(No Model.)

J. G. RAWLS.

WATCH MAKER'S STAKING TOOL AND LATHE.

No. 428,020. Patented May 13, 1890.

Fig. 1.

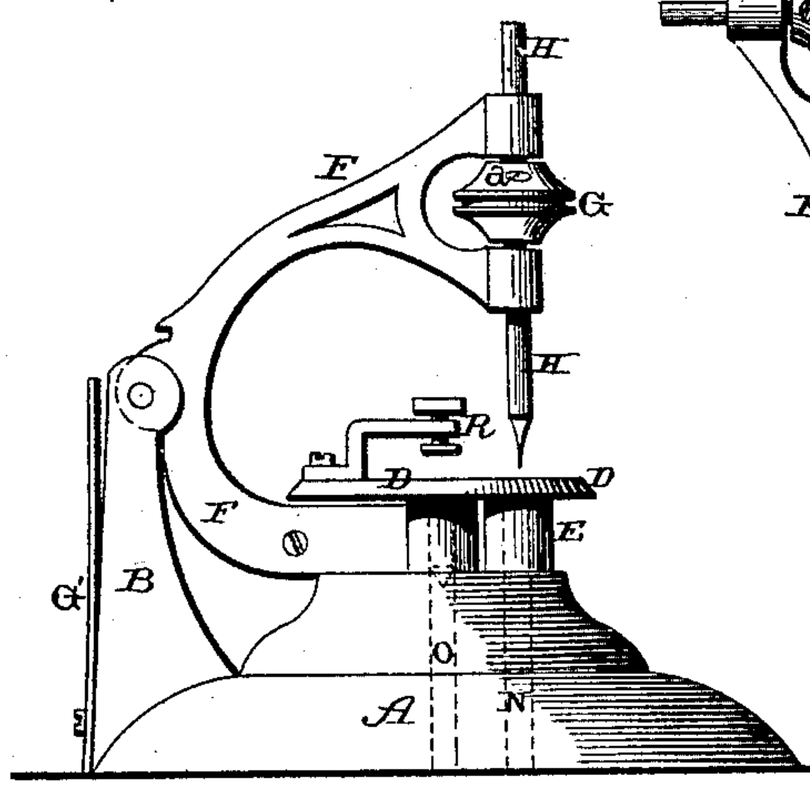

Fig. 2.

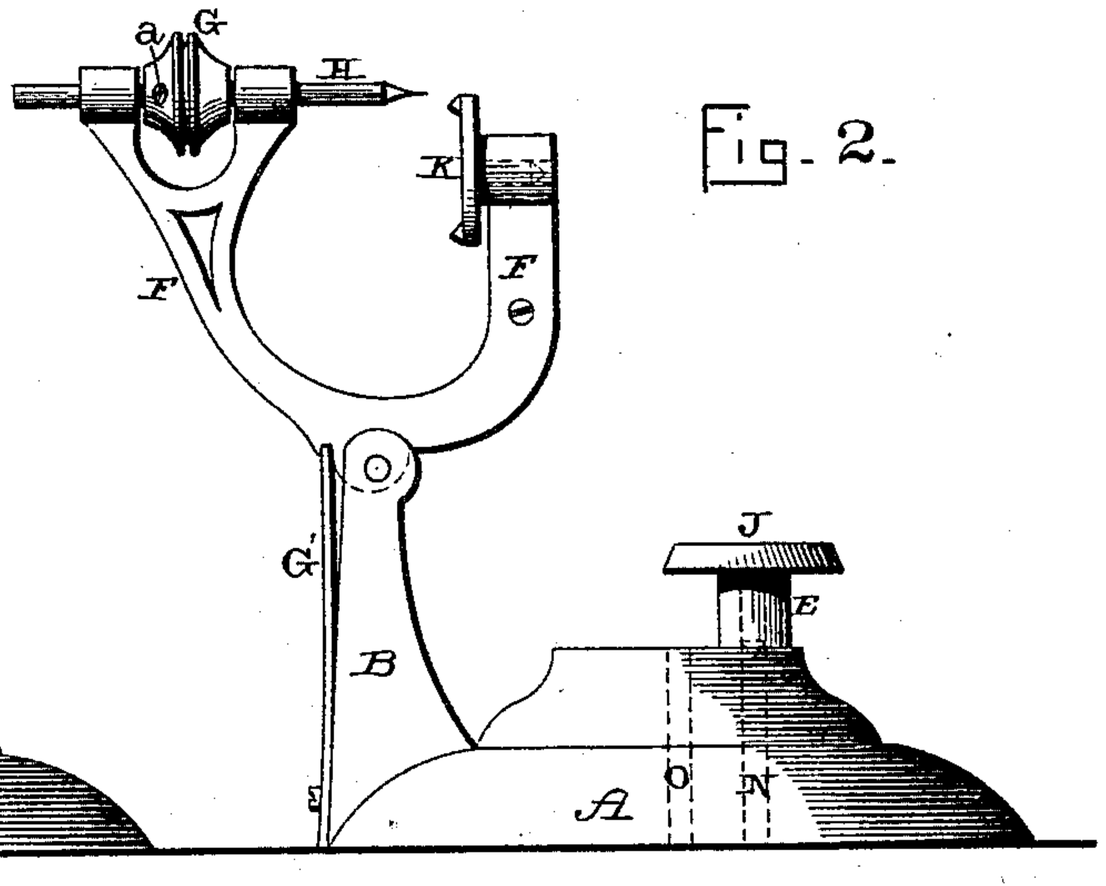

Fig. 3.

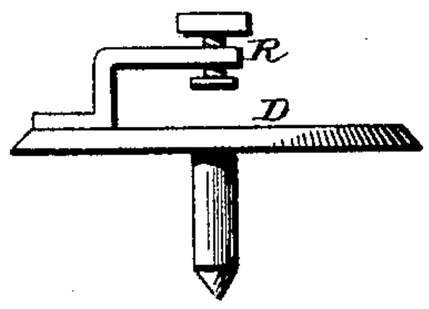

Fig. 4.

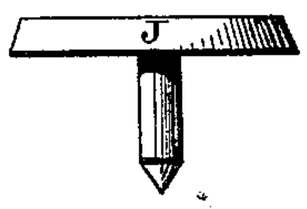

Fig. 5.

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UNITED STATES PATENT OFFICE.

JOSEPH G. RAWLS, OF WILSON, NORTH CAROLINA.

WATCH-MAKER'S STAKING-TOOL AND LATHE.

SPECIFICATION forming part of Letters Patent No. 428,020, dated May 13, 1890.

Application filed August 29, 1889. Serial No. 322,301. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH G. RAWLS, of Wilson, in the county of Wilson and State of North Carolina, have invented certain new and useful Improvements in Combined Lathe, Staking, and Jeweling Tools; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in combined lathe, staking, and jeweling tools; and it consists in the combination of a base having suitable holes or sockets formed therein and a standard which rises from this base, with the frame which is pivoted upon the standard and which is adapted to be turned so as to bring the punch into either a horizontal or a vertical position, and disks or plates which are adapted to be used for different purposes, as will be more fully described hereinafter.

The object of my invention is to produce a combined lathe, staking, and jeweling tool for watch-makers and others for staking, centering, drilling, pivoting, jeweling, and other such purposes.

Figure 1 is a side elevation of a machine which embodies my invention, the frame being shown in one position and used in connection with the jeweling-plate. Fig. 2 is a similar view showing the frame turned at right angles to what is shown in Fig. 1. Figs. 3, 4, and 5 are side elevation of the plates used in connection with this machine.

A represents a suitable base or frame, which has the standard B rising from one side. Through the top of the frame or base A are formed the two openings N O. In the upper end of the opening N is placed a socket or die E, which extends upward to a level with the top of the lower portion of the frame F, so as to receive a plate J, as shown in Fig. 2.

Pivoted upon the upper end of the standard B is the frame F, which is preferably of the shape here shown, and which has its lower end, when in the position shown in Fig. 1, to rest upon the top of the base A. Through this lower end is made an opening which corresponds to the opening O made through the base, and which openings receive the spindle or pivot of the jeweling-plate D. (Shown in Fig. 1.) This plate D is provided with a clamp R for holding the work which is to be operated upon by the tool H, which passes through the upper end of the frame, and which is provided with a driving-pulley G, which is adjustable upon the tool. When the frame F is turned upon its pivot, as shown in Fig. 2, it is held in that position by means of a spring G′, which catches in a notch in the outer edge of the frame F for this purpose.

The jeweling-plate D is adapted to be inserted in either of the holes N O; but for the purpose of enabling a larger plate to be used it can be placed upon the socket E. The plates are made to rotate so that the clamp or holes in staking-plate can be brought into the desired position and held there by means of a set or thumb screw.

For jeweling I bring the hole that is desired to be jeweled directly under the tool H, and when in position secure the work firmly to the plate D by the use of the clamp R, remove the set punch, loosen the screw *a* in the pulley G, insert another tool, as the case may require, bring it down to the desired depth, tighten the pulley G, and with the tool or cutter make the hole any size desired, the pulley G acting as a gage to the depth, and then run the tool by hand or belt from counter-shaft.

In staking, the plate J (shown in Fig. 4) is used after the jeweling-plate has been removed. With the set-punch bring any one of the concentric holes desired into position and secure by set or thumb screw.

For centering, drilling, and pivoting remove the plates D or J and the socket E, turn the frame F into the position shown in Fig. 2, insert the centering-disk K, center with set-punch H, loosen the pulley, remove the punch, and now select the center to suit the staff. Place the same in the frame F, through the pulley G, place the staff in position, placing the end to be drilled in the centering-disk at K, as shown in Fig. 2.

Any desired form or shape of tool H may be used, according to the nature of the work that is to be done, and any desired shape or form of plate may be used.

All of the plates or disks and the tools are made interchangeable.

Having thus described my invention, I claim—

1. In a jeweling-tool, the combination, with the base having a vertical standard, of a U-shaped frame pivoted in the upper end of the standard at or near its center and at right angles to the length of the arms, a tool journaled in one end of the frame, and a jeweling-plate placed in the other end, whereby the tool is placed in either a vertical or horizontal position by turning the said frame, substantially as shown.

2. In a jeweling-tool, the combination, with a base having a vertical standard at its side, of a U-shaped frame carrying a tool in its upper end and a jeweling-plate in its lower end, the said U-shaped frame being pivoted to the upper end of the said standard at or near its center and at right angles to the length of its arms which extend toward the base, whereby when the frame is turned in a vertical position its lower arm rests upon the said base and forms a foundation therefor, substantially as described.

3. In a jeweling-tool, the combination, with the base having a vertical standard at one side thereof, and a socket or die at the opposite side thereof from the said standard, of a U-shaped frame having a tool journaled in its upper end, and its lower end adapted to receive a tool or disk, the said frame being pivoted to the upper end of the said standard at right angles to the length of its arms, the lower arm being shorter than its upper arm, whereby when the frame is turned in a vertical position its lower arm passes inside of the said socket or die, and the tool in its upper arm is over the said socket, substantially as shown.

4. In a jeweling-tool, the combination, with the base having a vertical standard at one side thereof, of a U-shaped frame having a tool journaled in its upper end and its lower end adapted to receive a plate or tool, the said frame being journaled to the upper end of the standard at right angles to the length of its arms for the purpose described, and a spring secured to the standard and engaging the said frame near its pivot, whereby it is held in a longitudinal position, substantially as specified.

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

JOSEPH G. RAWLS.

Witnesses:
A. I. SIMMS,
DAVID D. NOLLY.