(No Model.)

H. W. REED.

WRENCH.

No. 251,635. Patented Dec. 27, 1881.

Fig. 1.

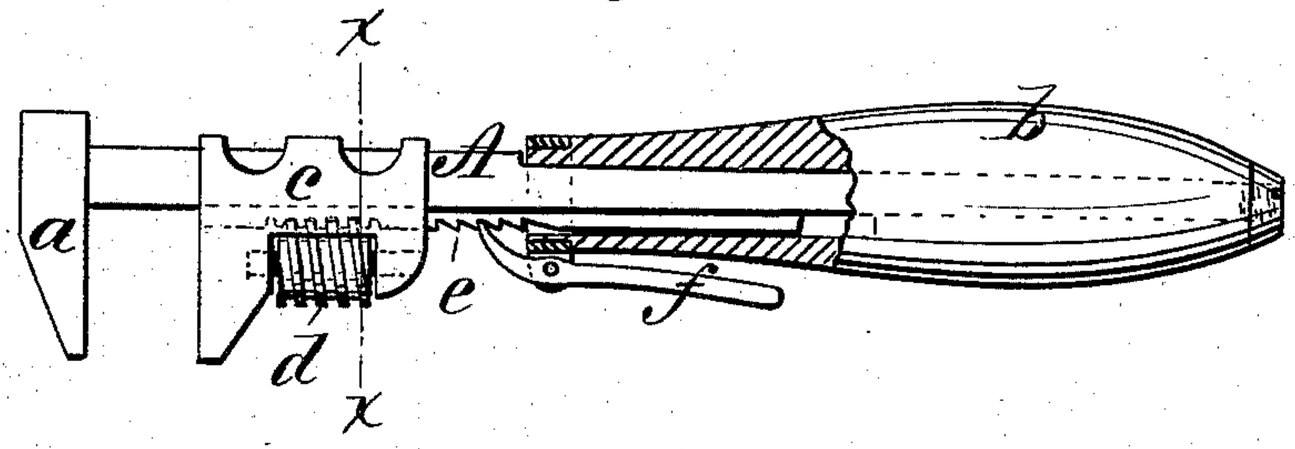


Fig. 2.

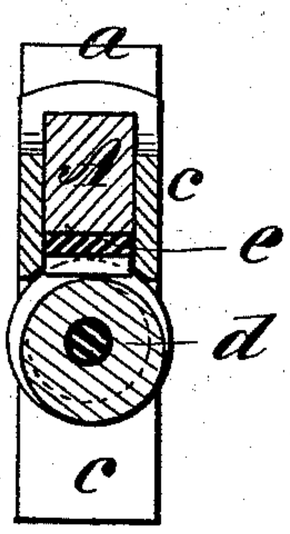
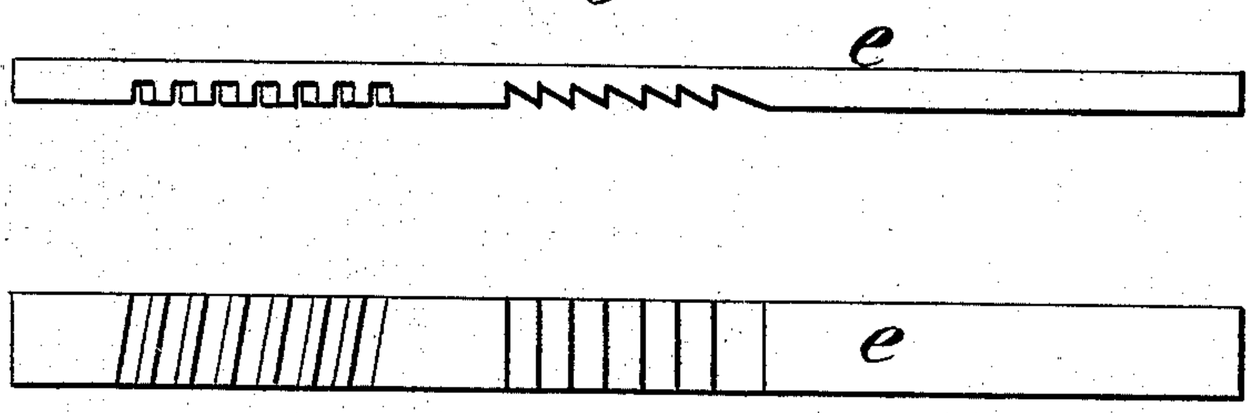


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HERBERT W. REED, OF WARE, MASSACHUSETTS.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 251,635, dated December 27, 1881.

Application filed September 15, 1881. (No model.)

To all whom it may concern:

Be it known that I, HERBERT W. REED, of Ware, Hampshire county, Massachusetts, have invented a new and useful Improvement in Wrenches, of which the following is a specification.

The object of my invention is to provide for rapid and close adjustment of wrenches to the work.

My invention is an improvement in the class of so-called "monkey-wrenches" whose sliding jaw is combined with a rack-bar and pawl, and also an adjusting-nut to adapt it for rapid and close adjustment to the work.

In the drawings, Figure 1 is a side elevation, partially sectional, of a wrench containing my invention. Fig. 2 is a cross-section of the same on line *x x* of Fig. 1, and Fig. 3 shows the rack-bar separate in side and face view.

Similar letters of reference indicate corresponding parts.

A is the shank of the wrench, having fixed jaw *a* and fitted with handle *b*.

c is the sliding jaw on shank A.

d is a worm or screw fitted in a recess of jaw *c* on pivots, so as to turn freely.

e is a strip or bar lying against one side of the shank and extending through the aperture of jaw *c*, where the bar *e* is formed as a rack for engaging the screw *d*. The bar *e* also extends in a recess formed in handle *b*, and at that portion of its surface is formed with ratchet-teeth.

f is a pawl or thumb-lever pivoted in handle *b* and engaging the ratchet-teeth of the bar *e*.

With this construction the bar *e*, being engaged by the screw, will move with the sliding jaw on the shank, so that by raising the pawl *f* the jaw can be moved back and forth as may be required. The jaw is also moved independently by turning the screw, so that a close adjustment to the work can be made.

The wrench shown is of durable construction and not liable to derangement.

I am aware a patent has been granted for a wrench of this class in which the sliding jaw can be adjusted forward or up to the work by turning a hollow nut arranged on the inner end of the handle. The following statement indicates the chief differences between this invention and my own: In such patented wrench the sliding jaw and rack-bar are not connected so as to be moved back together, but the rack-bar must be adjusted back independently by means of the nut, which obviously prevents so rapid work as with my wrench. The rack-bar likewise projects into the space between the jaws when the sliding jaw is moved far back to admit large work. The shank of the wrench requires to be grooved lengthwise to receive the rack-bar, which construction increases the cost and clumsiness of the implement. In my wrench the same hand that grasps the handle also conveniently manipulates the pawl that holds the rack-bar, and while the implement is held in the required position the other hand moves the sliding jaw and rack-bar together and then adjusts the jaw to the work. I am enabled to utilize a common form of nut for adjusting the sliding jaw, which is an economy in manufacture of the implement.

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

The combination, with the shank, fixed jaw, and handle, of the sliding jaw, the nut attached to the latter, the rack-bar with which said nut engages, and a pawl pivoted to the handle, all as shown and described, whereby the rack-bar may be moved in either direction with the sliding jaw and the latter be adjusted independently thereof in either direction by turning the nut, as specified.

HERBERT WARREN REED.

Witnesses:
CHARLES H. TRENCH,
ALMARAN E. COOPER.