

A. C. HOWE.
WRENCH.
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961,447.

Patented June 14, 1910.

Fig. 1.

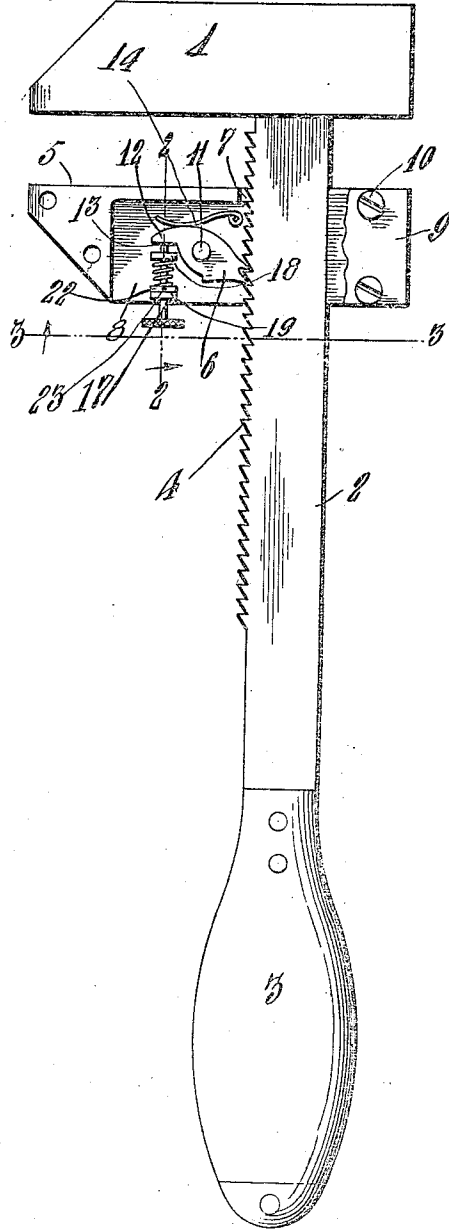


Fig. 2.

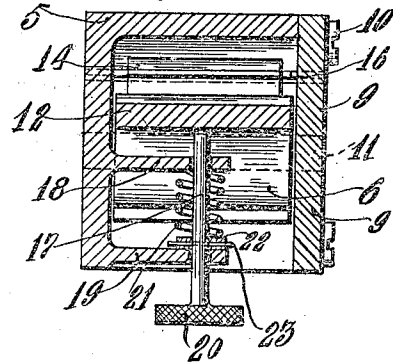


Fig. 3.

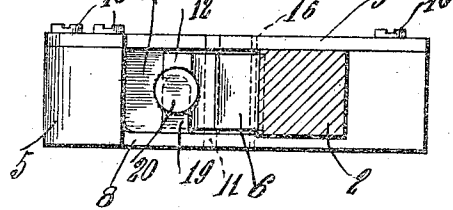
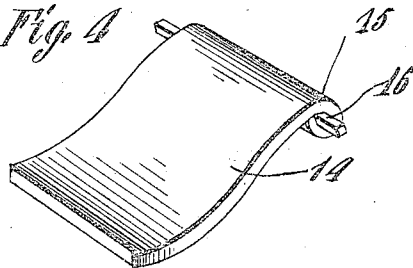


Fig. 4.



Witnesses

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WRENCH.

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To all whom it may concern:

Be it known that I, ARTHUR C. HOWE, a citizen of the United States, residing at Waterville, in the county of Douglas and State of Washington, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in wrenches and more particularly to quick adjusting monkey wrenches.

The object of the invention is to provide a device of this character which will be simple and comparatively inexpensive in construction, strong and durable in use and quick and easy to adjust.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the improved wrench with parts broken away; Figs. 2 and 3 are sectional views taken, respectively, on the planes indicated by the lines 2—2 and 3—3 in Fig. 1; and Fig. 4 is a detail perspective of the spring for actuating the pawl.

In the drawings 1 denotes the stationary jaw of the wrench provided upon one end of a shank 2 at the other end of which is a suitable handle 3. The shank 2 is preferably of rectangular shape in cross section and upon one of its faces is formed a rack 4 having substantially V-shaped teeth, each of which is formed with a short face disposed in a plane at right angles to the axis of the shank and a long inclined face, as clearly shown in Fig. 1.

5 denotes the movable jaw of the wrench which is slidable upon the shank and contains a pawl or dog 6 to co-act with the rack or ratchet 4. The jaw 5 is in the form of a cast block having an opening 7 through which the shank projects and a recess or cavity 8 in which the pawl 6 is arranged. The recess 7 and slot or opening 8 open upon one side of the body of the jaw 5 and are closed by a removable cover plate 9 which is secured by means of screws or the like 10. The pawl 6 is mounted intermediate its ends on a pivot pin 11 which extends through it

and has one of its ends arranged in a seat 55 in the bottom of the recess 8 and its other end in an opening in the cover plate 9, as indicated in dotted lines in Fig. 2. One end of the pawl 6 is shaped to engage the ratchet or rack teeth 4 and its other end 12 has a flat bottom face 13 and a curved upper face, which latter is engaged by one end of a leaf spring 14. This spring actuates the pawl into engagement with the teeth 4 and it is secured in the upper portion of the recess 8 by bending one end upon itself to provide a squared eye 15 which receives a similar-shaped supporting pin 16 having its ends arranged in the walls of the movable jaw body and the cover plate 9. The flat face 13 of the end 12 of the pawl is adapted to be engaged by a push pin 17 which is slidable in openings in two guide arms 18, 19 which are formed integral with and project from the side wall of the jaw, as shown more clearly in Fig. 2 of the drawings. Upon the outer or lower end of the pin 17 is a head or finger piece 20 which when forced inwardly or upwardly causes the pawl 6 to be retracted from the teeth 4. The push pin 17 is retracted by a coil spring 21 arranged upon it and confined between the guide arm 18 and a stop collar 22 which is secured upon the pin 17 by a transverse pin or fastening 23.

From the foregoing it will be seen that the invention provides a locking means for the movable jaw of the wrench which permits said jaw to be quickly and easily adjusted toward and from the stationary jaw. By constructing the movable jaw with the cover plate, as shown, ready access is permitted to the pawl and its operating means, whereby they may be repaired when worn or broken.

Having thus described the invention what is claimed is:

A quick adjusting monkey wrench comprising a shank formed with ratchet teeth, a stationary jaw at one end of the shank, a movable jaw slidable upon the shank and having a body formed with an opening and a communicating recess, a removable cover plate upon one side of the body portion of the jaw to close said opening and recess, a pawl pivoted intermediate its ends in the recess of the movable jaw and adapted to have one end engage said ratchet teeth, a

spring for projecting the pawl into engagement with the ratchet teeth, apertured guide arms formed upon the side of the body of the movable jaw, a push pin slidable in said
5 guide arms and having its inner end engaged with one end of the pawl and its outer end provided with a finger piece, a stop collar upon the push pin between said guide arms,

and a coil spring upon the push pin between the collar and the innermost guide arm. 10

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ARTHUR C. HOWE.

Witnesses:

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