

(No Model.)

M. E. CAMPFIELD.

WRENCH.

No. 354,770.

Patented Dec. 21, 1886.

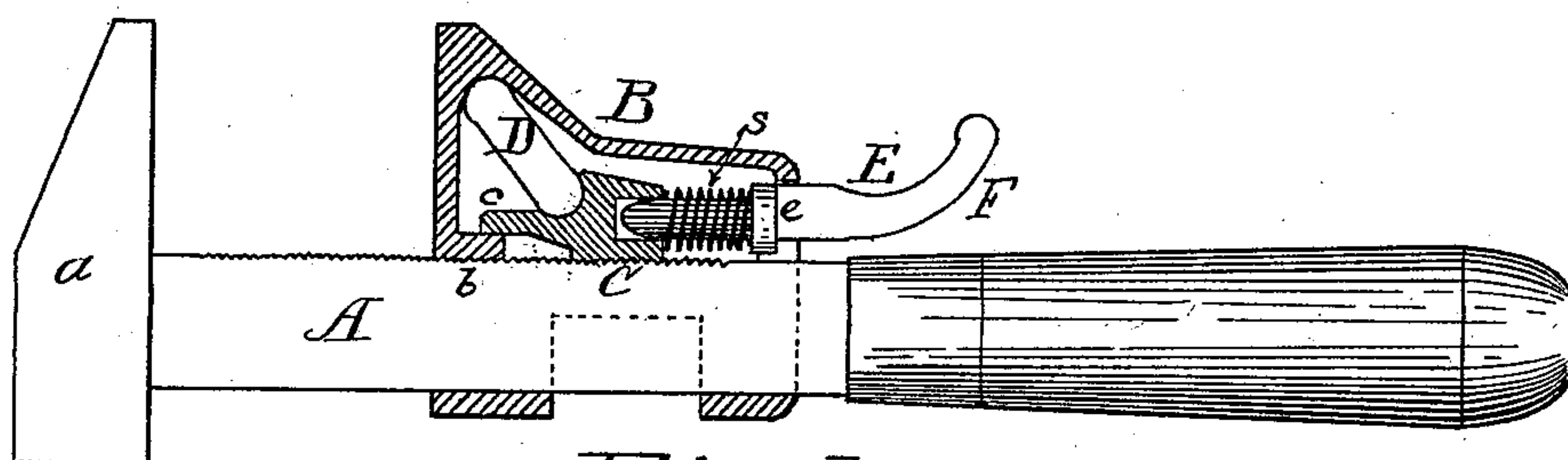


Fig. 1.



Fig. 4.

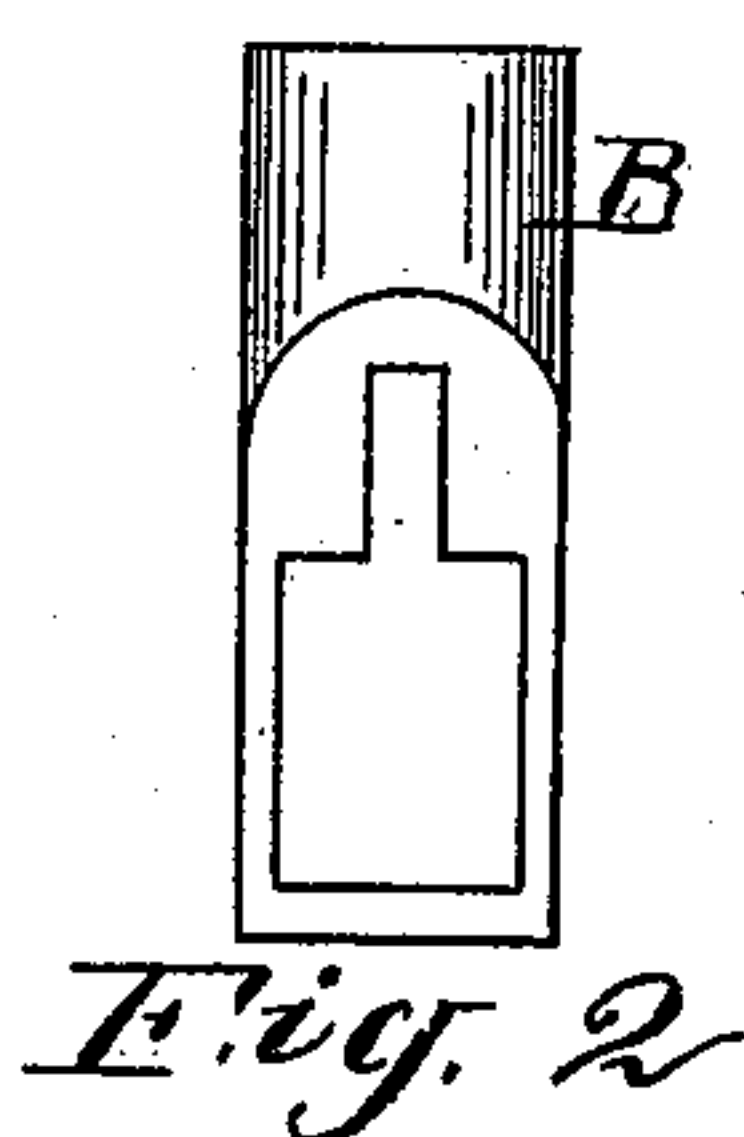


Fig. 2.

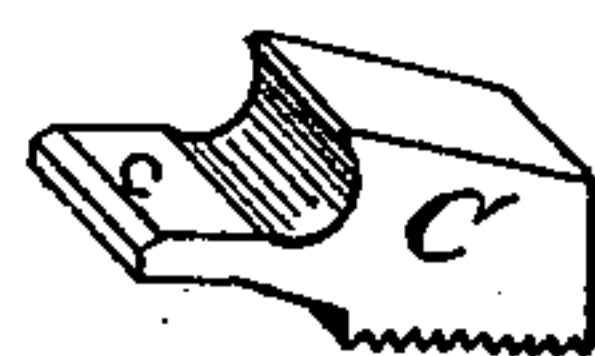


Fig. 5.

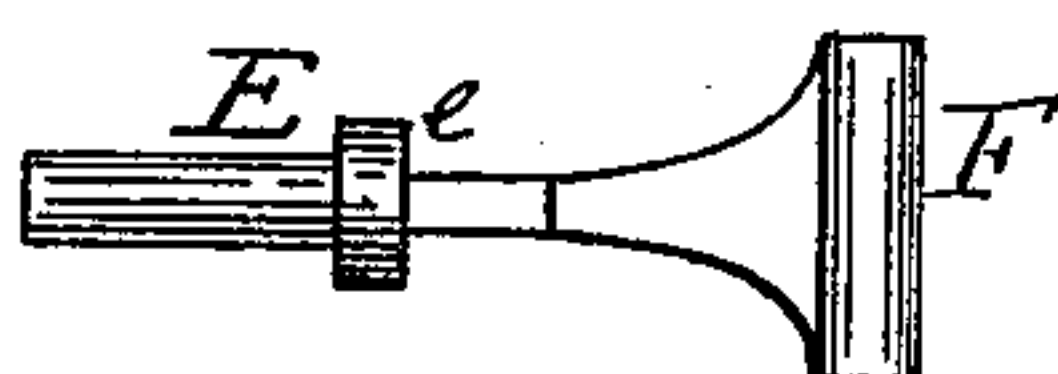


Fig. 3.

Witnesses,
E. W. Laird.
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UNITED STATES PATENT OFFICE.

MATTHEW E. CAMPFIELD, OF STERLING, OHIO.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 354,770, dated December 21, 1886.

Application filed March 25, 1886. Serial No. 196,439. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW E. CAMPFIELD, of Sterling, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to that class of nut-wrenches in which the adjustable jaw is held in position on a serrated or toothed shank by a toothed block contained within a chamber of the jaw; and it consists in the application to said jaw and block of a lever for disengaging the block from the toothed shank, and in the provision, hereinafter described and claimed, by which the wrench may be used and adjusted with one hand.

The devices are constructed, combined, and arranged to operate as hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of my improved wrench. Fig. 2 is an end view of the movable jaw, showing a slot for holding a thumb-lever. Fig. 3 is a detached view of the thumb-lever. Fig. 4 is a detached view of the link that connects a clamping-block with the interior of the movable jaw. Fig. 5 is a detached and top view of the clamping-block.

A is the shank of a wrench provided with a hammer-jaw, *a*. The side of the shank on which the jaws are located is serrated, for a purpose hereinafter shown.

B is a movable jaw, fitted to slide on the shank A, and is chambered for containing the clamping mechanism.

C is a block having its lower or contact face serrated to fit the serrated side of the shank A. It has a forward extension, *c*, which rests on a ledge, *b*, in the jaw B, and also has a recess, *d*, in which the lower end of a link, D, rests, connecting the block with the upper corner of the chamber in jaw B.

E is a thumb-lever, consisting of a pin having a shoulder, *e*, with an extension, F. This lever E is fitted to occupy the rear portion of the chamber in the jaw B, with its extension reaching out and back over the handle of the wrench, the shoulder *e* resting against the inner end wall of the chamber. The inner end of the pin is placed in a mortise of the block C, and on said pin, interposed between the

block and the shoulder *e*, is a spring, S, the purpose of which is to press the block down upon the shank.

From the foregoing it will be seen that by pressing on the thumb-lever with the thumb of the hand of the operator the block is lifted and the jaw readily shifted thereby.

The force exerted in turning a nut with this wrench causes the block C to bear forcibly on the shank.

I am aware that it is not new to construct a wrench with a ratcheted shank or a chambered movable jaw having a serrated block connected by a toggle and operated by a pull-pin. I do not claim such in any broad sense. The pull-pin must be pulled by one hand while the wrench is held in the other hand of the operator, thus necessitating the use of both hands in adjusting the movable jaw or in releasing it from the grip. In my device the thumb of the right hand, or the hand holding the wrench, is only needed to press upon the thumb-lever for adjusting or releasing the movable jaw, thus leaving the other hand free.

Having described my invention, I claim—

1. In a wrench of the character described, the combination, with the serrated or toothed shank A, movable jaw B, serrated block C, and pressure-link D, of the lever E, fulcrumed in the jaw, one end thereof engaging the block C and the other extending out over the handle, whereby the thumb or finger of the holding hand of the operator may exert pressure to release the serrated block from the shank, as and for the purposes described.

2. In a wrench of the character described, the combination, with the serrated or toothed shank A and the recessed movable jaw B, of the serrated or toothed block C, the pressure-link D, and operating-lever E, the said block C having a bearing at its front end on a shoulder or ledge within the jaw, and the lever being fulcrumed in the jaw, its front end engaging the block and its rear end extending out over the handle, as and for the purpose set forth.

MATTHEW E. CAMPFIELD.

Witnesses:

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E. W. LAIRD.