

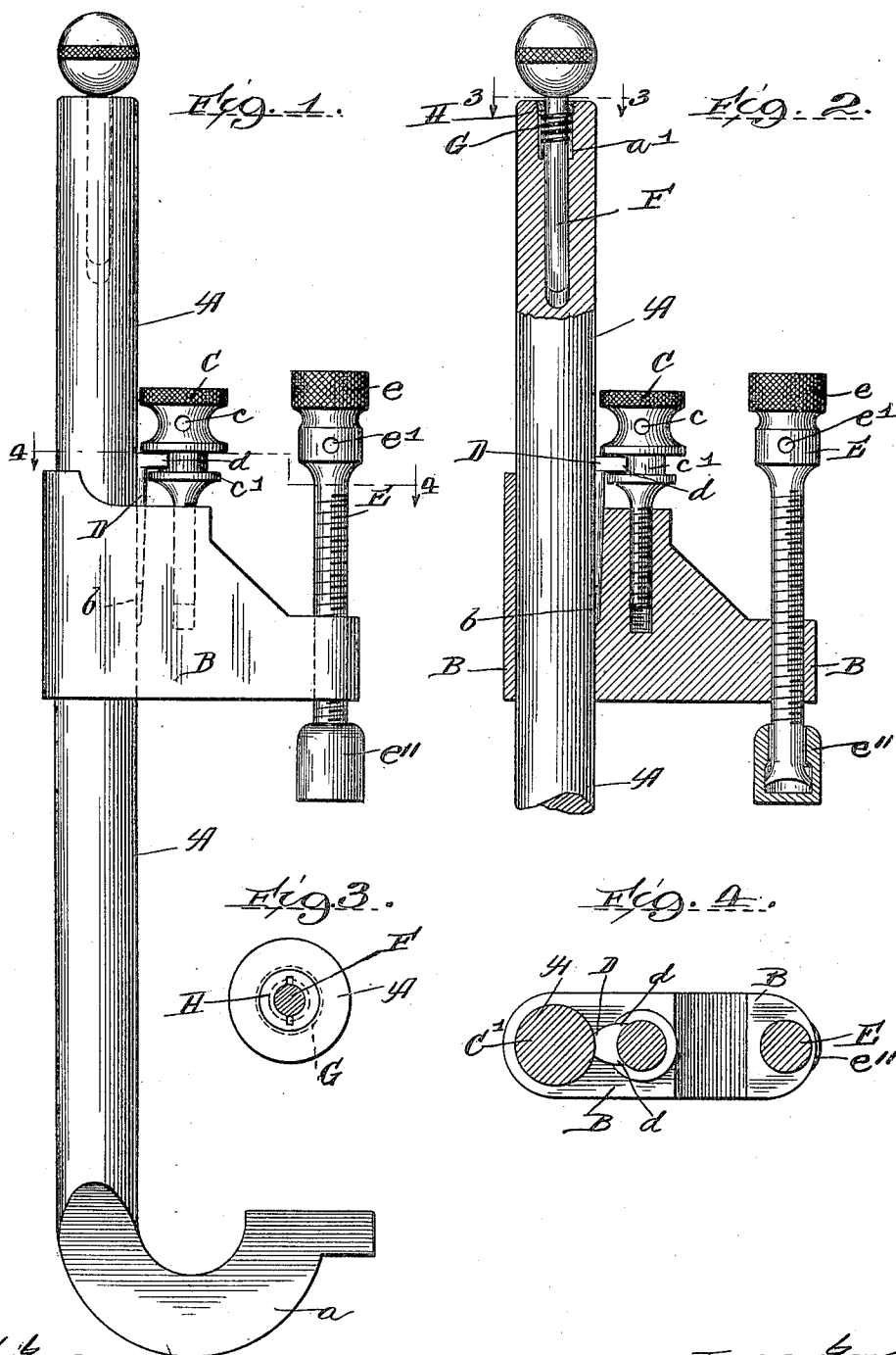
No. 678,805.

Patented July 16, 1901.

P. A. WEYAND.
MACHINIST'S CLAMP.

(Application filed Apr. 24, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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MACHINIST'S CLAMP.

SPECIFICATION forming part of Letters Patent No. 678,805, dated July 16, 1901.

Application filed April 24, 1901. Serial No. 57,324. (No model.)

To all whom it may concern:

Be it known that I, PAUL A. WEYAND, residing at No. 122 South Twelfth avenue, in Maywood, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Machinists' Clamps, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side view. Fig. 2 is a sectional view. Fig. 3 is a plan view through the line 3 3, Fig. 2. Fig. 4 is a cross-section through the line 4 4, Fig. 1.

The object of my invention is to construct a machinist's clamp which in addition to the ordinary requisites of the fixed clamp and of those having a longitudinal adjustment of jaws provides for a radial movement of the movable jaw and for easy removal of said jaw from the bar, allowing said bar to be passed through apertures, and for easy reconnection and adjustment in any position desired for clamping purposes, thereby enlarging the field of usefulness of this tool.

The manner in which I accomplish my object is as follows, reference being had to the drawings by letters.

In the several figures, A is the main part or bar of the clamp, flattened and curved at one end, as shown at *a*, Fig. 1, to form the fixed jaw of the clamp. The other end of the bar is provided with a hole *a'*, Figs. 1, 2, and 3.

B is a movable jaw constructed to move freely longitudinally and to rotate on the bar A and to be removed and replaced as required by being drawn off the end of the bar A.

b is a taper keyway.

C is a set-screw movable in the jaw B by the thumb and fingers and by the small lever hereinafter described, the head of said set-screw being provided with two or more holes *c* and with an annular groove *c'*, Figs. 1 and 2.

D is a taper key constructed to fit the keyway in the jaw B and engage the bar A, said key being provided with a lip *d*, constructed to fit into the groove *c'* in the set-screw C, as shown in Figs. 1, 2, and 4.

E is a clamp-screw extending through the joint of the jaw B, said screw being provided with a head *e*, pierced with two or more holes

e' for movement by thumb and fingers and lever, and a swivel-head *e''*, Figs. 1 and 2.

F is a small lever constructed to enter the holes of the set-screw C and clamp-screw E and to be held in the hole *a'* in the bar A when not in use.

G is a coiled spring held in the enlarged part of the hole *a'* in the bar A, constructed to close tightly on the lever F and hold it in place.

H is a cap threaded and screwed into the hole *a'* in the bar A to hold the spring G in place, as shown in Figs. 2 and 3.

The operation and use of my invention, constructed as herein described, are as follows: The set-screw C being reversed, so as to release the key D from pressure on the bar A, the jaw B is moved longitudinally to the maximum distance from the fixed jaw *a*, the set-screw C is turned by thumb and fingers till the key D presses the bar A, the lever F is inserted in the holes in the head of the set-screw, and the necessary pressure placed on the key to firmly lock the jaw to the bar. When thus adjusted, with both jaws in line with each other, my invention has all the essentials of a clamp of fixed dimensions and of one having a straight longitudinal movement of the jaw or jaws.

If the objects to be clamped will not permit the jaws of the clamp to act when in line with each other, the jaw B may be rotated on the bar A as far as required. Whenever the form of the objects to be clamped are perforated the jaw B may be removed from the bar A while the same is passed through the material and be replaced and adjusted in any position required. The clamping pressure of the clamp-screw E by the use of the swivel-head *e''* is direct and free from the disturbing twist which results from direct contact of the end of the clamp-screw with the material clamped and prevents damage to finished material.

Having thus described and illustrated my invention, so that those skilled in the art may construct the same, what I claim, and desire to secure by Letters Patent, is—

The herein-described machinist's clamp consisting of a round bar, one end of which is flattened and curved to form the fixed jaw of said clamp, the other end being arranged

to receive and hold a small lever-bar; a movable jaw having a cylindrical interior bearing to receive and slide longitudinally and to rotate on said bar, the said cylindrical bearing
5 having a longitudinal taper keyway and provided with a taper key formed to be moved back and forth in said cylindrical bearing, and curved to fit the said bar, the said key having a lip constructed to be engaged in an
10 annular groove in the head of a set-screw held and to be operated in the said movable jaw, and to lock and unlock said jaw in any position on the said bar, with thumb and fingers and small lever, and a clamp-screw held and extending through the point of said movable
15 jaw, said screw being provided with a swivel-head and a head whereby said screw can be operated with thumb and fingers and small lever, substantially as described and for the purposes specified.

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