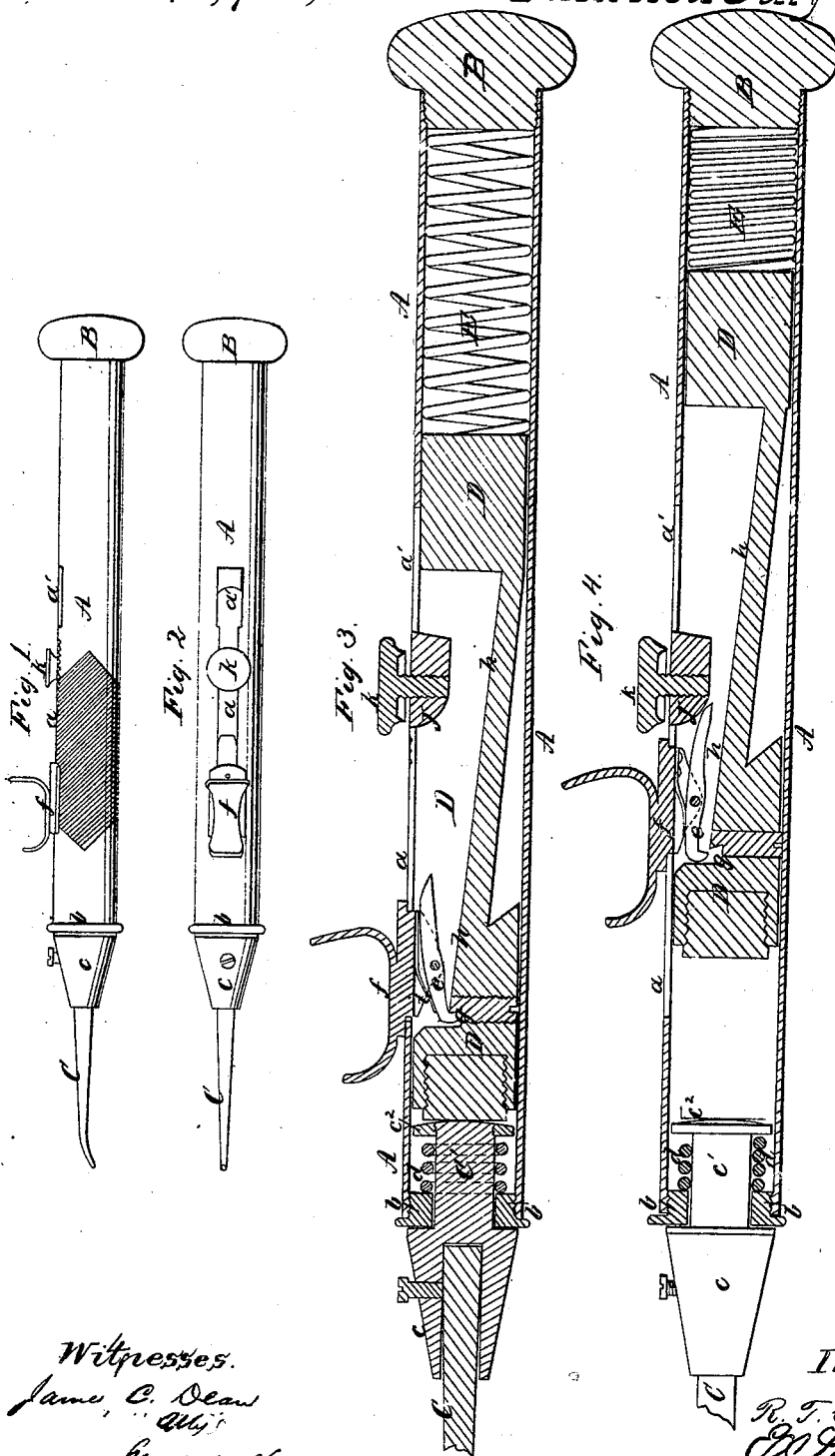


J.C. Dean,
Dental Hammer,
No. 48,708, *Patented July 11, 1865.*



Witnesses.
James C. Dean
Atty.
Master, Planchet Hammer

Inventor
R. F. Campbell
W. Schaefer

UNITED STATES PATENT OFFICE.

JAMES C. DEAN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN DENTAL HAMMERS.

Specification forming part of Letters Patent No. 48,708, dated July 11, 1865.

To all whom it may concern:

Be it known that I, JAMES C. DEAN, of Chicago, Cook county, State of Illinois, have invented a new and useful Instrument for Plugging Teeth; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of a plugging-instrument. Fig. 2 is a top view of the same. Fig. 3 is a diametrical section through the instrument considerably enlarged. Fig. 4 shows the hammer when drawn back and ready for striking.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an instrument for plugging teeth which is so constructed that the stock or handle for holding the plugging-point is also adapted for receiving the hammer which is used for giving the required blow to said point, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe one mode of carrying it into effect.

In the accompanying drawings, A represents a hollow handle or stock, which may be made of any suitable length and diameter, and *a* represents an oblong slot, which extends in a direction with the length of said handle, and terminates at one end in an oblong slot, *a'*, of greater width than the slot *a*. The ends of said handle have screw-threads cut in them to receive a knob, B, and a screw-cap, *b*, as shown in the enlarged views, Figs. 3 and 4. The knob B serves as a cap for one end of the handle, and also protects the hand while using the instrument. The cap *b* serves as a bearing and guide for that portion of the instrument which receives and holds the plugging-point C, and which consists of a conical socketed portion, *c*, terminating at one end in a short cylindrical stem, *c'*, having suitably applied to its rear end a flange, *c''*. The stem *c'* of this holder passes loosely through a hole which is made through the center of the screw-cap *b*, and receives around it and between the flange *c''* and this cap *b* a spiral spring, *d*, which by its retraction holds the shoulder of the portion *c* against the cap *b*, as shown in the drawings.

Within the hollow handle A is a hammer, D, which is acted upon by a spring, E, placed

between it and the knob B. This hammer has a wooden plug inserted into its forward end for the purpose of preventing a disagreeable noise when the hammer strikes the rear end of the stem of the tool-holder *c*. By drawing the hammer D back and then suddenly releasing it the spring E will force it forward and cause it to strike the holder *c* with sufficient force to give a quick forward movement to this holder, after which the spring *d* will return the latter to its former position against the screw-cap *b*. In order to effect this movement of the hammer D, I employ a sliding latch, *e*, which is in the form of a lever with a hook on its forward end. This hooked catch is pivoted to a slide, *f*, having horns or curved portions formed on it, as shown in Figs. 1, 2, 3, and 4. This slide is held in place and guided by the edges of the handle A on each side of the slot *a*, and it can be moved back and forward by means of one of the fingers of the hand that grasps and holds the instrument. Near the forward end of the hammer D is a notch, *g*, which is at the forward end of the inclined plane *h*. This notch receives the hooked lever when the slide is moved forward, and a spring, *i*, which acts upon said lever, prevents the hook thereof from casually detaching itself from the hammer.

To effect a sudden disengagement of the hook from its hammer when the parts are drawn back against the spring E, as shown in Fig. 4, I employ a dog or tripping block, J, which is inserted within the slot *a'* and moved forward within the slot *a*, and secured in place by means of a set-screw, *k*. The forward end of this trip is beveled so as to depress the rear end of the hooked lever or latch *e*, and thus detach the hook thereof from the catch on the hammer and allow spring E to force the hammer forward against the holder of the plugging-point. When the sliding catch-lever *e* is moved forward again the hook will drop into the notch *g*, and thus connect the slide with the hammer again. The action of the catch and releasing devices is automatic, so that the reciprocating movement which is given to the slide will give the required movement to the hammer.

The tripping device J is so applied to the handle of the instrument that it can be adjusted and set at any desired point, according to the length of stroke and force of block which it is necessary to give, and for this purpose notches

or serrations may be made on the surface of the handle A along the slot *a*, to receive the clamping-screw head *k* and prevent the trip from slipping. In practice the lower edge of said screw-head will be formed somewhat as shown in Figs. 3 and 4, so that the sharp edges thereof will be caught by the notches in the surface of the handle and prevent the trip from moving when the slide strikes it on letting go of the hammer.

I have thus given a description of the most preferable mode of constructing the plugging-instrument; but I do not confine my invention to the contrivances for operating the hammer or for increasing or diminishing the force of the blow thereof, as various devices may be employed for practically carrying out the combination of a dental point and a hammer in a single instrument.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the hammer D with the device for holding dentists' plugging-points, substantially as described.

2. Providing for regulating the force of the blow of a hammer, when the latter is applied to the holder of a plugging-point, by the means substantially as described.

3. The combination of a tool-holder, *c*, spring-hammer D, and the device or devices for actuating said hammer, substantially as described.

JAMES C. DEAN.

Witnesses :

VICTOR L. CHANDLER,
MARSHALL S. P. BOND.