(No Model.) 2 Sheets—Sheet 1.

J. O. BARRETT.

COMBINED VISE AND SCREW CUTTING AND DRILLING DEVICE.

No. 418,637. Patented Dec. 31, 1889.

Fig. 1

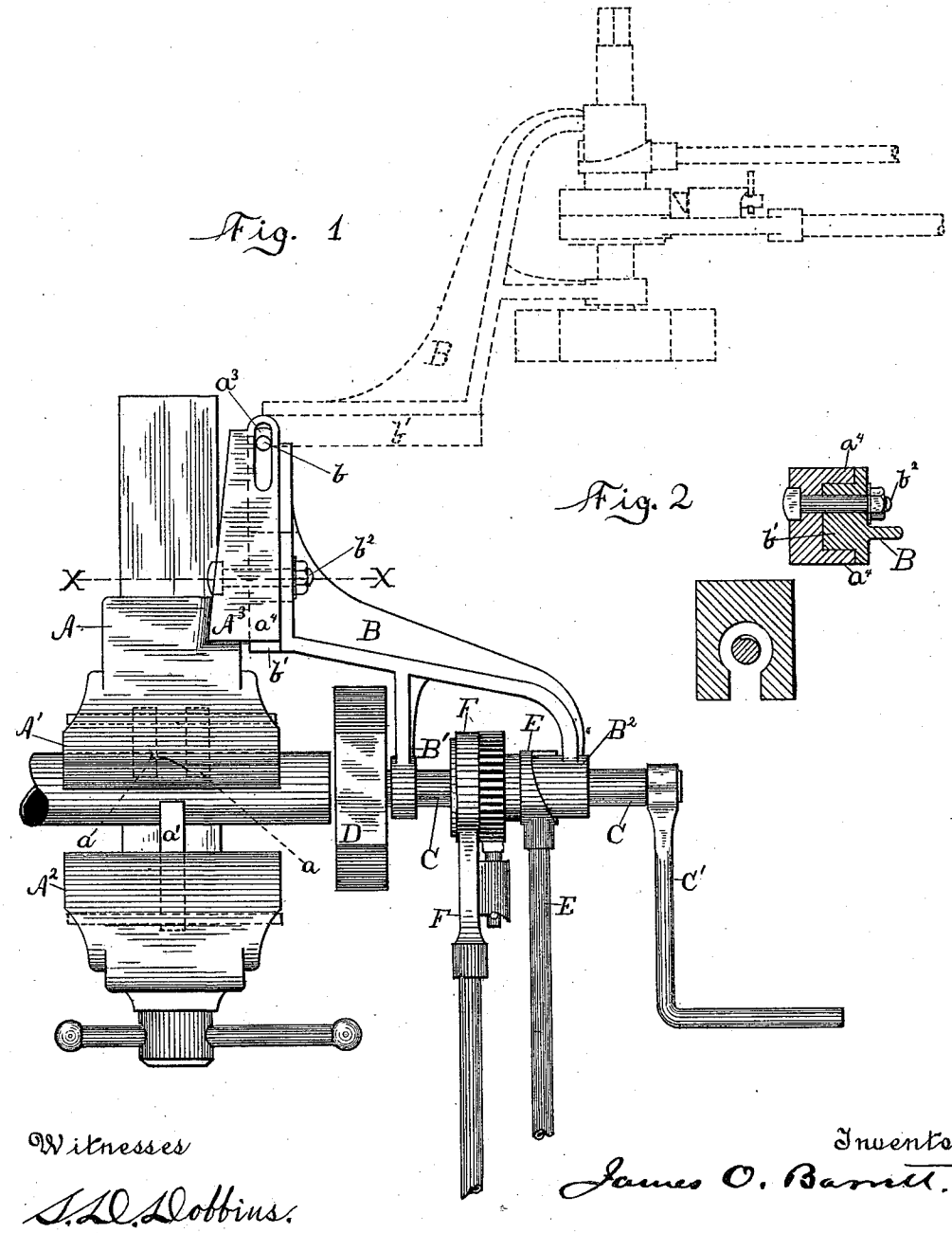


Fig. 2

Witnesses

S. D. Dobbins.

Chas. G. Brenlin.

Inventor

James O. Barrett.

By his Attys. Mallock & Mallock

N. PETERS, Photo-Lithographer, Washington, D. C.

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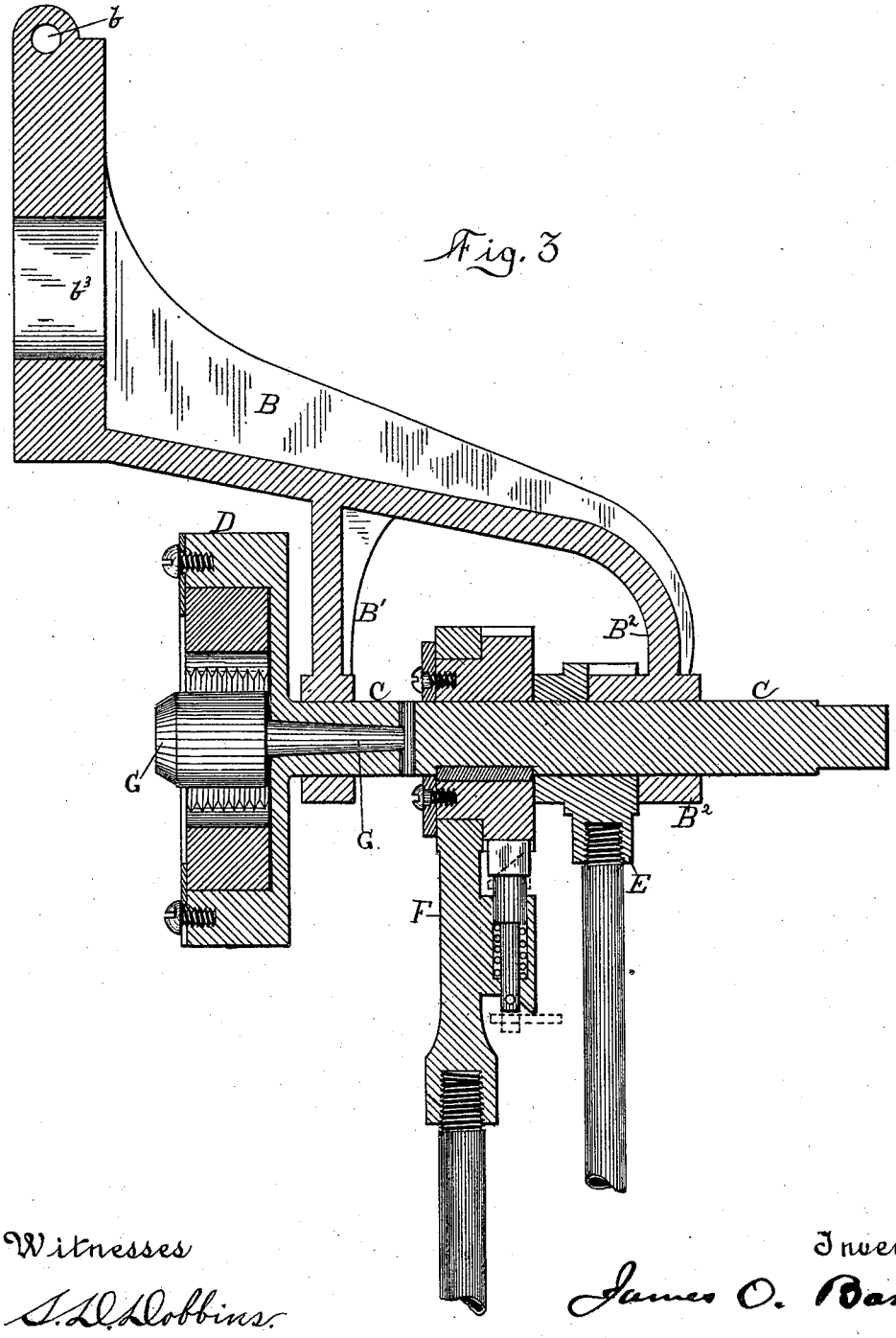


Fig. 3

Witnesses
S. D. Dobbins.
Chas. G. Brenilin.

Inventor
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UNITED STATES PATENT OFFICE.

JAMES O. BARRETT, OF MEADVILLE, PENNSYLVANIA, ASSIGNOR TO THE MEADVILLE VISE COMPANY, (LIMITED.)

COMBINED VISE AND SCREW-CUTTING AND DRILLING DEVICE.

SPECIFICATION forming part of Letters Patent No. 418,637, dated December 31, 1889.

Application filed June 6, 1889. Serial No. 313,297. (No model.)

To all whom it may concern:

Be it known that I, JAMES O. BARRETT, a citizen of the United States, residing at Meadville, in the county of Crawford and State of Pennsylvania, have invented certain new and useful Improvements in Combination Vise and Screw-Cutting and Drilling Mechanism; 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 appertains to make and use the same.

This invention relates to tools for the use of blacksmiths, gas, water, and steam fitters; and it consists in certain improvements in the construction thereof, whereby a combination-tool is produced, consisting of an iron-worker's vise, a pipe-vise, and a screw-cutting and a drilling machine, assembled in co-operative relation to each other in a unitary structure.

The invention is illustrated in the accompanying drawings as follows:

Figure 1 is a top or plan view of the device. Fig. 2 is a vertical section on the line $x\ x$ in Fig. 1. Fig. 3 is a horizontal section through the screw-cutting and drilling mechanism.

A A′ A^2 represent an ordinary iron-worker's vise, in which are arranged pipe-gripping jaws $a\ a\ a'$.

B B′ B^2 is the frame-work, in which is journaled a spindle C.

C′ is a crank for operating said spindle. F marks a common ratchet device, also for operating said spindle when the work is too heavy for operation by the crank.

E is a cam feed-lever.

The mechanism consisting of the spindle and the means for turning it may be used either for drilling or screw-cutting, as desired. When used for screw-cutting, a cutter-head D will be fixed to the end of the spindle, and when used for drilling a drill will be inserted in a stock or chuck on the end of the spindle. The construction of these parts requires no special illustration or description, as they may be of the most ordinary form.

A screw-cutting head D is shown in the drawings. In this head is shown a guide-mandrel G G′, which enters the pipe to be screw-threaded. This guide will not be further described or claimed, as it is the proper subject of a separate application, which I reserve the privilege of filing hereafter.

When a drill is used on the spindle, it may be applied thereto the same as the guide G G′ is shown to be applied.

On the side of the base A of the non-traveling jaw A′ of the vise there is a wing A^3, which may be cast integral with the jaw and base A A′, or firmly secured thereto, as desired. This wing has outwardly-projecting flanges $a^4\ a^4$ on its sides, as is seen in Fig. 2, and at the rear end there are slots a^3 through the flanges. The frame-piece B has a tongue b', which sets in between the flanges a^4, and at its rear end there is a pivot-pin b, which has its bearing in the slots a^3 of the wing. The frame-piece B also has a slot b^3 through its foot horizontally, and a bolt b^2 passes through the wing A^3 and the slot b^3.

It will be seen from the construction just described that the frame-piece or arm B can be bolted to the wing firmly by the bolt b^2, and that it can be adjusted laterally relative to the traveling jaw of the vise, so as to bring the spindle C into axial line with any sized pipe that may be clamped by the jaws $a\ a\ a'$. It will also be seen, and especially by observing the illustration in Fig. 1, that the arm B, when not held firmly against the wing A^3 by the bolt b^2, can be swung around on its pivot b, so as to carry the drilling and screw-cutting mechanism out of the way of the vise when not in use.

What I claim as new is—

1. In a tool for the purposes mentioned, the combination, substantially as set forth, of a vise, an arm extending from said vise at right angles to the plane in which the jaw of said vise moves, and a drilling and screw-cutting spindle mounted on said arm with its axial line parallel with the faces of the jaws of said vise.

2. In a tool for the purposes mentioned, the combination, substantially as set forth, of a vise, a drill or screw-cutter spindle, and an arm or frame-piece supporting said spindle, which is connected with said vise and adjustable relatively to the movable jaws of said vise, whereby the said spindle may be adjusted upon the axial line of objects held within said vise.

3. In a tool for the purposes mentioned, the combination, substantially as set forth, of a vise, a drill or screw-cutter spindle, and an arm or frame-piece supporting said spindle, which is pivotally connected with said vise and adjustable laterally therewith relatively with the traveling jaw thereof, whereby the said spindle can be adjusted in axial line with objects held within the jaw of the vise and be swung back out of position for action.

4. In a tool for the purposes mentioned, the combination, substantially as set forth, of a vise, a wing A^3, connected with said vise, which sets at right angles to the gripping-faces of the jaws of said vise, an arm or frame-piece B B′ B^2, seated on said wing and adjustable thereon relatively to the movement of the movable jaw of said vise, and a spindle for operating drills or screw-cutting dies journaled in said arm or frame-piece with its axial line parallel with the faces of the jaws of said vise.

5. In a tool for the purposes mentioned, the combination, substantially as set forth, of the vise A A′ A^2, with pipe-jaws a a a', the wing A^3, secured to said vise and having flanges a^4 with slots a^3 therein, the arm B, having tongue b' fitting between the flanges a^4, pivot b, seated in the slots a^3, slot b^3, receiving the bolt b^2 and arms B′ B^2, and the spindle C, journaled in the arms B′ B^2, and adapted, as shown, to operate screw-cutters or drills upon objects held by the jaws of said vise.

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

JAMES O. BARRETT.

Witnesses:
JNO. K. HALLOCK,
WM. P. HAYES.