(Model.)

H. W. WILDT.

WATCH BOW PLIERS.

No. 562,998. Patented June 30, 1896.

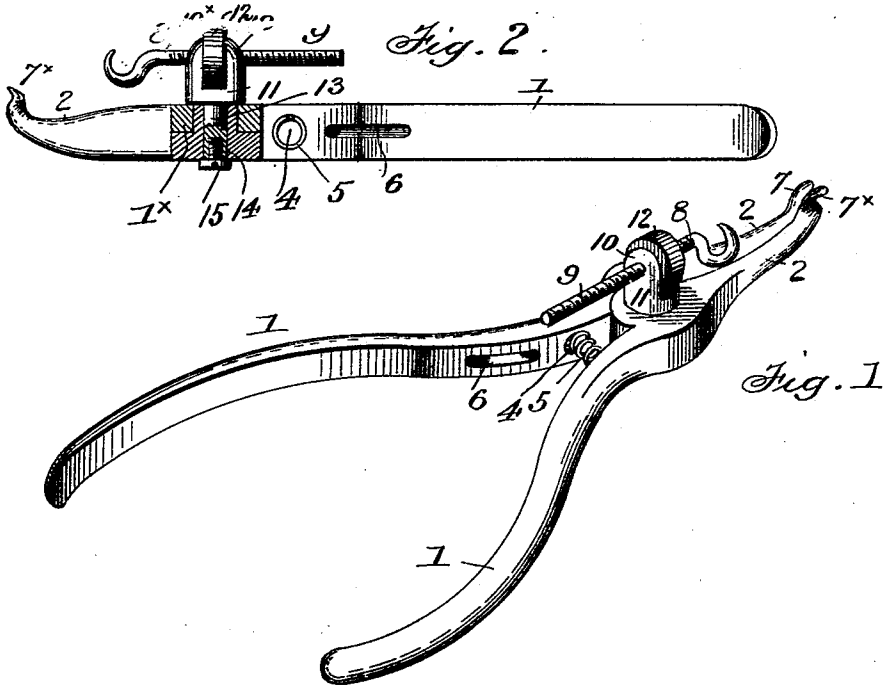

Fig. 2.

Fig. 1.

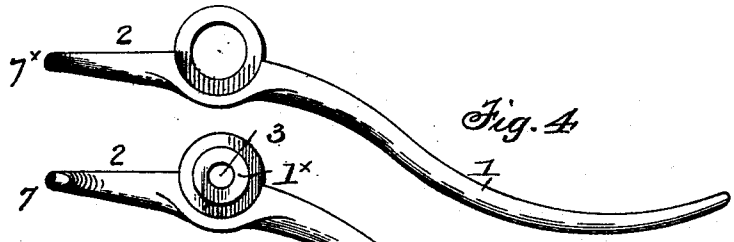

Fig. 4

Fig. 3

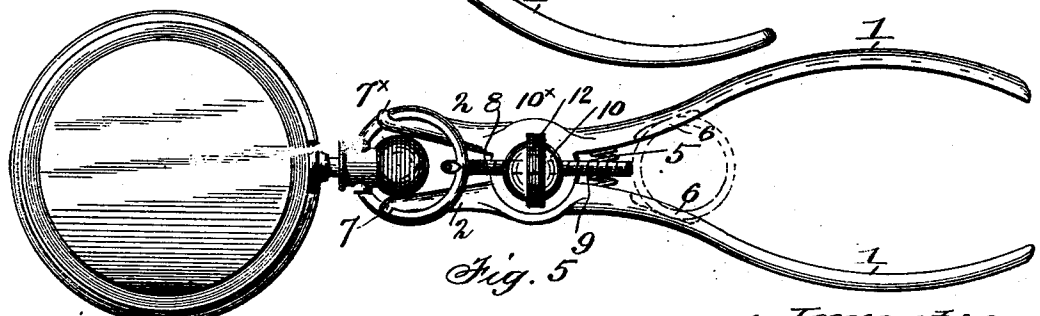

Fig. 5

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UNITED STATES PATENT OFFICE.

HENRY W. WILDT, OF ALEXANDRIA, VIRGINIA.

WATCH-BOW PLIERS.

SPECIFICATION forming part of Letters Patent No. 562,998, dated June 30, 1896.

Application filed February 26, 1896. Serial No. 580,791. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. WILDT, a citizen of the United States, residing at Alexandria, in the county of Alexandria and State of Virginia, have invented certain new and useful Improvements in Watch-Bow Pliers; 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.

My invention has relation to improvements in watch-bow pliers; and the object is to provide a simplified and improved tool for the purpose of inserting and detaching a watch-bow, and also to fit the bow in its bearings or sockets.

In my Letters Patent No. 514,799, dated February 13, 1894, is shown and described watch-bow pliers comprising two members having curved jaws with hooked ends, the members being independently pivoted in upper and lower bearing-plates, in the center or middle of which is mounted the stud carrying the hooked bar. This construction and arrangement of the coacting parts serve the purpose well and expeditiously, but the cost of making the implements is greater than expected, and I therefore have, in my present invention, simplified and cheapened the production and have improved the construction by making the implement more compact and durable.

I have fully and clearly illustrated my improvements in the accompanying drawings, forming a part of this specification, and wherein—

Figure 1 is a view in perspective of the complete implement. Fig. 2 is a central longitudinal section thereof, showing one handle and jaw in side view. Fig. 3 is a plan view of the left-hand handle and jaw. Fig. 4 is a bottom plan view of the right-hand handle and jaw. Fig. 5 is a plan view of the tool, showing its application and use.

The tool is comprised of two members, each made of a single piece of metal, composing the handle 1 and jaw 2. Each member in general construction is the same, except that the curves and contours are reversed in direction, substantially as shown. The members are united and held pivoted or jointed together by a knuckle-joint and strong hollow pivotal pin or stud $1^{\times}$, formed on one of the members, and which stud engages in a bearing-aperture $2^{\times}$, formed in the knuckle-piece of the other member, substantially as shown. The bearing-stud $1^{\times}$ is formed with an aperture 3, and extends through knuckle-piece and is intended to take in and retain the holding-pin of the post which carries the hooked bar, as hereinafter specified.

In the inner face of each handle, closely adjacent to the knuckle-joint, is formed a socket 4, constituting seats for the ends of a spreading-spring 5, which spreads the handles apart and closes the jaws to hold the members in position for immediate and convenient application to the bow of the watch. In the inner face of each handle is formed a recess or seat 6, the seats being oppositely disposed and elongated longitudinally of the handles, as shown, the purpose being to afford means for grasping the bow to compress it when required.

The jaws 2 are projected straight forward and lie when in closed position parallel with each other, as shown in the drawings, and are formed on their ends with upturned or outturned hooks 7 $7^{\times}$, to take in and hold the bow-ring adjacent to the ends, as shown in Fig. 5 of the drawings, so that when the handles are moved together the jaws will be spread apart or opened and move the adjacent ends of the bow apart in convenient position to insert them into the bearings or to dislodge them therefrom. To resist the endwise pressure and maintain the hooks of the jaw in their engagement with the bow, a hooked bar 8 is provided, the bow being held by the hook when the tool is applied thereto, as indicated in the drawings, and the tool is thus held against backward or longitudinal displacement. The hooked bar 8 is preferably provided with screw-threads 9 on its body or stem, and is adjustably held in the uprights 10 $10^{\times}$ of a post 11, having alining apertures therein, and between the uprights on the threaded bar is an adjusting-nut 12, whereby the bar may be adjusted longitudinally to suit the engagement of the hook to any sized bow. The post 11 is formed with a downward-extending stem or pin 13, having a threaded socket 14 therein, in which a fastening-screw 15 is fitted, which, being

screwed down until the flanged head rests on the surface of the tool, holds the post firmly in position.

The application or use of my improved device is as follows: To insert a bow in the stem, the hooked ends of the jaws are inserted in the ring adjacent to the ends thereof, with the rear of the bow engaged in the hook of the adjustable bar, and then by compressing the handles the bow is opened, and, being placed with the ends in alinement with the bearings in the stem, when by releasing the pressure on the handles the bow by its resiliency moves the ends into the bearings. Should the bow require additional seat in the bearings, the ring is placed between the handles, seated in the recesses 6, and pressed inward until the ends are seated as desired. To detach the bow, the tool is applied as stated and the ring then opened until free from its bearings.

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

1. The watch-bow pliers, comprising the two members united by a knuckle-joint and hollow pivotal stud and formed with parallel jaws terminating in upward-turned hooked ends, a post provided with a hollow threaded stem to engage in the hollow pivotal stud of the members, a holding-screw in the threaded stem of the post, a threaded hooked rod slidingly arranged in the said post, and an adjusting-nut on the threaded rod, as specified.

2. A watch-bow pliers, comprising the handle and jaw members 1, 2, united by a knuckle-joint and a hollow pivotal stud $1^{\times}$, the said jaws being parallel with each other and formed with hooked ends, a spreading-spring seated in the handles adjacent to the joint thereof, seats 6 in the handles, a post 11 formed with a hollow threaded stem 13 to fit in the hollow pivot and having uprights provided with alining apertures, a holding-screw to engage in the hollow threaded stem, a hooked bar, having a threaded stem and arranged in the uprights of the said post, and an adjusting-nut on the threaded stem of the hooked bar, between the uprights on the post, substantially as described.

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

HENRY W. WILDT.

Witnesses:
SAML. A. DRURY,
A. B. SUIT.