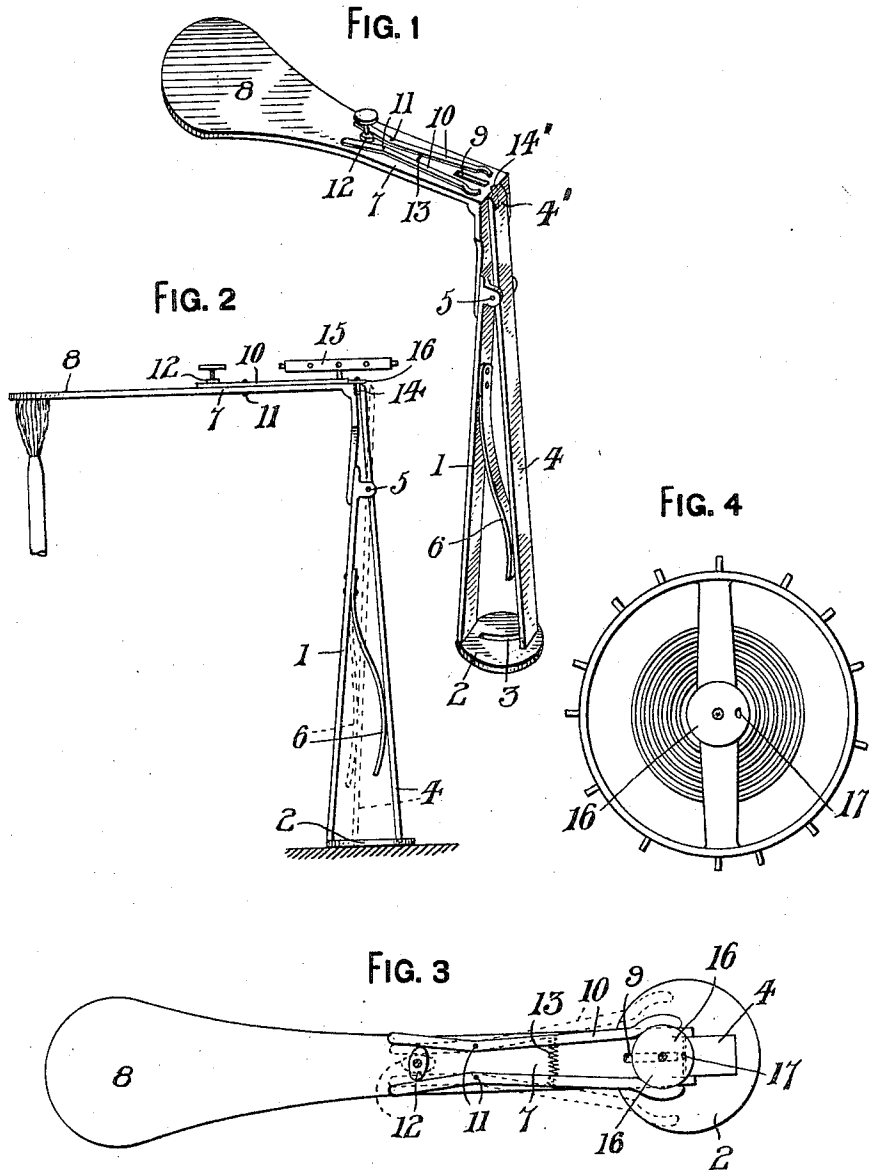


C. KREIMENDAHL & A. J. SHEFF.
JEWEL SETTING TOOL.
APPLICATION FILED MAR. 25, 1910.

Patented Mar. 28, 1911.

988,195.



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JEWEL-SETTING TOOL.

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To all whom it may concern:

Be it known that we, CHARLES KREIMENDAHL and ANDREW J. SHEFF, citizens of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Jewel-Setting Tools, of which the following is a specification.

Our invention relates to certain new and useful improvements in tools adapted for use principally by the jewelry trade, and is more particularly designated as a device for facilitating the setting of jewels in watch movements. The primary idea involved is the provision of a device, simple in construction, and easy to operate, that will clamp and center the jewel in proper position for insertion and retention in the watch movement, with special reference to the table portion of a balance wheel; a process in the art of manufacturing and repairing watches that is well known and will be appreciated and understood by the trade to which this device pertains. Owing to the minuteness of the jewel the present method of insertion and cementing in the watch movement is rendered both difficult and slow, but with our device the operation can be accomplished with accuracy and despatch, owing to the jewel being firmly held in centered position until released.

In the accompanying drawing Figure 1 is a perspective view of our device in assembled form. Fig. 2 is a side elevation showing a balance wheel in retained position therein and in the act of receiving the jewel. Fig. 3 is an enlarged top plan view of the platform portion of the device showing a clamping member thereon, and Fig. 4 is an exaggerated bottom plan view of a balance wheel showing the table portion thereof, and jewel aperture therein.

Throughout the drawings the numeral 1 designates a suitable supporting member or standard having a lower extension 2 forming a rest, the latter portion being provided with a retention slot or groove 3 to receive the lower extremity of a spring actuated lever 4, which is fulcrumed at 5 on the said part 1; the spring, designated as 6, being positioned between the two parts 1 and 4, and secured to either member. The said lever's extreme upper and free end is formed into a suitable jaw or gripping portion 4'.

The upper portion of the part 1 carries a

platform or approximately right angled member 7, the outer extremity being somewhat enlarged, as at 8, to provide a sufficiency of heat retaining surface; as will be more fully set forth hereinafter. The inner portion of the member 7, adjacent to the gripping jaw 4', is provided with a suitable slot or aperture 9, also with a retention means for holding the watch movement firmly in centered position, and consists of the two clasp ing fingers 10, pivoted at 11 on said part 7, their inner ends being of concave formation to receive the rounded table portion of the watch movement, and having their inner ends slightly flared. Seated between these flared ends is an adjustable cam or spreader 12, which is intended as a means for opening and closing the finger members 10, with the assistance of a suitable compression spring 13, preferably positioned between the said fingers. The movement of the cam 12 into position shown in Fig. 3 tends to close the clasp ing ends of the fingers 10, and depress the spring 13, and upon moving said cam to a reverse position it permits the said spring to expand and force the said fingers open to disengage the object held by them.

In actual practice the jewel to be placed, which is here shown in greatly enlarged form, Fig. 2, and designated by 14, is first placed in a receptive groove 14' formed in the inner vertical face of the portion 7, which may be a continuation of the slot 9, or else an independent groove of suitable size, and positioned centrally of the said inner face, said jewel being held firmly in its seat by the spring actuated jaw 4', with its flat face bearing against said jaw and its rounded face seated in the said groove. The balance wheel 15, or other watch movement as the case might be, is then placed on the member 7 with the pivotal shaft of said wheel entering the slot 9, the table portion 16 resting on the platform 7 in such a manner that the jewel will enter the correspondingly shaped aperture 17 in said table 16, after which the cam 12 is moved to close the fingers 10, and thus retain said balance wheel firmly in centered position. The further steps in the process being old to the art do not require detailed description, but consist simply in applying heat to the enlarged portion 8, which penetrates throughout said member 7 and serves to melt the shellac, or

similar cementing substance, placed in the aperture 17, and by so doing the jewel is firmly held in this seat. The releasing steps consist in simply pressing inward on the lever 4, which throws the jaw 4' away from contact with the jewel, and next moving the cam 12 so as to allow the spring 13 to throw the fingers 10 away from contact with the table portion 16, and thus release the balance wheel.

Having thus fully shown and described our invention what we claim, and desire to secure by Letters Patent, is:—

1. In a jewel-setting tool, a suitable supporting member; a spring-actuated and fulcrumed element carried by the said support having a jaw in its upper portion; a stand at the lower extremity of the support involving means for limiting the movement of the fulcrumed element; a platform projecting from the said support involving an aperture and a jewel-retaining slot adjacent to the said aperture and jaw; and means on the platform for releasably gripping the watch movement.

2. In a jewel-setting tool, a suitable supporting member; a spring-actuated and fulcrumed element carried by the said support

having a jaw in its upper portion; a stand at the lower extremity of the support having a slot for receiving the lower end of the said fulcrumed element; a platform projecting from the said support involving an aperture and a jewel-retaining slot adjacent to the said aperture and jaw; and means on the platform for releasably gripping the watch movement.

3. In a jewel-setting tool, a suitable supporting member; a spring-actuated and fulcrumed element carried by the said support having a jaw in its upper portion; a stand at the lower extremity of the support having a slot for receiving the lower end of the said fulcrumed element; a platform projecting from the said support involving an aperture and a jewel-retaining slot adjacent to the said aperture and jaw; and cam-operated gripping fingers on the platform for releasably holding the watch movement.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES KREIMENDAHL.
ANDREW J. SHEFF.

Witnesses:

J. P. APPLEMAN,
ANDREW A. McDONALD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."