

No. 689,393.

Patented Dec. 24, 1901.

O. A. GATRELL.
WRENCH.

(Application filed June 1, 1901.)

(No Model.)

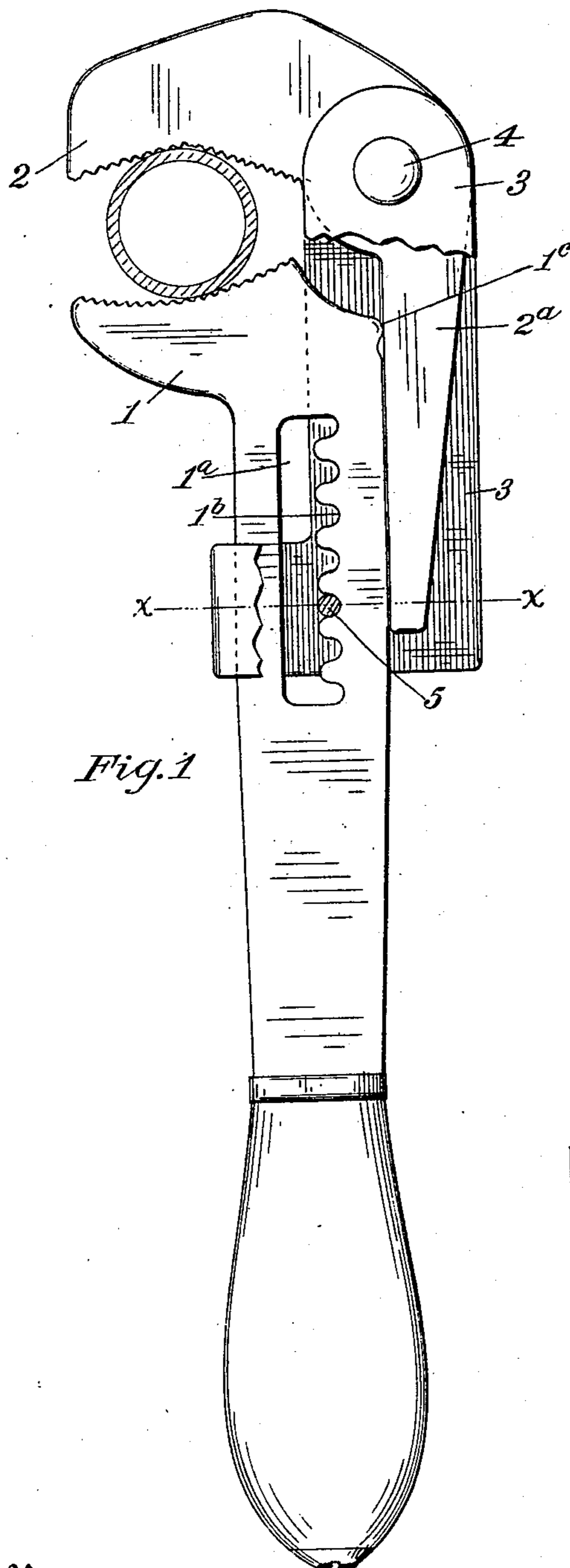


Fig. 1

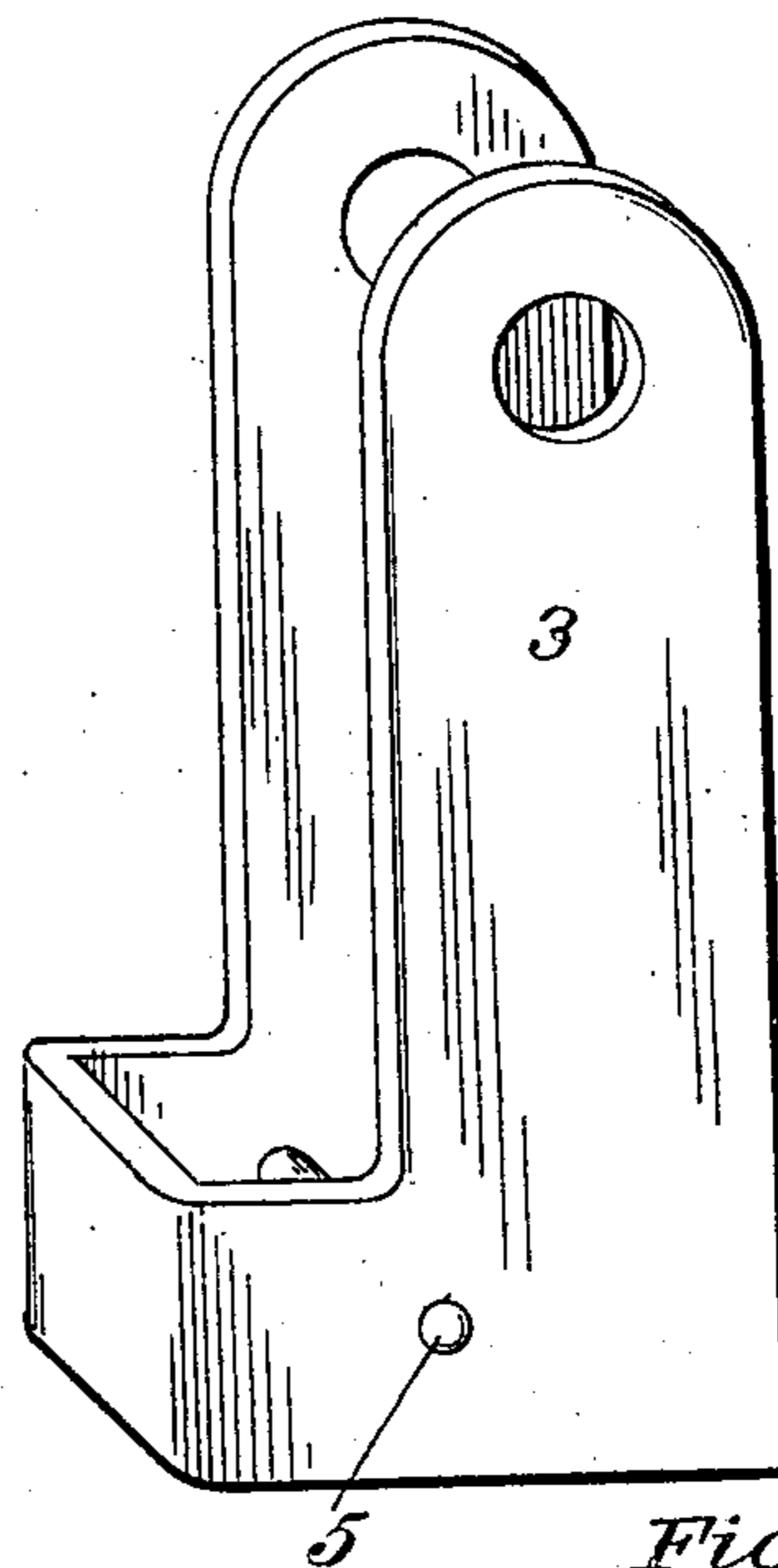


Fig. 2

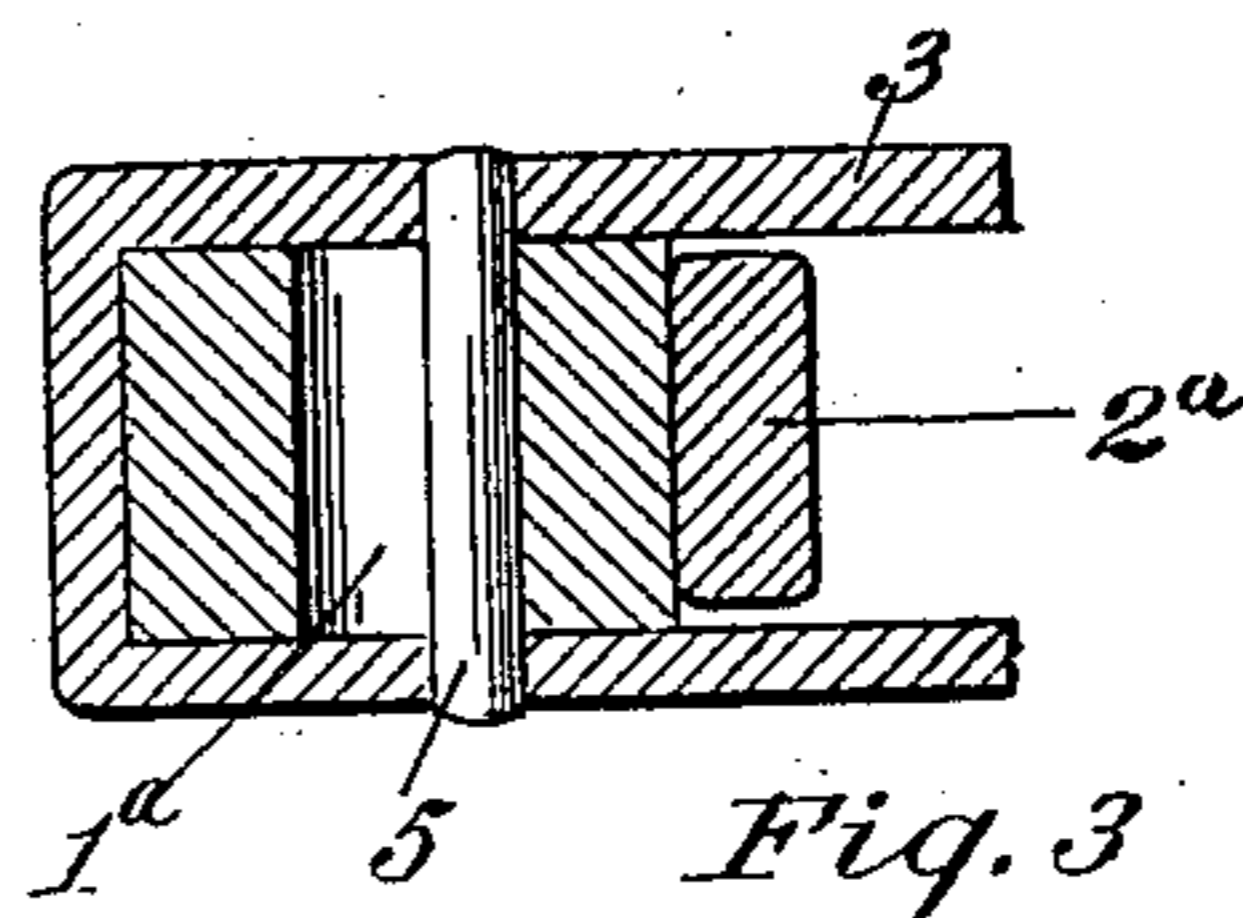


Fig. 3

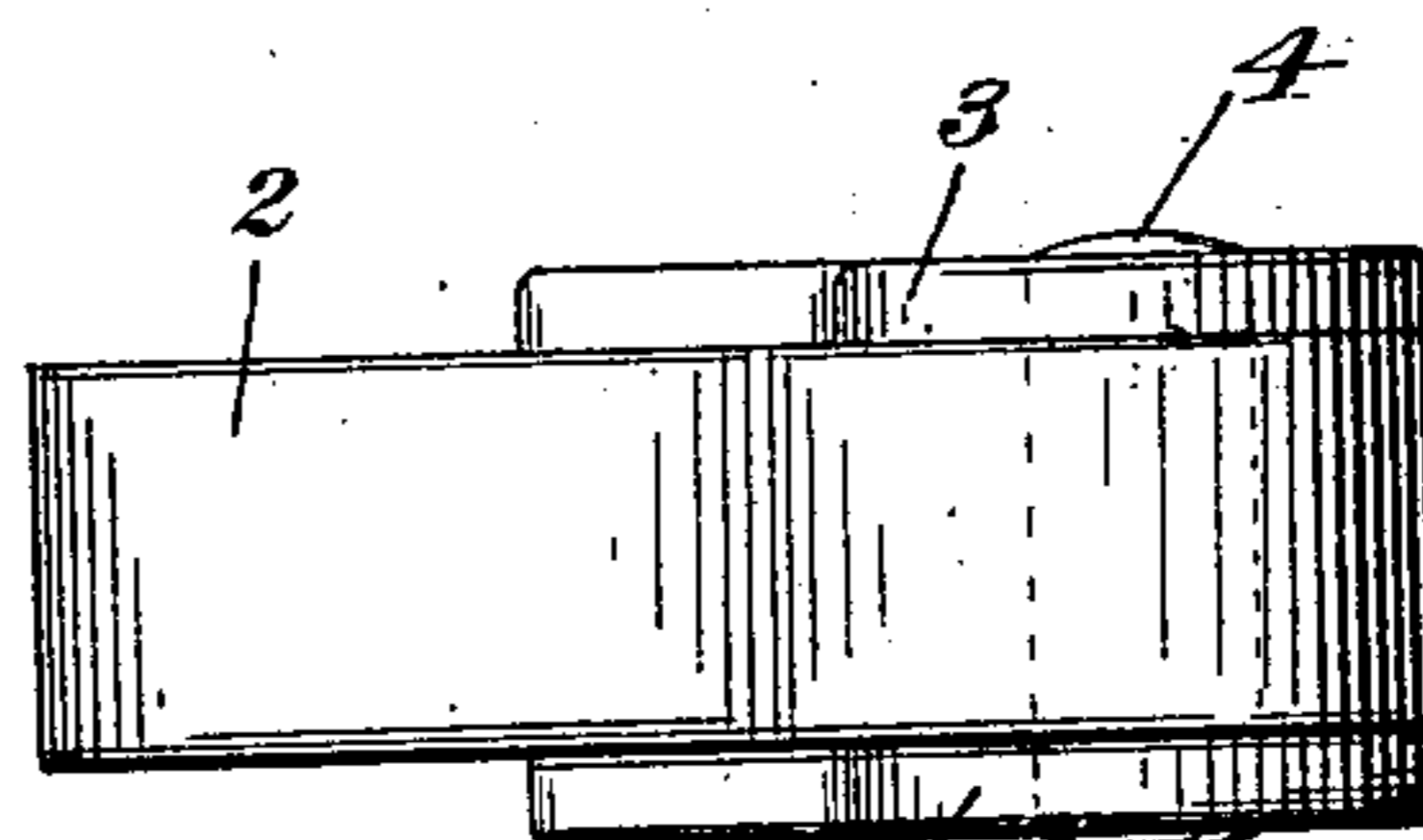


Fig. 4

Witnesses
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UNITED STATES PATENT OFFICE.

OTTMAR A. GATRELL, OF COLUMBUS, OHIO.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 689,393, dated December 24, 1901.

Application filed June 1, 1901. Serial No. 62,774. (No model.)

To all whom it may concern:

Be it known that I, OTTMAR A. GATRELL, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Wrenches; 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.

The object of this invention is to provide a simplified construction of wrench the jaws of which can be quickly adjusted to fit upon pipes or nuts of various sizes.

The invention resides in a wrench having a fixed jaw with a shank having a series of recesses and a movable jaw having a lever-arm to be actuated by the shank of the fixed jaw, the movable jaw being pivoted in a frame that slides on the shank of the fixed jaw and said frame being constructed to engage the recesses in the shank of the fixed jaw.

An embodiment of the invention is shown in the accompanying drawings, in which—

Figure 1 is a side view with a portion of the movable jaw-carrying frame broken out. Fig. 2 is a perspective view of the movable jaw-carrying frame. Fig. 3 is a sectional view on the plane indicated by the line $x x$, Fig. 1; and Fig. 4 is a top view of the upper end of the wrench as shown in Fig. 1.

In the several views, 1 designates the fixed or inner jaw, the shank or handled portion of which is shown to be made with a slot 1^a , having a series of recesses 1^b in one side thereof.

2 designates the movable jaw having a lever-arm standing at approximately a right angle thereto, said lever-arm being designated 2^a .

3 designates a yoke-like frame that straddles the shank of the fixed jaw.

The movable jaw 2 is pivoted on a pin 4 in the frame 3, so that the gripping edge of said jaw 2 opposes the gripping edge of the jaw 1 and the arm 2^a opposes the shank of the fixed jaw 1. A pin 5 is passed transversely through the sides of the sliding frame 3 and the slot 1^a , so as to be adapted to engage any one of the recesses 1^b . The shank of the fixed jaw

preferably has a rounded corner 1^c , adapted to be borne against the arm or lever 2^a of the movable jaw 2.

The operation, which can readily be apprehended from an inspection of Fig. 1, is as follows: The jaws 1 and 2 are adjusted by moving the frame 3 laterally, so as to carry the pin 5 out of any recess 1^b in which it might happen to be, and sliding said frame longitudinally in the slot 1^a until the jaws are so far separated as to approximately fit upon the pipe or not to be turned. Then by pressing down upon the handle of the wrench the corner 1^c acts on the arm 2^a , moving the jaw 2 toward the jaw 1, thus pinching the pipe or nut to be turned. When the handle is thus pressed down, the pin 5 finds the nearest recess 1^b , thereby temporarily fixing the frame 3.

With my wrench it will be observed that the time necessarily lost in turning up the usual screw or nut to adjust the jaws is saved and, moreover, that wear on the parts does not diminish the efficiency of the device in use.

What I claim, and desire to secure by Letters Patent, is—

1. A wrench comprising a fixed jaw having a handled shank, a series of recesses in said shank, a movable jaw having a lever-arm, a frame to slide on the shank of the fixed jaw in which said movable jaw is pivoted, said frame being constructed to engage the recesses in the shank of the fixed jaw, while the shank of the fixed jaw acts on the lever-arm of the movable jaw, substantially as described.

2. A wrench comprising a fixed jaw having a handled shank, a series of recesses 1^b in said shank, a movable jaw having an arm 2^a to be actuated by said shank, a sliding frame 3 in which the movable jaw is pivoted, and a pin 5 to engage said recesses 1^b when the shank is actuating the arm 2^a , substantially as described.

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

OTTMAR A. GATRELL.

Witnesses:

GEORGE W. ALFRED,
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