(No Model.)

D. D. PEABODY.

DENTAL PLUGGER.

No. 387,655. Patented Aug. 14, 1888.

Fig. 1.

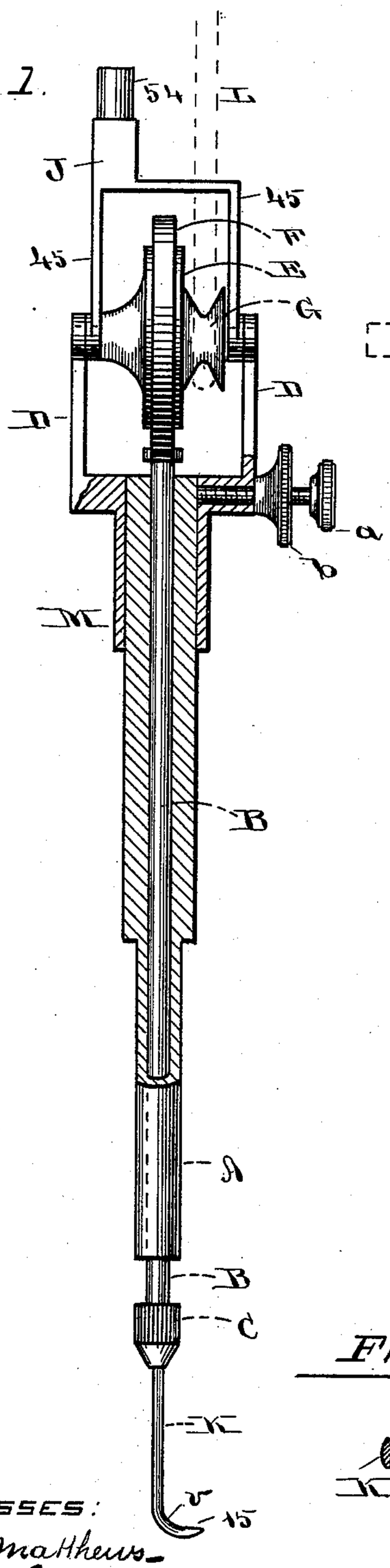

Fig. 2.

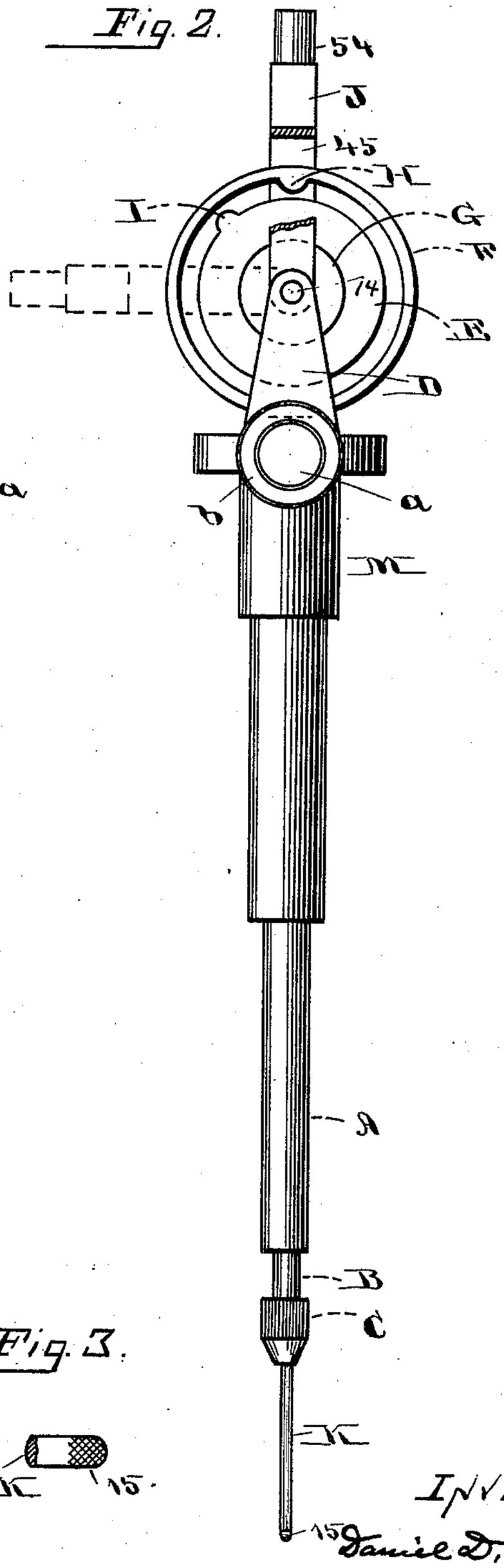

Fig. 3.

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DENTAL PLUGGER.

SPECIFICATION forming part of Letters Patent No. 387,655, dated August 14, 1888.

Application filed May 22, 1888. Serial No. 274,683. (No model.)

To all whom it may concern:

Be it known that I, DANIEL D. PEABODY, of Stoneham, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Dentists' Mallets, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation, partly in section, of my improved dentist's mallet; Fig. 2, a like view taken from the right in Fig. 1, a portion of the head-stock being represented as broken off to prevent obscuring other parts of the device; and Fig. 3, an enlarged view of the end portion of the plugger-point.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

It is well known that in the practice of dentistry a mallet is employed for tamping the filling in teeth which is actuated by power and adapted to produce successive and very rapid blows on the filling material. These mallets act percussively and, as ordinarily constructed, strike direct blows, and hence are not adapted for use in filling cavities which open from the operator or at that side of the tooth which is farthest from the one at which the mallet is located.

My invention is designed to obviate this objection, and to that end I make use of means which will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the body of the mallet, B the spindle or mandrel, and M the head. The body is bored longitudinally through its center to receive the spindle, which is fitted to slide therein, as best shown in Fig. 1.

The head M is adjustably and detachably secured to the body by a set-screw, *a*, which is provided in the usual manner with a check-nut, *b*. Projecting upwardly from the head there are two arms, D D, which are arranged in parallelism with each other and with the body A, and journaled in the outer ends of said arms there is a circular disk, E, and pulley G, said pulley and disk being preferably formed integral or in one piece. An annular head-piece, F, is rigidly secured to the upper end of the spindle B, said head-piece being of greater diameter than the disk G, which it encircles, and arranged in the same vertical plane.

A downwardly-projecting cam, H, is formed on the upper portion of the head-piece F, said cam being adapted to engage a peripherally-disposed cam, I, on the disk E when said disk is revolved by the belt L. (Shown in dotted lines in Fig. 1.)

A bifurcated head-stock, J, has the lower or outer ends of its arms 45 pivoted on the journal or shaft of the disk E and pulley G, the upper end of said stock being provided with a pintle, 47, for securing the hammer in a holder in the usual manner.

A plugger-point, K, is detachably secured to the lower end of the spindle B by a chuck, C; but it may be secured in any other suitable manner, if desired. The lower portion of said rod is bent or curved at right angles to its body, or approximately so, as shown at *v*, the upper portion of its outer end being preferably serrated, as shown at 15, to form a striking-face for the rod.

From the foregoing it will be obvious that when the disk E is rotated by the pulley G and belt L the cam I will be intermittently brought into contact with the cam H and cause the piston B to be raised at each revolution of the disk, thereby reciprocating the plugger-point K and causing it to give a succession of percussive blows, in a manner that will be readily understood by all conversant with such matters without a more explicit description. After the piston B is raised by the cams to give a blow with the plugger-point it is returned to its normal position by the force of gravitation; but, if desired, a spring may be employed for that purpose.

It will be understood that in the use of my improvement the curved end *v* of the plugger-point K is placed over or behind the tooth, or in such a position that the serrated face 15 will strike the filling when the mallet is operated; also, that the stroke or blow of the mallet is made in the direction of or toward the body A, or in a reverse direction to that of the ordinary mallet, thereby enabling the filling to be plugged in a cavity at the opposite side of a tooth from that at which the opera-

tor or workman is located, and also under projecting portions which cannot be reached by other plugging implements operated by power as usually constructed.

I do not confine myself to making the head M detachable from the body A or to providing it with two arms, D. Neither do I confine myself to making the head-piece F of the piston B circular, as it may be made in any other suitable shape to perform its functions properly, nor to locating the cam H above the axis of the disk E, as it may be placed in any other position, provided it is so arranged that the piston will be raised when the cams engage. The pulley G and disk E may be attached to each other and secured firmly on the shaft 14, which rotates in the arms D; or the shaft may be stationary in said arms and the pulley and disk fitted to rotate thereon. The pulley may also be secured to the shaft on the outer side of the arm D, if preferred, in which case the disk must also be secured firmly to the shaft or otherwise connected with the pulley.

Having thus explained my invention, what I claim is—

1. In a dentist's mallet, the combination of the following instrumentalities, to wit: a body, a head for said body, a spindle fitted to work in said body, a head-piece secured to the upper end of said spindle and provided with a cam, a disk journaled on the head of said body and provided with a cam adapted to engage the cam on the head-piece of the spindle and move the spindle in the direction of said disk, a pulley for driving the disk journaled on said head, and a plugger-point secured to said spindle, the lower portion of said point being bent or curved at an angle to its body, substantially as set forth.

2. In a dentist's mallet, the piston B, provided with a head-piece, as F, having a cam, as H, in combination with the pulley G and disk E, having the cam I, said cams being adapted to engage when the disk is revolved by the pulley and throw the piston in the direction of said disk, and said disk and pulley journaled in a support on the body of the hammer, substantially as described.

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