

E. E. WIGHTMAN.
DENTAL IMPRESSION TRAY.
APPLICATION FILED MAR. 1, 1912.

1,044,614.

Patented Nov. 19, 1912.

FIG. 1.

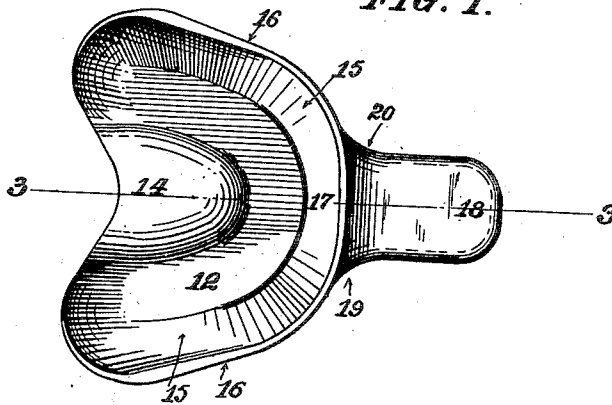


FIG. 2.

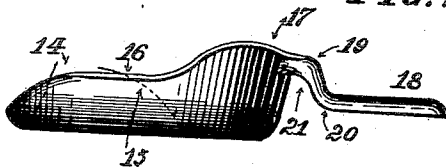


FIG. 3.

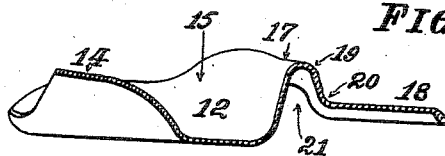
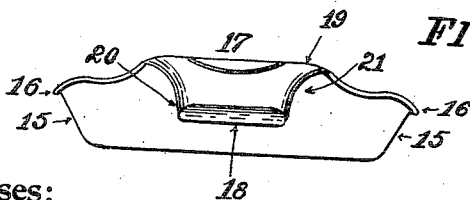


FIG. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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DENTAL IMPRESSION-TRAY.

1,044,614.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed March 1, 1912. Serial No. 680,781.

To all whom it may concern:

Be it known that I, ELMER E. WIGHTMAN, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dental Impression-Trays; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which said invention appertains to make and use the same.

This invention has general reference to improvements in dentists' impression trays; and it consists, essentially, in the novel and peculiar combination and arrangement of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claim.

The object of this invention is the production of a highly efficient, serviceable, sanitary, and comparatively inexpensive dentists' impression tray that can be manufactured and sold at a reasonable price.

In the drawings already mentioned, which serve to illustrate this invention more fully, Figure 1 is a plan of my improved impression tray. Fig. 2 is a side view of the same. Fig. 3 is a sectional view on line 3-3 of Fig. 1. Fig. 4 is an end view of the impression tray.

Like parts are designated by the same characters and symbols of reference in all the figures.

This impression tray, which is of the usual horseshoe contour, is made in several sizes to fit the human jaws. As heretofore constructed, this tray has been largely produced in the process of casting in soft and other metals, and also in soft rubber, which, however is objectionable owing to the weight of the finished article in the metallic trays, and the extreme flexibility of the rubber trays, and the high cost of production of either kind of these trays. To overcome these serious objections, and others which it is deemed unnecessary to recite, I construct this impression tray of sheet metal, preferably aluminum, which, owing to its ductility and lightness is especially well adapted for the purpose stated. This dental impression tray comprises the usual horseshoe-shaped bowl or cup 12, having the

upwardly curved portion 14, to fit the roof of the mouth of a patient whose mouth or rather gums and teeth-impression is to be taken. This bowl has an outwardly-flaring outer wall 15, which, in order to prevent its narrow marginal edge from injuring a person's mouth or gums or to cause unnecessary pain, has its said marginal edge outwardly and downwardly extended at 16, to form a roll or bead thereon, as illustrated in Fig. 4.

From the lip-portion 17 projects forwardly a handle 18, which handle is integrally formed with said bowl, and which handle is an integral continuation of the side wall of the bowl, said handle extending from the upper margin of the lip-portion 17 by a curve 19, downwardly, and then by a further curve 20, horizontally, approximately medially of the base and the upper margin of the wall 17, thereby leaving an open space 21, between the inclined wall and the downwardly turned portion of the handle 18, as will hereinafter appear.

This dental impression tray is formed from a single piece of sheet metal having, in the flat, approximately the same outline as the finished article, except that the blank is slightly larger to afford the required metal that forms the wall of the tray; and this blank is stamped in suitable dies to the shape desired. It is then highly polished by suitable buffing and coloring wheels; and in order to reach the entire lip-portion of the tray and the downwardly extending portion of the handle, said downwardly extending portion of the handle is spaced from the wall 17 to afford the space 21, which space permits a buffing wheel to operate on said wall and the inner surface of the downwardly extending portion of said handle.

The object of depressing the handle below the upper margin of the wall of the tray is to permit a patient to close her or his mouth upon the tray while an impression is being taken, the upper or lower lip of the patient, as the case may be, closing over the downwardly extending portion of the handle.

A dental impression tray constructed from a single piece of ductile sheet metal has the desirable quality of being very light, bendable, so that it can be readily shaped to fit a person's gums, and that it is absolutely sanitary, there being no corners, crevices, or

seams which can harbor germs or other health-injuring matter.

Having thus fully described this invention, I claim as new and desire to secure by

5 Letters Patent of the United States—

A dental impression tray formed from a single piece of sheet metal integrally with its handle, said handle extending from the upper margin of the lip of said tray forwardly and downwardly and again forwardly,

wardly, approximately parallel to the base of the tray.

In testimony that I claim the foregoing as my invention, I have hereunto set my hand in the presence of two subscribing witnesses. 15

ELMER E. WIGHTMAN.

Witnesses:

MICHAEL J. STARK,
ALTHEA A. OGDEN.