No. 712,526. Patented Nov. 4, 1902.

P. C. HAMMERSMITH.

DENTAL FILLING TOOL.

(Application filed July 24, 1902.)

(No Model.)

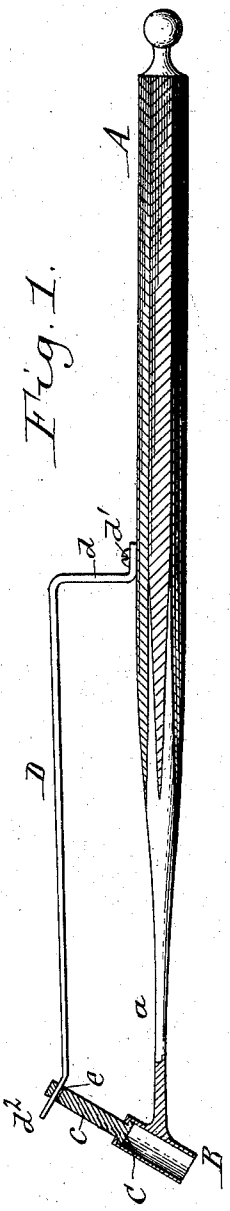


Fig. 1.

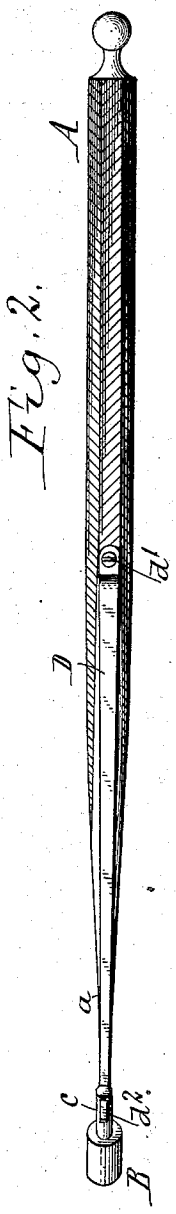


Fig. 2.

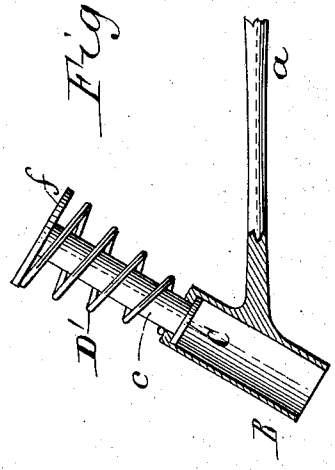


Fig. 4.

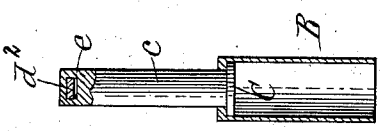


Fig. 3.

Witnesses.
Louis U. Gratz
Robert Weitknecht

Inventor
Perry C. Hammersmith,
By Geyer & Popp
Attorneys.

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UNITED STATES PATENT OFFICE.

PERRY C. HAMMERSMITH, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF TO FRANK S. WAHL, OF BUFFALO, NEW YORK.

DENTAL FILLING-TOOL.

SPECIFICATION forming part of Letters Patent No. 712,526, dated November 4, 1902.

Application filed July 24, 1902. Serial No. 116,813. (No model.)

To all whom it may concern:

Be it known that I, PERRY C. HAMMERSMITH, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Dental Filling-Tools, of which the following is a specification.

This invention relates to the amalgam carriers or holders employed by dentists for carrying a quantity of amalgam to a tooth to be filled and depositing it in the cavity of the tooth.

The principal object of my invention is to provide an implement of this character which permits the amalgam to be ejected from the holder into the cavity of the tooth without pressing or abutting the tool against the tooth or the gums, such pressure causing more or less discomfort and pain where the tooth under treatment is sensitive.

My invention has the further object to so construct the tool that it can be readily dismembered for cleaning the parts of the amalgam-holder.

In the accompanying drawings, Figure 1 is a sectional side elevation of the tool. Fig. 2 is a top plan view thereof. Fig. 3 is an enlarged sectional elevation of the head of the tool at right angles to Fig. 1. Fig. 4 is a sectional side elevation of the head of the tool, showing a modified construction of the same.

Similar letters of reference indicate corresponding parts throughout the several views.

The tool has a comparatively long handle A, the shank *a* of which carries at its front end an amalgam cylinder or tubular holder B, adapted to receive and hold a suitable quantity of amalgam or other semiplastic filling material or cement. This holder, which is preferably arranged in a forwardly-inclined position, is formed on or rigidly secured to the shank *a*. The upper end of the holder is closed, while its lower end is open and extends laterally beyond the shank *a*. In this holder a plunger C is snugly fitted, the rod or stem *c* of which passes through an opening in the head of the holder. The upward or backward movement of the plunger is limited by the head of the holder, which forms a stop for arresting the movement of the plunger in this direction.

D is a spring which resists the forward movement of the plunger and which effects its return stroke when unrestrained. In the preferred construction (shown in Figs. 1, 2, and 3) this spring is flat and its free or main portion is substantially parallel with the handle of the tool, while its rear portion or shank *d* is bent inwardly at right angles to the main portion and secured to the handle by a screw *d'* or other fastening. The free front end of the spring is bent upward slightly, as shown at d^2, and passes loosely through a transverse slot *e*, formed in the stem of the plunger, so that the angular end of the spring is free to play in this slot in following the movements of the plunger. This spring normally holds the plunger C at the upper end of the holder B.

In the use of the implement the amalgam or other semiplastic filling material is picked up by the holder B by pressing its open end upon a quantity of the material. The open end of the holder is then placed over the tooth-cavity to be filled and the plunger depressed by means of the spring, which latter is pressed toward the handle of the tool by the thumb or forefinger of the hand in which the tool is held. The amalgam is thereby ejected from the holder and deposited in the cavity of the tooth. Upon releasing the deflected spring D the same returns to its former position and draws the plunger to the top of the holder preparatory to again filling the latter with amalgam. The spring is preferably comparatively long, as shown, so that its rear end is remote from the plunger, this construction enabling the plunger to be conveniently operated in using the tool on back teeth.

In ejecting the amalgam from the holder into the tooth-cavity it is not necessary to press the holder against the tooth, but the holder is simply held over or opposite the cavity without pressure upon the tooth and the plunger is depressed in the holder. The patient, therefore, experiences no pain or discomfort from the use of the tool.

The plunger can be readily removed from

the holder for cleaning the parts by unscrewing the spring D from the handle, withdrawing its free end from the slot of the plunger, and then removing the latter through the open lower end of the holder.

In the modification of the tool shown in Fig. 4 the amalgam-holder and the plunger are constructed as in the first-described implement; but a spiral retracting-spring D′ is substituted for the flat spring. In this case the spiral spring surrounds the plunger-stem and bears at its lower end against the head of the holder and at its upper end against a button *f* on the stem.

I claim as my invention—

1. A dental filling-tool, consisting of a handle or shank, an amalgam holder or cylinder rigidly mounted on the handle and open at one end, a plunger movable in the holder, and a spring arranged to retract the plunger, substantially as set forth.

2. A dental filling-tool, consisting of a handle or shank, an amalgam-holder rigidly mounted on the end of the handle in a forwardly-inclined position, said holder being closed at its upper end and open at its lower end, a plunger movable in said holder and having a stem which extends through the closed end of the holder and which is provided with a transverse slot, and a flat retracting-spring arranged substantially parallel with the handle and provided at its rear end with a transverse shank which is secured to the handle and having its front end bent at an angle to its body portion and arranged in the slot of the plunger-stem, substantially as set forth.

Witness my hand this 18th day of July, 1902.

PERRY C. HAMMERSMITH.

Witnesses:

A. C. TRAUT,

ELLSWORTH J. RICHARD.