A. B. LIPSEY.

WRENCH.

No. 169,557. Patented Nov. 2, 1875.

Fig. 1.

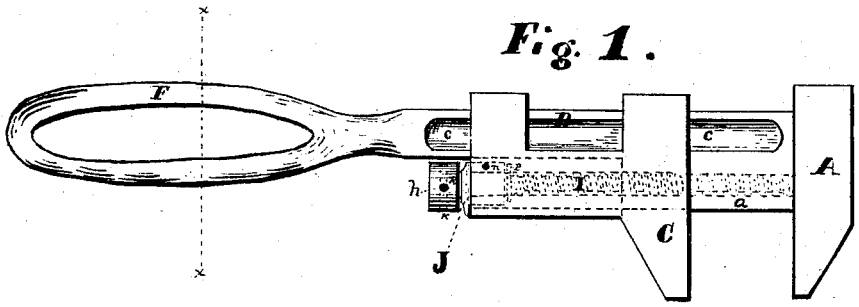


Fig. 2.

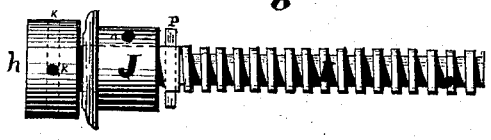
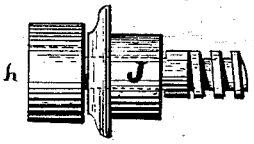


Fig. 3.



WITNESSES.

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ANDREW B. LIPSEY, OF JERSEY CITY, NEW JERSEY, ASSIGNOR OF ONE-HALF HIS RIGHT TO H. A. SHERRILL, OF NEW YORK, N. Y.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. **169,557**, dated November 2, 1875; application filed August 11, 1875.

To all whom it may concern:

Be it known that I, ANDREW B. LIPSEY, of Jersey City, county of Hudson, State of New Jersey, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

These inventions relate to an improved wrench invented by me, and for which Letters Patent No. 98,698 were granted January 11, 1870, in which wrench a screw was used with a right and left hand thread, one part of which worked in an enlarged or projecting portion of the shank, and the other part in a nut formed in the sliding jaw. The object of this invention is to simplify said wrench and increase its usefulness.

In the accompanying drawings, Figure 1 is a side elevation of a wrench embodying my improvements. Fig. 2 is a side elevation of the screw, with the bushing or stop-collar, as hereinafter described. Fig. 3 is a modification of the same.

A is the enlarged portion of the shank, in which the thread is cut to receive the screw. F is the handle, cast or forged onto the shank, and is, at the line *x x*, the full width of the shank and projecting portion. *c c* are depressions cast in the shank, to prevent shrinkage and insure thorough annealing. C is the sliding jaw, which has a slot through it large enough to admit the shank and enlarged portion, and to allow it to be put on over the handle F, which may be the same size. I is the screw, and *h* the milled head for operating the same. J is a bushing nut or collar, to be inserted in the end of the jaw C, and is held by a pin or screw put through it and the jaw at *n*. When a right-and-left-hand screw is used, as in my former patent, a thread is cut inside the bushing J; but when a screw with but one thread is used, as in the accompanying drawings, the sliding jaw is attached to the screw, and longitudinal motion of the same prevented by the pin P, or the same result may be accomplished by splitting the collar J and springing it over the shank of the screw into a recess turned in it, as shown in Fig. 3.

The advantages of this arrangement are, that the bushing or nut J being removable, the sliding jaw C can be put on over a much larger handle than if it were cast or rigidly formed in said jaw, though it may be made in this manner when a small or wooden handle is used.

The use of a screw with but one thread makes the wrench more simple and cheaper than with a right-and-left-hand screw, as in my former invention referred to before.

Having thus described my invention, I claim—

The nut or stop-collar J, in combination with the sliding jaw and screw of a wrench, substantially in the manner and for the purpose described.

ANDREW B. LIPSEY.

Witnesses:

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