushed, and if applied after they are filled it is very difficult and practically impossible to envelop the tubes with nicety, particularly their lower tapering or flattened end portions. In instances where the collapsible tubular body portion consists of a reinforced inner tube it is found to be necessary to thoroughly dry such tube before applying the label; but such a tube is just as easily crushed and injured by handling as any, and in fact in the drying process they sometimes assume indifferent or abnormal shapes.

This invention has for its object the production of a certain method by which collapsible tubes may be labeled and at the same time shaped, removing any indentations or alterations in the original shape that may have occurred.

In accordance with this invention I make use of a follower or mandrel of a size to nicely fit within the tube, and having introduced the same, and by such introduction removed any indentations and otherwise truly shaped the tube, I then wrap a full-length label around

it, securing the overlapping edges thereof together with paste or glue or otherwise, and thereby completely inclosing the tube. 55

While the label may be made as long as desired—as, for instance, it may extend flush to the lower end of the tube, in which case it will be flattened with the tube after the latter is filled, and may be turned in with the material of the tube when the lower end of the latter is turned over upon itself for the purpose of closing its lower end, yet if it should not terminate exactly flush with said lower end it will be observed that the tube will be properly shaped or fashioned by the follower or mandrel and a hard or unyielding surface presented upon which to deposit the label, and the label so applied will snugly fit the lower end at all times as it is flattened. 65 70

Figure 1 shows a collapsible tube prior to being filled or in the shape it is sometimes taken from the box in which it is shipped. Fig. 2 shows the follower. Fig. 3 shows the follower introduced into the tube for the purpose of shaping it and at the same time providing a hard or unyielding surface upon which to deposit the label. Fig. 4 shows the label applied to the tube, it being of a form which completely surrounds the tube and also extends from end to end thereof. Fig. 5 shows the labeled tube with its lower end closed. 75 80

The collapsible tube consists of a tubular body *a*, head or end piece *b*, having a central hole through it, and an externally screw-threaded nipple *c*, adapted to receive upon it a screw-threaded cap. 85

The tubular body *a* is herein shown as composed of two layers or pieces of material 2 3, the outer layer reinforcing the inner layer. 90

d represents the follower or mandrel of suitable size and shape to be easily introduced into the tubular body portion of the tube and by such introduction to remove any indentations that may have been formed therein, and thereby to truly shape the tube. 95

The follower is herein shown as having an end piece *d'*.

In Fig. 3 the follower is shown as contained within the tube. The label *e* is then wrapped around the tubular body portion *a* of the tube and its overlapping edges secured together by paste or glue or any other suitable material. 100

This label is herein represented as extending from end to end of the tube, although it may not be made as long as the tube unless it be desired to turn it in with the material of the tube when closing the lower end.

When made as long as the tube or so that its lower end terminates flush with the lower end of the tube, it may be flattened with the tube, and in such case the lower end of the label may be turned in with the material of the tube when the latter is turned over upon itself to close the lower end; but if made a little shorter it may still extend the full length of the tube, snugly fitting the lower end as it is flattened.

While I have herein shown a collapsible tube, the tubular body of which is composed of two layers of material, yet I desire it to be understood that my method herein described of shaping the tube and applying the label is

equally applicable to any other form or construction of tube—as, for instance, to one having a single seamless tubular body.

I claim—

The method herein described of shaping and labeling collapsible tubes, which consists in introducing a follower into the tube to shape it, and then while the follower is so contained in the tube applying a full length label, which entirely envelops the tube, the follower during such operation preventing any indentation of the tube, and thereafter withdrawing said mandrel.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM S. SCALES.

Witnesses:

B. J. NOYES,

C. B. CROCKER.