Sept. 8, 1953 H. R. DIKE 2,651,110

PRESS FOR REMOVING THE SURPLUS MERCURY FROM AN AMALGAM

Filed Feb. 6, 1952

FIG. 1.

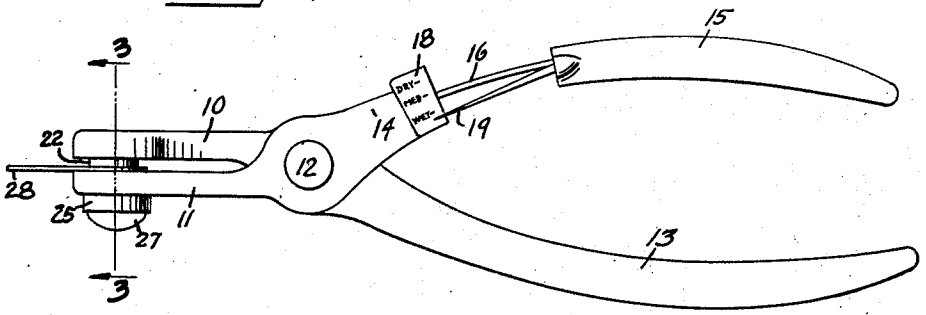


FIG. 2.

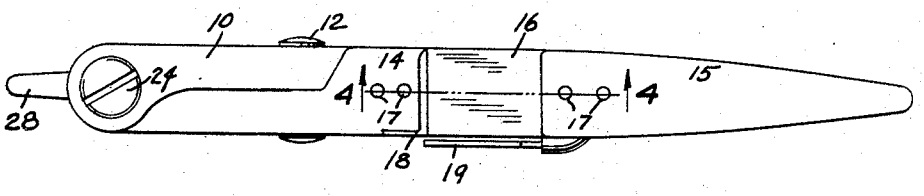


FIG. 3.

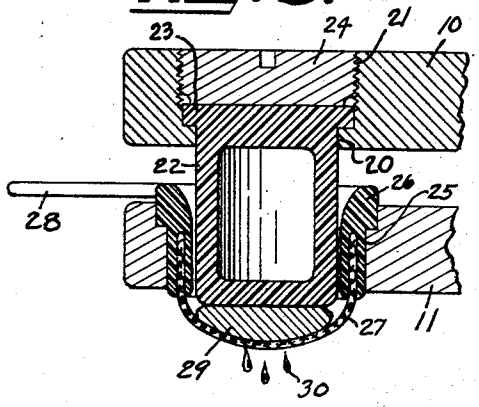
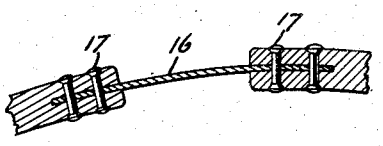


FIG. 4.



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PRESS FOR REMOVING THE SURPLUS MERCURY FROM AN AMALGAM

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Application February 6, 1952, Serial No. 270,219

3 Claims. (Cl. 32—40)

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This invention relates generally to dental equipment and particularly to a press for removing the surplus mercury from an amalgam.

The main object of this invention is to construct an instrument by means of which excess mercury can be removed from an amalgam and the extent of the removal may be definitely indicated by the instrument.

I accomplish these and other objects in the manner set forth in the following specification as illustrated in the accompanying drawing, in which

Fig. 1 is a side elevation of the instrument.

Fig. 2 is a plan of Fig. 1.

Fig. 3 is a section taken along the line 3—3 in Fig. 1.

Fig. 4 is a fragmentary section taken along the line 4—4 in Fig. 2.

Like numbers of reference refer to the same or similar parts throughout the several views.

Referring in detail to the drawing there is shown a pair of plier arms 10 and 11 which are pivotally joined by a rivet 12. On the arm 10 is formed a common form of plier handle 13. On the arm 11 is formed a shank 14 which is spaced from the handle end 15. The members 14 and 15 are united by the spring 16 which is imbedded in the parts 14 and 15 and secured thereto by means of the rivets 17. On the shank 14 is the scale 18 with the notations dry, medium and wet.

On the end 15 is secured a pointer 19 which extends to the scale 18. Any pressure on the handle 15 is sufficient to bend the spring 16 and indicate the wetness of the amalgam; that is, as the pressure on the handle end 15 increases, the pointer 19 registers with the notations wet, medium or dry, thereby indicating the amount of excess mercury present in the amalgam.

The plier arm 10 has an opening 20 whose end 21 is counterbored and threaded. Through the opening 20 extends a hollow presser foot 22 whose end 23 is flanged and occupies the counterbored opening 21. A threaded plug 24 in the opening 21 holds the foot securely in place. It is desirable to slot the plug 24 for a screw driver.

The arm 11 has formed therein a counterbored opening 25 in which is removably placed a plastic rim 26 for a fabric cup 27 whose edge is imbedded in the rim 26. It is desirable to provide a non-metallic handle 28 for the rim 26 so that the rim 26 and its attached cup of fabric 27 may be lifted bodily from its seat in the arm 11.

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There is also indicated a quantity of amalgam 29 from which excess mercury 30 is expelled by pressure from the handles 13 and 15.

While I have thus illustrated and described my device, it must be understood that I do not intend to be limited to the precise form illustrated but intend to cover all such forms as fall fairly within the appended claims. It is important, however, that the materials from which those parts are made, which come into contact with the mercury, are such as will not amalgamate.

I claim:

1. A plier having a pair of arms at one end and having a rigid handle attached to one arm and a yielding handle attached to the other arm, said yielding handle having an indicator attached thereto for indicating the pressure applied to said handle, a porous amalgam cup mounted in one of said plier arms and a presser foot mounted in the other arm registering with said cup.

2. A dental instrument comprising a plier including a pair of intersecting hinged arms having a porous amalgam cup mounted in one arm and a presser foot mounted in the other arm, a handle on one of said arms having a spring section disposed between its ends and having a pointer mounted on the outer end of said handle pointed toward the arm end thereof, whereby the pressure on the outer end of said handle may be indicated at the arm end of said handle.

3. A dental instrument comprising a pair of intersecting arms hinged together and having a removable porous cup mounted in one of said arms and having a hollow plastic foot mounted in the other arm and registering with said cup, said cup extending through and outside of its arm, and spring means between the outer end of one plier handle and its arm end, together with a pointer attached to said spring mounted handle, the point of which pointer extends alongside of the arm end of the handle in which said pointer is mounted.

HOWARD R. DIKE.

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