April 15, 1958 H. SCHNEIDER 2,830,736

COLLAPSIBLE TUBE DISPENSER

Filed Aug. 1, 1955

Fig. 1

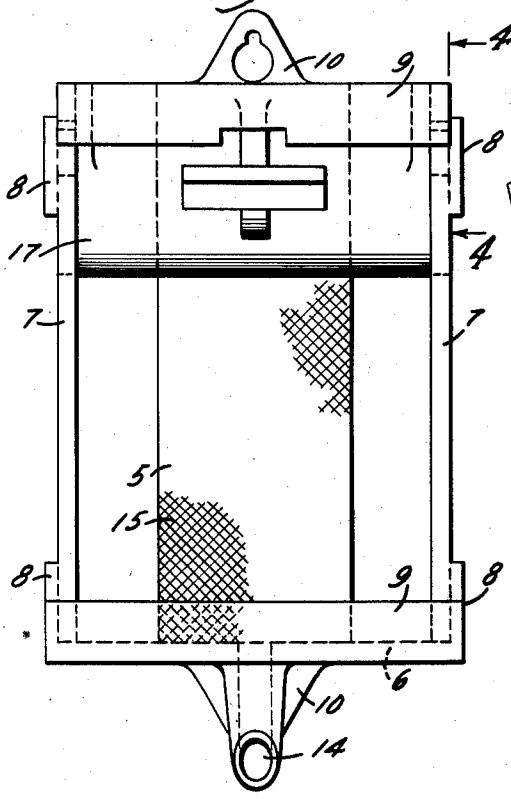


Fig. 2

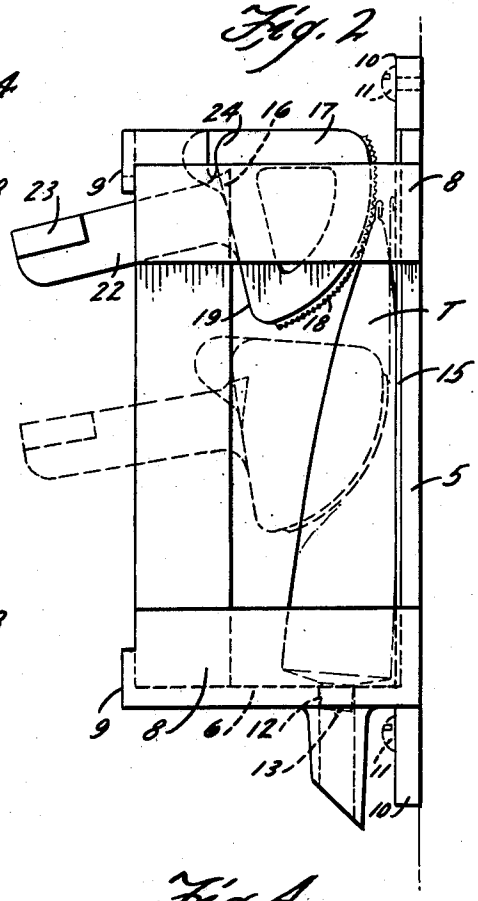


Fig. 3

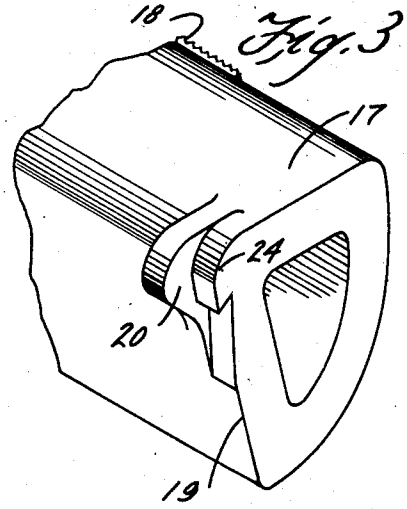
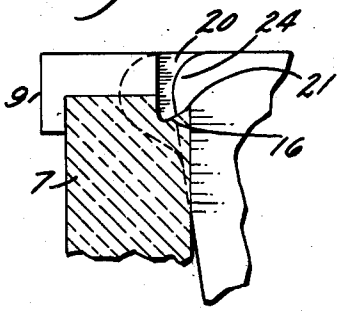


Fig. 4



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COLLAPSIBLE TUBE DISPENSER

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1 Claim. (Cl. 222—103)

The invention relates to dispensing devices for dispensing the contents of collapsible tubes or containers.

The object of the invention is to provide a new and improved form of dispensing device of the type employing a swingable pressure element for compressing the tube progressively as the element is advanced to expel the tube contents therefrom. More particularly, according to the invention there is only one moving part, preferably a one piece molded plastic compressor, and a fixed support for the tube, either of one piece molded plastic or built up plastic sheets, these parts being so constructed as to permit ready placement of the tube in a dispensing position and the holding of the compressor in an inoperative position until needed.

The invention further consists in the several features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings:

Fig. 1 is a front elevation view of a dispensing device embodying the invention;

Fig. 2 is a side elevation view of the dispensing device;

Fig. 3 is a perspective view of the compressor, parts being broken away;

Fig. 4 is a detailed sectional view taken on the line 4—4 of Fig. 1.

Referring to the drawings, the dispensing device comprises a relatively fixed support and a compressor movable relative to said support to compress the tube between it and the support and be advanced along the support as the contents of the collapsible tube T are used up.

The fixed support is preferably a one piece molded plastic part formed to provide a back wall **5**, a bottom **6**, spaced front guide and reaction members **7**, and suitable reinforcing means, such as top and bottom side struts **8** and top and bottom front struts **9**. The above named parts could be formed from suitable plastic sheet material cemented together, if desired, but the one piece structure is preferred.

The back wall **5** may have apertured top and bottom ears **10** to take screws **11** to mount the device on a wall, cabinet, or other suitable support. The bottom wall **6** has an opening **12** to receive the nozzle end **13** of the tube T, and this opening may be prolonged to form a nozzle **14**, if desired. The front side of the back wall **5** has a knurled surface **15**. The members **7** each have a notch **16** formed therein adjacent their upper ends as shown in Fig. 4.

The compressor is a one piece molded plastic part having a hollow generally triangular shaped body portion **17** whose tube contacting side **18** is curved to provide a wedge surface and whose adjacent side **19** has spaced guide lugs **20** projecting therefrom and spaced hook portions **21**, each adapted to engage its cooperative

notch **16** in the adjacently disposed member **7**. A lever **22** projects from the medial portion of the side **19** and has a hand grip portion **23** at its outer end, said lever permitting the raising or lowering of the compressor by the operator and the swinging of the compressor about the members **7** as fulcrum supports for the curved fulcrum points **24** formed on opposite ends of the body portion **17**. The wedge surface **18** also has a knurled surface.

With the above construction, the compressor may be removed from its mounting on the support and the tube T whose cap has been removed inserted from the top to a position where its end **13** seats in the hole **12**. As an alternative, the tube T may be inserted from the front side of the support in an upwardly inclined direction so that its closed end comes up between the compressor and the back wall and its nozzle **13** clear of the bottom and then swung in and down to bring said end **13** into the hole **12**. To extract the contents of the tube, the compressor is unhooked from the side members **7** and then either dropped or moved down until its wedge side **18** contacts the closed end of the tube T, at which time the fulcrum points **24** are engaged with the inner sides or edges of the members **7** and then by exerting a downward pressure on the lever **22** the compressor is turned about its fulcrum points so that the wedge side **18** moves in contact with the tube and squeezes said tube between it and the back wall to thereby force some of the contents of the tube through the nozzle end **13** and the nozzle **14**, if used, the position of the compressor after a squeezing operation being shown in dotted lines in Fig. 2. The compressor is successively advanced downwardly on the members **7** to squeeze out the contents of the tube until the tube is empty. The guide lugs **20** engage the inner sides of the members **7** to prevent lateral displacement of the compressor and the knurled surfaces on the compressor and back wall prevent slippage of the tube during the squeezing operations. With the hooks **21** engaging the notches **16** gravity holds the compressor in its inoperative position.

I desire it to be understood that this invention is not to be limited to any particular form or arrangement of parts except in so far as such limitations are included in the claim.

What I claim as my invention is:

In a collapsible tube dispensing device, the combination of a fixed support having a back wall, apertured bottom, and spaced front members, said support adapted to support the tube against its back wall with its outlet end disposed in the opening in said bottom, a compressor having a body presenting a wedge surface to the tube and provided with fulcrum points at its upper end engageable with the inner sides of said front members for tilting thereon to compress the tube between said surface and said back wall and having a manually operable lever projecting therefrom for tilting said body and means slidably engageable with said front members to prevent lateral displacement, and gravity actuated means for holding said compressor on said support in an inoperative position comprising hooks on the compressor body and notches in said side front members engageable with said hooks.

References Cited in the file of this patent

UNITED STATES PATENTS

2,260,346	Spencer	Oct. 28, 1941
2,554,217	Shaw	May 22, 1951