A. STUARTS.

WRENCH.

APPLICATION FILED SEPT. 26, 1919.

1,414,839. Patented May 2, 1922.

Fig. 1.

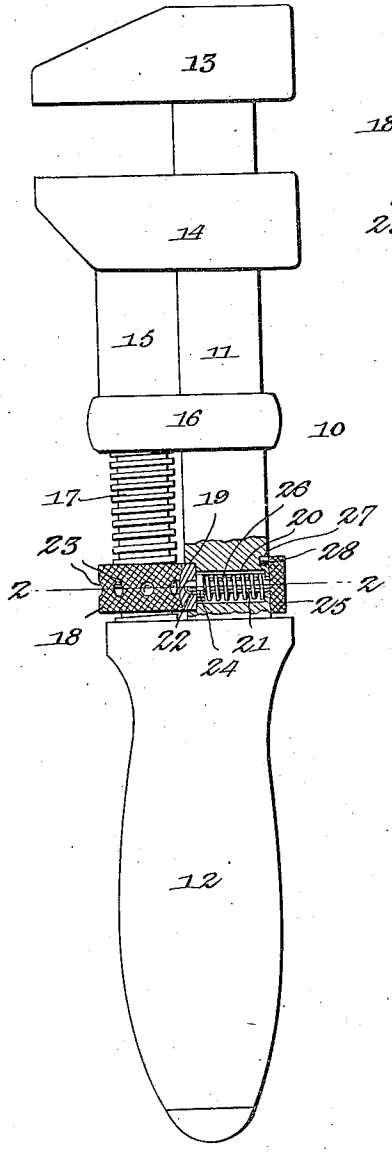


Fig. 2.

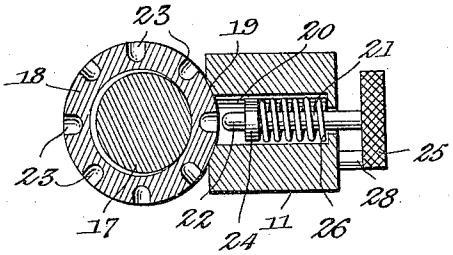


Fig. 3.

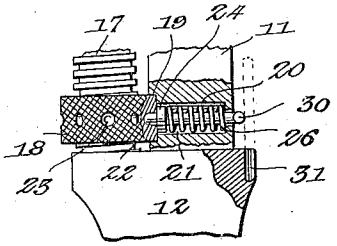
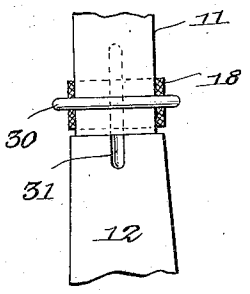


Fig. 4.



INVENTOR.

BY Arthur Stuarts.

Victor J. Evans

ATTORNEY.

UNITED STATES PATENT OFFICE.

ARTHUR STUARTS, OF PLEASANTVILLE, NEW YORK.

WRENCH.

1,414,839. Specification of Letters Patent. Patented May 2, 1922.

Application filed September 26, 1919. Serial No. 326,506.

To all whom it may concern:

Be it known that I, ARTHUR STUARTS, a citizen of the United States, residing at Pleasantville, in the county of Westchester and State of New York, have invented new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to improvements in wrenches and more particularly to a locking means therefor.

The prime object of the invention is the provision of means for a wrench with which to lock the movable jaw forming a part thereof, in different positions of adjustment, which is more practical than similar devices hitherto patented and in that the parts are not subject to wear, invariably rendering them useless for their intended purpose.

Another object is the provision on a wrench of a locking means which may be easily manipulated and one which is practically concealed and protected from injury, ordinarily resulting from the throwing about of the wrench, rendering the parts inoperative or unuseful.

A further object of this invention is to improve upon and simplify the construction and operation of a device of this character rendering it efficient in operation and more effectual in use.

In the drawings:—

Figure 1 is a sectional side elevation of a wrench and the locking means applied thereto.

Figure 2 is a sectional view taken on line 2—2 of Figure 1 and illustrating the means for holding the nut engaging portion of the locking pin withdrawn, or out of engagement with the nut when adjustment of the movable jaw of the wrench is being effected.

Figure 3 is a modified form of manipulating head for the locking pin.

Figure 4 is a rear elevation thereof.

Referring now to the drawing it will be noted that the wrench 10 comprises a shank 11 carrying a handle 12 at one end and a fixed jaw 13 at its other end. Arranged to slide on the shank 11 is an adjustable jaw 14 having a depending portion 15 formed integrally therewith, which depending portion has formed integrally therewith a strap or loop 16, which receives the shank 11 therethrough.

In order that the jaw 14 may be moved to different positions of adjustment relative to the jaw 13 and in order that the jaw 14 may be locked in such different positions of adjustment, an adjusting screw 17 is provided which has one end thereof in threading engagement with the depending portion 15 and its other end is mounted in a recess in the handle. The screw 17 is provided with a knurled adjusting nut 18 near the lower end thereof and is engageable in a notch or cut out portion 19 in the shank 11 to prevent displacement of the screw 17. The shank 11 is provided with a bore 20 adjacent the nut 18 and arranged for movement in the bore is a locking pin 21 having a nut engaging portion 22 receivable in any one of a number of recesses 23 in the nut 18, a collar 24 and a knurled manipulating head 25. A coil spring 26 is interposed between the collar 24 and a wall of the bore 20. The shank 11 is provided with a recess 27 which accommodates a small projection 28 on the head 25 so that after withdrawal of the nut engaging portion 22 from the nut 18, it may be held withdrawn by imparting a slight turning movement to the head 25 bringing the projection 28 in contact with the rear face of the shank 11, as will be understood.

In the modified form of manipulating head, shown in Figures 3 and 4 of the drawing, it will be seen that the part 30 is in fact, in the nature of a cross piece, attachable like the head 25 of the preferred form, to the pin 21 after its insertion in the bore 20. When the nut engaging portion of the locking pin is engaged in either of the recesses of the nut 18, the head or piece 30 is disposed to lie cross-wise of the shank 11, permitting it to be readily manipulated by the fingers for withdrawing action. After manipulation of the piece 30, which frees the nut 18 for adjusting action, the piece 30 is turned—one end portion thereof being brought to engage in a recess 31 in the handle. The recess 31, it will be noted is away from the shank and the engagement of an end portion of the piece 30 in the recess 31 holds the nut engaging portion of the locking pin temporarily out of engagement with the nut, a feature which is similar to the one produced by the recess 27 and the projection 28 of the preferred form.

From the foregoing description it will be manifest that by the particular construction and arrangement of parts a highly efficient and effectual device is produced.

What is claimed as new is:—

A wrench having a shank with a handle on one end and a fixed jaw on its other end, a movable jaw arranged on said shank, and an adjusting screw operable to move said movable jaw, and in combination, a nut having recesses therein in the same plane secured to said screw, a locking pin having a portion engageable in any of the recesses in said nut, a shoulder on said pin, a bore in said shank, an apertured wall at one end of said bore, the said pin extending through and being movable therein, a spring interposed between said shoulder and said wall, a head on said pin, a recess in said shank, and a projection on said head engageable in the recess in the shank.

In testimony whereof I have affixed my signature.

ARTHUR STUARTS.