March 4, 1952 H. W. STARK 2,587,782

DENTAL TRAY

Filed June 26, 1950

Fig. 1.

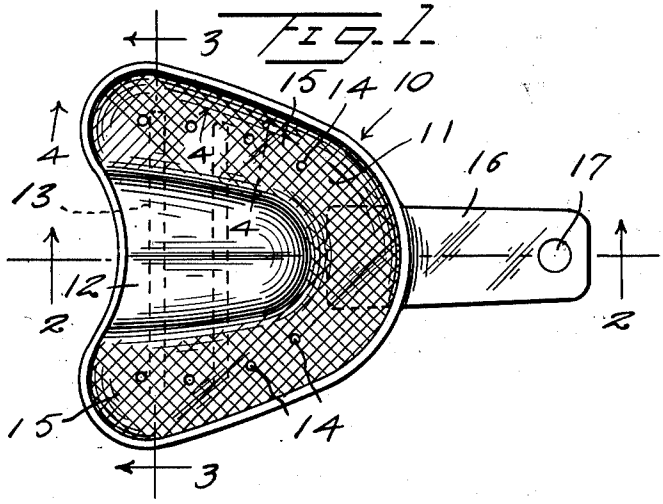


Fig. 2.

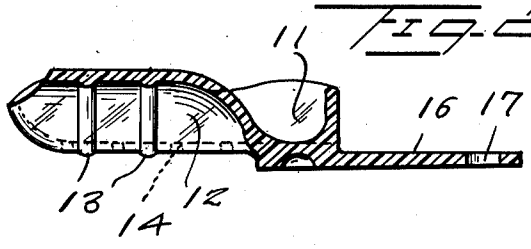


Fig. 3.

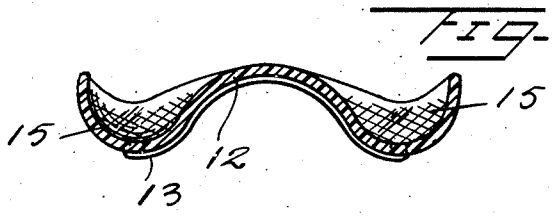
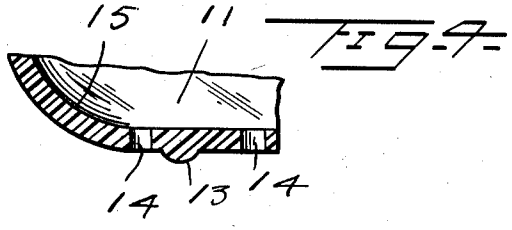


Fig. 4.



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DENTAL TRAY

Harold W. Stark, Marinette, Wis.

Application June 26, 1950, Serial No. 170,400

1 Claim. (Cl. 32—17)

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This invention relates to a dental tray and, more particularly, to such a tray adapted for the reception of plaster of Paris or the like when making an impression of the gums for dentures.

A primary object of the invention is the provision of an improved dental tray constructed of such a material as a suitable plastic which may be readily formed to a desired shape most adaptable to the reception of an impression of the gum on the material contained on the tray.

A further object of the invention is the provision of such a tray comprised of material which may be readily formed, or distorted to a desired configuration, and subsequently restored to its original shape in a relatively simple and convenient manner.

An additional object of the invention is the provision of such a tray provided with means for the retention of plaster of Paris or the like therein whereby to preclude accidental displacement of the tray when it is desired to remove the same from the patient's mouth, without removal of the material in which the impression is made from the tray.

A further object of the invention is the provision of a construction of this nature which is relatively simple and inexpensive to manufacture, which may be readily and easily formed to a desired configuration and which may be inserted in, and removed from, the mouth of the patient with a minimum of effort and difficulty.

Other objects will in part be obvious and in part be pointed out hereinafter as the description of the invention proceeds and shown in the accompanying drawings wherein there is disclosed a preferred embodiment of this inventive concept.

In the drawings:

Figure 1 is a top plan view of one form of device embodying features of this invention.

Figure 2 is a sectional view taken substantially along the line 2—2 of Figure 1 as viewed in the direction indicated by the arrows.

Figure 3 is a sectional view taken substantially along the line 3—3 of Figure 1 as viewed in the direction indicated by the arrows; and

Figure 4 is an enlarged sectional view taken substantially along the line 4—4 of Figure 1 as viewed in the direction indicated by the arrows.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Referring now to the drawings in detail the device of the instant invention comprises a plate

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generally indicated at 10, including, in the construction shown, a concaved trough or depression 11, of a configuration adapted to conform both in horizontal plane and in vertical section to the general configuration of the upper gum. Interiorly of the concave trough 11 is a central convexed plate portion 12, forming a recess centrally of the trough, adapted for the reception of the tongue of the patient when the device is in position. The underside of convexity 12 is provided with transversely extending ribs 13 to prevent slippage of the device while in the mouth. Trough portion 11 is provided with a plurality of bores or apertures 14 for a known purpose and is provided on its inner or concaved surface with a plurality of serrations forming a roughened surface 15 into the irregularities of which plaster of Paris or similar material is adapted to engage in such manner that when the device is removed from the patient's mouth the plaster of Paris or similar material will be caused to adhere to the mold and be removed therewith.

An extending flattened portion 16 extends outwardly from the front of the device, to form a handle whereby the entire device in its associated mold may be removed from the mouth after use. Handle 16 is provided with an aperture 17 adapted to be utilized for supporting the device from a hook in a cabinet or the like.

The device may be constructed of any desirable material having characteristics which adapt it to readily bend either with or without the application of heat, and which may be readily molded and/or cut as desired to various contours to accommodate various gum structures.

In the preferred embodiment of the invention such material has been found to be a suitable plastic, such as a phenolic resin, which may, if desired, be transparent or translucent, to facilitate the positioning of material therein.

From the foregoing it will now be seen that there is herein provided an improved dental tray with accomplishes all the objects of this invention and others, including many advantages of practical utility and commercial importance.

As various embodiments may be made of this inventive concept and as many modifications may be made in the embodiment herein shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

A dental tray comprised of transparent moldable plastic material including a plate of a planar and cross sectional configuration to conform to

the outline of the human gum structure having a concave portion adapted to hold moldable material for the reception of an impression of the gum, said concave portion having a plurality of apertures therethrough, a centrally positioned convex portion beneath which the tongue is adapted to fit, transversely extending ribs on the underside of said convex portion, there being two series of shallow closely spaced score lines arranged interiorly of and covering the entire interior of said concaved portion, the score lines in each series being arranged parallel, and the score lines in one series intersecting the score lines in the other series, a finger grip portion extending

from a central point of said plate adapted to extend exteriorly of the mouth.

HAROLD W. STARK.

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