No. 636,511. Patented Nov. 7, 1899.

C. S. FLEMING.

SELF ADJUSTING RATCHET WRENCH.

(Application filed Mar. 18, 1899.)

(No Model.)

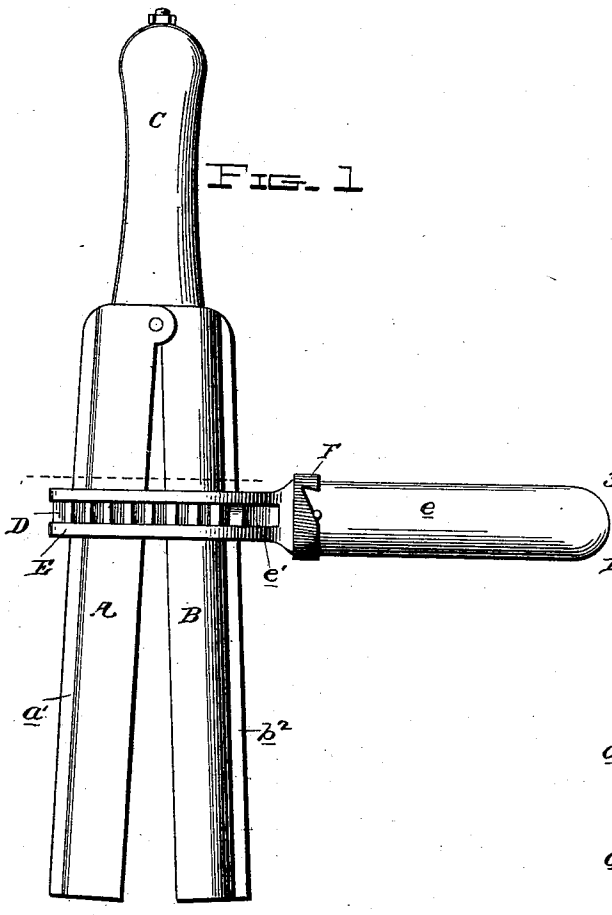


FIG. 1

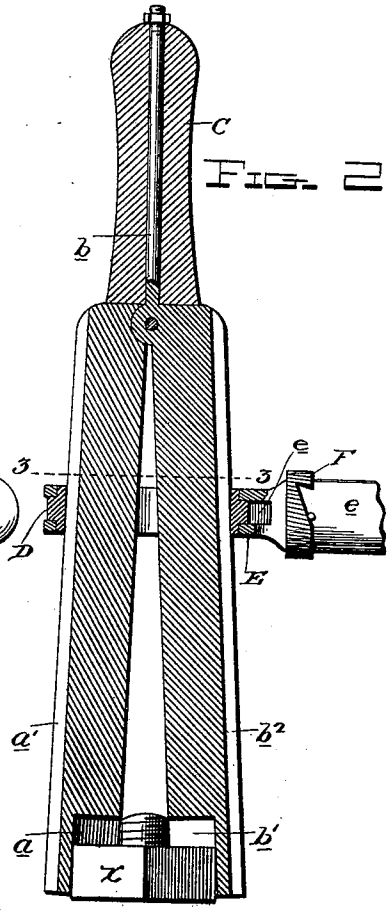
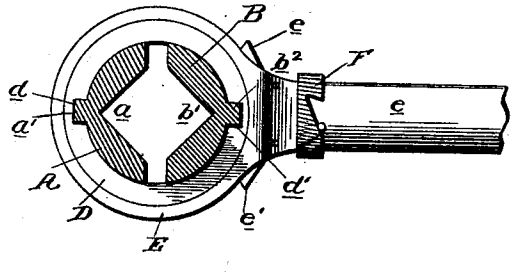


FIG. 2

FIG. 3



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UNITED STATES PATENT OFFICE.

CLY STANLEY FLEMING, OF MONROE, LOUISIANA.

SELF-ADJUSTING RATCHET-WRENCH.

SPECIFICATION forming part of Letters Patent No. 636,511, dated November 7, 1899.

Application filed March 18, 1899. Serial No. 709,594. (No model.)

To all whom it may concern:

Be it known that I, CLY STANLEY FLEMING, a citizen of the United States, residing at Monroe, in the parish of Ouachita and State of Louisiana, have invented certain new and useful Improvements in Self-Adjusting Ratchet-Wrenches; and I do 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.

My invention relates to improvements in self-adjusting ratchet-wrenches; and the object is to provide a simple, inexpensive, efficient, and durable device of this character.

To this end the invention consists in the construction, combination, and arrangement of the several parts of the device, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference characters indicate the same parts of the device in the several figures.

Figure 1 is a side elevation of my improved self-adjusting ratchet-wrench. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a transverse section on the line 3 3 of Fig. 2.

A and B denote the pivoted jaws, the jaw B being provided with an integral longitudinal shank *b* to receive the wrench-handle C. The inner face of the jaw A is formed with a right-angular longitudinal groove *a*, and the corresponding face of the jaw B with a similar groove *b'*. The outside faces of both jaws are semicircular in form, the jaw A being provided with a longitudinal rib *a'* and the jaw B with a similar rib b^2.

D denotes a star-shaped ratchet-wheel which encompasses the jaws A and B, and it is provided with recesses *d* and *d'* to receive the ribs *a'* and b^2, respectively, so as to have a sliding engagement therewith the entire length of the jaws.

E denotes the socket or head in which the ratchet-wheel is mounted, and it is provided with an operating-handle *e*. This head E carries the usual spring-operated ratchet-pawls *e'* and *e*, which are alternately thrown into and out of engagement with the ratchet-wheel D by means of the milled collar F in the usual manner common to ratchet wrenches and drills.

The manner of using the tool will be fully understood by those skilled in the art upon referring to the drawings, all that is necessary being to slide ratchet-wheel up toward the hinge and then separate the jaws to encompass the nut X. The ratchet-wheel is now slipped down on the jaws to close them about the nut, the wrench-handle C being held in one hand while the ratchet-handle *e* is manipulated by the other hand in the usual manner to set up or release the nut.

The accompanying drawings show my invention in the best form now known to me; but many changes in the details might be made within the skill of a good mechanic without departing from the spirit of my invention as set forth in the claims at the end of this specification.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

1. In a ratchet-wrench, the pivoted jaws formed with exterior longitudinal ribs, in combination with a ratchet-wheel encompassing said jaws and having a sliding engagement with said ribs, and means substantially as described for operating said ratchet-wheel, as and for the purpose set forth.

2. In a wrench of the class described, the pivoted jaws formed with longitudinal ribs, and a longitudinal handle common to both jaws, in combination with a ratchet-wheel having a sliding engagement with said jaws and adapted to rotate the same in either direction, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CLY STANLEY FLEMING.

Witnesses:
JULIUS KALISKI,
W. D. CROZAL.