(No Model.)

W. H. POMEROY.

FOIL CONDENSER.

No. 345,724. Patented July 20, 1886.

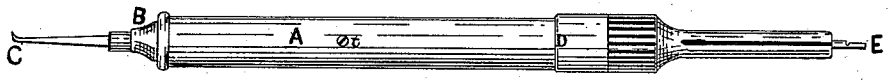

Fig. 1.

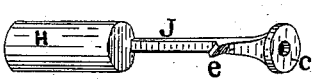

Fig. 2.

Fig. 3.

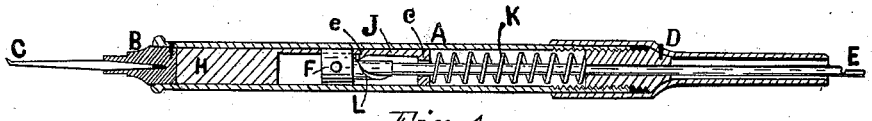

Fig. 4.

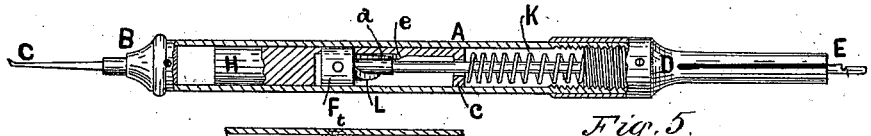

Fig. 5.

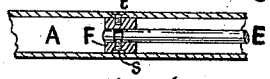

Fig. 6.

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UNITED STATES PATENT OFFICE.

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FOIL-CONDENSER.

SPECIFICATION forming part of Letters Patent No. 345,724, dated July 20, 1886.

Application filed September 17, 1885. Serial No. 177,401. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. POMEROY, of Gloucester, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Foil-Condensers, of which the following is a specification.

The objects of my invention are to provide a cheap, simple, convenient, and expeditious foil-condenser, adapted for use in a dental engine, whereby the foil employed in filling the cavities of teeth may be compacted therein in a rapid manner; and it consists in a suitable case adapted to be connected with the chuck or hand-piece of any dental engine, whereby rotary motion may be communicated to the operating mechanism contained within the case, whereby an automatic hammer may be actuated so as to strike a series of blows in rapid succession, and the force thereof be controlled and varied as occasion may require, as hereinafter more fully described, and set forth in the claim hereto annexed.

Figure 1 represents a side elevation of a foil-condenser constructed according to my invention. Fig. 2 represents a perspective view of the hammer removed from the tubular case. Fig. 3 represents a similar view of the cam, spindle, and guide-block. Fig. 4 represents a longitudinal sectional view of the shell-case, showing the hammer in position after the blow has been struck. Fig. 5 represents a similar view showing the hammer in position to strike the blow. Fig. 6 represents a minor detail of construction.

A represents a tubular case, provided at one end with a holding plug or tip, B, into which is inserted any suitable plugger or condensing-tool, C, adapted for compressing foil within the cavity of a tooth, as desired, and the opposite end is provided with a split sleeve, D, surrounding the outward end portion of the spindle E, adapted to fit into and over the hand, piece of a dental engine, whereby it may be rotated within the said tubular case A, where its opposite inward end has a pivotal bearing within the stationary guide-block F, secured within said case A by a screw, *t*, and provided with a groove near its end, into which is fitted the end of a screw or pin, S, passing through the said guide-block F, as shown in Fig. 6. This spindle E is pivoted within the center of the guide-block F, which is provided at one side with a longitudinal groove, *r*, through which the guide-bar J of the hammer H reciprocates, or slides back and forth, through the action of the semi-screw-cam L, provided near the lower or inward end of the pivoted spindle E, which, when rotated, engages with the face of the projection *e*, and thereby raises or slides the said hammer H and its guide-bar J, so as to compress the coiled or spiral spring K, one end of which has a bearing against the cap *c* of the said guide-bar, and its opposite end against the screw-threaded inward end of the adjustable sleeve D. Now, when the projection *e* is brought opposite the vertical or straight longitudinal face *a* of the said cam L, it is forced by the recoil of the said spiral spring K suddenly in the opposite direction, causing the hammer portion H to strike a blow against the said plug-tip B, the concussion of which is thereby imparted to the said compressing-tool C, which, being placed upon or in contact with foil inserted within the cavity of a tooth, compacts or condenses it in a rapid manner, a blow being given at each revolution of the said spindle and cam through the motion imparted thereto by means of the dental engine run by the foot of the operator, or in any other suitable manner, so as to cause a succession of blows to be struck, the force of which being regulated by means of the screw-threaded portion of the sleeve D and case A, by which means the said spiral spring K may be more or less compressed, or made to bear with more or less force upon the hammer or striking mechanism, as above described.

Having thus described my invention, what I claim is—

The combination, with the case A, having the tip B, of the spindle E, cam L, guide-block F, hammer H, guide bar J, having the projection *e*, the cap *c*, spring K, and adjusting-sleeve D, as described.

WILLIAM H. POMEROY.

Witnesses:
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