D. O. TUKE.

WRENCH.

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1,027,452.

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Fig. 1.

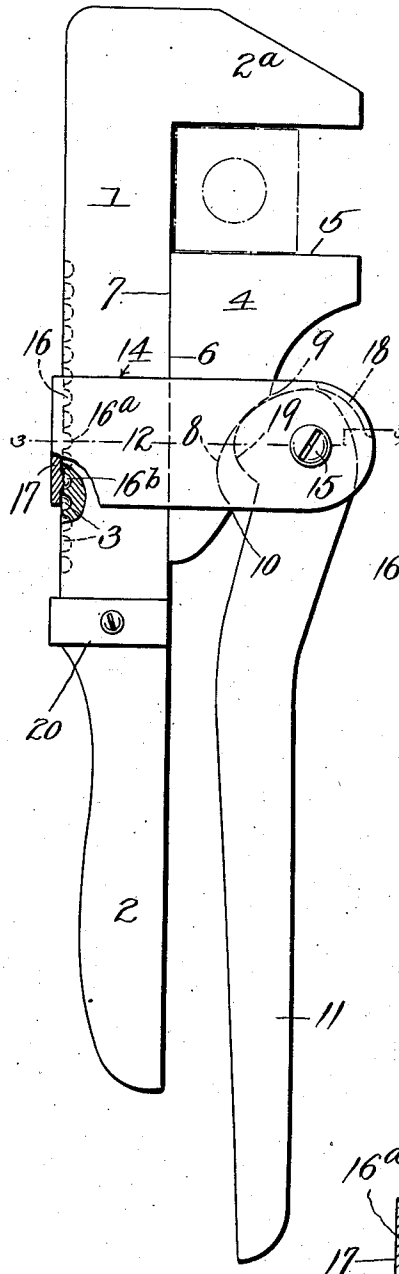


Fig. 2.

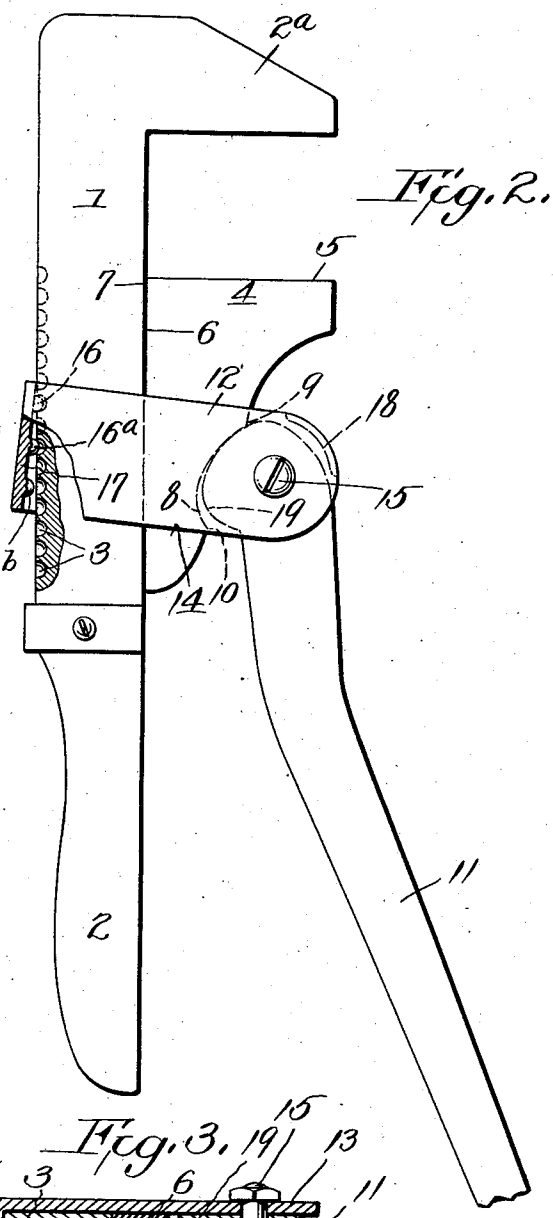
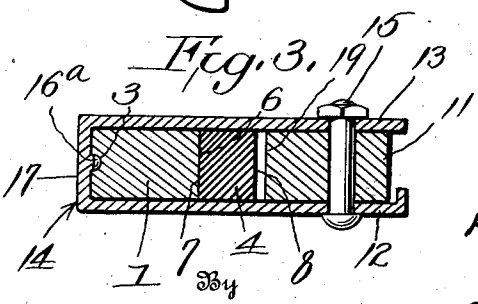


Fig. 3.



Witnesses

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WRENCH.

1,027,452. Specification of Letters Patent. Patented May 28, 1912.

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To all whom it may concern:

Be it known that I, DAVID O. TUKE, a citizen of the United States, residing at Jacksonville, in the county of Morgan and State of Illinois, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches of the class known as "quick action" and has for its object to simplify and improve the construction and increase the efficiency of implements of this character.

A further object is to provide a wrench which is capable of slight adjustment after having been "set" without entirely disengaging the movable jaw from the stationary jaw.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of the advantages of the invention within the scope of the appended claims.

In the drawings thus employed, Figure 1 is a side elevation showing my improved wrench in "set" position, a portion of the strap being broken away. Fig. 2 is a similar view showing the parts in the position they assume when it is desired to enlarge the opening between the jaws without entirely disengaging all of the lugs 16, 16^a and 16^b from the recesses and Fig. 3 is a horizontal section on the line 3—3 of Fig. 1.

Referring more specifically to the drawings, the improved implement comprises a stock 1, provided at one end with a handle 2 and with a stationary jaw 2^a extending laterally from the other end and with spaced half-round depressions or recesses 3 upon one side of the stock. The movable jaw 4 which is preferably of solid construction, has a plain jaw face 5 and a plain rear edge 6, the latter being adapted to bear against and slide upon the plain face 7 of the stock, when the parts are assembled. The forward edge of the movable jaw is cut away forming a recess 8 and shoulders 9 and 10 for a purpose hereinafter described.

11 represents the operating lever pivotally mounted between the side arms 12 and 13 of a strap 14 by means of pin 15. The strap 14, which is provided with forwardly projecting half round spaced lugs 16, 16^a and 16^b on the inner face of the connecting web 17 and with a stop 18 for limiting the outward swing of the lever 11, is loosely mounted upon the shank 1 of the stationary jaw. The movable jaw 4 is disposed between the arms 12 and 13 of the strap 14 and is confined against accidental displacement in a lateral direction by said arms and by reason of the cam face 19 of the lever 11 seating in the recess 8 the movable jaw is capable of only slight relative longitudinal movement with respect to the lever 11. A strap 20 secured at the junction between the handle 2 and shank 1 prevents the strap 14 and necessarily the movable jaw 4 and lever 11 from slipping down upon the handle.

To quickly set the wrench to operate on any desired size of nuts, it is merely necessary to swing the lever 11 away from the shank 1, whereupon the cam face 19 will ride out of the recess 8 and leave the movable jaw free to be moved along the shank. When the jaws 2^a and 4 have been brought into the desired relative position the lever 11 is moved toward the shank which operation results in the cam face 19 of the lever being firmly seated in the recess 8 and causes the web 17 of the strap 14 to be drawn toward the rear face of the shank until the lugs 16, 16^a and 16^b engage the correspondingly spaced recesses 3. A continued pressure on the lever 11 will move the jaw 4 toward the jaw 2^a sufficiently to cause the nut or pipe which is being operated upon to be tightly gripped. Should the jaws be set too close together to accommodate the work, as often happens, it is not necessary to disengage the lugs 16, 16^a and 16^b for the purpose of sliding the movable jaw, as is the case with the ordinary quick action ratchet wrench. A slight outward movement of the lever 11 will force the cam face 19 against

the shoulder 10 and move the movable jaw slightly to the rear, at the same time rocking the web 17 of the strap 12 to the position shown in Fig. 2. The same results can be obtained by forming the recesses 3 in the strap 12 and the projections 16, 16^a and 16^b in the stock instead of the reverse, as shown.

It will thus be seen that I have devised a wrench of simple construction which is capable of instantaneous adjustment after the jaws have been set, without disengaging the movable jaw from the stock of the stationary jaw.

Having thus described my invention, what I claim is:

1. A wrench comprising a stock having a fixed jaw, a strap slidably disposed upon said stock, said stock and said strap having projections and recesses normally in respective parallel relation, a movable jaw disposed between the sides of the strap and the front face of the stock, a lever, and coöperating cam faces on said movable jaw and said lever, to permit of said projections and recesses being moved to relative angular position with respect to each other, whereby the movable jaw may be adjusted slightly toward or from said stationary jaw without disengaging all of said projections from said recesses.

2. A wrench comprising a stock having a plurality of recesses in the rear face and a fixed jaw at one end, a strap slidably disposed upon said stock, a movable jaw disposed between the sides of the strap and the front face of the stock, a lever pivoted between the sides of said strap, projections on said strap adapted to seat in the recesses in the stock when the wrench is set, said projections being normally in parallel relationship with said recesses, and means on said lever coöperating with means on said movable jaw, whereby said projections may be tilted at an angle to said recesses to permit of the movable jaw being adjusted slightly toward or from said stationary jaw without disengaging all of said projections from said recesses.

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

DAVID O. TUKE.

Witnesses:
CHAS. H. HARNEY,
GEO. L. KIMBER.