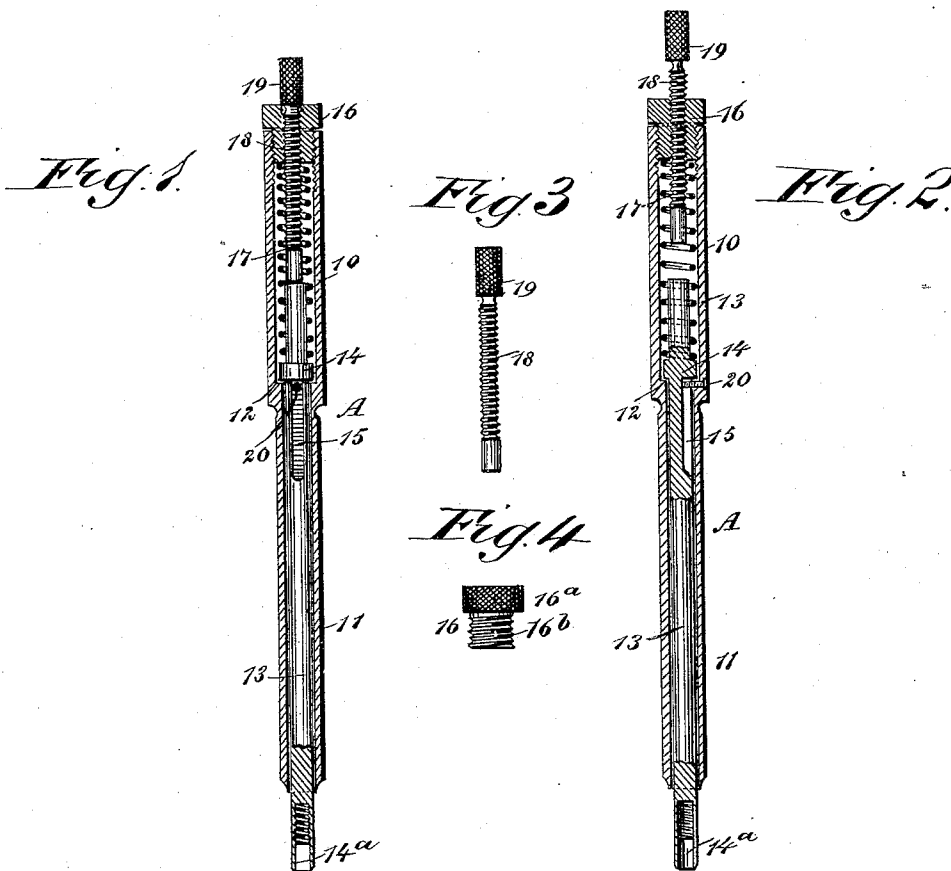


(No Model.)

G. W. GEITZ.
DENTAL PLUGGER.

No. 468,653.

Patented Feb. 9, 1892.



WITNESSES:

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GEORGE W. GEITZ, OF NEW YORK, N. Y.

DENTAL PLUGGER.

SPECIFICATION forming part of Letters Patent No. 468,653, dated February 9, 1892.

Application filed May 21, 1891. Serial No. 393,514. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. GEITZ, of New York city, in the county and State of New York, have invented a new and useful
5 Improvement in Dental Instruments, of which the following is a full, clear, and exact description.

My invention relates to an improved dental instrument, and has for its object to provide
10 a device capable of use as a hand and mallet plugging implement, and also as a handle for sundry instruments.

A further object of the invention is to construct the device in a durable and economic
15 manner, and to provide an adjusting mechanism of a simple character and capable of convenient manipulation.

The invention consists in the novel construction and combination of the several
20 parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference
25 indicate corresponding parts in all the views.

Figure 1 is a central vertical section through the device, illustrating its parts in a position rendering it applicable for use either as a
30 tool-handle or as a mallet plugging implement. Fig. 2 is also a central vertical section, the section being taken at a right angle to that shown in Fig. 1, and illustrates the position of the operative parts when the device
35 is to be used as a hand plugging implement; and Figs. 3 and 4 are detail views of the adjusting mechanism.

The body of the device consists of a tubular casing A, preferably made in one piece and
40 in two exterior diameters, forming thereby an upper section 10 and a lower section 11, the lower section being of less diameter than the upper section, and the said lower section is also ordinarily exteriorly serrated or rough-
45 ened. The bore of the casing, which extends through the top and bottom, is likewise of two diameters, forming thereby a shoulder 12 in the upper section 10, as shown in Figs. 1 and 2.

50 Within the casing a plunger-rod 13 is held to slide, which plunger-rod is provided at its lower end with a socket 14^a adapted to re-

ceive the shank of a tool, and the tool may be secured in the socket in any suitable or approved manner. In the drawings the socket 55 is represented as interiorly threaded for a portion of its length to receive the exteriorly-threaded surface of a tool-shank.

The upper portion of the plunger-rod 13, which is located within the upper section 10
60 of the casing, is provided with a collar 14, normally resting upon the shoulder 12 of the casing, and the rod in one side is further provided with a longitudinal slot or channel 15, said slot or channel being preferably located
65 just beneath the collar, as illustrated in Figs. 1 and 2.

In the upper end of the casing a cap 16 is secured, which cap is provided with a threaded
70 bore extending through from end to end. The cap, as shown in Fig. 4, comprises a body section 16^a, which is serrated and is preferably of equal diameter to the diameter of the upper
75 section of the casing, and a shank 16^b integral with the body, which shank is exteriorly threaded to engage with an interior thread formed in the upper end of the casing.

A spring 17, preferably a spiral or coil spring, is made to rest at one end upon the
80 collar 14 of the plunger-rod and bear at its other end against the bottom surface of the cap 16. In the threaded bore of the cap an adjusting-screw 18 is inserted, the lower end of which screw is plain, and is adapted at
85 times for engagement with the upper extremity of the plunger-rod. The upper end of the screw, from which point it is manipulated, is provided with a head 19 of any suitable type, which head is ordinarily rough-
90 ened so as to prevent its slipping from the grasp of the operator while being manipulated.

In operation, when the device is to be used as a hand plugging implement, the adjusting-
95 screw 19 is manipulated in a manner to carry it some distance upward beyond the upper end of the plunger-rod, as shown in Fig. 2, for example. When the proper tool has been placed in the socket 14, the device is ordinarily grasped by the operator at the lower
100 section 11 of the casing and the casing is reciprocated, causing the inner end of the adjusting-screw at every downward or inward stroke of the casing to violently engage with the up-

per end of the adjusting-rod and act in the capacity of a hammer, and the spring 17 returns the casing to its normal position—that is, with its shoulder 12 in engagement with the collar upon the plunger-rod. The casing is prevented from turning upon the plunger-rod by passing a screw 20 through the casing into the groove 15 of the rod.

When the device is to be employed as a tool-handle or as a mallet plugging implement, the screw 18 is carried downward until it is brought positively in engagement with the plunger-rod, whereby all of the parts composing the device are held in a rigid or fixed position and the blows from the mallet may be delivered upon the head 19 of the adjusting-screw.

It is obvious that the device is exceedingly simple, practical, and economic in construction, and that an adjustment may be quickly and conveniently effected to convert it from a mallet plugging implement into an implement for hand plugging.

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

1. The combination, with the casing and the tool-holding plunger reciprocating therein, of a longitudinally-movable adjusting and locking screw entering the upper end of the case,

serving as an abutment or mallet for the tool-plunger, and of a length to be projected inward against the plunger and lock it in its outermost position, substantially as set forth.

2. In a dental instrument, the combination, with a casing made in two diameters forming an interior shoulder, said casing being open at one end and provided with a cap at its opposite end having a threaded bore, of a spring-pressed plunger-rod capable of longitudinal movement in the casing, one end of which plunger-rod is formed as a socket and extends outward at the open end of the casing, the opposite end of the plunger-rod being provided with a collar adapted for engagement with the shoulder of the casing, and an adjusting-screw located at the capped end of the casing and having movement to and from the upper end of the plunger-rod, the said screw being in longitudinal alignment with the plunger-rod, normally serving as its mallet or striker, and of a length to be projected inward against the plunger-rod to lock it in its outermost position, as and for the purpose specified.

GEORGE W. GEITZ.

Witnesses:

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H. H. HAWES.