

W. BRITTON.
WRENCH.

No. 178,833.

Patented June 20, 1876.

Fig. 1.

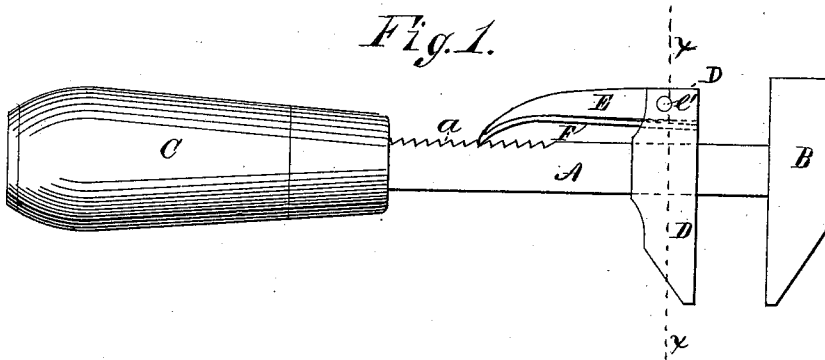


Fig. 2.

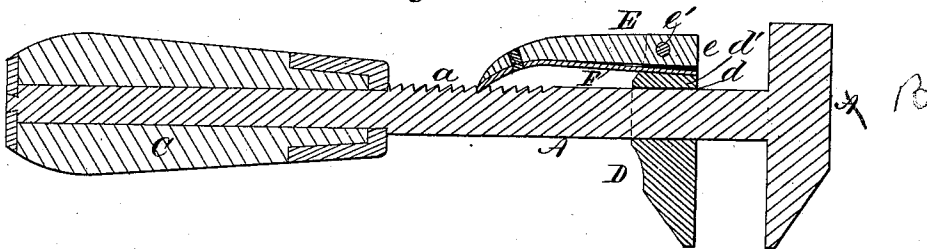
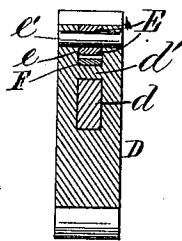


Fig. 3.



Witnesses.

L. Van Riewick.
A. McCallum

Inventor.

Walter Britton
By O. B. Richards,
Att'y.

UNITED STATES PATENT OFFICE.

WALTER BRITTON, OF ELMORE, ILLINOIS.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. **178,833**, dated June 20, 1876; application filed February 1, 1876.

To all whom it may concern:

Be it known that I, WALTER BRITTON, of Elmore, county of Peoria, and State of Illinois, have invented certain new and useful Improvements in Wrenches; and I hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing, in which—

Figure 1 is a side elevation of a wrench embodying my invention. Fig. 2 is a longitudinal central sectional view, and Fig. 3 is a transverse section on the line *xx* in Fig. 1.

The nature of my invention relates to improvements in wrenches; and consists in pivoting a pawl and an attached spring directly to a jaw of a wrench, which slides on the ratchet-shank of the other jaw of the wrench, as hereinafter more fully set forth.

Letter A in the drawings represents the shank, having a fixed jaw, B, on one end, and a handle, C, on the other, the jaw B and handle C of ordinary construction, and the shank A notched on its back or upper side and one end to form ratchet-teeth *a*. D is the sliding jaw, having a perforation, *d*, which fits snugly but loosely over the shank A, and has also a slot, *e*, in its heel end, between which slot and the mortise *d* there is a portion of solid metal, *d'*. E is a pawl, pivoted at *e'* in the slot *e* at one end, and its other end extending back and curved downward, as plainly shown in the drawings. F is a spring, attached at one end to the outer or free end of the pawl E, and its other end extending back and into a space somewhat deeper than the thickness of the spring, and between the pawl E and the por-

tion *d'* of the sliding jaw. The end of the steel spring F may extend past the end of the pawl E, and form a steel point for the same, where where it engages with the ratchet *a*.

The operation of my wrench is very simple. By pressure at the end D' of the sliding jaw D it may be readily and easily moved toward the fixed jaw B, and when said pressure is removed the spring F, keeping the pawl E engaged with the ratchets *a*, will prevent the jaw sliding backward when applied in use, the arrangement of the parts being such, also, that but little strain comes on the pawl or spring in operation, but comes mainly on the sides of the mortise *d*, adjacent to the ratchet side, and its opposite side of the shank. The position of the spring F is such (beneath the pawl) as to protect it.

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

1. The sliding jaw D, having perforation *d* and slot *e*, in combination with pawl E, having a butt narrower than the depth of slot *e*, and pivoted to head of jaw D, spring F, attached to pawl E, and ratchet-shank A, carrying jaw B, as and for the purpose set forth.

2. The combination of pawl E, having spring F attached to its under side and toward its engaging-point, with sliding jaw D, the pawl and jaw being directly pivoted together, and ratchet-shank A, as and for the purpose set forth.

WALTER BRITTON.

Witnesses:

JNO. DOYLE,
SYLVESTER CRAVENS.