Oct. 21, 1958 G. FRANCOLINO 2,856,971

DENTAL KIT

Filed Jan. 12, 1956

Fig. 1

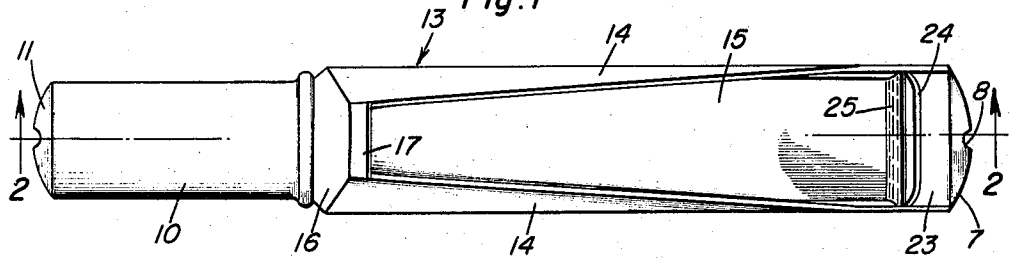



Fig. 2

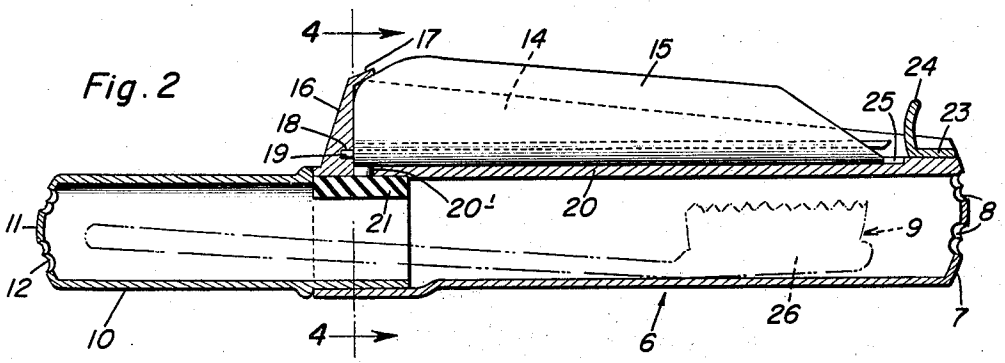
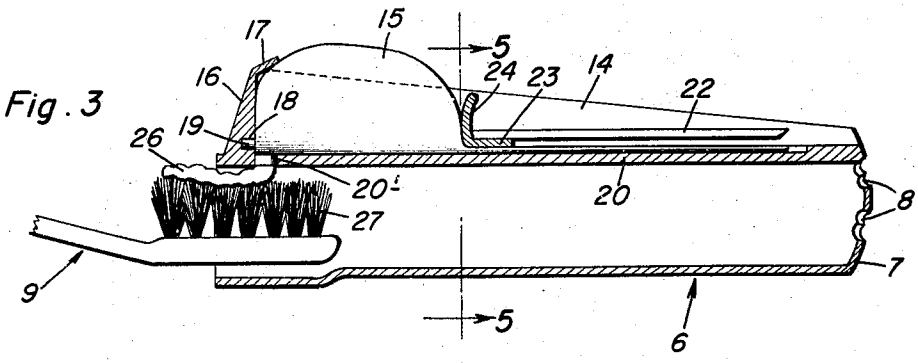



Fig. 3



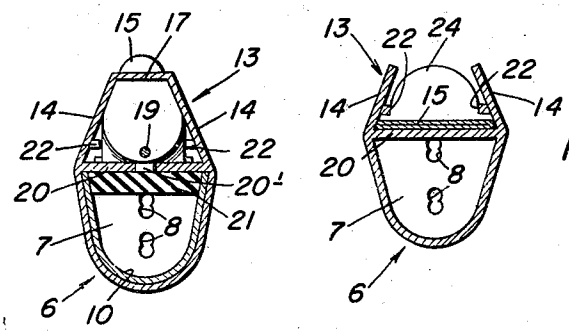




Fig. 4




Fig. 5

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United States Patent Office 2,856,971 Patented Oct. 21, 1958



2,856,971

# DENTAL KIT

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Application January 12, 1956, Serial No. 558,651

3 Claims. (Cl. 141—370)

The present invention relates to new and useful improvements in dental kits for use in the home or when travelling and has for its primary object to provide, in a manner, as hereinafter set forth, a device of this character which is adapted to accommodate a conventional tooth brush, together with a tube of dentifrice for convenient use with said tooth brush.

Another very important object of the invention is to provide a dental kit of the aforementioned character comprising novel means for applying the dentifrice to the brush as the latter is removed for use.

Other objects of the invention are to provide a dental kit of the character described which will be comparatively simple in construction, compact, of light weight, sanitary, attractive in appearance and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a top plan view of a dental kit constructed in accordance with the present invention;

Figure 2 is a longitudinal sectional view, taken substantially on the line 2—2 of Figure 1;

Figure 3 is a longitudinal sectional view, showing the dentifrice being deposited on the brush;

Figure 4 is a cross sectional view, taken substantially on the line 4—4 of Figure 2; and

Figure 5 is a cross sectional view, taken substantially on the line 5—5 of Figure 3.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises an elongated, substantially tubular case or container of a suitable molded plastic which is designated generally by reference character 6. The container 6 includes a closed rear end 7 having ventilating openings 8 therein. The container 6 is open at its forward end for the reception of a conventional tooth brush, as indicated at 9. The forward end of the container 6 is closed by an elongated removable cap 10 which is slidably insertable in said container. The closed outer end 11 of the cap 10 is provided with ventilating openings 12.

Formed integrally with the upper portion of the container 6 and parallel therewith is a longitudinally extending trough which is designated generally by reference character 13. The trough 13 comprises rearwardly inclined side walls 14 for the reception of a collapsible dentifrice tube or container 15 therebetween. The trough 13, which is open at its rear end, further includes an upstanding front wall 16 for abutting engagement with the top or forward end of the collapsible tube 15. The end wall 16 of the trough 13 terminates at its top in a rearwardly directed flange 17 for receiving and retaining the forward end portion of the tube 15 therebeneath.

The forward end wall 16 of the trough 13 still further includes in its lower portion a socket 18 for the reception of an anchoring pin or lug 19 on the forward end of the tube 15. Immediately adjacent the forward end wall 16, the bottom 20 of the trough 13 has formed therein an opening 20′ which communicates with the container 6. The opening 20′ is for registry with a radial or lateral discharge opening in the forward end portion of the collapsible tube 15 for the passage of the dentifrice therefrom into the container 6 in the manner shown to advantage in Figure 3 of the drawing. Mounted in the inner end portion of the cap 10 is a rubber closure 21 for closing the opening 20′ when said cap 10 is inserted in the container 6.

As shown to advantage in Figures 4 and 5 of the drawing, the side walls 14 of the trough 13 are upwardly convergent. Formed integrally with the walls 14, in the lower portion of the trough 13, are longitudinal guide flanges or ribs 22. An ejector 23, slidable in the trough 13 on the bottom 20 thereof, is operable beneath the guides 22. The slidable ejector 23 includes an upstanding thumb piece 24 to facilitate actuating said ejector.

It is thought that the use of the device will be readily apparent from a consideration of the foregoing. Briefly, the collapsible tube 15 is inserted longitudinally in the trough 13 with the forward end portion of said tube engaged beneath the flange or lip 17, the pin 19 projecting into the socket 18. The ejector 23 is then inserted in the rear end portion of the trough 13 and engaged over the flattened rear end portion 25 of the tube 15. With the tooth brush 9 in the container 6, the cap 10 is inserted for closing said container and the opening or passage 20′. To use the tooth brush 9, the cap 10 is removed and said tooth brush is withdrawn from the container 6. With the thumb of the hand which grips the container 6, the ejector 23 is moved forwardly beneath the guide ribs or flanges 22 for flattening the collapsible tube 15 in the manner clearly shown in Figure 3 of the drawing. Thus, the dentifrice, as indicated at 26, is squeezed from the collapsible tube 15 onto the bristles 27 of the brush 9 which are held beneath the opening or passage 20′.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A dental kit of the character described comprising: an elongated, substantially tubular container open at one end for the reception of a toothbrush, a longitudinal trough on said container parallel therewith, said trough comprising longitudinal side walls, longitudinal guide flanges on said side walls in the lower portion of the trough, a collapsible dentifrice tube removably mounted in the trough, and a manually operable ejector slidable in the trough beneath the guide flanges for flattening the collapsible tube for ejecting the dentifrice therefrom, said trough communicating with the container for depositing the ejected dentifrice on the tooth brush as said tooth brush is withdrawn from said container.

2. A dental kit comprising: an elongated tubular container open at one end for the reception of a tooth brush, a longitudinal trough, for the reception of a collapsible dentifrice tube, on said container and parallel therewith, means in the trough for ejecting the dentifrice from the tube, said trough comprising a bottom having an opening therein communicating with the container for depositing the ejected dentifrice on the toothbrush as said tooth

brush is withdrawn from said container, and a removable cap engageable in the container for closing the open end thereof and said opening.

3. A dental kit of the character described comprising: an elongated, substantially tubular container open at one end for the reception of a tooth brush, a longitudinal trough on said container parallel therewith, a removable collapsible dentifrice tube mounted in said trough, an ejector slidable in the trough for squeezing the tube and ejecting the dentifrice therefrom, said trough including a bottom having an opening therein communicating with the container for depositing the ejected dentifrice on the tooth brush as said tooth brush is withdrawn from said container, a slidably insertable closure cap for the open



end of the container, and a resilient member on said cap engageable in the container for closing the opening in the trough bottom when the cap is inserted in the container.

**References Cited** in the file of this patent

UNITED STATES PATENTS

| | | |
|---|---|---|
| 1,464,250 | Lieberthal | Aug. 7, 1923 |
| 1,563,459 | Volland | Dec. 1, 1925 |
| 1,644,049 | Young | Oct. 4, 1927 |
| 2,167,761 | Levin et al. | Aug. 1, 1939 |
| 2,188,217 | Behring | Jan. 23, 1940 |
| 2,527,741 | Lamonde | Oct. 31, 1950 |