

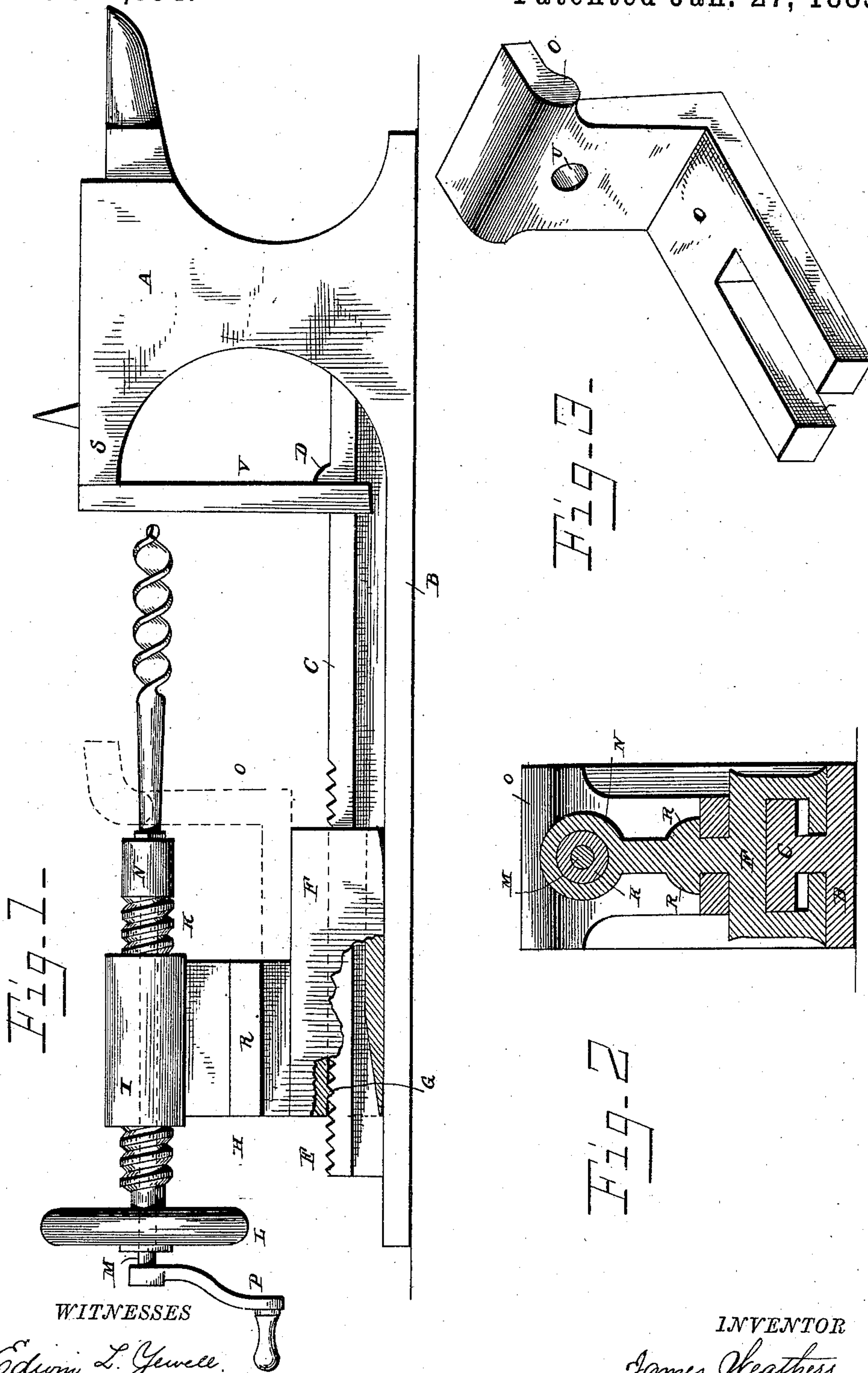
(No Model.)

J. WEATHERS.

COMBINED ANVIL, VISE, AND DRILL.

No. 311,394.

Patented Jan. 27, 1885.



WITNESSES

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JAMES WEATHERS, OF INDIANAPOLIS, INDIANA.

COMBINED ANVIL, VISE, AND DRILL.

SPECIFICATION forming part of Letters Patent No. 311,394, dated January 27, 1885.

Application filed May 8, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES WEATHERS, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in a Combined Anvil, Vise, and Drill, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to a combined anvil, vise, and drill, and is designed to combine several useful and necessary tools into a compact and convenient form. An anvil, a vise, and a drill being absolutely necessary to all who have much use for tools, to combine them in the compact form described below, it is evident, will add to the usefulness and also to the commercial value of the same.

In describing the device reference will be made to the accompanying drawings, in which Figure 1 represents a side elevation of the device with the drill and its bed in place, the vise being shown in dotted lines; Fig. 2, a cross-section through the carriage and the bed, the vise-jaw being shown in position; and Fig. 3, a detail perspective view of the vise-jaw, which is detachable from the carriage on which it rests.

A represents an anvil of ordinary construction and shape, with an extended base, B, which is about the same width as the anvil, and forms the "bed" of the entire device. Raised longitudinally and centrally on the base is a T-shaped guide-plate, C, extending from the anvil to near the end of the bed B. Near the anvil is raised the flange D on top of the guide-plate, and for the purpose hereinafter set forth. About half (more or less) of the top of the guide-plate is provided with teeth or serrations E, which are for the purpose hereinafter set forth. The anvil, base, and guide-plate are all cast in one piece. Resting on and embracing the guide-plate is the sliding carriage F. The flanges on the carriage, projecting under the top extensions of the guide-plate, are thinner at one end than at the other, allowing the said end of the carriage to be somewhat raised when it is desired to move it, so that the lug G on its inner surface will disengage with the teeth E, between which it normally rests. The bottom of the

carriage has a forward upward curve, as shown, to facilitate the raising before mentioned. At the rear of the carriage is raised the standard H, integral with it. This standard has on top a cylindrical enlargement, I, provided with an internal screw-thread adapted to receive the feeding-screw shaft K, provided at one end with a hand-wheel, L. The screw has through it longitudinally a cylindrical passage, in which operates the rod M, having one end enlarged into a tool-holding head, N, which head also operates the vise-jaw O, hereinafter explained. The other end of the rod projects beyond the wheel L, and there is adapted to receive a crank, P, which is either screwed on or otherwise secured thereto. The drill is fed by the shaft K and rotated by the rod M. On each side of the standard H, above its conjunction with the carriage, is a projecting flange, R, thus forming a retaining-guide for the movable jaw of the vise.

The vise is composed of the rigid part S, formed by the rear of the anvil and the movable jaw O, resting on the carriage. The upright portion of jaw O is of usual form, and is provided with a bifurcated base, to embrace the standard H and be retained in position by the flanges R. The jaw O has through it a hole, U, at the point where the head of the rod M comes in contact with it, for the purpose of receiving a headed bolt secured in the said head, so that the screw moving the said head will operate the said jaw. The jaw O, with its hole U, may also act as a guide and intermediate sustaining-point for the drill, or it may be entirely removed during the operation of drilling.

Resting on and straddling the guide-plate C is the drill-bed V, the lower part of the same bearing against the flange D on the said guide-plate and the upper part against the rigid vise-jaw on the anvil. The bed V is removed when the vise is in operation.

The operation of the device is simple and clearly evident from the foregoing description.

Having described the invention, what I claim is—

1. The combination, with an anvil having an extended base, of a guide-plate raised on the said extension, and a sliding carriage adapted

to carry the vise and drill operating mechanism, and to travel on the said guide-plate, substantially as and for the purpose specified.

2. The combination, with an anvil having an extended base on which is raised a serrated or toothed guide-plate, of a carriage embracing and traveling on the guide-plate, the said carriage having inwardly-projecting flanges thicker at one end than at the other, a curved lower bearing-surface, and a transverse lug or flange on its inner surface, the said carriage carrying the vise and drill operating mechanism, substantially as and for the purposes specified.

3. The combination, with an anvil having an extended base on which is raised a guide-plate, of a sliding carriage, the upright thereon having a screw-threaded bearing on top, a hollow screw-shaft having on one end a hand-wheel, and the rod passing through the screw-shaft, and having one end enlarged into a tool-holding head and the other bearing a crank, all arranged to operate substantially as and for the purpose specified.

4. The combination, with an anvil having an extended base on which is raised a guide-plate, of the sliding carriage, the upright thereon having flanges on its sides, the screw-shaft and wheel operating through the upright, the headed rod passing through the shaft, and the movable vise-jaw having a slotted backward-extending base, all the parts arranged and operating substantially as and for the purpose specified.

5. The combination, with an anvil having an extended base on which is raised a guide-plate having a transverse flange near the anvil, of the sliding carriage, the drilling mechanism thereon, and the drill-bed straddling the guide-bed and bearing against the flange

and against the rear of the anvil, substantially as and for the purpose specified.

6. The combination, with an anvil having an extended base on which is raised a guide-plate, of a carriage traveling on the guide-plate, the drilling mechanism thereon, and the movable vise-jaw having a hole through it for the purpose of supporting and guiding the drill, the parts being arranged and operating substantially as and for the purpose specified.

7. The combination, with an anvil having an extended base and a sliding carriage carrying the drilling and vise mechanism, of a T guide-plate formed integral with the base and having on its upper surface a series of serrations or teeth, substantially as and for the purpose specified.

8. The combination, with the anvil having an extended base, of the T guide-plate having serrations or teeth on top and a transverse flange, the sliding carriage, traveling and adjustable on the guide-plate, the flanged upright having screw-threaded bearings on top, the hollow screw-shaft having on one end a hand-wheel, the rod passing through the shaft, and having one end formed into a tool-holding head and the other bearing a crank, the movable vise-jaw slotted in its base to embrace the upright, and having a hole through it, and a drill-bed resting against the flange on the guide-plate and the rear of the anvil, all the parts arranged substantially as and for the purpose specified.

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

JAMES WEATHERS.

Witnesses:

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