

(No Model.)

D. MENDELSON.
WATCHMAKER'S PLIERS.

No. 474,257.

Patented May 3, 1892.

Fig. 1.

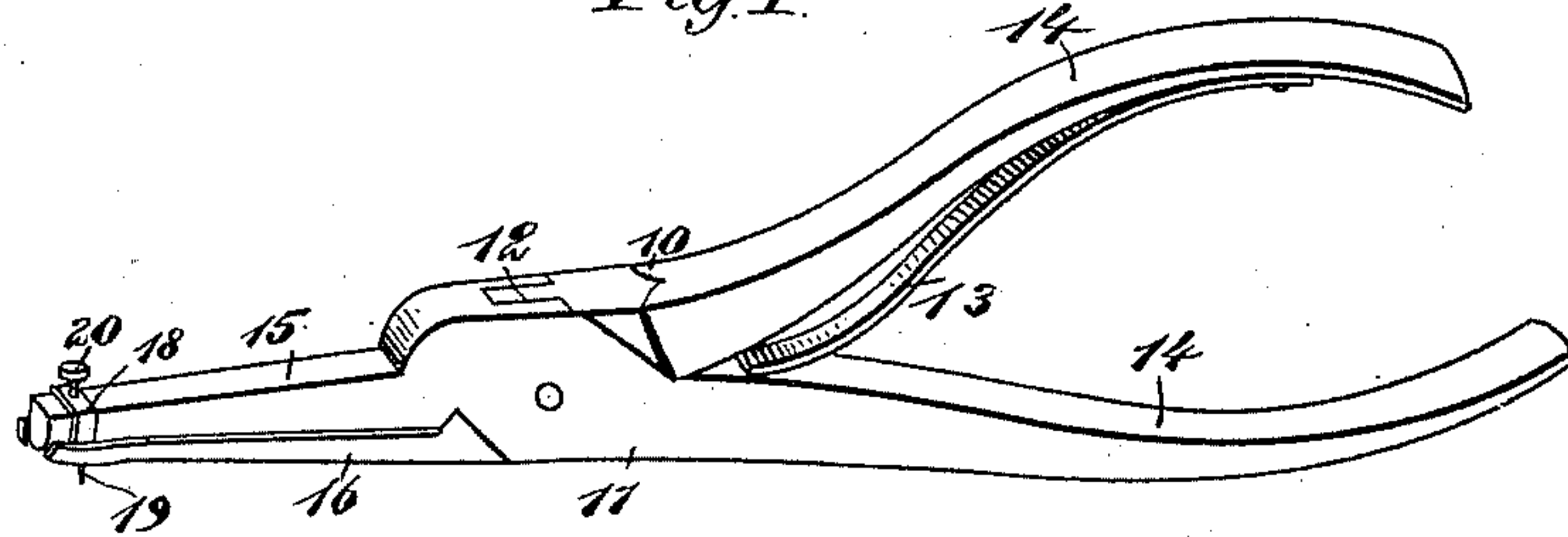


Fig. 2.

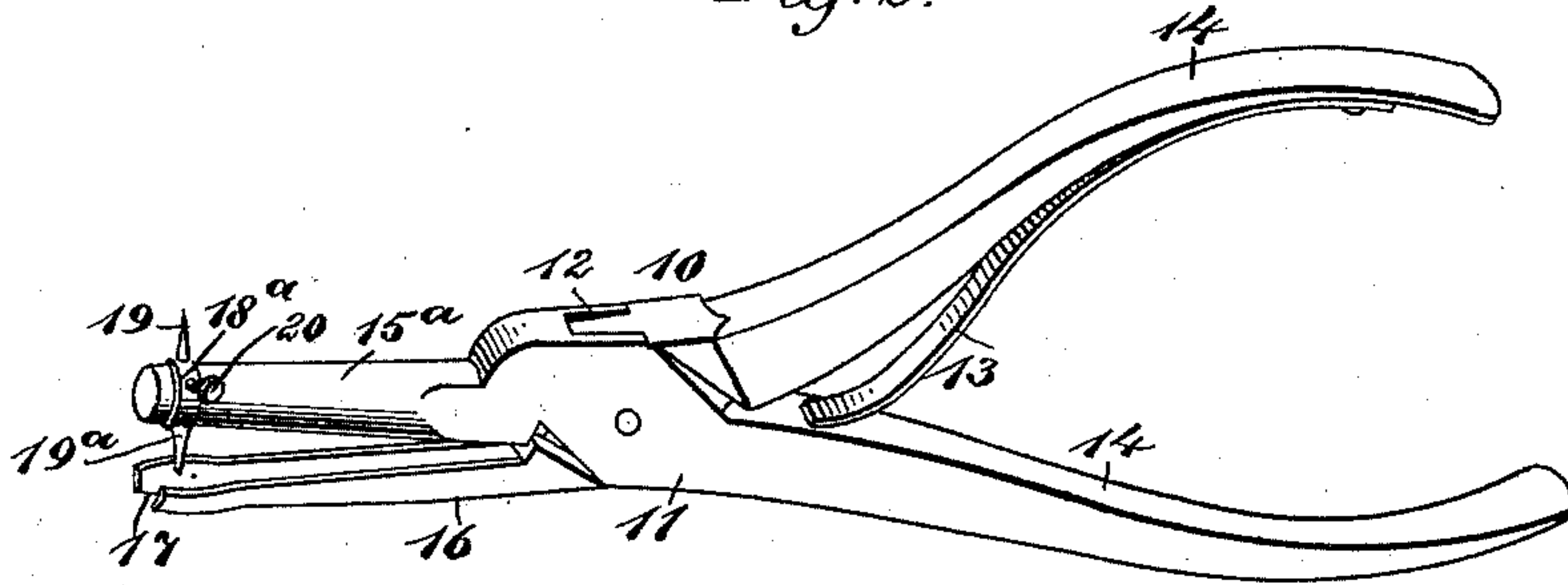


Fig. 3.

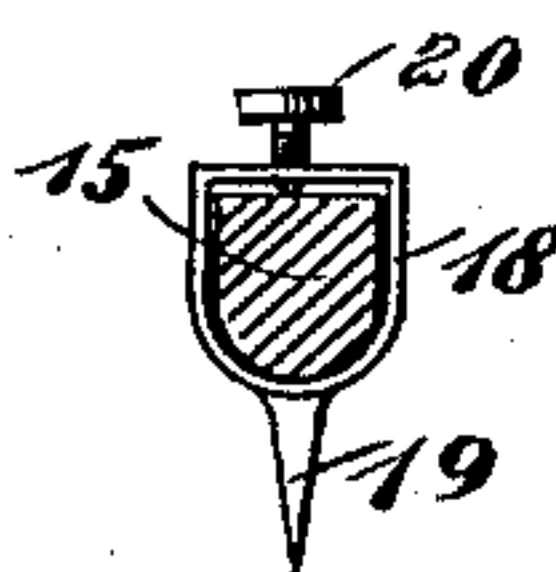


Fig. 4.



Fig. 5.

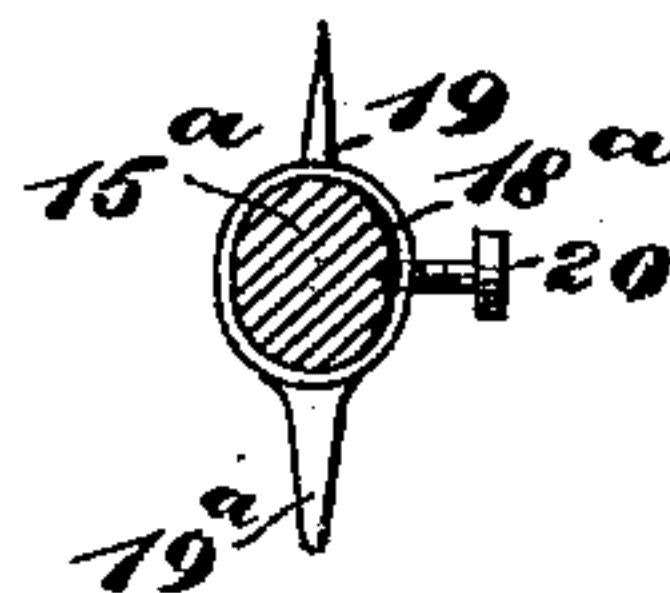


Fig. 6.

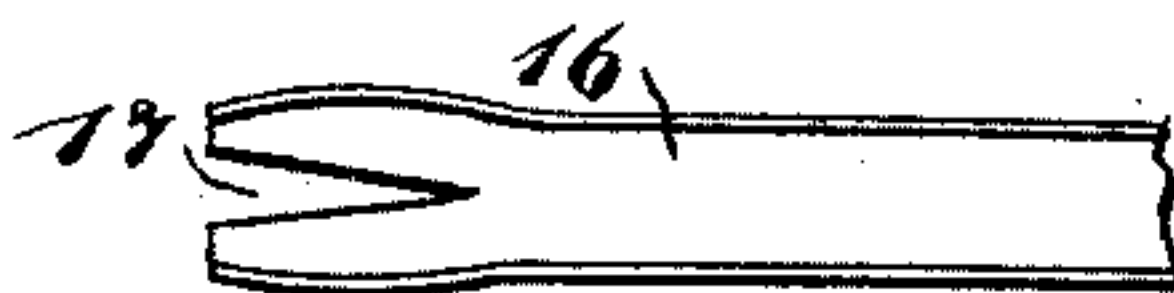
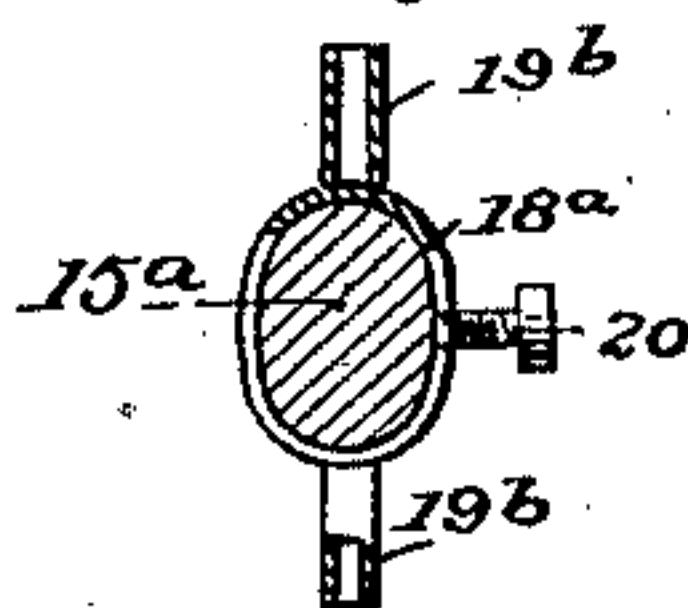


Fig. 7.



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DAVID MENDELSON, OF EUREKA, UTAH TERRITORY.

WATCH-MAKER'S PLIERS.

SPECIFICATION forming part of Letters Patent No. 474,257, dated May 3, 1892.

Application filed December 10, 1891. Serial No. 414,587. (No model.)

To all whom it may concern:

Be it known that I, DAVID MENDELSON, of Eureka, in the county of Juab, Territory of Utah, have invented new and Improved Watch-Makers' Pliers, of which the following is a full, clear, and exact description.

My invention relates to improvements in watch-maker's pliers; and the object of my invention is to produce a convenient instrument by means of which hands may be easily and quickly removed from watches and clocks without injury to either the dial, center-staff, or cannon-pinion, and also to construct the pliers so that they may be used for many ordinary purposes, such as fastening the bow of the watch-pendant, rounding ear-ring wires, and many other analogous operations.

To this end my invention consists in certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the pliers embodying my invention with the jaws closed. Fig. 2 is a perspective view of the pliers with the jaws open and showing a modified form of the upper jaw and sliding punch. Fig. 3 is a detail sectional view of the upper jaw of the pliers shown in Fig. 1, with a punch secured thereon. Fig. 4 is a similar view, but with a different style of punch secured to the jaw. Fig. 5 is a cross-section through the upper jaw of the pliers shown in Fig. 2 with the double sliding punch secured to the jaw. Fig. 6 is a broken detail plan view of the lower jaw of the pliers, and Fig. 7 is a cross-section through the upper jaw with hollow punches thereon.

The pliers consist of two substantially similar members 10 and 11, which are crossed and jointed together in the usual manner, as at 12, and the jaws of which are held apart by a spring 13, inserted between the handle portions 14 of the members. The prolongation of the member 11, which extends forward from the pivot, is formed into an upper jaw 15, which jaw has a nearly semi-cylindrical shape, being rounded on the under side, and the jaw is adapted to sink into the lower jaw 16, which

jaw is produced on the end of the member 10 and is concave on the upper side.

The lower jaw 16 is provided at its free end with a V-shaped slot 17, which is produced centrally in the jaw, and this slot enables the jaw to be easily applied to a watch or clock and inserted under the hand, and it also enables the punch 19 on the sliding ring 18 to pass through the lower jaw and impinge on the center-staff of the clock or watch or on any other support or article, as desired, and as hereinafter described.

The ring 18 is adapted to slide on the jaw 15, and the punch 19 thereon extends downward through the slot in the lower jaw. The ring 18 is held in place by a thumb-screw 20, which projects through the ring and impinges on the jaw 15, and it will be seen that the ring will be thus held in any desired position, so that the punch 19 may project through the right portion of the slot 17.

In Fig. 4 I have shown the ring 18 provided with a blunter punch 19^a, and it will be understood that any desired form of punch may be secured to the ring, according to the nature of the work to be performed.

In Fig. 2 I have shown the upper jaw 15^a of the pliers as being of a nearly-circular cross-section, as shown in Fig. 5, and on this jaw is held a ring 18^a, which has a punch 19 produced on one side and has the blunter punch 19^a produced on the opposite side. The ring is held in place by a thumb-screw 20 in the same manner that the ring 18 is secured, and it will be seen that either punch 19 or 19^a may be made to project through the slot 17. When a hand is to be removed from a clock or watch, the lower jaw 16 is passed under the hand with the slot 17 embracing the center-staff, the punch 19 or 19^a, as the case may, is made to bear on the end of the center-staff, and then by pressing the handles of the pliers together the hands may be easily slipped from the staff, and as the upper jaw has a bearing on the staff by means of the punch it will be seen that no portion of the clock or watch mechanism need be broken.

As shown in Fig. 7, the upper jaw 15^a is provided with a ring 18^a, like that just described; but the ring has hollow punches 19^b projecting therefrom, and these may be placed over the center-staff of a clock or watch so as

to press upon the ring of the hand to be removed, and the hand will be held between the punch and lower jaw 16 and may be easily removed without injuring the dial.

5 When the pliers are used for purposes other than that mentioned, the punches are removed and they are used in the ordinary way. The peculiar shape of the two jaws enables ear-ring wires to be easily rounded, and
10 the pliers may be conveniently used for almost any purpose for which pliers are usually employed.

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

1. Pliers comprising two members pivoted together, one member having a concave lower jaw with a slotted free end and the other member having a rounded jaw carrying a re-
20 movable punch adapted to enter the slot in

the lower jaw, substantially as shown and described.

2. The combination, with the pliers having a concave lower jaw with a slotted free end and a rounded upper jaw adapted to fit with- 25 in the lower jaw, of a sliding punch mounted on the upper jaw and adapted to enter the slot in the lower jaw, substantially as shown and described.

3. The combination, with pliers having a 30 concave lower jaw with a slot in its free end and a rounded upper jaw, of a ring held to slide on the upper jaw and adapted to be secured thereto, said ring having punches projecting therefrom, substantially as shown and 35 described.

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Witnesses:

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