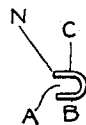
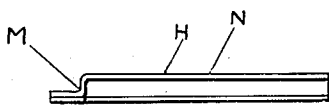
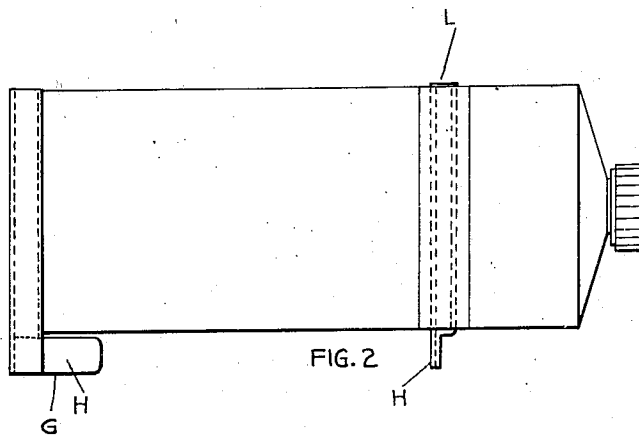
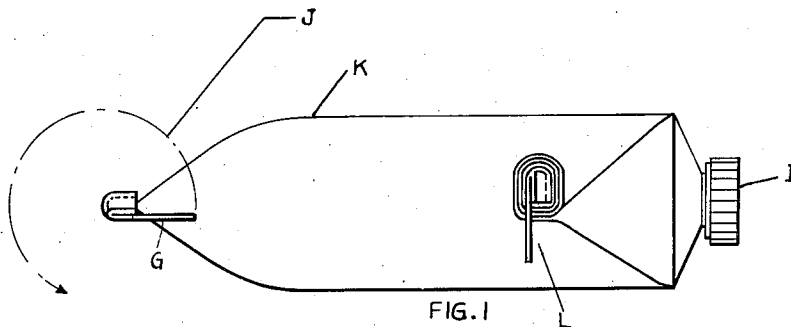


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REMOVABLE AND REUSABLE KEY FOR EXTRACTING
CONTENTS FROM COLLAPSIBLE TUBES
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REMOVABLE AND REUSABLE KEY FOR EXTRACTING CONTENTS FROM COLLAPSIBLE TUBES

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1 Claim. (Cl. 222—99)

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The object of my invention relates to improvements in extracting the contents from collapsible tubes with special reference to thin walled ductile metallic tubes as are commonly used in packaging tooth paste, shaving cream, paints, cream, glue, medicines, etc.

My invention is to provide a key for winding or rolling the walls of a collapsible tube toward the orifice end and thereby exert a pressure inside which will force and also regulate the flow of the contents as desired without spilling, wasting and extracting too large a dose.

The conventional practice of squeezing the tube haphazardly by hand causes the walls to collapse, distort, crumble and often puncture, resulting in a waste of the contents as well as presenting an unsightly appearance. Likewise the amount of the contents extracted cannot be controlled by hand pressure.

While it is known that many devices have been designed to withdraw material from collapsible tubes, they are expensive, difficult to manufacture and not easily packaged.

My invention will be inexpensive; adaptable to mass production without much work; streamlined and easily packaged for marketing; constructed from a noncorrosive metal so that it will be clean, sanitary and attractive at all times; so designed that it can be easily removed from the empty tube without unwinding the tube and can be re-used indefinitely.

I attain these objects by the key illustrated in the accompanying drawing, in which—

Figure 1 is a horizontal end view of the key applied to the end of a fully loaded collapsible tube. The same Figure 1 also illustrates the key and tube in a partially wound-up position with some of the contents having been forced out.

Figure 2 is a plan view of Figure 1.

Figure 3 illustrates a longitudinal side view detail of the key.

Figure 4 illustrates an end view of the open end of the key without the handle.

Similar numerals and letters refer to similar parts throughout the various views.

The key is denoted by the letter H; I denotes the orifice cap; J denotes the direction of winding key H; K denotes the collapsible tube; L denotes a partially wound-up position of key H and the collapsible tube K; N designates the rounded outer edge of the wide jaw C.

The letter A denotes the thickness of the jaw grip; the letter B denotes the lower jaw; the letter C denotes the upper jaw; the letter G denotes the winding handle; the letter M denotes

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the crimp in the upper jaw of the U-shape body.

To operate the key firmly insert it H with the jaw grip thickness A and jaws B and C over the seamed end of the collapsible tube. Remove the screw cap I from the orifice and wind the handle G until the desired amount of the contents is expelled.

While certain features of this invention are shown and described in detail, it will be understood that changes in form, size and detail therefore may be made without departing from the scope of the device defined.

I am aware that prior to my invention keys for extracting contents from collapsible tubes have been designed and patented. I therefore do not claim such a key broadly; but

I claim:

A winding key for extracting contents from collapsible wall tubes made from one plate of metal cut to form an L-shape having a long and a short leg and bent longitudinally along the long leg to form a U-shape body having two jaws opposite each other and a flat oblong winding handle normal to the length of and in the same plane as one of the jaws; said U-shape body being crimped the width of the winding handle to form a stop adjacent to the winding handle to prevent the collapsible tube wall from sliding into the winding handle and thereby avoiding cutting, puncturing or damaging the tube; said U-shape body being open at one end so as to permit removal of the key from the empty rolled up collapsible tube without having to unwind the tube; said jaws forming the U-shape body having different depths with the jaw opposite the winding handle having greater depth than the jaw on the same plane as the winding handle which permits a firm grip and promotes easy, smooth and effortless manipulation in winding the collapsible wall tube to extract the contents; said jaw with greater depth having a rounded outer edge to prevent cutting the wall of the collapsible tube when initial winding is started.

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