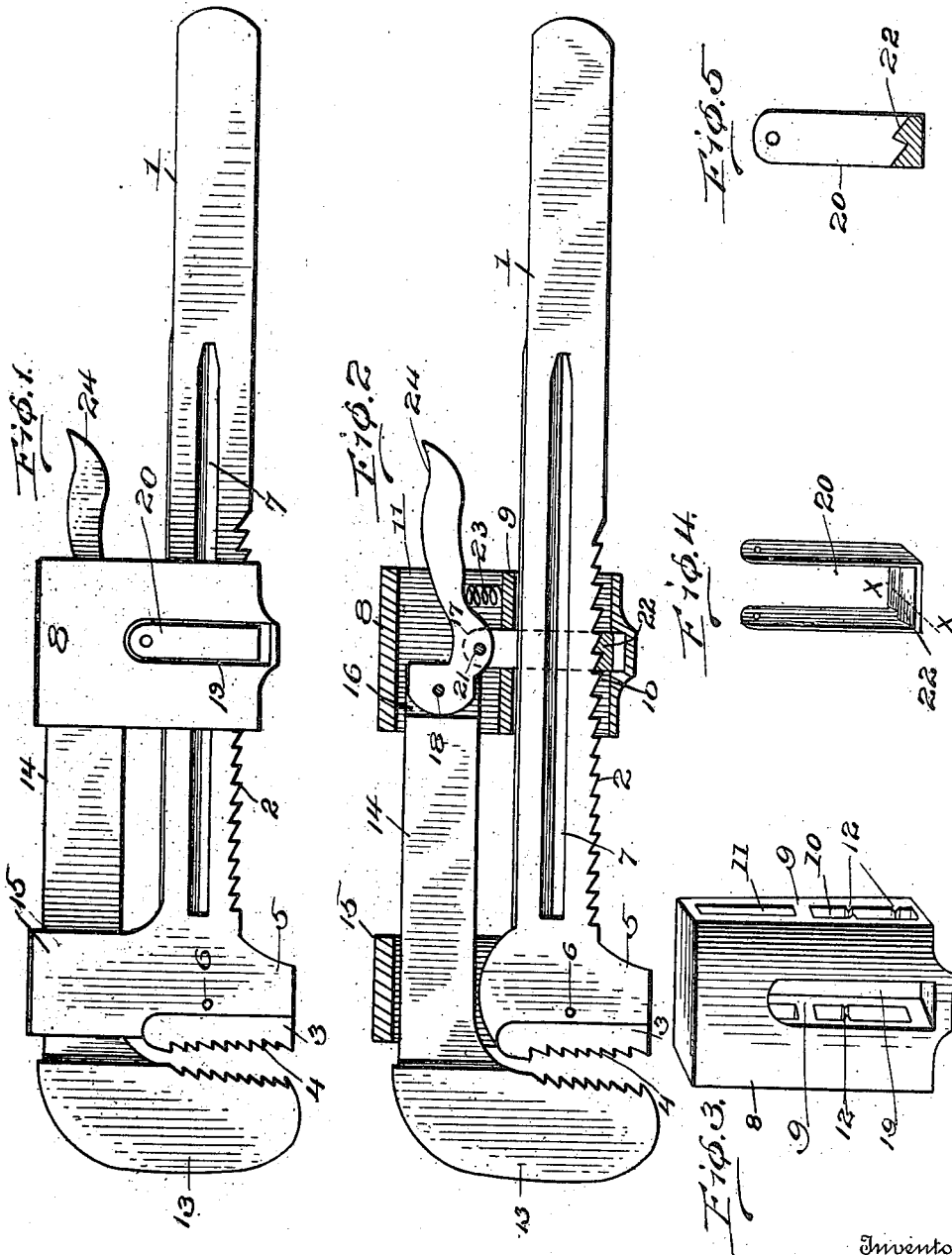


L. L. BARRICK.
WRENCH.
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948,870.

Patented Feb. 8, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

LIVY L. BARRICK, OF MOUNDSVILLE, WEST VIRGINIA, ASSIGNOR OF ONE-THIRD TO CLARENCE G. DAWSON, OF MOUNDSVILLE, WEST VIRGINIA, AND ONE-THIRD TO ADOLPH LOEHL, OF WASHINGTON, DISTRICT OF COLUMBIA.

WRENCH.

948,870.

Specification of Letters Patent.

Patented Feb. 8, 1910.

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To all whom it may concern:

Be it known that I, LIVY L. BARRICK, a citizen of the United States, residing at Moundsville, in the county of Marshall and State of West Virginia, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches, and its primary object is to provide a wrench of simple and durable construction adapted for use either as a pipe wrench, or a bolt and nut wrench.

A further object of the invention is, to provide a wrench capable of being easily manipulated to adjust the movable jaw, and provided with effective means for locking the movable jaw in its adjusted position.

The construction of the improvement will be fully described hereinafter, in connection with the accompanying drawing, and the novel features will be defined in the appended claims.

In the drawing: Figure 1 is a side elevation of a pipe wrench embodying the invention. Fig. 2 is a similar view, partly in longitudinal section. Fig. 3 is a view in perspective of the sliding box or casing employed. Fig. 4 is a perspective view of the pivoted bail forming an element of the device, and Fig. 5 is a section on the line $x-x$ of Fig. 4.

The reference numeral 1 designates the shank or handle of the wrench formed along the lower edge with ratchet teeth 2, and provided at one end with a fixed jaw 3, the face of which is formed with ratchet teeth 4. The jaw 3 is preferably made separate from the head 5 of the shank, and secured within a suitable recess of the head by a pin 6, or other securing means. The shank or handle is provided on opposite sides with longitudinal grooves 7 for the purpose hereinafter described.

Slidably mounted upon the handle 1 is a casing 8 divided by partitions 9 into two compartments 10 and 11, the handle extending through the compartment 10, while the other compartment 11 contains the locking and releasing devices.

From the inner surfaces of the walls of the casing 8 project oppositely disposed lugs or ribs 12 extending into the grooves 7 of

the handle, and serving to center the casing, and guide it in the sliding movements.

The numeral 13 designates the movable jaw of the wrench, provided with an integral arm 14 extending through a strap or keeper 15 projecting from the head 5 of the handle, and into the compartment 11 of the casing 8. The end of the arm 14 within the casing, is recessed on opposite sides to provide a tongue 16, fitting within a slot formed in the short arm of a bell-crank lever 17, and said arm 14 is pivotally secured to the lever 17 by a pin 18.

The casing 8 is provided on each side with a central longitudinal slot 19 to receive a bail 20, the arms of which embrace the lever 17 and are pivoted thereto by a pin 21.

The cross bar of the bail 20 is formed with ratchet teeth 22, the pitch of which is opposed to that of the teeth 2, to engage the latter and serve as a dog to lock the movable jaw against movement. A coil spring 23 interposed between the lever 17 and the adjacent partition 9, exerts an outward pressure upon the lever to hold the teeth of the bail normally in engagement with the teeth of the handle, and the projecting end 24 of the lever is curved and flattened to afford a convenient finger-piece, by means of which the lever may be depressed to compress the spring 23, and force the bail out of engagement with the handle.

The utility and operation of the wrench will be readily understood from the foregoing description in connection with the drawing, and it is obvious that when the lever 17 is depressed the teeth of the bail 20 are disengaged from the teeth 2, thus permitting the movement of the casing 8 and the adjustment of the jaw 13; and further that the teeth of the bail will automatically reengage the teeth of the handle when pressure upon the lever is relieved.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A wrench comprising a toothed handle provided with a fixed jaw, a casing slidably mounted on said handle, a lever within said casing, a movable jaw provided with an arm pivotally secured to said lever, and a toothed bail pivotally secured to said lever.
2. A wrench comprising a toothed handle

provided with a fixed jaw, a casing slidably mounted on said handle, a lever within said casing, a movable jaw provided with an arm pivotally secured to said lever, and a toothed bail pivotally secured to said lever, the arms of said bail embracing said lever and extending on opposite sides of said handle.

3. A wrench comprising a handle formed with ratchet teeth and provided with a fixed jaw, a casing slidably mounted on said handle, and divided into two compartments, a spring-pressed lever within one of said compartments, a bail pivotally secured to said lever and provided with ratchet teeth cooperating with those of the handle, a movable jaw provided with an arm extending within said casing and pivotally secured to said lever, a strap or keeper for said arm, and means for guiding the sliding movement of said casing.

4. A wrench comprising a handle formed with ratchet teeth and provided with a fixed jaw, a casing slidably mounted on said handle, and divided into two compartments, a spring-pressed lever within one of said compartments, a bail pivotally secured to said lever and provided with ratchet teeth cooperating with those of the handle, a mov-

able jaw provided with an arm extending within said casing and pivotally secured to said lever, a strap or keeper for said arm, and means for guiding the sliding movement of said casing comprising projections on the walls of the casing extending into grooves formed on opposite sides of said handle.

5. A wrench comprising a handle formed with ratchet teeth and provided with a fixed jaw, a casing slidably mounted on said handle and divided into two compartments and slotted on opposite sides, a spring-pressed lever within one of said compartments, a bail pivotally secured to said lever and provided with ratchet teeth cooperating with those of the handle, said bail fitting within the slots in the casing, a movable jaw provided with an arm extending within the casing and pivotally secured to said lever, and a strap or keeper for said arm projecting from the handle.

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

LIVY L. BARRICK.

Witnesses:

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S. G. DUCKWORTH.