

No. 747,851.

PATENTED DEC. 22, 1903.

W. C. BLAIR.
WRENCH.

APPLICATION FILED FEB. 25, 1903.

NO MODEL.

Fig. 1.

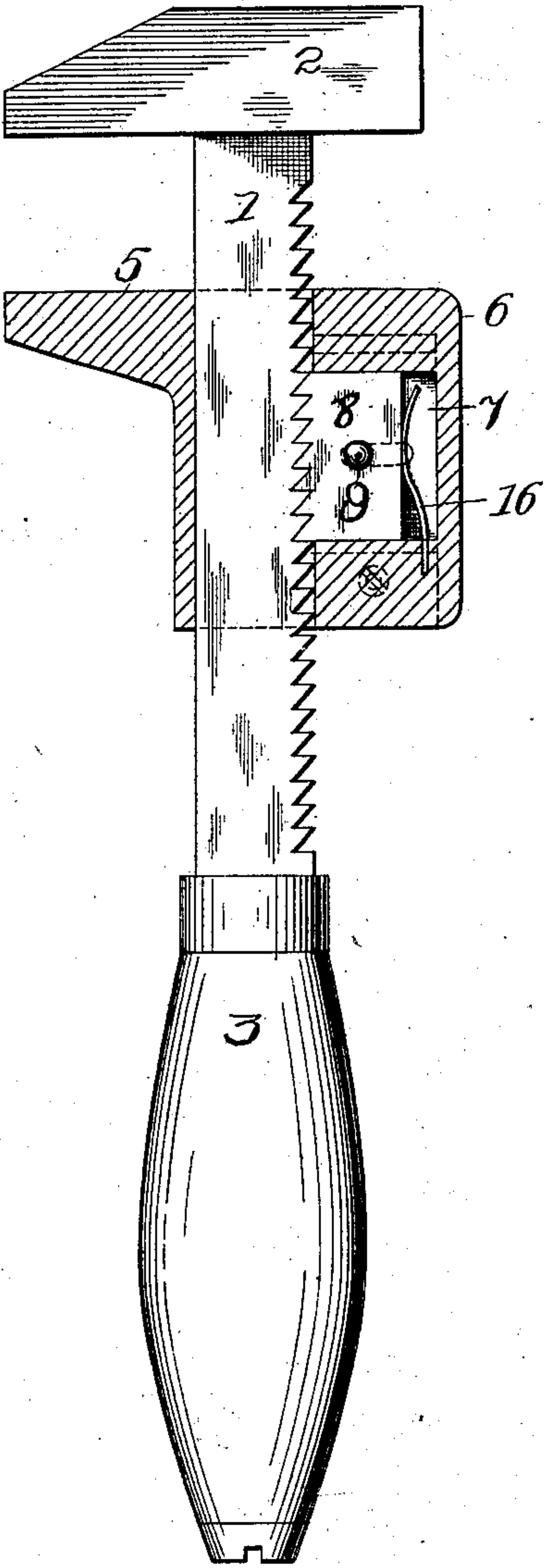


Fig. 2.

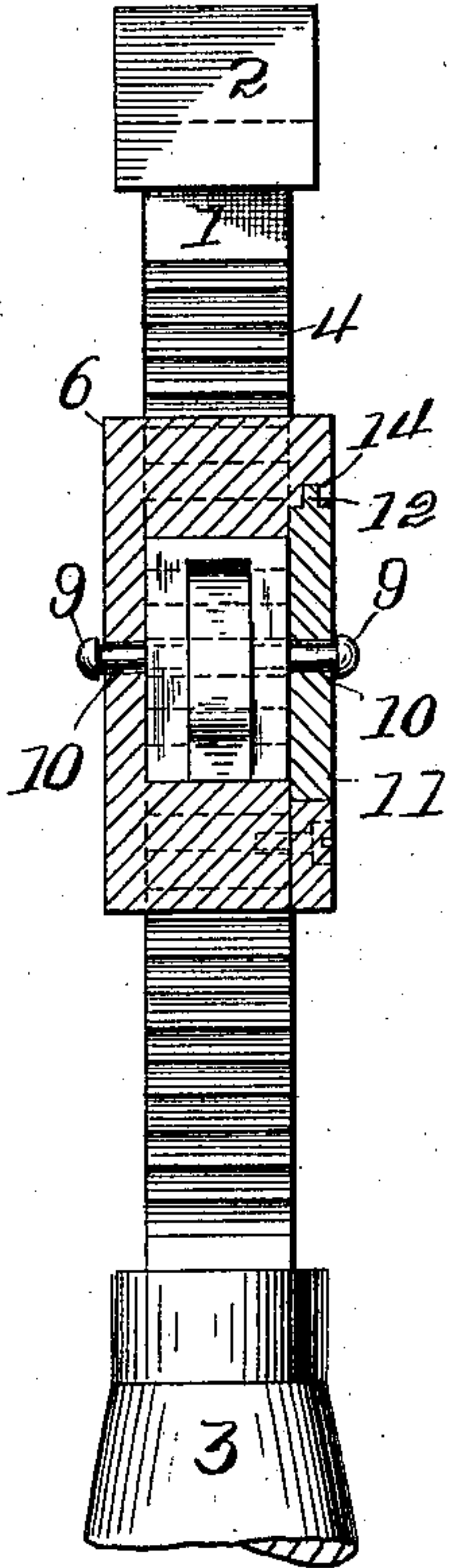


Fig. 3.

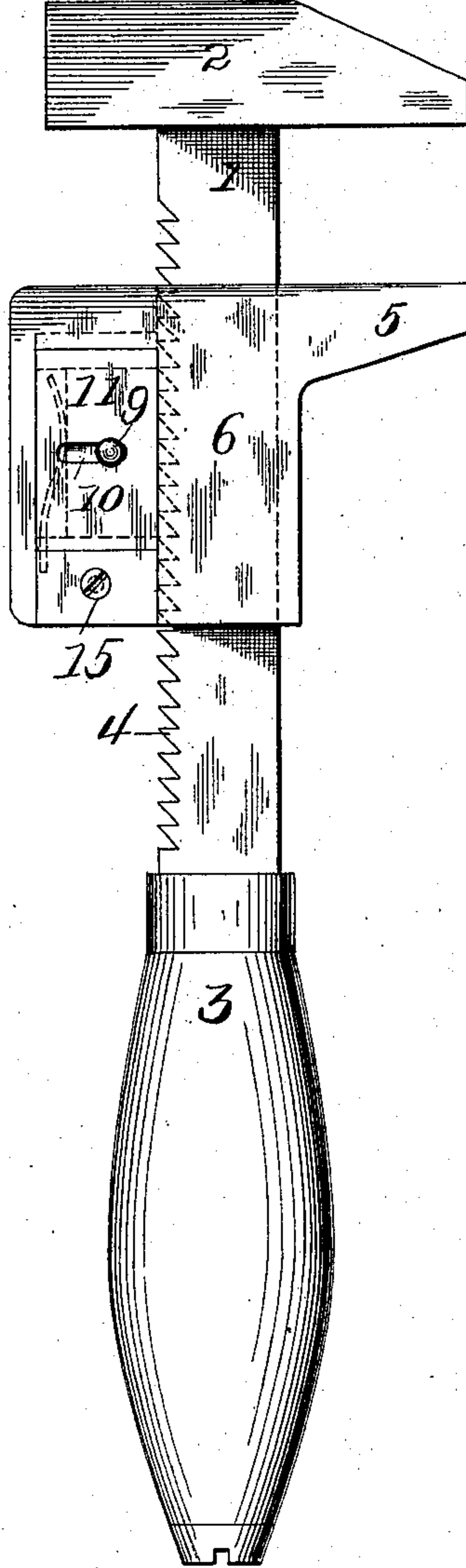
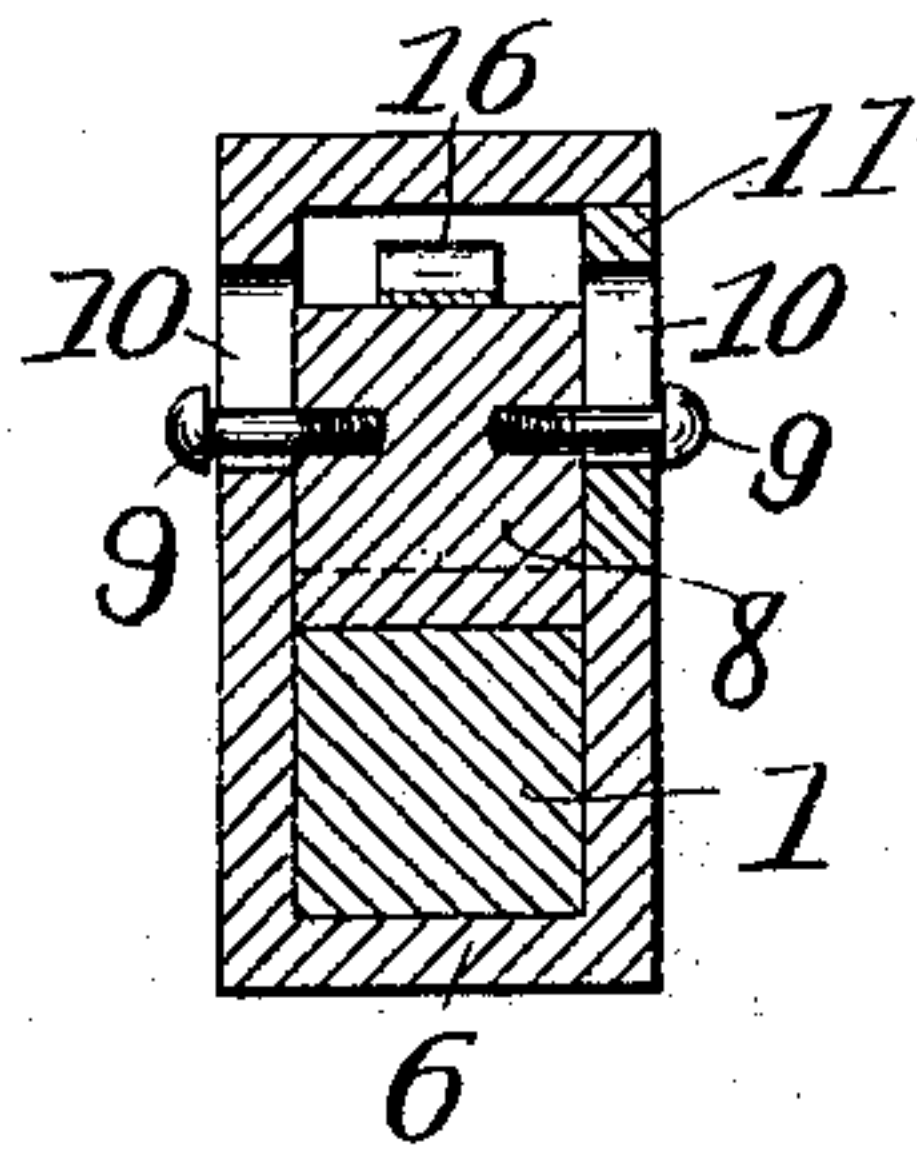


Fig. 4.



Witnesses
Handwritten signature
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UNITED STATES PATENT OFFICE.

WILLIAM C. BLAIR, OF WILKINSBURG, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 747,851, dated December 22, 1903.

Application filed February 25, 1903. Serial No. 144,968. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. BLAIR, a citizen of the United States of America, residing at Wilksburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in wrenches; and the primary object of the invention is to construct a wrench in which the movable jaw may be easily and rapidly adjusted to the desired position.

A further object of the invention is to construct a wrench in which the jaw may be adjusted in one direction without requiring the disengagement of the locking means from the wrench-shank; furthermore, to provide a wrench extremely simple in its construction, strong, durable, and comparatively inexpensive to manufacture.

With the above and other objects in view the invention resides in the novel construction, combination, and arrangement of parts to be hereinafter more specifically described and then particularly pointed out in the accompanying claim, and in describing the invention in detail reference will be had to the accompanying drawings, forming a part of this application, and wherein like numerals of reference will be employed for designating like parts throughout the different views of the drawings, in which—

Figure 1 is an elevation of my improved wrench, showing the movable jaw in section. Fig. 2 is a rear elevation, the handle being partly broken away and the movable jaw being in transverse section. Fig. 3 is a plan view or side elevation, and Fig. 4 is a transverse vertical sectional view through the movable jaw.

To put my invention into practice, I provide a shank 1, which is provided at its outer end with an integral jaw 2 and has a handle 3 suitably secured to its other end. The back of the wrench-shank is provided with inclined teeth 4, and the movable jaw 5 is mounted to be reciprocated on said shank 1. The movable jaw 5 is formed integral with a

casing 6, having a chamber 7, in which is mounted the locking-block 8. This locking-block is of a length so that its end walls will fit neatly with the end walls of the chamber 7, the width of the block, however, being considerably less than the width of the chamber, whereby sufficient space is left in the chamber for the movement of the block. This block is provided on its lower face with teeth to engage with the teeth on the back of the wrench-shank, and the block carries in each side thereof pins or screws 9, which operate in slots 10, provided therefor in the side walls of the casing. One of the side walls of the casing is made integral therewith, while the opposite side wall 11 is made removable, whereby the block may be readily placed in position in the casing. In order to conveniently secure the side wall 11, which acts as a cover-plate, in position, I preferably provide one end of the same with a tongue 12 to engage in a groove 14, provided therefor in the casing, the other end of the plate 11 being secured by a screw 15, engaging into the casing. A spring 16 has its one end embedded in the casing or otherwise suitably secured, with the bow of said spring bearing against the back of the locking-block, whereby to hold the latter normally in engagement with the teeth of the wrench-shank.

To adjust the jaw 5 toward the rigid jaw, it will be evident that it is simply necessary to press the rear end of the casing, the inclined teeth of the block riding over the inclined teeth of the shank, and to adjust the jaw 5 toward the handle the locking-block is disengaged by means of the pins 9, and when the pull on said pins is relieved the spring 16 will force the teeth of the locking-block into engagement with the teeth of the shank.

To renew the spring or to have access to the block 8 for any cause, it is simply necessary to remove the cover-plate 11, which may be done by removal of screw 15. The construction is simple, there being no parts liable to become out of order, while the adjustment of the movable jaw may be most easily and rapidly made.

While I have herein shown and described the invention in detail as it is practiced by me, yet it will be evident that various changes

may be made in the details of construction without departing from the general spirit of my invention.

Having fully described my invention, what
5 I claim as new, and desire to secure by Letters Patent, is—

In a wrench of the character described the combination with a shank provided with teeth thereon, of a rigid jaw formed at one end of
10 said shank, a handle carried at the other end of said shank, a movable casing surrounding said shank and vertically movable thereon, said casing being provided with a rigid jaw at the upper end thereof and being provided
15 in its rear portion with chambers, side walls of one of said chambers being provided with a groove therein, a removable wall member

having a tongue formed thereon adapted to engage in said groove of the side wall and a removable locking-block mounted for move- 20 ment within said chambers, being provided with teeth to engage with the teeth of the shank, means for normally forcing said block into engagement with the teeth of the shank and headed pins carried by said block adapted 25 to operate in slots provided therefor in side walls of the casing, substantially as described.

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

WILLIAM C. BLAIR.

Witnesses:

A. M. WILSON,
E. E. POTTER.