

J. W. DENNIS.
DENTAL-PLUGGER.

No. 173,393.

Patented Feb. 15, 1876.

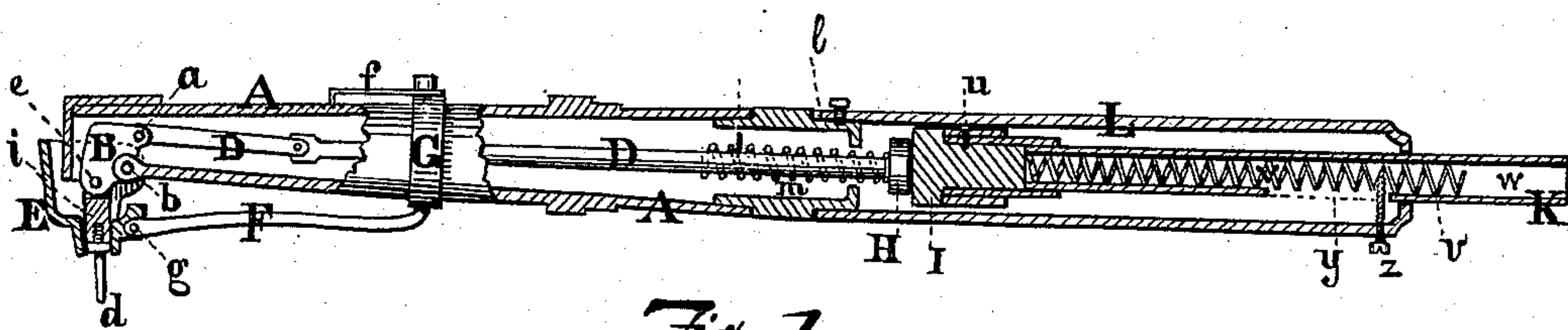


Fig. 1.

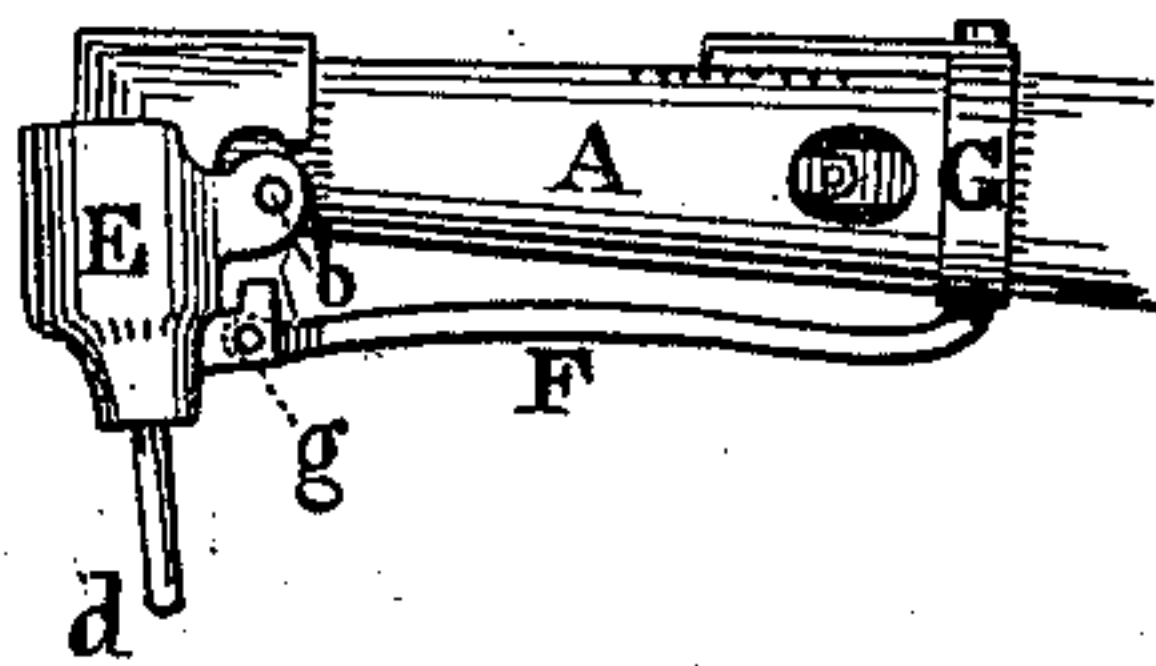


Fig. 2.

Witnesses

Henry W. Wells
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UNITED STATES PATENT OFFICE.

JAMES W. DENNIS, OF PEKIN, ILLINOIS.

IMPROVEMENT IN DENTAL PLUGGERS.

Specification forming part of Letters Patent No. 173,393, dated February 15, 1876; application filed December 29, 1875.

To all whom it may concern:

Be it known that I, JAMES W. DENNIS, of the city of Pekin, in the county of Tazewell, in the State of Illinois, have invented an Improvement in Dental Pluggers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a longitudinal section; Fig. 2, a longitudinal elevation of part of the terminal or plugger-case proper.

This invention consists principally in providing an adjustable pivoted shoe and crank (or tumbler) to alter the angle of the plugger-point. In carrying out this plan, the forward end of the sliding spring-bar is pivoted to a tumbler or crank, which is pivoted on one side of the ordinary bar-case or tube concentrically with a shoe or guide, which is manipulated to direct the plugger (proper) upon the tooth to be filled. The plugger is pivoted to the remaining angle of the crank (at a large angle to the bar) and slides in a socket in said shoe, from which it projects, which latter is made adjustable at desired angles (to direct the plugger upon the tooth) by means of a brace, made adjustable by means of a sliding detent upon the case. This plugger and case (as described) may be used alone, or may be attached by a socket to the ordinary engine-plugger or bolt-case.

In the drawings, which represent the most preferable form of my invention, L represents the case of the spring-bolt of an ordinary plugger, provided with a socket, *l*, for attachment of the terminal plugger-case A thereto; I, the head of the spring-bolt; K, the latter bolt, having its spring *v* in its interior; A, the case of the plugger, (proper) attachable to the socket *l* of the case L, and provided with the usual sliding bar D, spring *m*, and head H, (preferably of rubber). B, a triangular tumbler or crank, pivoted by a pin, *b*, in a slot in one side of the case A, and pivoted at a second angle by a pin, *a*, to the spring-bar D, and at the third angle by a pin, *e*, to the socket-piece *i* of the plugger proper (or punch) *d*. E is a shoe or guide for the latter, pivoted

at *g* to the side of the case A, and provided with a socket for the extrusion of said plugger *d*, and covering the side opening and end of said case A. It is attached by an ear or pivot *g* to its adjusting-brace F, which is jointed to a sliding ring or detent, G, embracing the case A, where it is detained by a spring, *f*, having a tooth, which engages with a ratchet or notches on the case. The socket-piece *i* is fitted with a female thread to receive the base of the plugger *d* (proper). The head I is made hollow, to receive the stem or base of a new leaden head, when the old one needs renewing. The spring *v* of the bolt K abuts against the head I, and against the screw *z* in the case L, which enters said bolt through a slot, *y*, therein. The said head I is detained by a screw, *u*.

The operation of this plugger is as follows: The blow imparted to the head H of the sliding bar D is diverted by the crank B to a lateral or even a backward motion of the plugger (proper) *d*, to fill cavities in the back of the teeth. The shoe E is set at any angle by means of the brace F and detent G. The head H is made of rubber, in place of the common steel head, and I use a head of soft metal, I, in place of the usual rubber one on the bolt K, thereby obtaining a solid dead blow, instead of the sharp stinging blow of the steel and rubber heads. The hollowing out of the bolt K reduces the weight of the instrument, and the inclosure therein of the spring concentrates its action and direct motion upon the bolt. The sliding bolt D, with its appendages, and case A, can be used for plugging alone without the attachment to the engine-plugger L K, &c.

What I claim as my invention is—

1. In combination with the case A, the tumbler B, pivoted at *b* to case A, and provided with coupling-connection *e*, with the socket-piece *i*, (which receives the plugger *d*,) and a coupling, *a*, with the sliding bar D, substantially as and for the purposes set forth.
2. The shoe E, hinged or pivoted to the case A, and connected by the pivot *g* to the brace F, and, in combination with the latter, provided with its detent G on plugger-case A, substantially as described.

3. In combination with the case A, and sliding bar D, the crank B, with its plugger-socket *i*, and adjustable shoe E.

4. The head I, of the bolt K, socketed in said bolt, and provided with set-screw *u*, and forming an abutment for the spring *v*.

5. The hollow *w* of the bolt K, (and its slot *y*,) to contain the spring *v*, abutting on the head I at one end, and on the detent pin or

screw *z* at the other, substantially as and for purposes set forth.

In testimony that I claim the foregoing dental plugger, I have hereunto set my hand this 23d day of December, A. D. 1875.

JAMES W. DENNIS.

Witnesses:

CLARENCE THURLOW,
HENRY W. WELLS.