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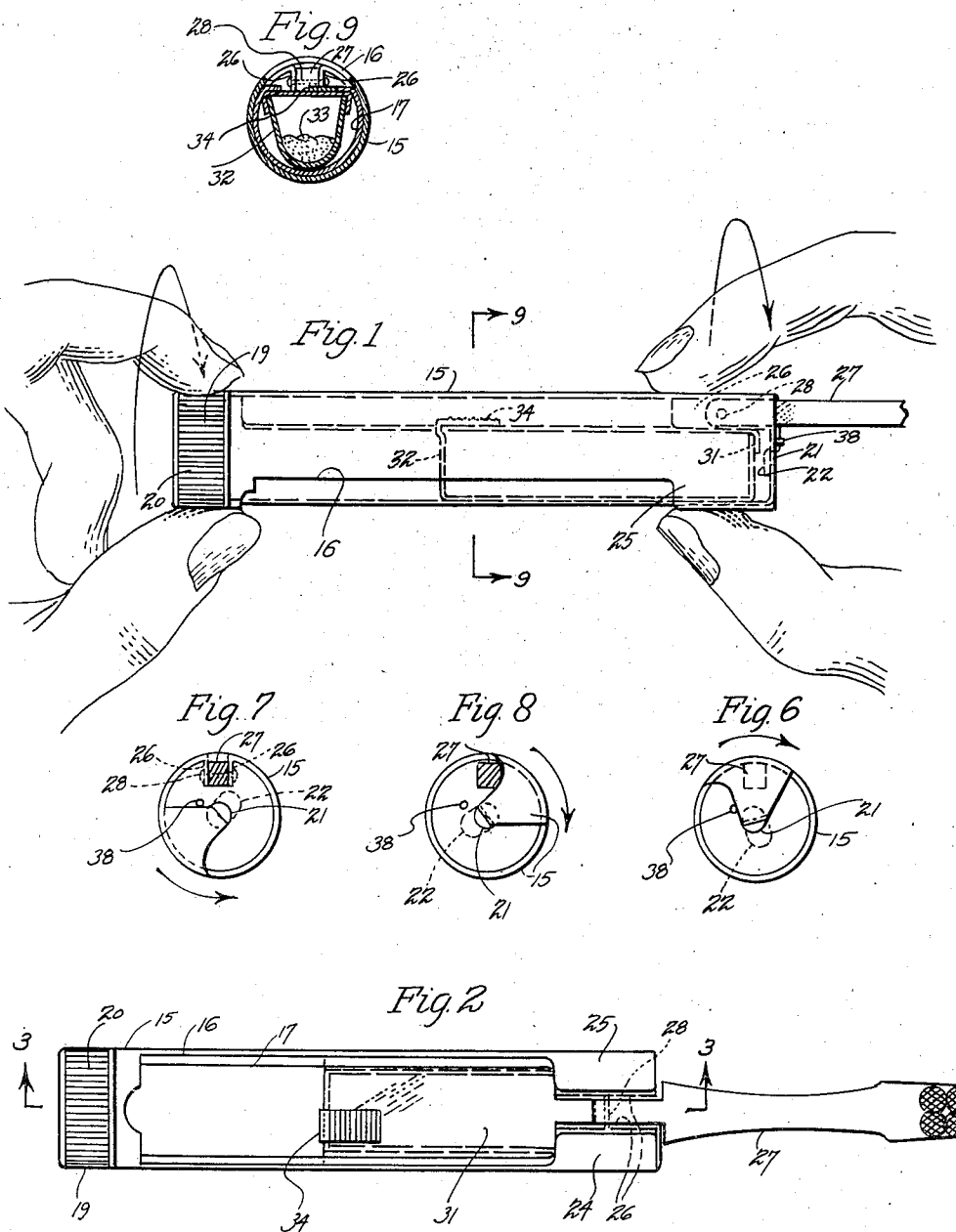
E. E. SMITH ET AL.

2,476,686

DENTAL COMPACT

Filed July 3, 1947

2 Sheets-Sheet 1



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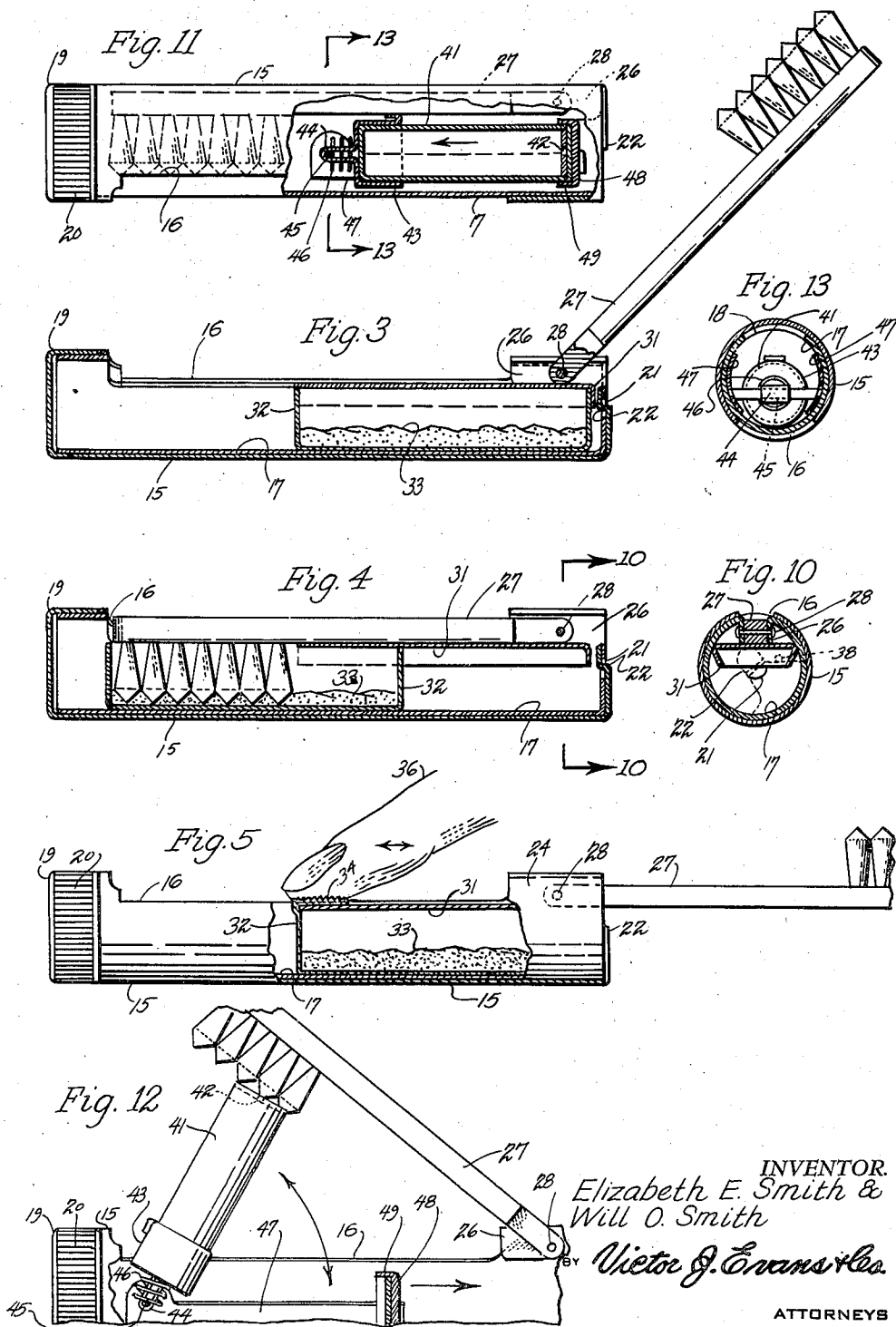
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UNITED STATES PATENT OFFICE

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DENTAL COMPACT

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3 Claims. (Cl. 132-54)

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This invention relates to a dental compact.

It is an object of the present invention to provide a dental compact which is of such dimensions that it can be conveniently inserted in a traveler's purse and wherein the same will contain the dental powder or liquid or paste in a convenient location, such that by a simple adjustment of the container within the outer casing, the powder or liquid can be located under the brush to deposit on the same some of the powder or liquid or paste.

Other objects of the present invention are to provide a dental compact which has an outer casing to totally enclose all of the parts including the brush and the container for the powder or liquid or paste and whereby a simple turning movement is all that is necessary to expose or release the brush from the compact casing and to provide access to the same so that the powder or liquid or paste can be positioned to be deposited upon the brush.

Other objects of the present invention are to provide a dental compact which is inexpensive to manufacture and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which:

Fig. 1 is a side elevational view of the compact with the tooth brush extended out of the same and with the holder or compact being retained between the fingers of the two hands.

Fig. 2 is a top plan view looking into the opening from which the tooth brush has been extended.

Fig. 3 is a cross-sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a cross-sectional view taken on line 3—3 of Fig. 2 but with the tooth brush pivoted into the casing and the tooth powder container adjusted to a position to deposit powder upon the brush.

Fig. 5 is a side elevational view with portions broken away to show the interior of the casing and with the brush extended and with the finger upon the powder container to effect a sliding movement of the same.

Fig. 6 is an end view of the casing with the closure element in the closed position.

Fig. 7 is an end view of the compact with the closure element adjusted to a fully open position.

Fig. 8 is an end view of the compact with the

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closure element adjusted to an intermediate position.

Fig. 9 is a transverse cross-sectional view taken on line 9—9 of Fig. 1.

Fig. 10 is a transverse cross-sectional view taken on line 10—10 of Fig. 4.

Fig. 11 is a side elevational view of a modified form of the compact with a portion broken away and with a liquid dispenser shown therein in section.

Fig. 12 is a fragmentary side elevational view of this modified form with the liquid dispenser raised to a position where the liquid can be deposited upon the brush.

Fig. 13 is a transverse cross-sectional view taken on line 13—13 of Fig. 11.

Referring now to the figures, 15 represents an outer casing having a top opening 16 therein. A hollow member or closure sleeve 17 is disposed within the outer casing 15 and has an opening 18 therein. To the end of the casing 15 there is connected a cup-shaped turn handle 19 having serrations 20 thereon. The opposite end of the hollow member 17 has an opening 21 therein through which there extends a pivot lip 22. As the outer casing is rotatably adjusted on the hollow member 17, the openings 16 and 18 can be put into registry with one another or be put out of registry with one another to either open the compact or to close the same. The hollow member 17 is in the form of an inner casing.

The hollow member or inner casing 17 has upwardly bent projections 24 and 25 having downwardly bent portions 26 between which there is extended a tooth brush element 27. This tooth brush element is connected between the portions 26 by a pivot pin 28 so that it can be pivoted from a position within the inner casing 17 to an extended position and adapted for use as shown in Fig. 5.

When the brush element 27 is projected through the end of the outer casing, the outer casing can be drawn over the pivot end of the brush element to retain the brush element against pivotal displacement on the pin 28.

Fixed to the portions 26 and extending laterally across the bottom edges of the same, is a slide guide or cover member 31 into which is slid a container 32 having tooth paste or powder 33. When the container 32 is slid to the position shown in Fig. 4, the brush can be pivoted into the container to pick up the powder or paste therewithin. The container has an upwardly and forwardly extending projection 34 which extends over the top of the guide member 31 when the

container 32 is in the closed position beneath the guide 31 and the same is roughened on its top face to provide a good grip with a finger 36 to cause its outward movement. At other times when dental powder is not needed and the brush is to be disposed in the compact, the container is returned to its position beneath the guide or closure 31. Thereafter the closure sleeve 17 can be rotated to its closed position, shown in Fig. 6.

A stop 38 on the end of the casing limits the rotative movement of the closure sleeve. This stop as shown in Fig. 6, is engaged when the sleeve is in the closed position and as shown in Fig. 7, is engaged when the sleeve is in the fully opened position.

Referring now to Figs. 11, 12 and 13, there is shown in lieu of the powder container 32, a liquid container 41 having a small hole 42 in one end of the same through which liquid is dispensed. This container is carried in a cup-shaped retainer 43 which has a projection or a U-shaped portion 44 extending over a pin 45 on which it is hinged. Between the pin and the bottom of the member 43 is a spring 46 urging the cup-shaped retaining member 43 forwardly. Within the outer casing is a member 47 having a closure cap 48 into which the end of the container 41 having the hole 42 is extended after first compressing the spring 46 to permit the passage of the container 41 by the flange as indicated at 49 on the cap 48.

When the liquid container 41 is to be put in use, it is hinged out of the member 47 to a raised position as shown in Fig. 12 so as to receive the brush 27 and to deposit liquid thereon upon the brush being inverted. The member 47 or carriage can be slid with the container 41 to a forwardmost position in the same manner that the container 32 is slid forwardly so that the brush portion of the brush element 27 can be pivoted downwardly into the outer casing and the closure member extended thereover.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

We claim:

1. A dental compact comprising an inner casing having an opening, an outer casing rotatably adjustable on the inner casing and forming a closure for the opening in the inner casing, a tooth brush element connected to the inner casing to be pivoted through the opening of the outer casing to a stored position therewithin and to an extended position from the end of the casing, a container within the inner casing and connected to the same for axial sliding movement from one end thereof to the other end and into a position whereby the brush can receive dental

material thereon, and wherein the container can be slid to an out-of-use position to permit the insertion of the brush element into the compact without engaging the container, said outer casing being adjustable over the brush element when in its extended position to retain it against inward pivotal adjustment when in use so that the casings may be used as a handle for the brush element.

2. A dental compact as defined in claim 1 and means for mounting the container bearing the dental material within the casings comprising a carriage member, said container being of a type adapted to dispense a liquid and having a hole in one end, means for connecting the container to the carriage for pivotal adjustment from a position within the casings to a position extended through the casing openings to deposit dental fluid on a brush, and a cover on the carriage and adapted to close the end of the container when pivoted into the casings.

3. A dental compact as defined in claim 1 and means for mounting the container bearing the dental material within the casings comprising a carriage member, said container being of a type adapted to dispense a liquid and having a hole in one end, means for connecting the container to the carriage for pivotal adjustment from a position within the casings to a position extended through the casing openings to deposit dental fluid on a brush, a cover on the carriage and adapted to close the end of the container when pivoted into the casings, and said means for connecting the container to the carriage for pivotal movement including a U-shaped member, a pin extended through the U-shaped member, and a spring surrounding the U-shaped member and adapted to react against the pin to urge the end of the container against the closure member on the carriage.

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