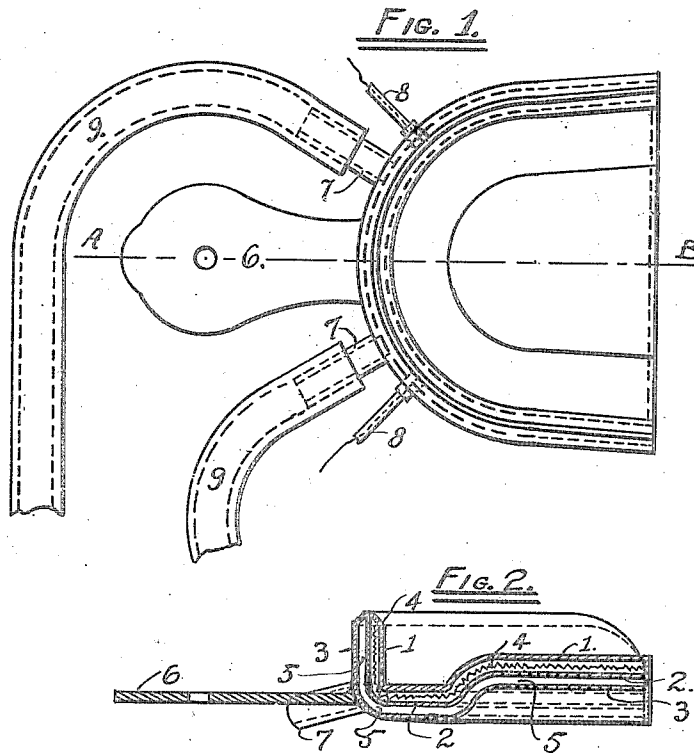


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DENTAL IMPRESSION TRAY.
APPLICATION FILED MAR. 11, 1913.

1,084,017.

Patented Jan. 13, 1914.



Witnesses:
Sam Ouster
Morris Klinowstein

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UNITED STATES PATENT OFFICE.

JOSEPH LAUTENBURG, OF NEW YORK, N. Y.

DENTAL IMPRESSION-TRAY.

1,084,017.

Specification of Letters Patent.

Patented Jan. 13, 1914.

Application filed March 11, 1913. Serial No. 753,531.

To all whom it may concern:

Be it known that I, JOSEPH LAUTENBURG, a citizen of the United States, residing at 270 Grand street, New York, in the county of New York and State of New York, have invented a new and useful Improvement in Dental Impression-Trays, of which the following is a specification.

My invention relates to improvements in a dental impression tray used for taking impressions of the mouth and consists in the novel features hereinafter set forth.

The objects of my improvement are:— first, to provide an impression tray, which could be employed with so called modeling compounds in their cold or solid state, the tray being adapted for warming the modeling compound at any desired instant; second, to provide an impression tray adapted both for heating the modeling compounds before and for cooling the modeling compound in the mouth after taking the impression and thus rendering it hard and solid; third, to render the same impression tray compact and convenient to manipulate, together with all its appurtenances. I attain these objects by the device illustrated in the accompanying drawings, in which—

Figure 1 is a view of the inner side of the impression tray adapted for inclosing the modeling compound; Fig. 2 is a section of the impression tray taken on the line A B of Fig. 1.

Similar numerals refer to similar parts throughout the several views of the drawings.

1 is the inner plate of the tray, made of a suitable shape; 2 is the middle plate and 3 the outer plate; 4 is an electric stove or heater inclosed between plates 1 and 2; 5 is a waterjacket inclosed between the plates 2 and 3; 6 is a suitable handle for the tray.

7, 7 are short metal tubes or nipples adapted to act as inlet and outlet for the water jacket 5; 8, 8 are the ends of the electric wiring of the heater 4, adapted to be connected to suitable binding posts, which are not shown; 9, 9 are the rubber tubes or flexible water conduits slipped on each at one end to one of the nipples, 7, 7.

The operation of my device is as follows: A suitable lump or quantity of modeling compound being applied to the inner side of the tray in contact with plate 1, the rubber tubes 9, 9 are slipped on at both ends to the nipples 7, 7, as shown, the electric

wires of the heater are connected or clamped to the rheostat, or to the poles of an electric circuit, the modeling compound very quickly softens, the impression of the mouth is then taken by the dentist, who turns off the electric current when necessary, and opens the dental faucet to admit water to the jacket 5, the water entering through one of the flexible conduits 9, 9, and nipples 7, 7, and passing out through the other discharging it over the cuspidor. The water jacket will cool and solidify the modeling compound almost as rapidly as the heater will soften it. The tray is then withdrawn from the mouth.

The water jacket is shown in the drawing as contained in a separate compartment of the tray; but it could also be located in channels formed in the matrix or cement of the electric heater, of which the resistance wire only is shown in the drawings; the water jacket could also be made of tubes embedded in the cement of the heater or otherwise placed between plates 1 and 2 of Fig. 2 in proximity to the modeling compound. The heater could also be placed inside the water jacket.

Instead of using electricity to heat the compound, steam, hot air or hot water may be used in the same compartment between plates 1 and 2, which could also be used alternately as a cold water jacket; an additional pair of metal nipples similar to those marked 7, 7 in the drawings would then have to be employed for the heating fluid, instead of the electric wire connections 8, 8. Many other changes could be made in the form and details of my device without departing from the main scope of my invention; I therefore do not restrict myself to the exact shape of the apparatus as shown.

What I claim as my invention, and desire to secure by Letters Patent is:

1. A dental impression tray having embodied therein a chamber adapted to heat modeling compounds, combined with means for generating heat located in said chamber.

2. A dental impression tray having embodied therein a chamber adapted to warm modeling compounds, combined with an electric heater, located in said chamber and adapted to supply it with heat, and suitable electric conduits and connections.

3. A dental impression tray having embodied therein a chamber adapted to warm modeling compounds, combined with means

for generating heat located in said chamber and a water jacket for cooling said modeling compounds.

- 5 4. A dental impression tray having embodied therein a chamber adapted to warm modeling compounds, combined with an electric heater, located in said chamber and

adapted to supply it with heat, and a water jacket for cooling said modeling compounds.

JOSEPH LAUTENBURG.

Witnesses:

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