A. SINGER.

TOOL FOR REMOVING HANDS OF WATCHES AND CLOCKS.

APPLICATION FILED JAN. 11, 1917.

1,243,771. Patented Oct. 23, 1917.

Fig. 1

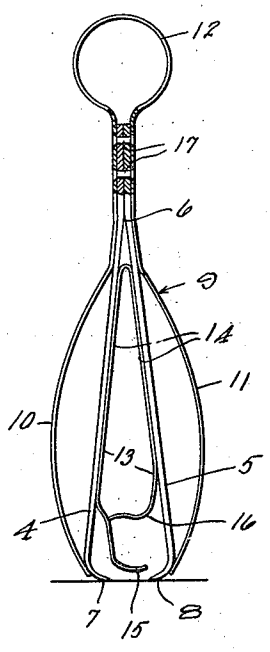


Fig. 2

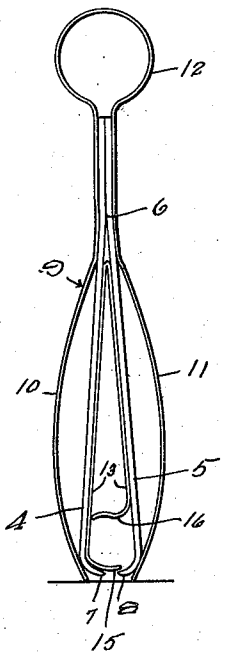


Fig. 3

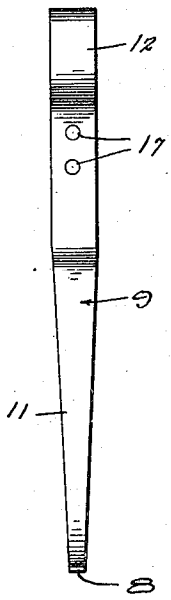
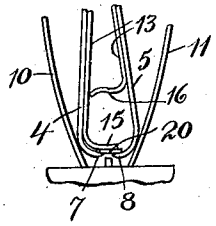


Fig. 4.



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TOOL FOR REMOVING HANDS OF WATCHES AND CLOCKS.

1,243,771. Specification of Letters Patent. Patented Oct. 23, 1917.

Application filed January 11, 1917. Serial No. 141,825.

To all whom it may concern:

Be it known that I, ABRAHAM SINGER, a subject of the Sultan of Turkey, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Tools for Removing Hands of Watches and Clocks, of which the following is a specification.

This invention relates to watchmakers' tools, and comprises a tool particularly designed for removing the hands of a clock or watch, the object being to provide a simple and inexpensive device which will not only remove the hands but will grip them until released by the workman. Some such tools have the defect that they will not hold the hand after it is taken off.

In the accompanying drawings—

Figure 1 is a side elevation of the tool in normal position.

Fig. 2 is a similar view showing the tool in the position it assumes when removing a hand.

Fig. 3 is an edge elevation.

Fig. 4 is a detail showing a hand grasped by the tool.

The tool is of the tweezers type, and has a pair of flat spring jaw members 4 and 5 which are fastened together at their upper ends as indicated at 6. The lower ends of these members are bent inwardly and are beveled to an edge, as indicated at 7 and 8, in proper form to be inserted under the hand.

A piece of spring steel 9 is bowed or looped around the members 4 and 5 as shown, and is shaped to produce two bows 10 and 11 beside the members 4 and 5, and a finger loop 12 at the top. The strip 9 is secured to the inner members as by rivets 17.

The lower ends of the spring bows 10 and 11 press against the outer sides of the members 4 and 5 near the lower ends thereof, as shown.

Between the jaws 4 and 5 is a spring 13, of special form. Its upper part is looped or bent to inverted V shape to fit between the members 4 and 5. The lower end is looped or bent to form a finger 15 located directly above the space between the jaws 7 and 8, and a connecting part 16 extends between one side of the loop and the upper part of the finger.

In operation, the tool is set over the hand when in the position shown in Fig. 1. Pressure is then applied to the bows 10 and 11, the effect of which is first to press the edges 7 and 8 under the watch hand 20, Fig. 4, and at the same time compress and elongate the spring 13 thereby causing its finger 15 to descend against the hand, thereby gripping the hand between the lower end of said finger and the jaws 7 and 8, and, finally, continued pressure on the bows 10 and 11 elongates the same and forces their free ends against the dial, thereby lifting the jaws 7 and 8 and the hand carried thereby, to loosen the hand from the arbor and permitting it to be readily lifted off, and in all positions it will be held by the finger and the jaws as above described until the pressure is released. In similar manner it may be used for picking up hands from any surface and placing them in position.

I claim:

1. A tool comprising a pair of spring jaws, and a pair of spring bows pressing against said jaws and adapted to close the same when compressed, said bows extending beside the ends of said jaws and adapted to be extended beyond the same when compressed.

2. A tool comprising a pair of spring jaws, and a bent spring between the jaws, and extensible by closing movement of said jaws, said spring having at its lower end a finger adapted to grip an article against the jaws when the spring is so extended.

3. A tool comprising a pair of jaw members, and a folded spring between said members and extensible lengthwise by closing movement of the jaws, said spring being provided with a finger projecting toward the inner side of the jaws and adapted to clamp an article against the same when the jaws are closed.

4. A tool comprising a pair of jaw members, a pair of spring bows pressing against the outer sides thereof and extensible beyond the end thereof when compressed, and means between the jaw members to grip an article against the same said means being actuated by closing movement of the jaw members.

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

ABRAHAM SINGER.

Witnesses:

JOHN A. BOMMHARDT,

S. W. BRAINARD.

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