

(Model.)

G. W. HUMMEL.
WATCH MAKER'S PUNCH.

No. 455,253.

Patented June 30, 1891.

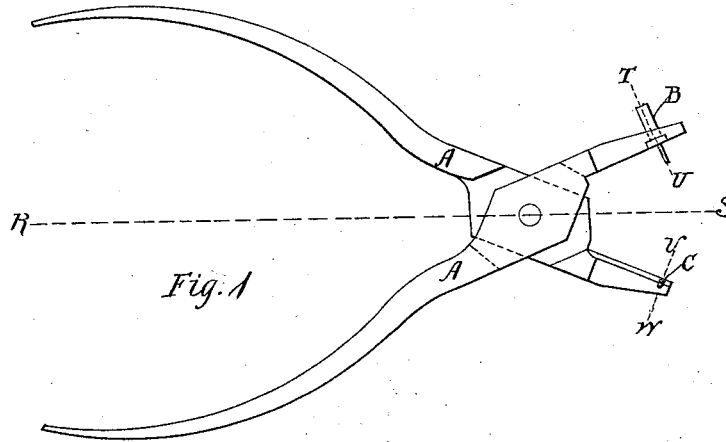


Fig. 1

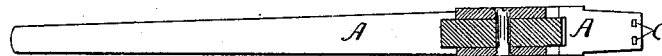


Fig. 2

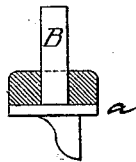


Fig. 3

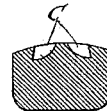


Fig. 4

Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE W. HUMMEL, OF LYKENS, PENNSYLVANIA.

WATCH-MAKER'S PUNCH.

SPECIFICATION forming part of Letters Patent No. 455,253, dated June 30, 1891.

Application filed November 9, 1889. Serial No. 329,814. (Model.)

To all whom it may concern:

Be it known that I, GEORGE W. HUMMEL, a citizen of the United States, residing at Lykens, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in the Method of Forming a Hook on Mainspring-Barrel of a Watch; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to watch-makers' tools, and has for its object the construction of a tool for inserting the mainspring of a watch in the spring-barrel and securing it therein by a hook formed of the metal of the barrel.

Heretofore the mainspring-barrel has been drilled and the spring secured thereto by means of a plug or screw, which is attended with considerable expense, owing to the time required to perform the work.

By the use of my invention the barrel can be readily punctured and a hook formed on the inside of the barrel, by which the mainspring is secured thereto without liability of becoming loose, as the hook is an integral part of the barrel.

The invention will be hereinafter described, and more particularly pointed out in the claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a side elevation of my invention; Fig. 2, a section on the line R S, Fig. 1; Fig. 3, an enlarged transverse section through the up-

per jaw of the implement, and Fig. 4 a similar view of the lower jaw.

Reference being had to the drawings and the letters thereon, A A indicate the shanks or handles of a pair of pliers; B, a punch provided with a flange *a* and inserted in a slot in one of the jaws, and is removable and reversible to punch the barrel of a watch and form a right or left hook or tongue on the inside of the barrel.

In the opposite jaw are formed recesses or cavities C, which are of the contour of the lower end of the punch B, and in which the hook or tongue of the metal of the spring-barrel is formed.

In using the implement, the jaw having the punch therein is placed outside, and the jaw having the recesses inside, the spring-barrel, and by pressing the handles of the pliers the metal of the barrel is punctured, and a hook or tongue formed on the inside for securing the mainspring in position in the barrel.

Having thus fully described my invention, what I claim is—

1. A watch-maker's tool consisting of a pair of pliers, a slot in one of the jaws of the pliers, and a punch provided with a flange in said slot, in combination with a corresponding recess or cavity in the opposite jaw.

2. A watch-maker's tool consisting of a pair of pliers, a slot in one of the jaws, and a reversible punch provided with a flange in said slot, in combination with corresponding right and left recesses or cavities in the opposite jaw.

GEORGE W. HUMMEL. [L. S.]

Witnesses:

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