

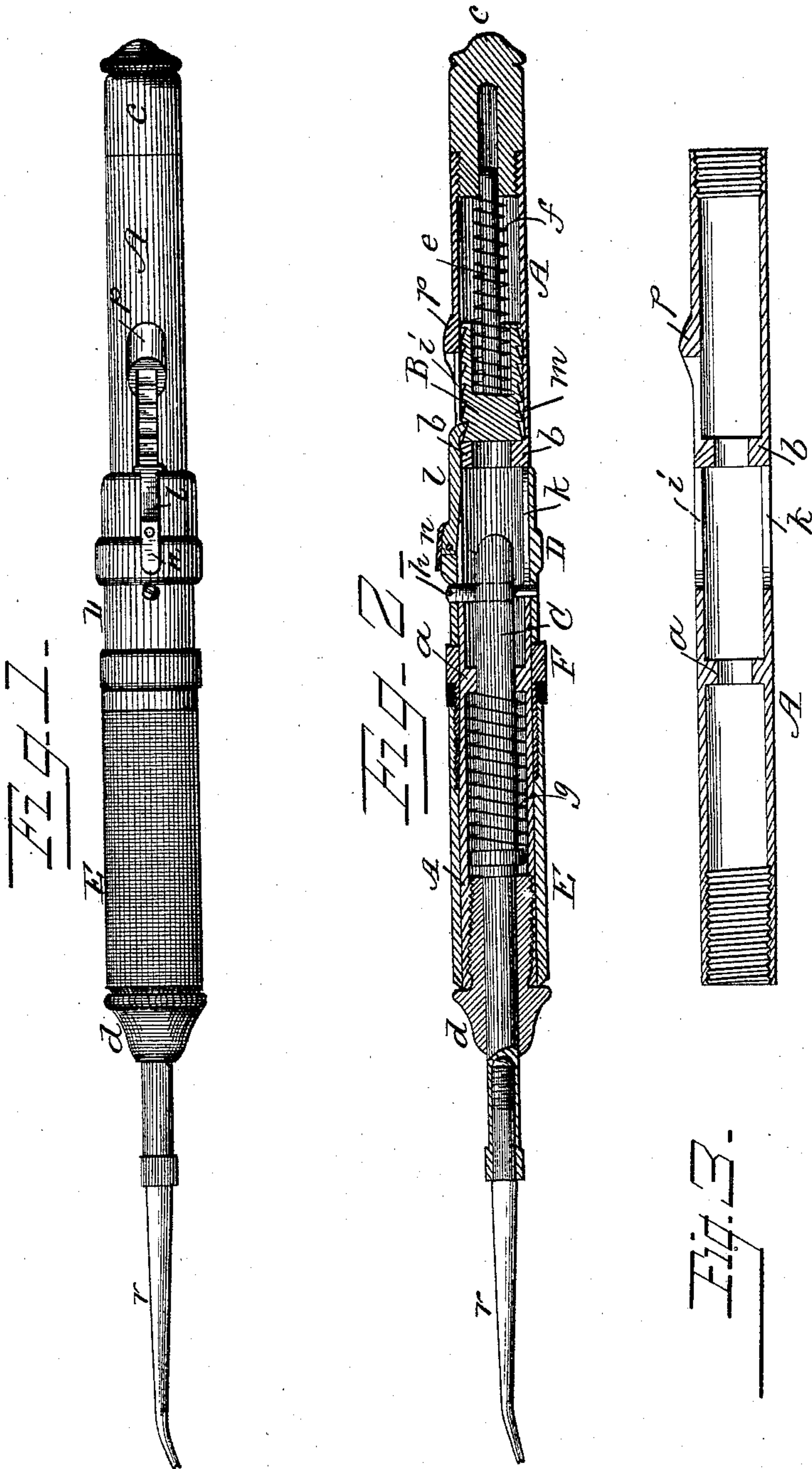
(Model.)

W. G. STEVENSON.

DENTAL Mallet.

No. 283,828.

Patented Aug. 28, 1883.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

WILLIAM GORDON STEVENSON, OF MORENCI, MICHIGAN.

## DENTAL MALLET.

SPECIFICATION forming part of Letters Patent No. 283,828, dated August 28, 1883.

Application filed June 30, 1882. (Model.)

*To all whom it may concern:*

Be it known that I, WILLIAM GORDON STEVENSON, a citizen of the United States, residing at Morenci, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Dental Mallets; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side elevation of my invention; Fig. 2, a longitudinal section thereof; and Fig. 3, a detail view, in section, of the tube or casing.

The present invention has relation to certain new and useful improvements in automatic mallets for dental purposes—such as condensing gold filling, &c.—and has for its object to improve the several details of construction, whereby the instrument will be rendered more effective in its purpose, readily controlled, and the force of the blow regulated at will without stopping in the work in hand. These several objects I attain by the construction substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A represents the tube or casing, of any desired length and diameter, which is divided into three compartments by the annular flanges *a b*, secured to the interior of the tube or casing, or cast with it, as preferred. The upper end of the tube or casing A is screw-threaded upon its interior to receive the screw-threaded end of a cap, *c*, to close said tube, and at the opposite end it is likewise screw-threaded to receive a screw-threaded plug, *d*. The plug *d* has a central opening or bore for the passage of the tool-holder C, the same being of sufficient length when at its highest point to pass through and a little beyond the central compartment formed by the flanges *a b*. The upper compartment contains the hammer B, having the shank *e*, which is encircled by the actuating-spring *f*, said shank entering a central hole or bore in the cap *c*, by which the hammer is guided in its movement.

The tool-holder C (a portion of its length is encircled by a spring, *g*, and a sliding ring, D, which passes around the tube or casing A) is attached to said tool-holder by a tapering or

other suitable screw, *h*, the ends of the screw passing through elongated slots *i k*, diametrically opposite each other in the tube or casing.

To the ring D is pivoted a suitable dog, *l*, which engages with the circumferential shoulders *m*, formed upon the periphery of the hammer B, the dog being held in position by a small spring, *n*, fastened to it, with its free end resting on the sliding ring D.

To the upper end of the tube or casing A, at the point of termination of the slot *i*, is an inclined plane, *p*, for the purpose of releasing the dog from the notches or shoulders *m* in the hammer B.

Over the lower end of the tube or casing A are placed sleeves E F, the sleeve E being of greater length and fitting closely the tube or casing, while the sleeve F fits loosely and screws into the sleeve E.

To operate the instrument it is properly taken in the hand, with the thumb and forefinger grasping the sleeve E, and when pressing down upon the point of the tool *r* the tool-holder will be forced up and carry with it the sliding ring D. The dog *l*, catching the hammer, will carry it up until released by the inclined plane *p*, when the spring *f* will force the hammer B against the tool-holder C, giving a blow proportioned in force to the distance through which the hammer passes and the power of the spring. The point of the tool *r* is now raised off the filling or tooth, when the spring *g* will force the tool-holder out or downward, carrying with it the sliding ring D and dog *l*, which passes over the grooves or shoulders as it is carried along. To give a blow of any desired force the sliding ring D is stopped in its downward movement at any point desired by pressing the thumb or finger against the ring, and when it is desired to make the blow of any required force, without pressing the thumb or finger against the sliding ring, the sleeve F is turned up as high as desired by unscrewing it from the sleeve E.

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

1. In a dental mallet or plugger, the combination, with a hammer having a series of notches or shoulders, and adapted to slide and located within the tube or casing of the instrument, of a ring or sleeve carrying a suitable dog to en-



gage with the notches or shoulders of the hammer, said sleeve or ring adapted to slide upon the outside of the tube or casing, and operating substantially as and for the purpose set forth.

5 2. In a dental mallet or plugger, the combination of two sleeves encircling the outer and lower end of the tube or casing of the instrument, and connected at their inner ends by suitable screw-threads, whereby the force of  
10 the blow of the hammer may be regulated by adjusting the position of the two sleeves with relation to each other, substantially as described.

15 3. In a dental mallet or plugger, the combination, with a sliding ring encircling the tube or casing of the instrument, and carrying means

for operating a suitable hammer, of two sleeves connected together by screw-threads and encircling the lower end of said tube or casing, the position of the sleeves being regulated or  
20 adjusted with relation to each other by means of their screw-threaded connection to regulate the force of the blow of the hammer, substantially as and for the purpose specified.

In testimony that I claim the above I have  
25 hereunto subscribed my name in the presence of two witnesses.

WILLAM GORDON STEVENSON.

Witnesses:

H. S. COLE,

J. C. CRABB.