V. & C. D. McRAE.

DENTAL PLATE WAXER.

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1,070,905.

Patented Aug. 19, 1913.

Fig. 1

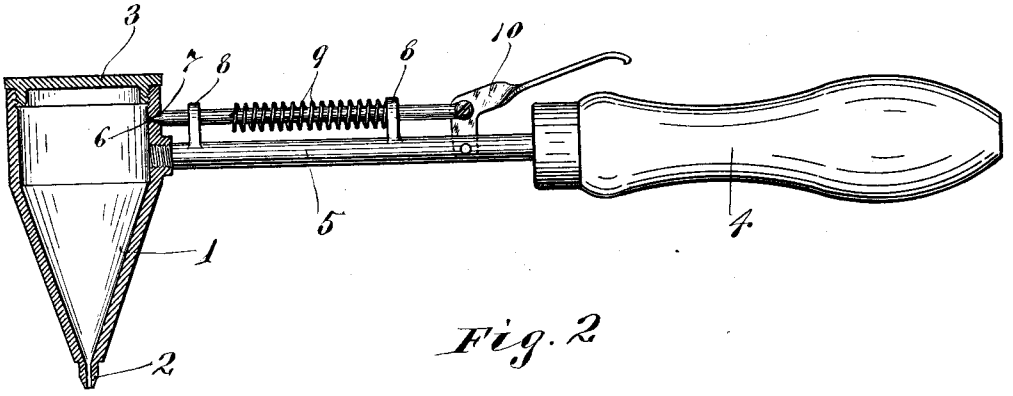

Fig. 2

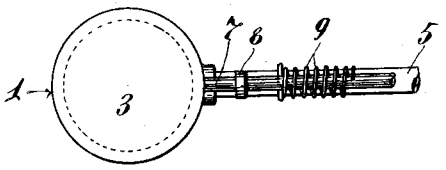

Fig. 3

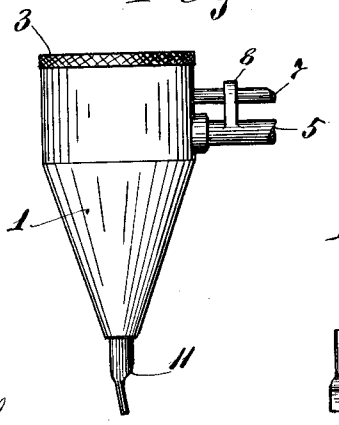

Fig. 4

Witnesses.
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UNITED STATES PATENT OFFICE.

VANDERBURGH McRAE AND CHARLES D. McRAE, OF MINNEAPOLIS, MINNESOTA.

DENTAL PLATE-WAXER.

1,070,905. Specification of Letters Patent. Patented Aug. 19, 1913.

Application filed May 31, 1913. Serial No. 770,964.

To all whom it may concern:

Be it known that we, VANDERBURGH McRAE and CHARLES D. McRAE, citizens of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Dental Plate-Waxers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention has for its object to provide an extremely simple and highly efficient dental plate waxer, and to such ends the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In making plates for false teeth, it is the common practice with dentists, first, to take an impression of the gums in plaster of Paris, or other plastic material, which will quickly set; then to take a reverse impression from the first form, and to apply wax to the latter in the process of forming the dental plate, and apply the artificial teeth thereto.

Our invention provides an improved device which will hold a considerable amount of wax while it is being melted and after it has been melted, and by the use of which the wax may be very easily applied just where wanted on the plate and in just the desired quantity.

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings: Figure 1 is a view partly in side elevation, and partly in vertical section, showing the improved dental plate waxer; Fig. 2 is a plan view of the device, some parts being broken away; Fig. 3 is a side elevation of the wax-containing cup, or head, of the device; and Fig. 4 is a detail in side elevation showing a detachable discharge nozzle.

The wax-containing cup, or head, 1 is preferably formed with a conical main body portion which terminates, at its lower end, in a discharge nipple 2. The large upper end of the said cup 1 is normally closed with an air tight joint by means of a cap 3, which has screw-threaded engagement therewith.

The handle 4 is provided with a stem 5, the end of which is rigidly secured to one side of the upper portion of the cup 1, so that the said cup may be readily handled and presented to a flame for heating the wax, and manipulated, while in use, to apply the wax therein contained, to the dental plate. In the upper portion of one side, preferably immediately over the stem 5, the cup 1 is provided with a small air vent 6 that is normally closed by the conical end of a plunger valve 7, mounted in suitable bearings on the stem 5, and subject to a coiled spring 9 that normally holds said valve in a vent closing position. The small thumb actuated lever 10 is pivoted to the stem 5 and to the outer end of the plunger valve 7. The free end of the lever 10 overlies a portion of the handle 4, so that it may be readily engaged by the thumb of the hand used to grip the said handle.

The cup 1 should be made of brass, or other suitable metal, which may be placed in a flame, or otherwise subjected to heat to reduce the wax to a molten condition. Even when the wax is melted to a fluid form, it will not run from the discharge nipple 2 as long as the air vent 6 is closed. When, however, the air vent 6 is opened by an outward movement of the valve 7, air will be permitted to flow into the cup, and the wax will then freely flow out through the discharge nipple 2. Hence, by manipulation of the lever 10, the discharge of wax may be easily controlled.

Obviously, the device is held and operated entirely by one hand, and wax discharged directly from the nipple 2 will flow in the form of a round stream. It is frequently, however, desirable to spread the wax out in a flat stream, and, for this purpose, we provide an auxiliary discharge nipple 11 having a tubular upper end portion adapted to be frictionally telescoped onto the nipple tube, and provided with a flattened lower, or discharge, end. Obviously, the wax melted in the cup, by presenting the cup to a flame, will be kept in molten condition for some time by the latent heat therein, and, also, in the metallic body of the cup itself.

This so-called dental plate waxer has been used by dentists, and found highly efficient for the purposes had in view.

What we claim is:

1. A dental plate waxer comprising a metallic cup having a discharge nipple at its lower end and provided with a tightly closed cover and with an air vent which, when closed, prevents the discharge of the contents of said cup through said nipple.

2. A dental plate waxer comprising a metallic cup having a discharge nipple at its lower end, and provided with a tightly closed cover, and with an air vent near its upper portion, a supporting handle attached to one side of said cup, and a spring closed valve on said handle normally closing said air vent.

3. A dental plate waxer comprising a metallic cup having a discharge nipple at its lower end, and provided with a tightly closed cover, and with an air vent near its upper portion, a supporting handle attached to one side of said cup, a spring closed valve on said handle normally closing said air vent, and a supplemental discharge nipple engageable with the discharge nipple of said head, and having a flattened discharge end.

4. In a dental plate waxer, the combination with a handle, of a metallic cup secured to one end of said handle, and having a conical lower body portion terminating in a discharge nipple, a cover tightly closing the upper end of said cup, an air vent in said cup located immediately above the attached end of said handle, a spring pressed valve mounted on said handle and normally closing said air vent, and a lever pivotally connected to said handle and said valve, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

VANDERBURGH McRAE.
CHARLES D. McRAE.

Witnesses:
EDITH E. HANNA,
HARRY D. KILGORE.