July 3, 1945. E. E. SMITH ET AL 2,379,600

DENTAL COMPACT

Filed July 21, 1943

Fig. 1.

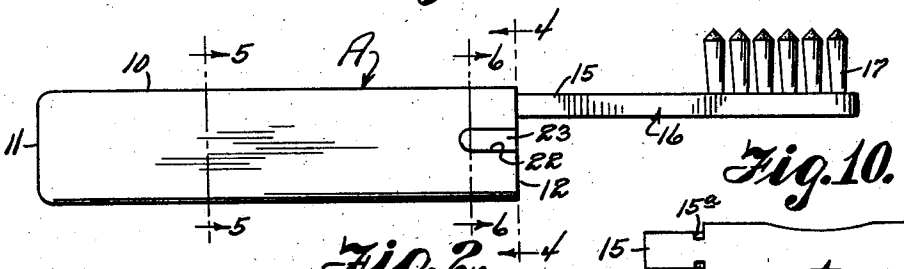


Fig. 10.

Fig. 2.

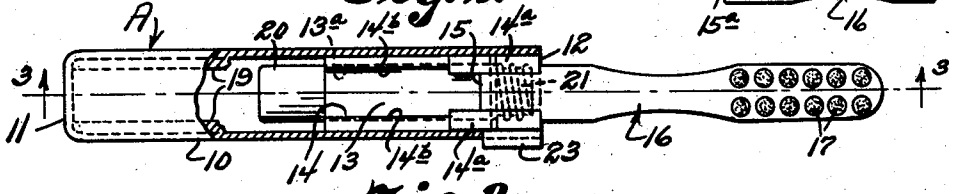


Fig. 3.

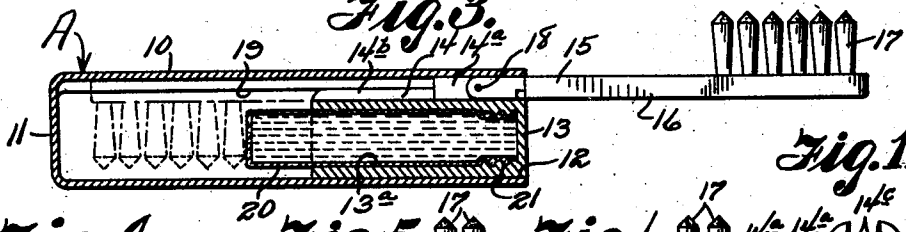


Fig. 11.

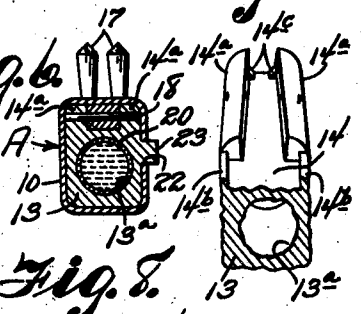


Fig. 4.

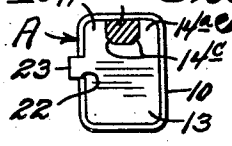


Fig. 5.



Fig. 6.

Fig. 7.

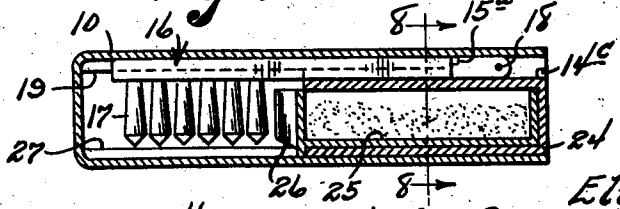


Fig. 8.

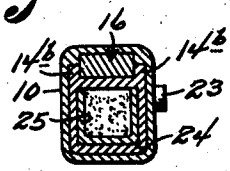
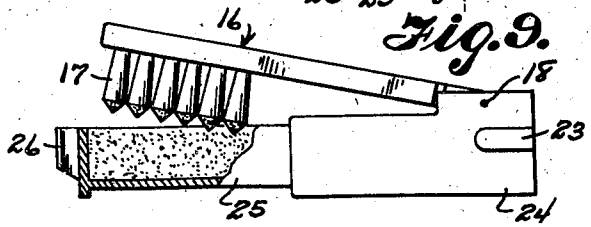


Fig. 9.



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DENTAL COMPACT

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4 Claims. (Cl. 15—185)

The invention relates to a dental device and more especially to a dental compact, it being refinements over the compacts forming the subject matter of our Letters Patent Nos. 2,168,689 and 2,247,003, issued August 8, 1939, and June 24, 1941, respectively.

Another object of the invention is the provision of a compact of this character wherein a toothbrush associated therewith and dentifrice material will be confined therein for ready access and will be protected against dust, dirt or contamination from foreign matter when not in use, the toothbrush as well as the dentifrice material being readily accessible for service and without necessitating the separation thereof which might result in the loss of the same and additionally the compact housing constitutes a handle for the toothbrush when in use, as well as a holder for the dentifrice material.

A further object of the invention is the provision of a compact of this character which is simple in construction, thoroughly reliable and effective in operation, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention and pointed out in the claims hereunto appended.

In the accompanying drawing:

Figure 1 is a side elevation of the compact constructed in accordance with the invention, showing the same arranged for use of the toothbrush, constituting a part thereof.

Figure 2 is a plan view partly in section.

Figure 3 is a sectional view taken along the line 3—3 of Figure 2, looking in the direction of the arrows.

Figure 4 is a sectional view taken through line 4—4 of Fig. 1, looking in the direction of the arrows.

Figure 5 is a sectional view taken on the line 5—5 of Figure 1, looking in the direction of the arrows.

Figure 6 is a sectional view taken on the line 6—6 of Figure 1, looking in the direction of the arrows.

Figure 7 is a vertical longitudinal sectional view showing a modification of the compact.

Figure 8 is a sectional view taken on the line 8—8 of Figure 7, looking in the direction of the arrows.

Figure 9 is a view partly in side elevation and partly in vertical section of the brush, drawer and carrying block of that form of the compact shown in Figures 4, 7 and 8, the drawer being shown partly withdrawn from the block.

Figure 10 is a plan view of a fragmentary portion of the shank of the brush, and

Figure 11 is a perspective view of a fragmentary portion of the brush carrying block.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, A designates generally the compact disclosed in Figures 1 to 6 inclusive. The compact preferably comprises an outer shell or casing 10 permanently closed at the end 11 and open at the opposite end 12 of the same.

The casing 10 receives a block 13, toothbrush 15 and vial 20. In cross sectional formation the block 13 conforms to the inner cross sectional formation of the casing 10 and has a snug fit in the forward portion of the casing. The block 13 is provided in its upper side with the groove 14 which extends longitudinally thereof. The flanges formed by grooving the block 13 have relatively thick forward portions 14a and relatively thin rearward portions 14b. The rear end of the shank 15 of a toothbrush 17 is pivoted, as at 18 to and between the flange portions 14a for movement into folded or extended position with relation to the block 13. The brush 16 is provided with the usual bristles 17. The flanged portions 14a have provided at the inner sides and near their forward ends with lugs 14c which are located in notches 15a of the brush shank 15 when the brush is in extended position. The block 13 is provided at its lateral side near its forward end with a lug 23 which has a snug fit in a slot 22 formed in the casing 10.

When in extended position, the brush 16 is arranged for use. It is held in this position against any accidental movement with relation to the casing 10 and block 13 by the ribs 14a, lugs 14c and casing 10. The casing 10 and block 13 are held against any accidental movement one with relation to the other by the lug 23.

The casing 10 is provided with inner longitudinal ribs 19 which extend longitudinally thereof and which contact with the rear ends of the flange portions 14a of the block 13 and with the upper edges of the flange portions 14b of the block, whereby to limit the insertion of the block into the casing and to assist the lug 23 in holding the block against any accidental movement

with relation to the casing. When the brush **16** is in folded position, the shank **15** with the brush is located between the flange portions **14***a* and **14***b* and the ribs **19**, and the bristles **17** are located rearwardly of the block **13**.

The block **13** is provided with a bore **13***a* which is fully open at its rear end and which is fully closed at its front end. The bore **13***a* adapts the block **13** to receive a vial **20** containing dentifrice. The front end of the vial **20** is closed by the closed end of the bore **13***a*, and said end of the vial is screw threadedly engaged, as at **21**, with the wall of the bore. The vial **20** has a sufficiently snug fit in the bore **13***a* to prevent it from having any lateral movement with relation to the block **13**.

Normally the brush **16** is folded and the vial **20** is sealed in the block **10**, which is confined within the casing **10**. The lug **23** protrudes slightly beyond the outer face of the casing **10**, so as to enable the removal of the body **13** therefrom to have the brush **16** unfolded or extended for use.

After the unfolding of the brush **16** or the extending thereof on removal of the block **13**, the latter is replaced in the casing **10**, thus holding the brush fixed in its extended or unfolded position for use.

In Figures 7, 8 and 9 a slightly modified form of the compact is shown. This form of the compact differs from the one shown in Figures 1 through 6 and 10 and 11, in that the block, here designated **24** is adapted to receive a drawer **25** containing a powdered dentifrice. The drawer **25** is provided at its rear end with a pull **26**, and it is held against accidental rearward movement from the block **24** by ribs **27** formed within and extending longitudinally of the casing **10**. The ribs **27** are located on the lower side of the casing **10** and contact with the rear end of the drawer **25**. As shown in Figure 9, the brush **16** may be supplied with dentifrice after the withdrawal of the block **24** from the casing **10** and before swinging the brush into position for use. The ribs **27** make it impossible for the drawer **25** to occupy a partly opened position when the block **24** is in place in the casing **10**. This prevents any waste of the powdered dentifrice.

What is claimed is:

1. A dental compact comprising a casing open at its forward end, a block removably positioned in the end, the block being provided at its upper side with relatively spaced flanges, a brush having a shank pivoted to and between said flanges for movement into folded or extended position with relation to the block, and lugs formed on the inner side of said flanges forwardly of said pivot, the brush shank being provided with notches receiving said lugs when the brush is in extended position with respect to the block and is held engaged therewith when the latter is subsequently positioned in the open end of the casing.

2. A dental compact comprising a casing open at its forward end, a block removably positioned in the forward end portion of the casing, and provided with spaced flanges, a brush having a shank pivoted to and between said flanges for movement into folded or extended position with relation to the block, and ribs carried by the casing and extending rearwardly from said flanges to align the brush in its folded position upon the block.

3. A dental compact comprising a casing open at its forward end, a block removably positioned in the forward end portion of the casing, a brush having a shank pivoted to the block for movement into folded or extended position with relation thereto, the casing being provided at its front end with a slot, and a lug carried by the block and engaged with said slot to facilitate the separation of the casing and the block.

4. A dental compact, comprising a casing open at one end, an elongated block positioned in the open end of the casing and extending into the casing a distance short of the other end to provide an open compartment, the block having spaced parallel flanges, a brush pivoted to and between the flanges adjacent one end of the block and movable to an active position to extend one from the end of the block and the casing, and to a closed position overhanging the other end of the block with the bristles located in the compartment, and the casing being provided at its open end with a slot, and a lug carried by the block and engaged in said slot to facilitate the separation of the casing and the block.

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