

(Model.)

P. SEEWALD.

WATCH MAKER'S TWEEZERS.

No. 390,260.

Patented Oct. 2, 1888.

Fig. 5.

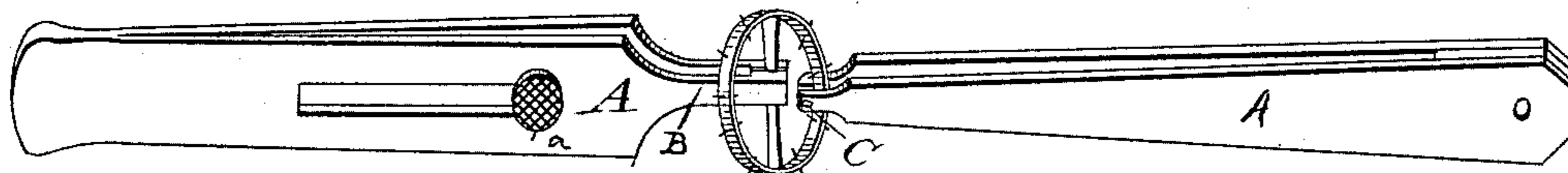


Fig. 4.

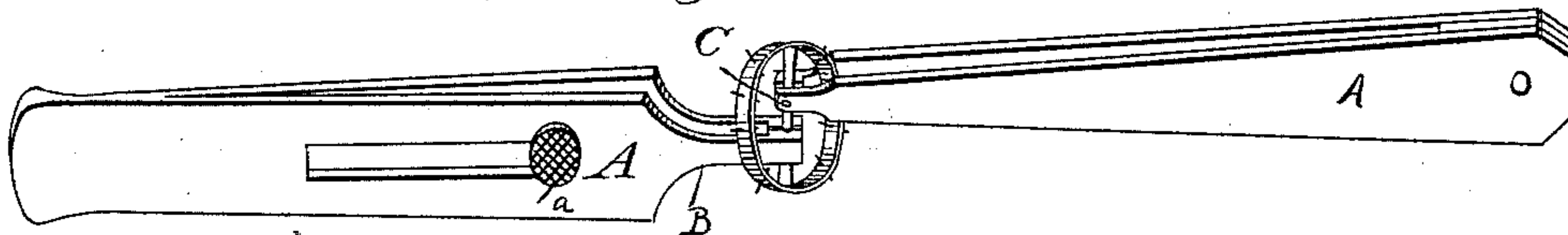


Fig. 3.

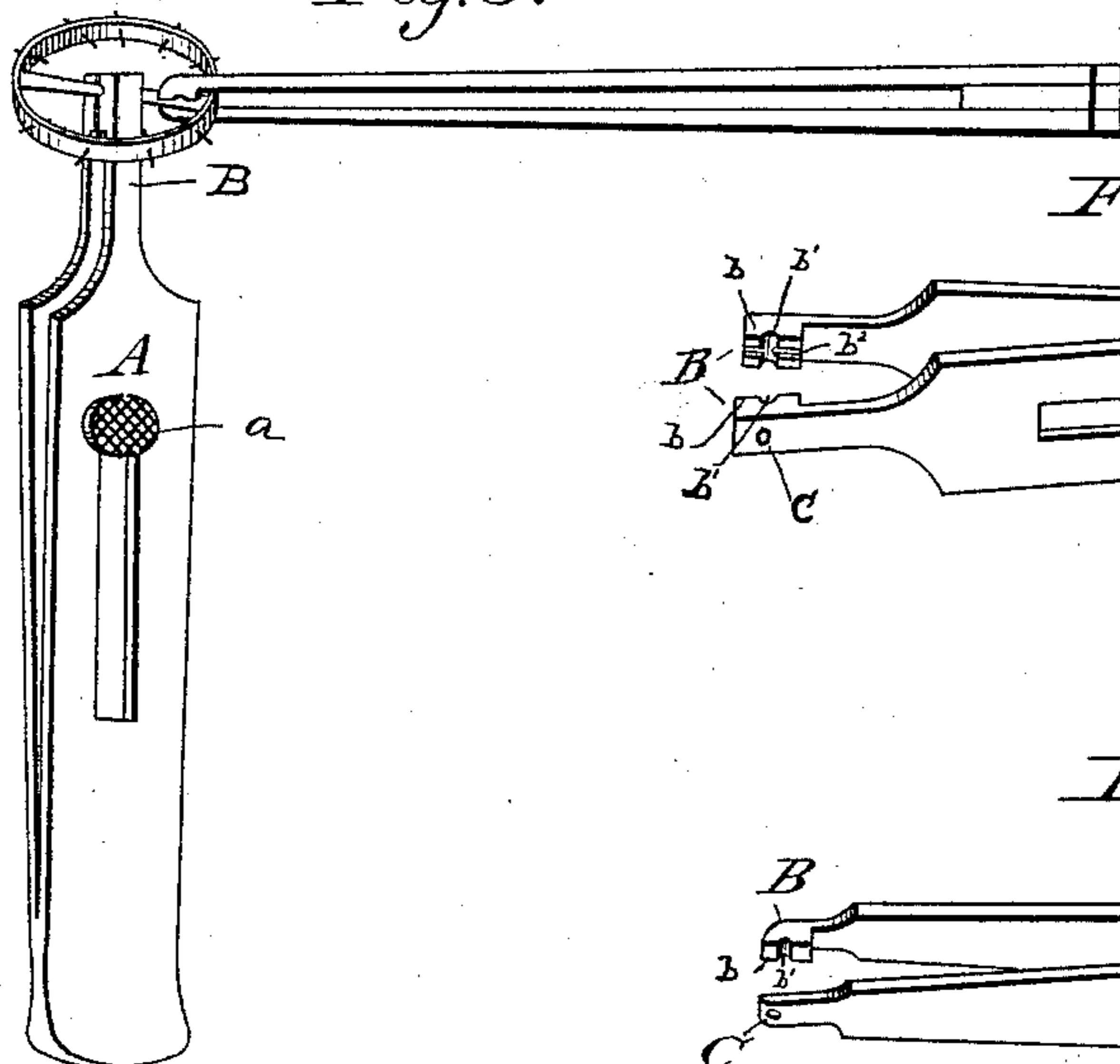


Fig. 1.

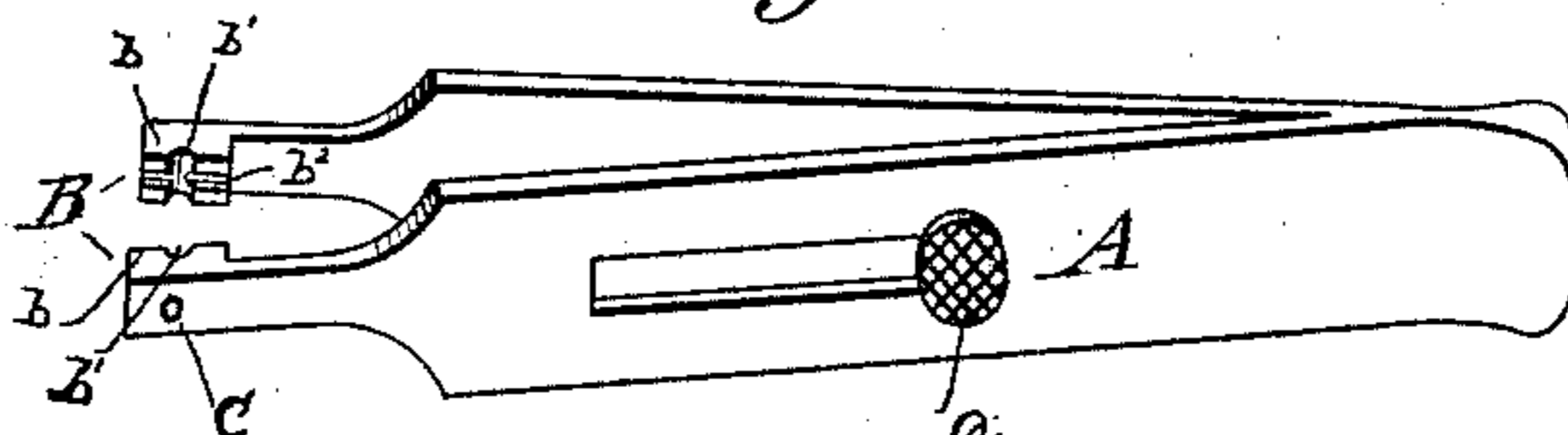
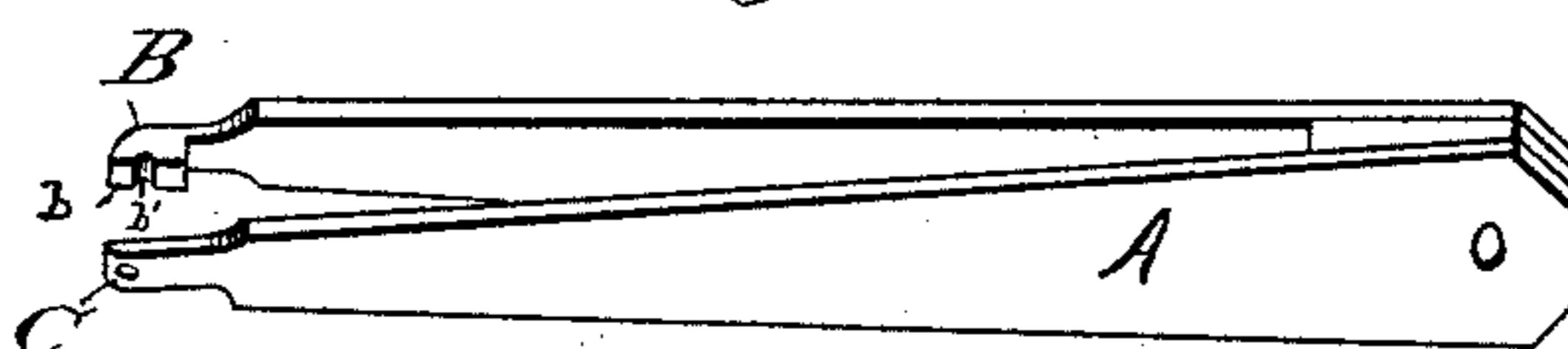


Fig. 2.



Witnesses:

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PHILLIP SEEWALD, OF HUDSON, MICHIGAN.

WATCH-MAKER'S TWEEZERS.

SPECIFICATION forming part of Letters Patent No. 390,260, dated October 2, 1888.

Application filed December 19, 1887. Serial No. 258,388. (Model.)

To all whom it may concern:

Be it known that I, PHILLIP SEEWALD, a citizen of the United States, residing at Hudson, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Watch-Makers' Tweezers; and I do hereby 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.

My invention relates to an improvement in watch-makers' tweezers; and it consists in the construction and arrangement of the parts hereinafter described, and pointed out in the claims.

The object of my invention is to provide a device for facilitating handling of balance-wheels for truing and arranging them and quickly adjusting the same.

In the accompanying drawings, wherein like letters of reference indicate corresponding parts in the several views, Figure 1 is a perspective view of my improved tweezers. Fig. 2 is a modified form. Figs. 3, 4, and 5 are perspective views showing the different positions assumed in truing a balance.

In the drawings, A represents the spring-arms of the tweezers, which have tapering ends, as B, the latter being provided with inwardly-extending blocks *b* on their inner faces. The blocks *b* have transverse grooves *b'* formed in their central inner faces, which register with each other. A longitudinal groove, *b''*, is made in the center of the inner face of one of the blocks *b*, for grasping more firmly a parallel portion of a balance. The opposite side being without such a groove, a more positive hold may be secured on the desired part. These grooves are adapted to partly encircle the arms or rims of the balance, so as to hold it in a fixed position for truing.

To retain the jaws in a closed position when

occasion demands, I provide a sliding pin, which is inserted in elongated slots cut in the sides of the arms A, the pin being provided with heads *a* of larger diameter than the slots, the length of the pins being sufficient to permit its being forced up the slot, drawing the arms down or in until the blocks *b* meet, the incline being such as to prevent the pin from slipping back and freeing the object between the blocks. It will be observed that by this form of tweezers having grooved blocks they can be used effectively with circular, semicircular, or flat objects. An opening, as C, is made through one of the blocks and ends B for seizing a screw of a balance.

The modification shown in Fig. 2 has but a single block, *b*, and a flat point with an opening, as C, therein. This form may in some instances be preferred.

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

1. The tweezers herein described, consisting of the slotted spring-arms A, the regulating-pin within said slots, and the points B, having blocks *b* on their inner faces, which are each provided with transverse grooves, one of which has a longitudinal groove on its inner face, and the other with an opening, as C, therethrough, substantially as described.

2. The combination, with the spring-arms A, of the blocks *b*, secured to the inner face of the ends thereof, said blocks having transverse grooves formed in their adjacent faces, and one of said blocks having a longitudinal groove also on its inner or adjacent face, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

PHILLIP SEEWALD.

Witnesses:

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