Oct. 29, 1957 C. E. DENBOW 2,810,987

BRUSH HOLDER

Filed Aug. 9, 1956 2 Sheets-Sheet 1

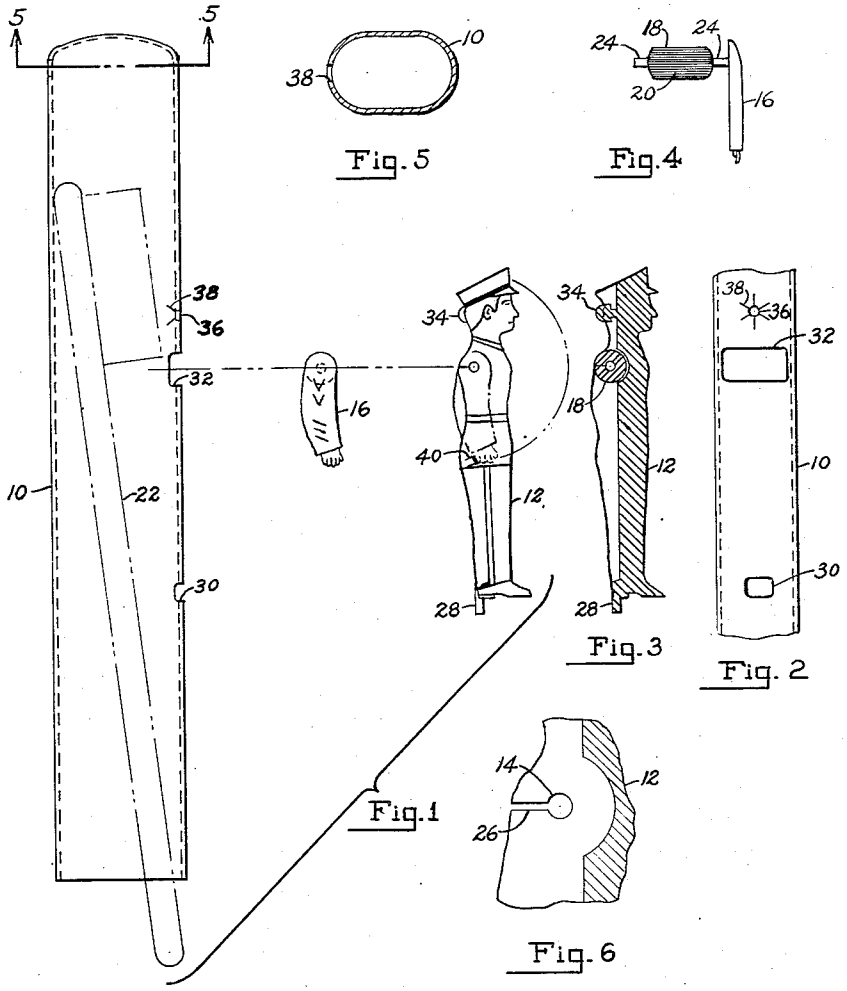


Fig. 5

Fig. 4

Fig. 3

Fig. 2

Fig. 1

Fig. 6

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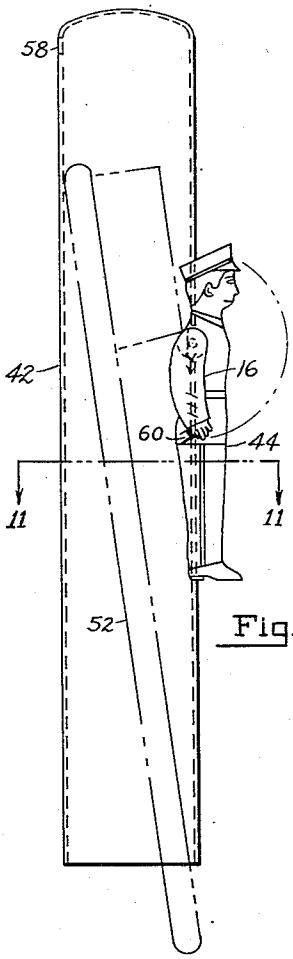


Fig. 7

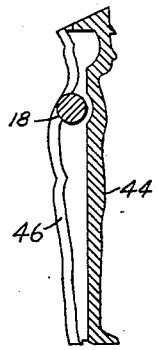


Fig. 8

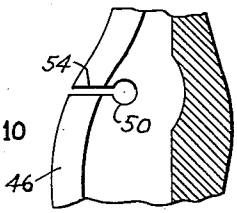


Fig. 10

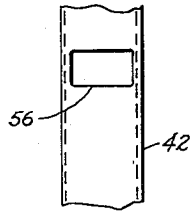


Fig. 9

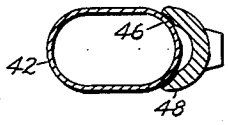


Fig. 11

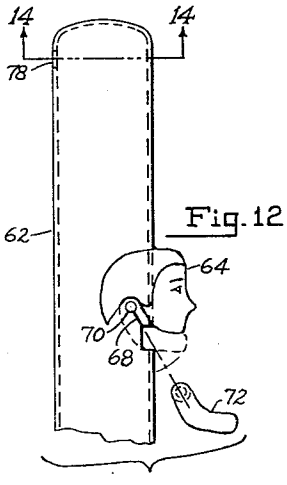


Fig. 12

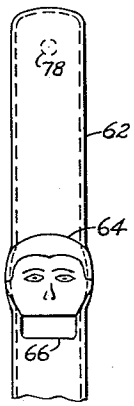


Fig. 15

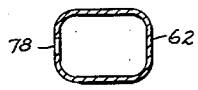


Fig. 14

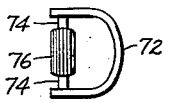


Fig. 13

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BRUSH HOLDER

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Application August 9, 1956, Serial No. 603,017

6 Claims. (Cl. 46—116)

This invention relates to brush holders which can contain the brush when sold to the buyer. More particularly the holder has an image, a part of which is moved by the insertion of the brush in the holder and by the removal of the brush from the holder.

When the device is used as a holder for a toothbrush, the movement of the image upon removal or replacement of the tooth brush will interest children, and they will form a habit of brushing their teeth and putting away their tooth brush after use.

It is an object of this invention to provide a container for a brush which will serve as a holder in which the brush may be stored when not in use.

It is another object of the invention to provide means for releasably retaining the brush in the holder.

It is still another object of the invention to provide on the container, an image at least part of which is moved when the brush is moved into or out of the container.

It is still another object of the invention to provide a holder which is inexpensive to manufacture and assemble.

Other objects and advantages will become apparent as the specification proceeds to describe the invention with reference to the accompanying drawings in which:

Fig. 1 is an exploded view of one form of the invention;

Fig. 2 is a front elevational view of the container alone with the ends broken away;

Fig. 3 is a sectional view taken through a vertical central plane of the image;

Fig. 4 is a vertical elevational view of the arm;

Fig. 5 is a sectional view taken on line 5—5 of Fig. 1;

Fig. 6 is an enlarged sectional view of a portion of the toy body member;

Fig. 7 is a view in elevation of a modification of my invention;

Fig. 8 is a sectional view of the image of Fig. 7 taken on a vertical axial plane;

Fig. 9 is a partial side view of the container of Fig. 7;

Fig. 10 is a partial enlarged sectional view of the body member of Fig. 7; with the arm removed;

Fig. 11 is a sectional view taken on line 11—11 of Fig. 7;

Fig. 12 is an exploded elevational view of a second modification of my invention;

Fig. 13 is a plan view of the jaw of Fig. 12;

Fig. 14 is cross sectional view taken on line 14—14 of Fig. 12;

Fig. 15 is a side view of the container of Fig. 12 with the jaw removed.

Referring now to the drawings in detail, 10 is a container of suitable resilient material such as a plastic. A body member 12 of plastic or other suitable material has a curved rear surface which fits the curved surface of the container 10. The body member 12 has at each shoulder, bearings 14 for pivotally mounting an arm 16. Fixedly secured to arm 16 is a roller 18 which has

longitudinal serrations 20 in its cylindrical surface to insure that the bristles of the brush 22 will drive the roller 18 without slipping. Shafts 24 extend from each end of roller 18 and are rotatably supported in bearings 14. Slots 26 extend to the bearings 14. The slots 26 have a width less than the diameter of the shafts 24. Because of the resiliency of the material of the body member 12, the shafts 24 may be forced through the slots 26 into the bearings 14. Once the shafts 24 are in place in the bearings 14 they are not easily removed. The body member 12 has a tab 28 extending from the lower end. The container 10 has an opening 30 to receive tab 28. Container 10 has an opening 32 which receives roller 18. Near the top of the body member 12 is a knob 34. Container 10 has a hole 36 with radial cuts 38 extending outwardly therefrom.

In assembling the holder, the arm 16 is first snapped into place on the body member 12. This subassembly is then fastened to the container by first inserting the tab 28 in the hole 30 and then pushing the body member 12 against the container 10 to force the knob 34 through the hole 36. The material of the container surrounding the hole 36 returns to its original position after the knob 34 has passed through and therefore the body member 12 is securely held in position on the container 10.

The device as sold may have the usual closure over the open end of the container 10. When used as a holder the closure is removed and the container 10 may be secured to a nail on a wall by positioning the device so that the nail extends through the hole 38 in the container 10.

When the device is mounted on the wall in this way, the end of the handle of the brush 22 extends from the end of the container 10 so that it is easily grasped. Engagement of the bristles of the brush 22 with the roller 18 prevents the brush 22 from falling out of the container. When the brush 22 is withdrawn from the container, the bristles by engagement with the roller 18, rotate the roller to swing the arm 16 from a stop 40 on the body member to the cap of the body member which serves as a stop at the other extremity of travel of the arm 16. The arm 16 may then fall by gravity to stop 40. If the arm 16 does not fall by gravity, replacement fo the brush 22 in the container 10 will cause the bristles to contact the roller 18 and return the arm 16 to the stop 40.

Referring now to the form of the invention shown in Figures 7–11 inclusive, the container 42 has a body member 44 secured thereto by an adhesive 48. I prefer to make the container 42 and the body member 44 of plastic, but they may be made of other suitable materials. The body member 44 is made in the form of a shell in that it has a substantially uniform thickness. The rear edges of the body member 44 have sealing surfaces 46 shaped to the contour of the surfaces on the container 42 to which they are secured by an adhesive 48. The body member 44 has at each shoulder, bearings 50 for pivotally mounting the arm 16 shown in Figure 4. Fixedly secured to arm 16 is a roller 18 which has longitudinal serrations 20 in its cylindrical surface to insure that the bristles of the brush 52 will drive the roller 18 without slipping. Shafts 24 extend from each end of the roller 18 and are rotatably supported in bearings 50. Slots 54 extend to the bearings 50. The slots 54 have a width less than the diameter of the shafts 24. Because of the resiliency of the material of the body member 44, the shafts 24 may be forced through the slots 54 into the bearings 50. Once the shafts 24 are in place in the bearings 50, they are not easily removed.

The container 42 has a rectangular opening 56 to receive the roller 18 with clearance. In assembling the

holder, the arm **16** and roller **18** are first secured in place on the body member **44**. Adhesive **48** is then applied to the surfaces **46** or to the complimentary surfaces on the container **42** or to both and the body member **44** is then moved into position on the container **42** with the roller **18** entering the opening **56**. I prefer that the adhesive **48** shall be of a type which will harden so that the body member **44** is securely held to the container.

The holder as sold may have the usual closure over the open end of the container **42**. When used as a holder the closure is removed and the container **42** may be secured to a nail on a wall by positioning the holder so that the nail extends through a hole **58** in the container **42**.

When the container **42** is mounted on the wall in this way, the end of the handle of the brush **52** extends from the end of the container **42** so that it is easily grasped for withdrawal. As the brush **52** is withdrawn from the container **42**, the bristles engage the roller **18** and cause it to rotate counterclockwise to raise the arm **16** from a projection **60** on the body member **44** to the cap of the body member which serves as a stop at the other end of travel of the arm **16**.

Referring now to the form of invention of Figures 12 to 15, the container **62** has a portion formed outwardly into a body member in the form of a head **64**. The container **62** is of resilient material and it has a rectangular opening **66** at the area of the jaw of the head **64**. The container **62** has cuts **68** extending from each end of the opening **66** to bearings **70**.

A jaw **72** is connected at each end by shafts **74** to a roller **76** which has a knurled surface. I prefer that the jaw **72**, the shafts **74** and the roller **76** shall be a tenitary plastic moulding, but it is contemplated that separate elements could be assembled.

In assembling the holder of Figs. 12–15, the roller **76** is centered in the opening **66** and the jaw **72** is forced upwardly against the container to move shafts **74** through cuts **68** and into bearings **70**. The container **62** has a hole **78** for receiving a nail to support the holder on a wall.

The holder of Figures 12–15 functions in a manner similar to the holders of the other modifications with the bristles of the brush engaging the roller **76** to move the jaw **72** from an open position against the container **62** to a closed position with respect to the face of the head **64**.

Although I have described in detail preferred embodiments of my invention, it is contemplated that various changes may be made without departing from the scope or spirit of the invention, and I desire to be limited only by the claims.

I claim:

1. A device of the character described comprising a container, a first toy body member secured to said container, a second toy body member pivotally secured to said first toy body member, and a roller secured to said second toy body member and extending into the interior of said container to frictionally engage the ends of the bristles of a brush in said container whereby said second toy body member is pivotally moved by movement of the brush in said container.

2. A device of the character described comprising an elongated container having three openings spaced along its length, a toy body member having projections extending into two of the openings in said elongated container to secure said toy body member to said elongated container, an appendage secured to said toy body member, a roller secured to said appendage and extending into the interior of said container to engage the bristles of a brush mounted in said container whereby removal of the brush will pivotally move said roller and said appendage with respect to said toy body member.

3. A device of the character described comprising an elongated container having an open end and a side opening, a toy body member, an adhesive securing said toy body member to said container, an appendage pivotally secured to said toy body member, a roller secured to said appendage and extending through the side opening of said container to the interior of said container to engage the bristles of a brush in said container whereby said roller frictionally holds the brush in said container and is pivotally moved by removal of the brush from the container.

4. A device of the character described comprising a container having an integral outwardly extending portion in the shape of a toy body member, a first opening adjacent said outwardly extending portion, circular openings in opposite side walls, and a cut extending from each of said circular openings to said first opening; a roller in said container and adapted to engage the bristles of a brush in said container, shafts extending from each end of said roller and extending through said circular openings, and a second toy body member secured to said shafts whereby movement of the brush with respect to said container will move the bristles of the brush past the roller to pivotally move the roller, the shafts and the second body member.

5. A brush holder comprising a container adapted to receive a brush, a first toy body member secured to said container, a second toy body member pivotally secured to said first toy body member, a roller secured to said second toy body member and extending into the interior of said container and adapted to frictionally engage the bristles of a brush as it is moved into and out of said container whereby movement of the brush pivotally moves said second toy body member with respect to said first toy body member, and stop means on said first toy body member in the path of movement of said second toy body member for limiting movement of said second toy body member.

6. A brush holder comprising a container adapted to receive a brush, a first resilient toy body member having a hole extending therethrough and a slot extending from the hole to an edge of said first toy body member, a second toy body member having a shaft pivotally mounted in the hole of said first toy body member, the shaft having a diameter greater than the width of said slot whereby the shaft may be forced through the slot into the hole in said first resilient toy body member, a roller on said second toy body member, and means for securing said first toy body member on said container with said roller extending into said container and adapted to frictionally engage a brush in said container whereby movement of the brush in said container will pivotally move said second toy body member with respect to said first toy body member.

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