(No Model.)

R. S. WILLIAMS.

DENTAL PLUGGER.

No. 336,777. Patented Feb. 23, 1886.

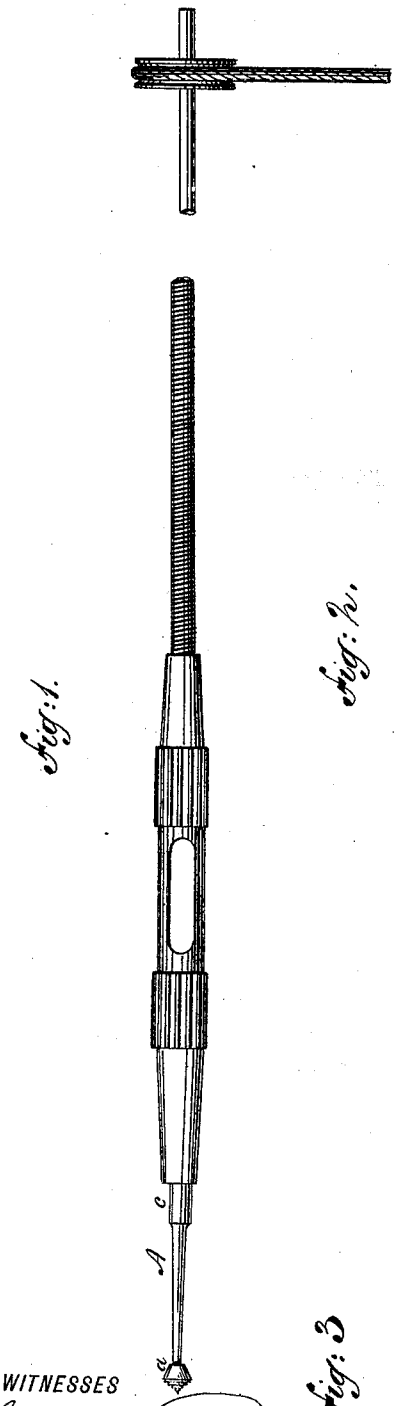


Fig. 1.

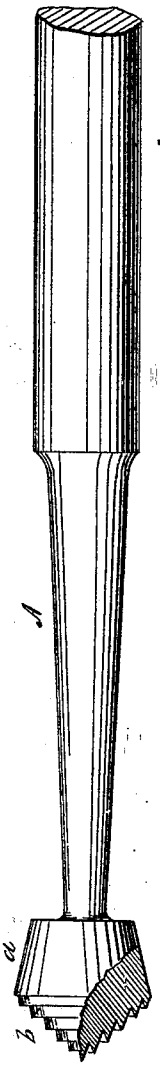


Fig. 2.

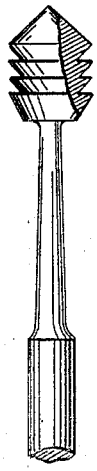


Fig. 5.

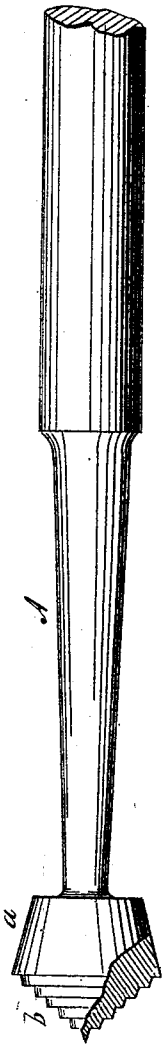


Fig. 4.



Fig. 3

WITNESSES

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DENTAL PLUGGER.

SPECIFICATION forming part of Letters Patent No. 336,777, dated February 23, 1886.

Application filed February 4, 1885. Serial No. 154,900. (No model.)

To all whom it may concern:

Be it known that I, RICHARD S. WILLIAMS, a citizen of the United States, residing in the city, county, and State of New York, have made a new and useful Improvement in Dental Pluggers; and I declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has for its object an improvement in dental instruments; and the invention consists in a rotary plugger with one or more grooves formed therein in the manner and for the purpose hereinafter particularly shown, described, and claimed.

In the accompanying sheet of drawings, Figure 1 shows the instrument attached to a handpiece of a dental engine; Fig. 2, instrument having head with V-shaped grooves, partly in section. Fig. 3 is a plan view of head. Fig. 4 shows instrument, partly in section, having modified form of head shown in Fig. 2; Fig. 5, a head with grooves forming re-entering angles.

It has recently been discovered that effectual and less inconvenient plugging may be accomplished with the aid of the well-known dental engine, the instrument rotating rapidly while being pressed against the filling in the dental cavity, the rotating plugger and pressure spreading and compacting the filling within the walls of the cavity. The only objection to this way of compacting the filling is the polish that is given to the surface of each successive layer of gold of which the filling is composed; and to obviate this, as well as to assist the adhering of the separate layers of metal foil, is the purpose of this invention. To that end I construct my plugger A with a conical or any other convenient head, *a*, which, however, must be circular in section, and form around it a series of concentric grooves, *b*, so that their section may be of the form of an inverted V, as in Fig. 2, or with a flattened top, as in Fig. 4; or, generally speaking, the grooves may have any form that will not retain the gold in the grooves or cut or abrade it, providing they have not a re-entering angle, as in Fig. 5, into which the gold would enter and not only fill up the grooves and so defeat their object, but tend, also, to cause the foil to anchor itself to the plugger, which would tear or draw the filling from the cavity upon withdrawing the instrument. None of these objections, however, obtain with an instrument having grooves of the forms mentioned and referred to by me.

The head of the plugger having been constructed as described, its shank *c* is made to fit into any of the well-known chucks or other holding devices of a dental engine or other appliance that will impart to it a rotary motion. The filling is placed in the dental cavity, the plugger revolved and pressed against it, the rotation and pressure spreading and compacting the filling, as before described; but instead of leaving a polished surface to receive the next pellet or layer of gold, it will be found that the surface has formed on it one or more concentric grooves or offsets, into which the foil of the succeeding pellet can enter, and thereby be to some extent anchored to the filling already in place within the dental cavity, and, besides, this grooving breaks up or prevents the burnishing or polishing, which, as before stated, interferes with satisfactory plugging by means of the dental engine.

I am aware that dental files have been heretofore made with a series of concentric grooves around a conical head; but these files having grooves with what I call "re-entering angles" were not adapted to the purpose hereinbefore named. I therefore claim no part of such dental files; but

What I do claim as new, and desire to secure by Letters Patent, is—

1. A dental plugging device having a circular head provided on its leading end with a series of concentric grooves made substantially V shape to freely enter and leave the filling without adherence thereto, substantially as described.

2. A dental plugging device having a head circular in cross-section and provided with a conical leading or working end, and formed with a series of concentric grooves made of a substantially V shape to freely enter and leave the filling without adherence thereto, and adapted to be operated by a mechanical rotator or dental engine, substantially as described.

RICHD. S. WILLIAMS.

In presence of—
G. M. PLYMPTON,
D. A. CARPENTER.