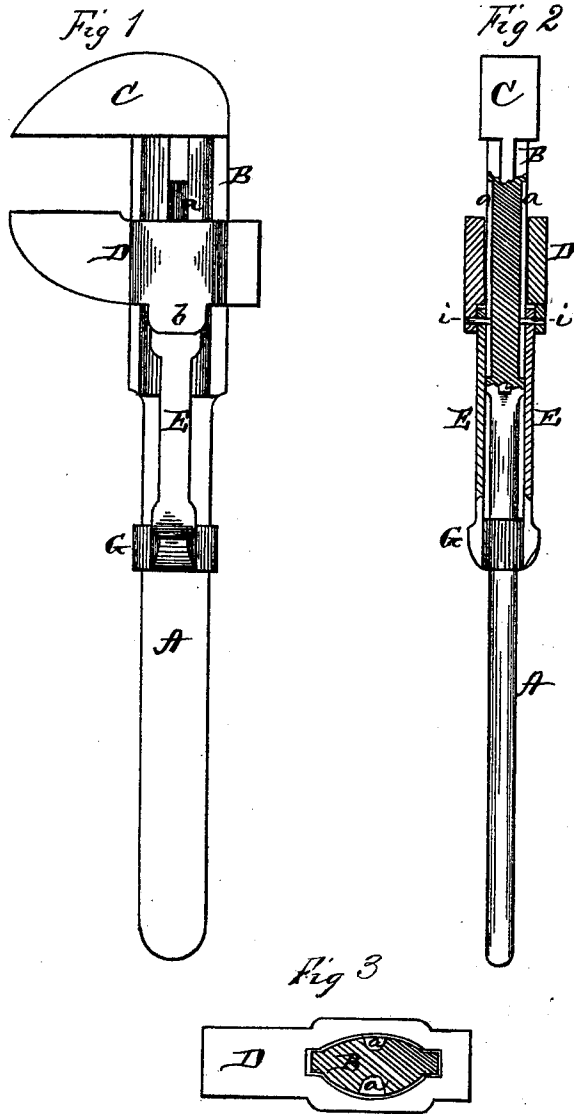


Q. S. BACKUS.

Improvement in Wrenches.

No. 132,789.

Patented Nov. 5, 1872.



Witnesses:
Frank L. Curand.
C. L. Ewert.

Inventor.
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UNITED STATES PATENT OFFICE.

QUIMBY S. BACKUS, OF MILLER'S FALLS, MASSACHUSETTS.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 132,789, dated November 5, 1872.

To all whom it may concern:

Be it known that I, QUIMBY S. BACKUS, of Miller's Falls, in the county of Franklin, and in the State of Massachusetts, have invented certain new and useful Improvements in Wrench; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a wrench, in which the movable jaw is held in place by friction produced by operation on the object, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view; Fig. 2, a longitudinal section; and Fig. 3, a transverse section of my wrench.

A represents the handle of my wrench, having its outer end B enlarged, and the stationary jaw C formed on the extreme end thereof. The enlarged part B has a longitudinal groove, *a*, on each side, as shown in Fig. 3. D represents the movable jaw, which has a slot or mortise through its inner end for the passage of the handle, said jaw sliding on the enlarged part B. The movable jaw D has on each side at its lower edge a downward-projecting ear, *b*, on the inner side of which is pivoted a bar, E, which connects with and is attached to a collar, G, sliding on the handle A. The pivots *i i*, connecting the ears *b* and bars E, project into the grooves *a* on the enlarged part B of the handle.

The advantages of this wrench are many. Simplicity, cheapness of construction, strength

that can be obtained in shape and form over others produced by machinery, mine being made from pattern and cast. Then the great convenience of adjusting it from one size of object to another, without any loss of time or trouble, by means of the sleeve or collar G connected to the movable jaw. It will be seen that, by putting the wrench onto a nut pushing the movable jaw, the more the wrench is pulled the harder it will hold or more friction be obtained, the movable jaw coming in contact with the enlarged part B.

The hole in the movable jaw must be of the same shape as the part B, less the grooves *a*, in which the pivots work, or projections may be made in the hole of the movable jaw to fit in said grooves. But the hole in the movable jaw must be larger than the bar B it slides upon, so as to allow the jaw to obtain the friction necessary to hold it in place while using the wrench. To disengage the wrench from the object it is only necessary to bring the handle in line, thereby relieving the friction, and the movable jaw will slide from the object.

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

The combination of the handle A B with one or more grooves, *a a*, and jaw C, the movable jaw D with one or more pivots or projections, *i i*, one or more bars, E E, and sleeve or collar, G, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of July, 1872.

QUIMBY S. BACKUS.

Witnesses:

D. P. ABERCOMBIE,
A. N. MARR.