Aug. 18, 1936. S. K. MARTIN ET AL 2,051,146

DISPENSER

Filed March 13, 1935

FIG. 1

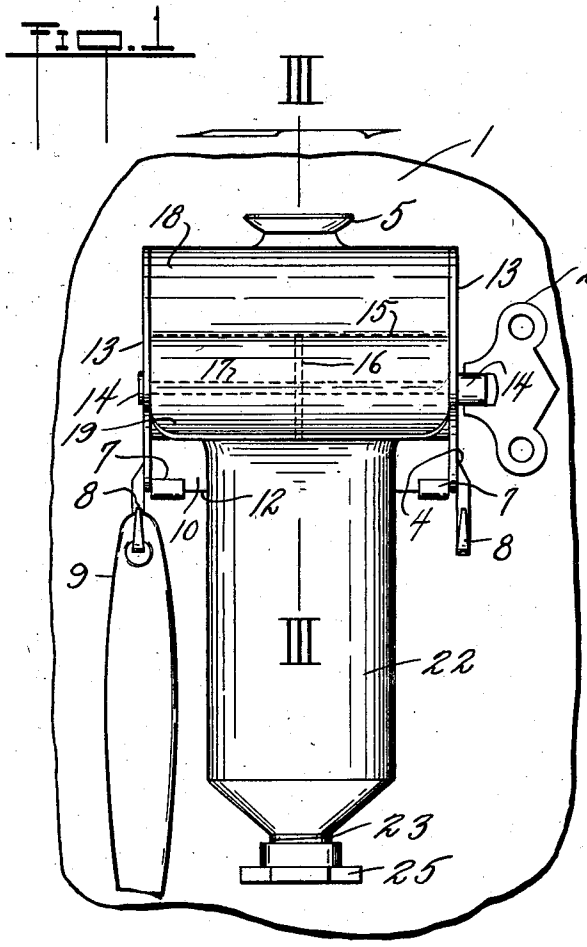


FIG. 2

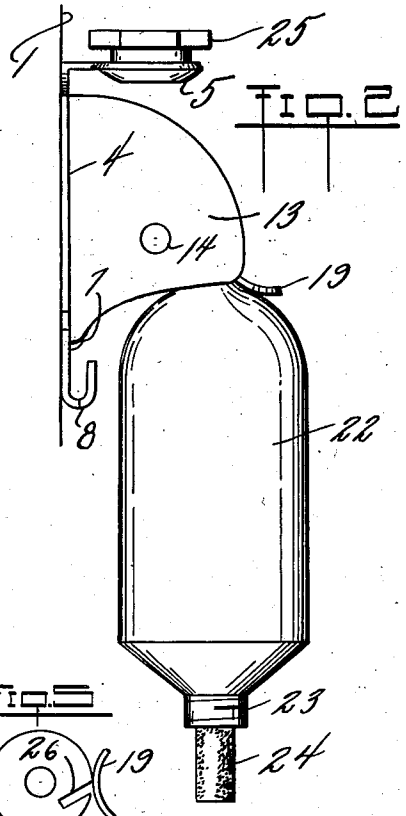


FIG. 5

FIG. 3

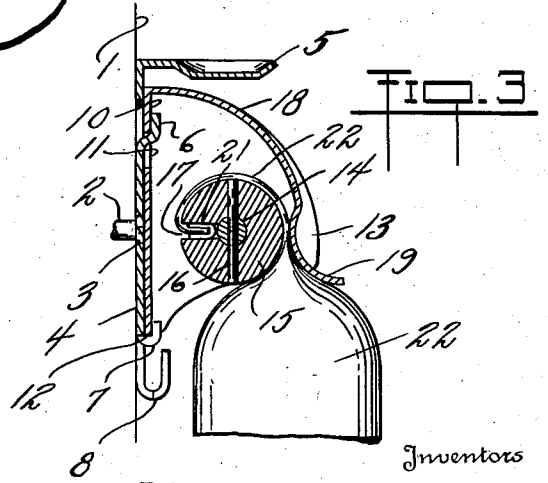
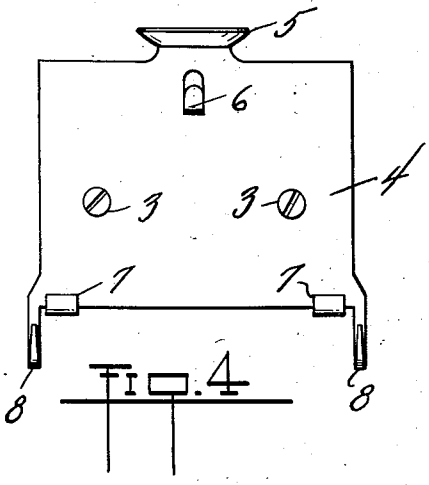


FIG. 4



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DISPENSER

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1 Claim. (Cl. 221—60)

This invention relates to dispensers.

This invention has utility when incorporated in devices for extruding predetermined quantities of material from collapsible tubes.

Referring to the drawing:

Fig. 1 is a front elevation of an embodiment of the device incorporating the invention herein;

Fig. 2 is a view of the device from the left of Fig. 1;

Fig. 3 is a view on the line III—III, Fig. 1, looking in the direction of the arrow;

Fig. 4 is a front elevation of the mounting plate or bracket; and

Fig. 5 is a modified showing of roller construction.

Mounted on wall or other support 1 by fastening means as screws 2 having heads 3, is plate 4; the heads 3 being countersunk in the plate. This plate or bracket is provided with outwardly extending dished member 5 as a small shelf or support. The plate 4 has lug or hook 6 struck outwardly from its upper portion with hooks, lugs or supports 7 extending from the bottom edge thereof. Additionally, hooks 8 may be provided extending from the plate 4 as supports for tooth brush 9 or other toilet accessories.

This simple sheet metal stamping, as attached to a support, may form a mounting for the dispenser proper having back wall 10 provided with opening 11 through which the lug 6 may extend and the dispenser then moved downwardly so that this lug 6 may engage the wall 10 and simultaneously the lower edge 12 of the back 10 become seated in the supports 7. This mounting means for the dispenser on the bracket 4 permits the dispenser to be quickly mounted or removed, and as mounted, holds such firmly in position.

From the plate 10 there extends outwardly integral parallel side members 13 for mounting shaft 14 upon which shaft is fixed roller 15 between the sides 13 by means of pin 16 through the roller and shaft. The roller is provided with longitudinal slot 17. From the upper edge of the back plate 10 extends integral flexible housing or hood member 18 as a leaf spring terminating in arc portion 19 adjacent the roller 15. The tension of this flexible hood or spring member 18 is toward the roller 15, and in an empty dispenser the portion 19 abuts against the roller 15 with considerable force.

The arc portion 19 has a radius the same as the roller 15, the axes of which are preferably in a horizontal plane at right angles to a vertical line extending through the contact point between the roller and portion 19. The back 10, sides 13 and hood 18 form an open bottom housing for the roller 15. Fixed with the shaft 14 is key 20 which may be manually operated to rotate the roller 15. The key 20 may be initially operated to bring the slot 17 into a downwardly extending position to receive closed end 21 of collapsible tube 22. The key then may be rotated so that the closed end of the collapsible tube is bent for keying to the roller and then may be drawn upwardly between the roller and the portion 19. The spring tension collapses the tube 22 progressively between the roller and portion 19 as the tube is moved vertically into the housing. The open end 23 of the downwardly extending tube permits the contents 24 to be expressed therethrough in predetermined quantities as determined by the extent of rotation of the key 20.

The collapsible tube 22 normally has its open end 23 closed by cap 25. In the operation of this device, the cap 25 may be placed in the dished shelf portion 5, and as the contents have been removed from the end of the tube, the cap may be re-placed if desired.

Due to a like radius of the portion 19 and the roller 15 and the axis of each being disposed at a right angle to the axis of the tube, it is pulled or drawn vertically into the housing and the contents as expressed may be nicely measured. As the collapsed tube is drawn into the housing it may wind upon the roller 15 and in tubes of some length it may wind more than a single layer about the roller. The device is still operative for complete expressing of the contents due to the flexibility of the hood 18, 19. It has been found that by this device any length tube may be handled with complete expressing of the contents throughout the entire length.

In some instances it may be desired to employ a roller having modified means for engaging the closed end of the tube 22. To this end the roller 15 is provided with slot 26 (Fig. 5), which slot extends into the roller angularly to the radius.

What is claimed and it is desired to secure by United States Letters Patent is:

A collapsible tube mounting and expressing device comprising a primary back flat plate provided with upwardly open hooks, anchoring means for the primary plate, a secondary plate having vertically spaced seat portions to engage the hooks and therebetween abutting the primary plate, said secondary plate having a pair of forwardly extending parallel end portions, a roller longitudinally slotted between and mounted by the end portions, said secondary plate be-

tween the end portions having a yieldable overhang from above and outward past the roller, said overhang lower terminus being reversely curved and convex toward below the central portion of the roller in approximately the arc of the roller, said roller longitudinal slot being adapted to engage the upper terminus of the depending collapsible tube, whereby rotation of the roller may draw a portion of the tube toward the roller to be collapsed between the roller and said overhang.

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