

UNITED STATES PATENT OFFICE.

VASSER C. HOLMAN, OF NIXON, TEXAS.

WRENCH.

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To all whom it may concern:

Be it known that I, VASSER C. HOLMAN, a citizen of the United States, residing at Nixon, in the county of Gonzales and State of Texas, have invented certain new and useful Improvements in Wrenches; and I do hereby 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.

This invention relates to a wrench.

It is aimed to provide an exceedingly simple and inexpensive construction which is self-adapting to work of various shapes whether round, square or otherwise.

Another object is to provide a construction in which the movable jaw normally projects beyond the fixed jaw so as to hook or engage the work to thereby facilitate application and adaptation of the wrench thereto.

A third object is to provide a construction wherein a movable jaw is pivoted to the fixed jaw and has a novel compactly arranged dog, spring-controlled to urge the movable jaw to closed position, and also capable of abutment against the fixed jaw to limit movement of the movable jaw with respect thereto.

Additional objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawings illustrating one operative embodiment.

In said drawings:—

Figure 1 is a perspective view of the wrench in use;

Figure 2 is a side view of the tool in normal condition; and partly broken away to disclose details; and

Figure 3 is a rear edge view of the wrench.

Like reference characters designate like or similar parts in the different views.

Referring specifically to the drawings, a metallic or other bar is formed into a handle 10 and a fixed jaw 11 integral therewith and deflected laterally therefrom as shown. Handle 10 may have a wooden grip or be otherwise finished as preferred.

The movable jaw is designated 12 and extends in hook relation to a shank 13 and in cooperative relation to the jaw 11. Shank 13 is bifurcated and receives the jaw

11 in the bifurcation and is pivoted by means of a pin 14 to said jaw 11.

Pivoted by a pin 15 to the shank 13, is a rod or dog 16 which is disposed in the bifurcation of said shank and at its adjacent end portion 16^a is adapted to normally abut the handle 10 and be located in a notch 17 thereof in order that the handle 10 and shank 13 may aline. Said end portion 16^a of the dog 16 is crooked and a reduced stem 18 depends therefrom and passes loosely and slidably through a guide lug 19 integral with handle 10. Said stem at its junction with the crooked end 16 provides a shoulder 20, which is engaged by a washer 21. The stem is surrounded by an expansive coil spring 22 which abuts washer 21 at one end and the lug 19 at the other end. This spring normally maintains the movable jaw relatively close to the fixed jaw as shown in Figure 2, and when the parts are out of such position, the tendency of the spring is to urge them to that position.

Particular attention is called to the fact that the movable jaw 12 at its distal end normally projects outwardly beyond the fixed jaw 11 as well shown in Figure 2.

The gripping edges of the jaws 11 and 12 are preferably toothed or serrated as at 23.

In using the tool, it is gripped at the free end of handle 10 and the extended end of jaw 12 is engaged with the work such as a pipe, nut or any other object. By this engagement, the tool may be manipulated with such jaw 12 fulcruming on the work by swinging the handle 10 on the pin 14 so that the jaw 12 may also be engaged with the object or work. In this manner, the tool is substantially self adapting to instantly fit work of various sizes and under different conditions. By the movement of the jaws, the stem 18 slides in the lug 19 and spring 22 becomes compressed and hence restores the parts to normal relation when the work is released. Movement of the movable jaw to the position of Figure 2 is limited by abutment of the dog 16 with handle 10 and the normal alinement and compact disposition of the handle 10 and shank 13 is permissible due to the provision of notch 17.

Changes in the details may be resorted to provided they fall within the spirit and scope of the invention.

I claim:—

A wrench having a handle, a jaw deflected

therefrom, a movable jaw, a bifurcated shank extending from the movable jaw receiving the handle in the bifurcation, said shank being pivoted to said handle and
 5 adapted to normally aline therewith, said handle having a notch, a dog having a crooked end pivoted in the bifurcation and to the shank, said end being adapted for entrance into the notch and to abut the han-
 10 dle, said dog having a stem disposed substantially longitudinally of the handle and

at one side thereof, a lug on the handle in which the dog is slidably disposed, and an expansive spring surrounding the stem and abutting the dog at one end and the lug at
 15 the other end.

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

VASSER C. HOLMAN.

Witnesses:

P. H. TOM,
 C. S. MAGEE.