

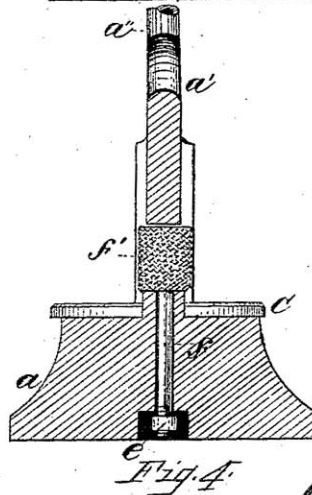
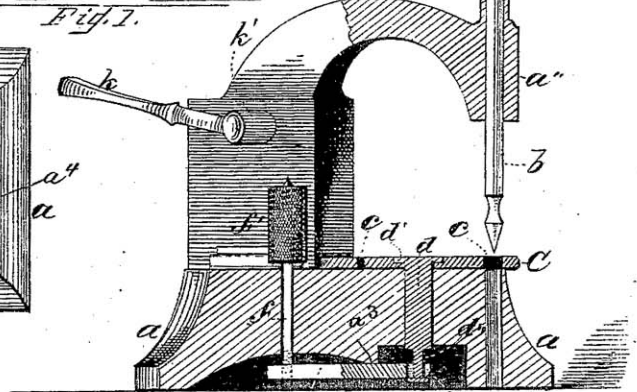
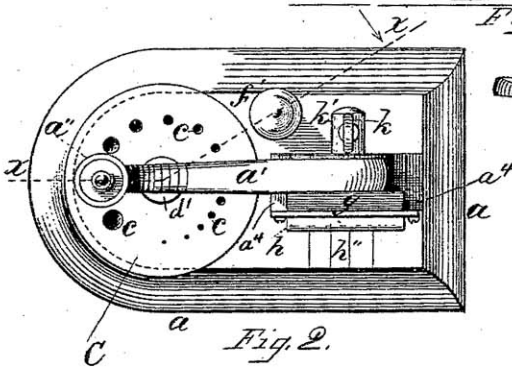
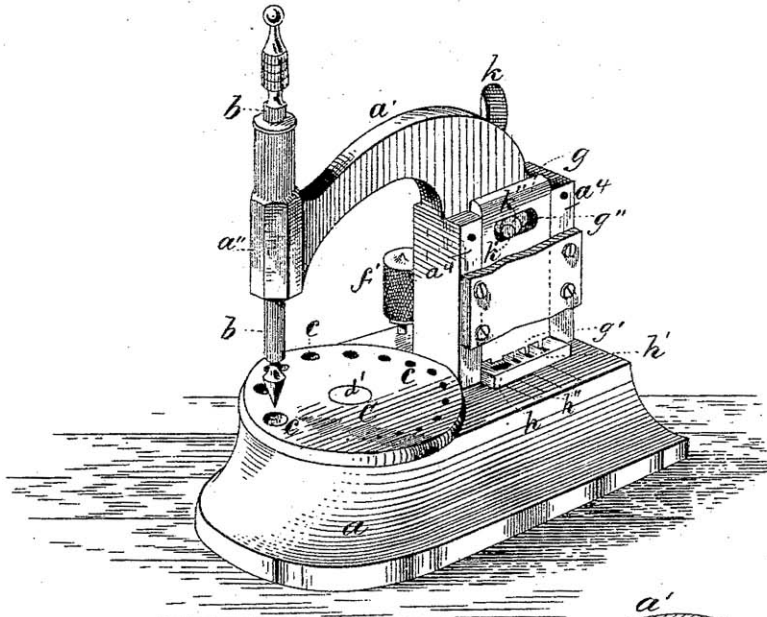
(No Model.)

E. RIVETT.

WATCH MAKER'S STAKING AND PUNCHING TOOL.

No. 425,522.

Patented Apr. 15, 1890.



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# UNITED STATES PATENT OFFICE.

EDWARD RIVETT, OF BOSTON, MASSACHUSETTS.

## WATCH-MAKER'S STAKING AND PUNCHING TOOL.

SPECIFICATION forming part of Letters Patent No. 425,522, dated April 15, 1890.

Application filed September 5, 1889. Serial No. 323,040. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD RIVETT, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Combination Staking-Tools and Mainspring-Punches, of which the following, taken in connection with the accompanying drawings, is a specification.

10 This invention relates to improvements in staking-tools for jewelers' use; and it consists of a staking and punching tool combined, which is constructed as follows, reference being had to the accompanying drawings, 15 wherein—

Figure 1 represents a perspective view of the improved tool. Fig. 2 represents a top view of the same. Fig. 3 represents a cross-section on the line X X, shown in Fig. 2; and Fig. 4 20 represents a sectional view of a modification of the invention.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

25 *a* is the base, having the goose-neck frame *a'* terminating as a vertical hollow cylinder or tool-guide *a''*, adapted to receive the punch or stake *b*, as is common in devices of this kind.

30 *C* is the perforated bed-plate resting on top of the base *a* and provided with a series of perforations *c c c*, of varying diameters, each of which coincides with the position of the punch or stake *b* when the bed-plate *C* is rotated around its axis. The plate *C* is pivoted 35 on the vertical pin *d*, which passes through a vertical perforation of the base *a*, and is provided in its upper end with a head *d'*, resting, preferably, in a recess in the top of the plate *C*, as shown. The lower end *d''* of the pin *d* 40 is reduced in diameter and terminates as a head or collar *d<sup>3</sup>*, as shown in Fig. 3.

In connection with the perforated plate *C* and pin *d*, I use an adjustable locking device 45 for the purpose of securing said plate *C* to the base *a* after said plate has been adjusted thereon relative to the punch or stake *b*. Said locking device consists of a lever *e*, forked or otherwise loosely connected in one end at *e'* to the 50 pin *d*, and provided in its other end with a screw *f* passing loosely through a vertical per-

foration in the base *a*, and having its lower end screwed in a screw-threaded perforation in the said lever *e*, as shown in Fig. 3.

*f'* is a serrated head or knob in the upper 55 end of the screw *f*, which head bears against the top of the base *a*, as shown.

*a<sup>3</sup>* is a fulcrum or projection on the under side of the base *a*, against which the lever *e* is brought to bear when the clamping-screw 60 *f f'* is tightened. It will thus be seen that by loosening the screw *f f'* the downward pressure on the pin *d* is relieved, allowing the perforated plate to be adjusted for the purpose of bringing any one of its perforations *c c* 65 centrally below the punch or stake *b*, after which said plate is firmly secured in such position against the top of the base *a* by simply tightening the clamping-screw *f f'*.

In combination with the staking-tool above 70 described, I use a punching device for the purpose of perforating mainsprings for watches which is constructed as follows: In suitable guides *a<sup>4</sup> a<sup>4</sup>* on the goose-neck frame *a'* is vertically movable the plunger *g*, having a series 75 of punches *g' g'* in its lower end. Below said punches is secured to the top of base *a* the die-plate *h*, having vertical perforations *h' h'*, corresponding to the punches *g' g'*, as shown in Fig. 1. 80

I prefer to make parallel marks or indentures *h'' h'' h''* on the upper surface of the base *a* in a line with each of the perforations *h' h'*, as shown in Figs. 1 and 2, so as to aid 85 in guiding the mainspring to be punched to the respective die in the series.

The plunger *g* is moved up and down by means of a hand-lever *k*, secured to a horizontal shaft *k'*, journaled in the goose-neck *a'*, and having secured to it a cam or eccentric 90 *k''*, working in a slot *g''* in the plunger *g*, as shown in the drawings.

The staking-tool may be made with or without the punching device, and when not provided with the latter I prefer to arrange the 95 lever *e* centrally below the goose-neck frame *a'* and to locate the serrated knob or head *f'* of the clamping-screw *f* in a cut-away portion of the goose-neck frame *a'*, as shown in Fig. 4. In such case the head or knob *f'* is to be 100 large enough in diameter to extend beyond the sides of the frame *a'* to enable it to be

manipulated by the thumb and first finger of the operator.

Having thus fully described the nature, construction, and operation of my invention, I  
5 wish to secure by Letters Patent and claim—

1. The improved staking-tool as described, consisting of the base *a* and the adjustable perforated plate *C* mounted on it, combined with the clamping device, consisting of the  
10 pivoted lever *e*, the screw *f f'*, and center-pin *d*, substantially as and for the purpose set forth.

2. The herein-described combination-tool,

consisting of a staking device and independent mainspring-punching device, combined  
15 and arranged substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 3d day  
20 of September, A. D. 1889.

EDWARD RIVETT.

Witnesses:

ALBAN ANDRÉN,  
MARTHA J. JACKSON.